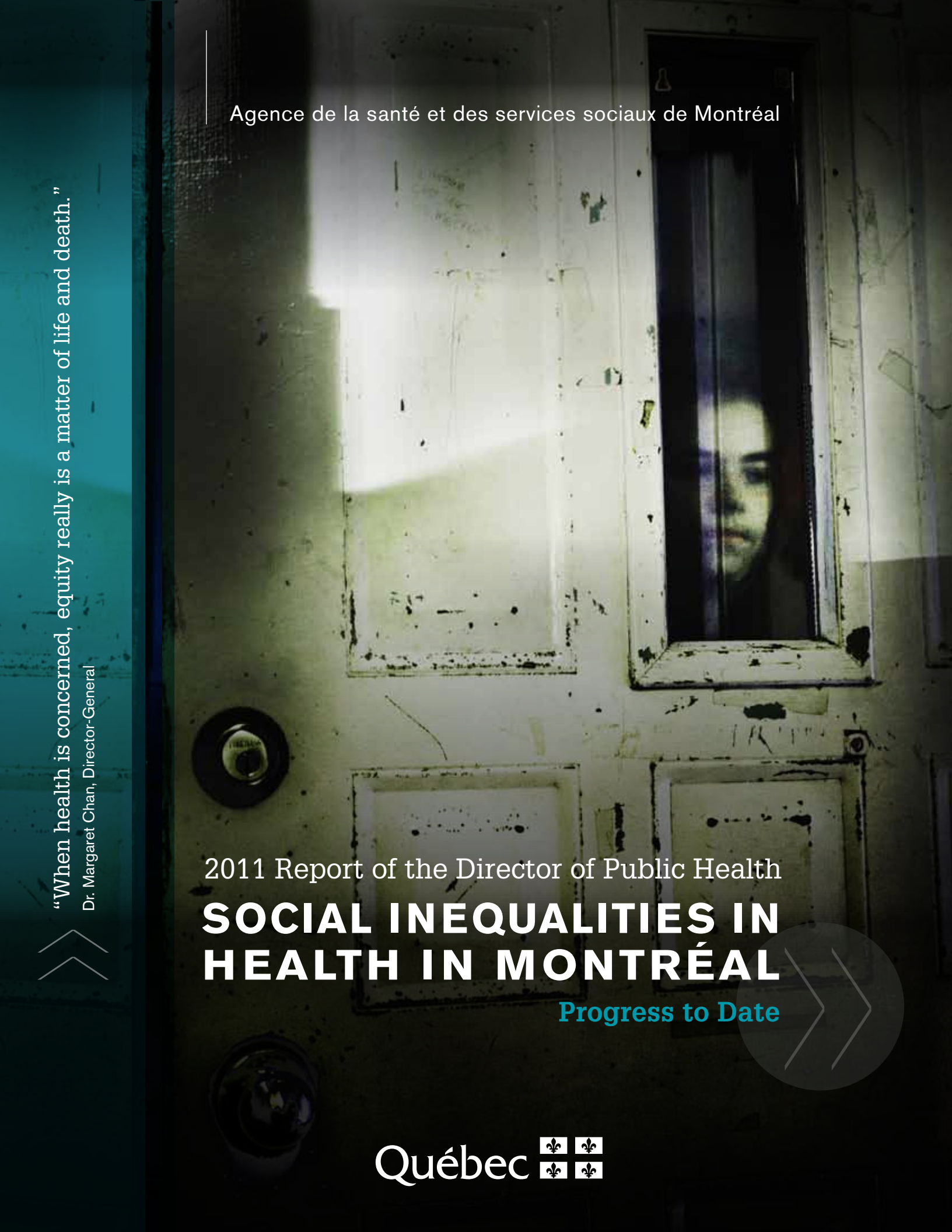

Agence de la santé et des services sociaux de Montréal

"When health is concerned, equity really is a matter of life and death."
Dr. Margaret Chan, Director-General

2011 Report of the Director of Public Health

SOCIAL INEQUALITIES IN HEALTH IN MONTRÉAL

Progress to Date

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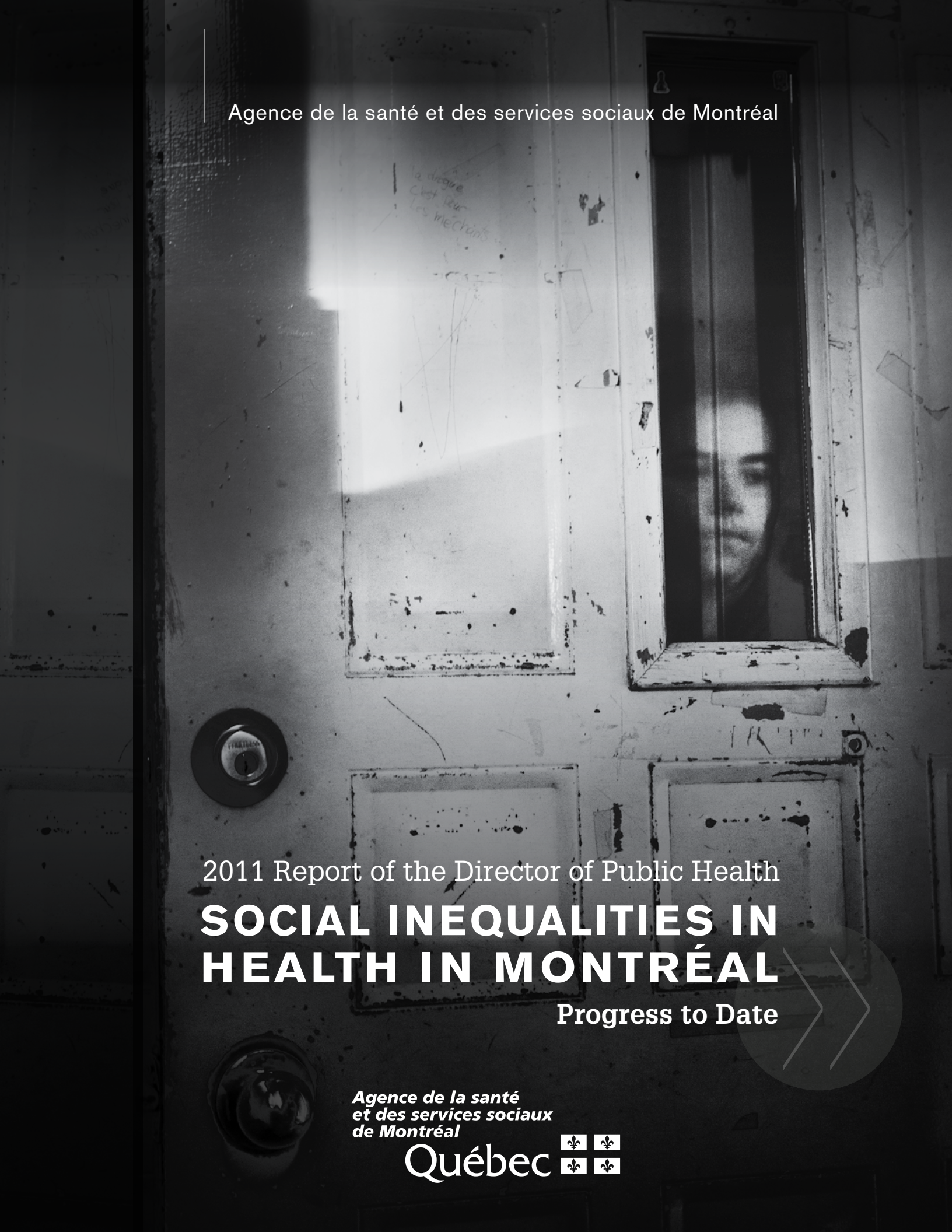

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List of acronyms and abbreviations

AHRQ	Agency for Healthcare Research and Quality
AMT	Agence métropolitaine de transport
ASSS	Agence de la santé et des services sociaux de Montréal
CARDIA	Coronary Artery Risk Development in Young Adults
CCHS	Canadian Community Health Survey
CCLP	Comité consultatif de lutte contre la pauvreté et l'exclusion sociale
CEPE	Centre d'étude sur la pauvreté et l'exclusion
CHMS	Canadian Health Measures Survey
CLSC	Centre local de services communautaires (Local community service centre
CMA	Census metropolitan area
CMHC	Canada Mortgage and Housing Corporation
CPE	Centre de la petite enfance (Childcare centre)
CRÉ-MONTRÉAL	Conférence régionale des élus de Montréal
CSDH	Commission on Social Determinants of Health
CSSS	Centre de santé et de services sociaux (Health and social service centre)
CSST	Commission de la santé et de la sécurité du travail (Québec workers' compensation board])
DSP	Direction de santé publique of the Agence de la santé et des services sociaux de Montréal
EACEA	Educational, Audiovisual and Culture Executive Agency
EQCOTESST	Étude québécoise des conditions de travail, d'emploi et de santé et sécurité au travail (Québec Study on Working, Employment Conditions and Occupational Health Safety)
FQRSC	Fonds québécois de recherche sur la société et la culture
GST	Goods and Services Tax
HIV	Human immune deficiency virus
IAEA	International Atomic Energy Agency
IDU	Injection drug user

INSPQ	Institut national de santé publique du Québec
IRIS	Institut de recherche et d'informations socio-économiques
IRSST	Institut de recherche Robert-Sauvé en santé et en sécurité du travail
ISQ	Institut de la statistique du Québec
IUGR	Intrauterine growth retardation
LICO	Low income cut-off
LIM	Low Income Measure
MBM	Market Basket Measure
MDD	Montreal Diet Dispensary
MESS	Ministère de l'Emploi et de la Solidarité sociale
MRC	Municipalité régionale de comté (Municipal county municipality)
MSD	Muscoluskeletal disorders
MSM	Men who have sex with men
MSSS	Ministère de la Santé et des Services sociaux
NCCDH	National Collaborating Centre for Determinants of Health
NCW	National Council of Welfare
NDP	New Democratic Party
NFB	Nutritious Food Basket
OECD	Organization for Economic Co-operation and Development
OMHM	Office municipal d'habitation de Montréal
PQDCS	Programme québécois de dépistage du cancer du sein (Québec breast cancer screening program)
QLSCD	Québec Longitudinal Study of Child Development
RAMQ	Régie de l'assurance-maladie du Québec (Québec Health Insurance Plan)
RCRAP	Royal Commission Report on Aboriginal Peoples
REACH[3]	Research Alliance for Canadian Homelessness, Housing, and Health
RSPSAT	Réseau de santé publique en santé au travai
SIPPE	Services intégrés en périnatalité et pour la petite enfance (Integrated Perinatal and Early Childhood Services program)
STBBI	Sexually Transmitted and Blood-Borne Infection
UN	United Nations
UNICEF	United Nations of International Children's Emergency Fund
WHO	World Health Organization

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A message from the Director

In 1998, our first annual report looked at social inequalities in health on the island of Montréal. This topic resurfaced as a cause for concern for public health following the publication of a few reports that stood out internationally, especially the **Black Report** published in Great Britain in 1980. One statistic in particular emerged from among the findings and has often been cited: the life expectancy of men living in poor neighbourhoods in Montréal is 10 years below that of men in wealthy neighbourhoods.

Thirteen years later, social inequalities in health are again the focus of our annual report. Our intention is clear: to measure the progress made and identify the best ways to reduce these inequalities. This framework is fitting since the fight against social inequalities in health and the prevention of chronic diseases—themes that are closely linked in many respects—are the two priorities set out in the regional public health plan defined for the next five years.

To put it briefly, "keeping our community healthy" is the maxim that underlies all our activities and interventions. In this area, the public health department has many accomplishments. All sectors are active in vaccination, prevention, information and awareness raising, surveillance and screening. Their goal is to improve the health of all Montrealers in collaboration with the health and social services centres.

However, not everything in health is about care and prevention. Social inequalities in health result from socioeconomic disparities among individuals and neighbourhoods, in terms of their environments. For this reason, reducing inequalities requires the participation of many sectors of society. To reach this goal, concrete actions must be taken, starting with those most likely to reduce, or even eliminate, poverty and to support childhood development from the very beginning.

This report is intended for all stakeholders from the public, private and community sectors. It especially calls upon local decision-makers to join us in appealing to the federal and provincial governments regarding two matters: first, to encourage them to pursue their efforts to reduce income inequalities at a time when new statistics confirm the pertinence of Québec's policies to fight poverty; second, to convince them to reinvest to improve low-income persons' living conditions.

Moreover, it is important to pursue and expand efforts undertaken to date to reach disadvantaged individuals, despite the progress made over the past few years. As Michael Marmot has said, investing to improve "the circumstances in which people are born, grow up, work and get older" is not only a health issue but one of social justice.

Richard Lessard, Director of Public Health,
Agence de la santé et des services sociaux de Montréal

Summary

First, an encouraging observation: the life expectancy of Montrealers is longer now and the overall mortality rate has declined significantly over the past 20 years. Unfortunately, with a few exceptions, health disparities between rich and poor persist and there are still significant differences in health and mortality among the territories of the island of Montréal. Single-parent families, people who live alone and immigrants generally belong to society's vulnerable groups. These individuals are more likely to have low incomes and to be required to deal with various problems caused by social inequalities in health. For this reason, interventions designed to fight social inequalities must take these individuals' particular situations into account.

Compared to other large Canadian cities, Montréal is doing relatively well. The measures and programs implemented by the Government of Québec to raise the incomes of families with children have borne fruit. The most recent data related to the market basket measure indicate that the progress made over the past few years has been maintained in Québec. Since 2008, the situation here has contrasted sharply with those in other provinces, where the percentage of individuals living below the low-income cutoff point has been growing since 2007. The profile of social inequalities in health in Montréal is qualified: life expectancy for men and women is comparable to that for Canadians in other cities, as is the rate for low birth weight. In addition, infant mortality and premature births are lower. Lastly, a comparison of survey and hospitalization data tends to show that health inequalities are less pronounced in Montréal than elsewhere in Canada.

However, the situation in Montréal is evolving differently than in other cities in the province and significant gaps are emerging, especially with regard to vulnerable groups. In addition, households where total income falls below the market basket measure threshold face significant risks to their health: they are more likely to encounter barriers to accessing care, be inadequately housed, and not be able to allocate the budget required to buy healthy foods. Lack of knowledge about nutrition is not the reason (a health education program can remedy the situation); what is involved is a lack of money, which is manifested in the dramatic increase in use of food banks in Montréal.

Reducing social inequalities involves all levels of government. They have the power to develop and apply policies that support increased income, democratization of education, building and renovation of social housing, as well as delivery of preventive and curative social and health services. The growing role of the private sector in the area of health is a constant concern, and for good reason. We note that while in general, deprived individuals have less positive experiences with the public health system, the situation is more dramatic when they must use the largely private one, as is the case for psychotherapy and dental care.

Housing is another determinant of quality of daily life and of the health of individuals. Construction, renovation and maintenance of social housing fall mostly to provincial and federal governments while distribution and sanitation depend on local decision makers. In Montréal, where there are many needs, merged cities on the island do not all participate in social housing programs, which means the burden is passed to cities that do. In the case of the city centre, high demand for this type of housing is in itself an appeal to local authorities to increase the number of affordable rental units.

The solution to the problem of unsanitary conditions of units offered on the private market is to tighten regulations and conduct priority interventions that target negligent owners. The Direction de santé publique would like to see interventions that are more robust since the health of children and vulnerable groups depends on the quality of housing, as shown in a survey on the respiratory health of Montréal children.

Lastly, municipal authorities are responsible for improving citizens' daily living conditions, be it the organization of sport and leisure activities, or urban planning, including the creation of parks and green spaces. Deprived populations are more confined to their neighbourhoods and own fewer cars. They are also more affected than others by traffic (poor air quality and more accidents). This is why the traffic plans selected must increase safety for pedestrians and cyclists in all living environments. Developing and improving the public transit system is especially important for low-income individuals because they depend on it to travel to work and thus to participate fully in community life.

Social injustice sickens and kills. Yet, social inequalities in health are absolutely avoidable. This is why all levels of government (federal, provincial and municipal) as well as local and regional authorities must implement appropriate policies and carry out required changes in practices. The The World Health Organization (WHO) considers that it is possible to bridge the gap that social inequalities in health have created over the course of a single generation. This Director's report is an urgent call to action.

Introduction

" When health is concerned, equity really is a matter of life and death." Dr. Margaret Chan, Director-General World Health Organization

In August 2008, the World Health Organization (WHO) published the Report of the Commission on Social Determinants of Health (CSDH). The Report defined these determinants as "the conditions in which people are born, grow, live, work and age ..." (CSDH, 2008). The debate on their impact on health has been put to rest, in publication after publication, here and abroad. Those who still might need convincing need look no farther than the reports of the National Collaborating Centre for Determinants of Health (NCCDH, 2011) and the Ministère de la Santé et des Services sociaux (MSSS, 2007). Levels of education, employment and income, the quality of the physical environment and access to health all profoundly affect people's health. Social inequalities result in a whole range of differences, from the birth weight of babies to the rates of incidence and prevalence of diseases and their associated mortality risks later in life. They can shorten life expectancy by several years. Social inequalities in health are defined as "systematic differences in health status between socioeconomic groups". In other words, aside from other factors that affect health–such as age, sex, genetics or exposure to infection–there are determinants of health which are systematic, socially produced and preventable (Whitehead and Dahlgren, 2006). The expression "social inequality in health" refers to these systematic and socially constructed health disparities.

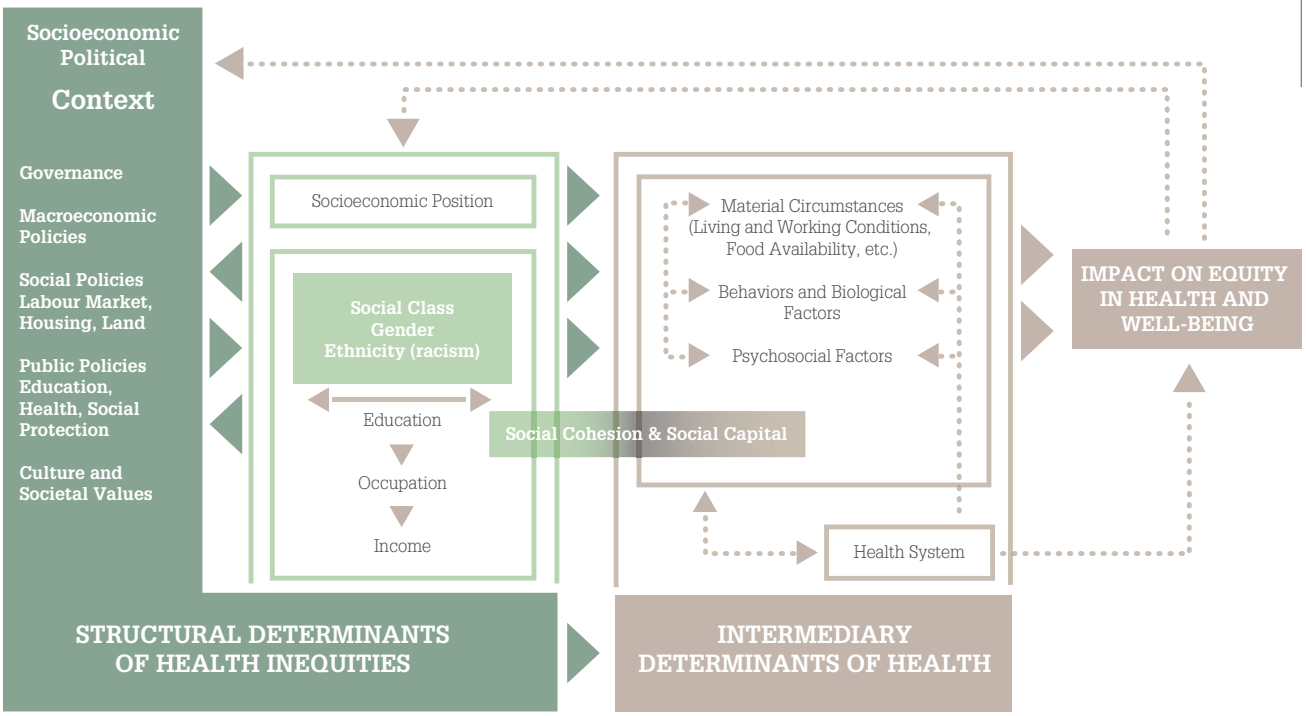
Social inequalities in health are defined as "systematic differences in health status between socioeconomic groups".

This report was inspired by the final report of the WHO's Commission on Social Determinants of Health, which calls for efforts to improve daily living conditions and to tackle the inequitable distribution of power, money and resources, in order to close the health gap in a generation. Closing the health gap challenges not only our socioeconomic and political arrangements but also our models of governance and our cultural standards and values (Figure 1).

This report was inspired by the final report of the WHO's Commission on Social Determinants of Health, which calls for efforts to improve daily living conditions and to tackle the inequitable distribution of power, money and resources, in order to close the health gap in a generation.

Figure 1.
Conceptual framework of the social determinants of health

WHO: 2011: 7, based on O. Solar and A. Irwin, 2010



Back in 1998, the first annual report of the Direction de santé publique de Montréal (Montréal public health department) (DSP, 1998) drew attention to a ten-year difference in the average life expectancy between men living in Montréal's disadvantaged neighbourhoods and their counterparts in the city's affluent neighbourhoods, and to a corresponding difference of four years for women. More than ten years have passed since we first painted this portrait of social inequalities in health in Montréal. The time has come to see how far have we come in the meantime.

This report is in four parts. Part One presents a statistical health profile of Montrealers, which will enable us to determine if the progress made has succeeded in reducing the health gaps between the rich and the poor. One observation, for example, is that life expectancy has indeed gone up by several years since the early 1980s, both for women (from 79 to 84) and for men (from 72 to 79). Among males, the gap is now roughly six years by income level, which is a distinct improvement over the preceding period. But for many other indicators, the gains are greater for those who are better off. In other words, there are persistent gaps based on income for both men and women.

In Part One, various indicators such as life expectancy, infant mortality rate, mortality rate among young people, number of healthy life years, lifestyle habits or perceived state of health are analyzed by income groups in order to measure health variations or gaps. Social inequalities in health not only set the health status of poor people apart from that of the very rich. In fact, there is a social gradient, meaning that people who are a little less poor are less likely to be sick or hospitalized than very disadvantaged people, and so on and so forth as we move up the scale of income groups.

Part Two situates Montréal in the Canadian and Québec contexts, and presents a socioeconomic profile of the region highlighting some specificities of the population of Québec's largest city. It also compares Montréal to other large Canadian cities and positions the city in a field of comparable entities in terms of the main social determinants, health profiles and health inequalities.

Part Three begins with a look at income-related policies, following the lead of Sir Michael Marmot, the epidemiologist who chaired the CSDH, and in view of the fact that the struggle against poverty remains a daily challenge for a great many households, especially for people who live alone and newcomers to the country. It also discusses policies and measures that can help give all children a good start in life, considering how important childhood is for their physical and social development, but also for building a basis of good health for life. Finally, it explores the question of work and pay equity, as well as the health care system's contribution in the areas of prevention and access to primary care services

Part Four examines policies which could be initiated at the municipal level, while recognizing that for many issues like housing, more than one level or order of government must be involved. In the past, the municipalities and medical officers of health who established the first offices of public health worked hand in hand to improve urban sanitary conditions. The Direction de santé publique (DSP) is part

of that tradition of cooperation, whether the question be one of providing affordable and healthy housing, making it easier to make healthy food choices or acting to improve the physical environment.

This report has been written more particularly with our local authorities in mind. It is aligned with ongoing joint initiatives such as the *Quartier 21* program and integrated urban revitalization, and it stresses the importance of developing other partnerships to launch significant initiatives that will facilitate active transportation and improve living and housing conditions, especially in neighbourhoods where health indicators point to substantial inequalities. Because social inequalities in health are costly not only in terms of social justice and social development, but also economically, the Director of Public Health calls upon all local actors in the private, public and community sectors to come together and build a solid coalition of partners for health. Our report concludes with a call for solidarity, because the Direction de santé publique can achieve much more with the help of all of its partners than it could possibly achieve on its own.

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Part One:
Progress to Date

A little over ten years ago, the *Director's Annual Report on the Health of the Population: Social Inequalities in Health* drew attention to a number of risk factors and conditions harmful to health that disproportionately affect low-income individuals[1]. Today, there is no denying that social inequalities in health continue to exist, despite signs of improvement in the overall health of Montrealers. The following status report looks at changes in health disparities and their determinants, improvements in health status and areas where more needs to be done. One of the benefits of assessing how far we have come is that it will help us focus in on priority actions to reduce social inequalities in health.

1. See Appendix 1 for more details on the effects of income and economic inequalities on health, and Appendix 2 for information on how social inequalities in health are measured.

Potential benefits of reducing social inequalities in health

If the whole population had the same mortality rates as people in the highest income category, we could avoid every year

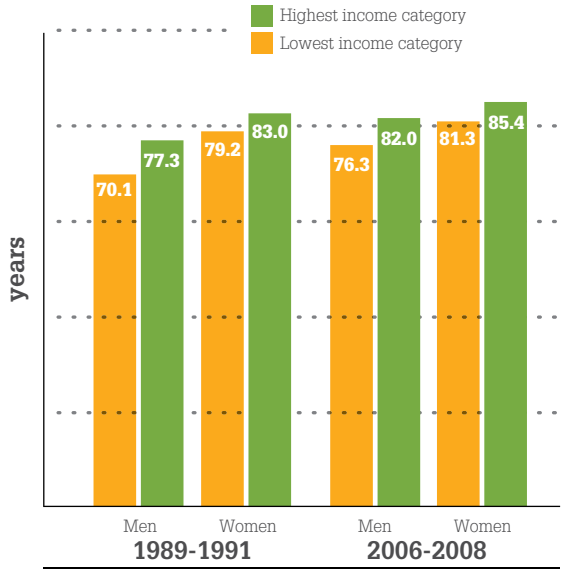
- 58 deaths among young people under the age of 20, 37 of whom would be babies less than one year old;
- roughly 1400 premature deaths (i.e. before the age of 75).

Life expectancy and mortality: persistent gaps, 20 years later

Inequalities in life expectancy are "alive and well"

The life expectancy of Montrealers has risen steadily in recent decades. Since 1989-1991, men have gained five years and can expect to live to the age of 78.7, while women gained three years for a life expectancy of 83.6 years in 2006-2008. The life expectancy of the most affluent Montrealers was–and remains–significantly higher than that of their least affluent fellow citizens. There is still nearly a six-year difference in the life expectancy of poor males compared to rich males. The difference is four years among women (Figure 1.1).

Figure 1.1. Life expectancy, by income and sex, Montréal, 1989-1991 and 2006-2008

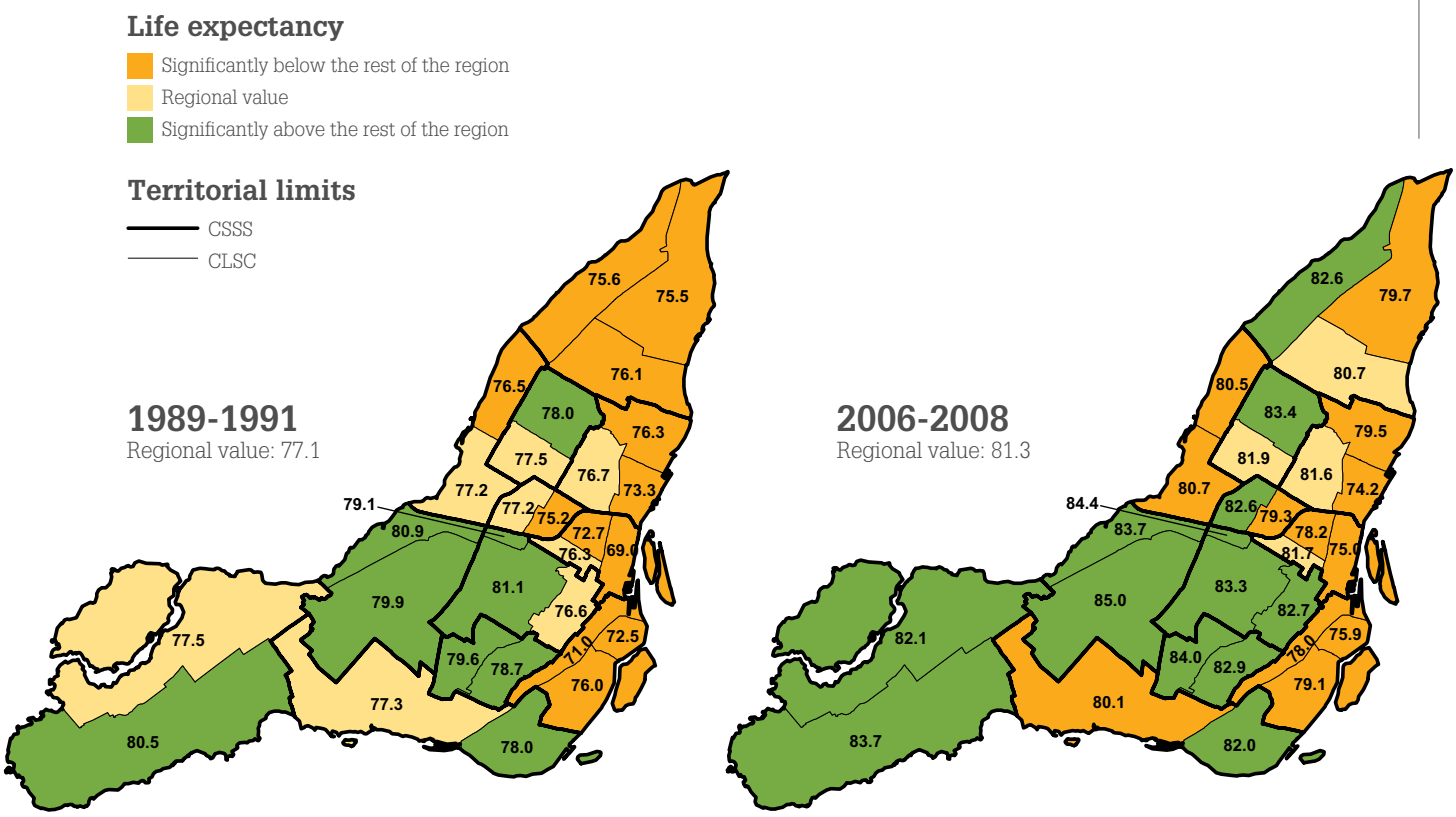


Data source: 1991 and 2006 censuses, Statistics Canada; Death registries, MSSS; Demographic projection files, January 2010, ISQ.

The geographic differences are even greater (Figure 1.2). In 2006-2008, life expectancy ranged from 74.2 years (in the district of the CLSC Hochelaga-Maisonneuve) to 85 years (in the district of the CLSC Saint-Laurent), i.e., a difference of almost 11 years. Although the districts where life expectancy is lowest are not always the same from one period to another, the situation has barely changed since the early 1990s, when the difference between the "extreme" districts was 12 years.

» The life expectancy of the most affluent Montrealers was—and remains—significantly higher than that of their least affluent fellow citizens.

Figure 1.2
Life expectancy of the population, Montréal CLSC

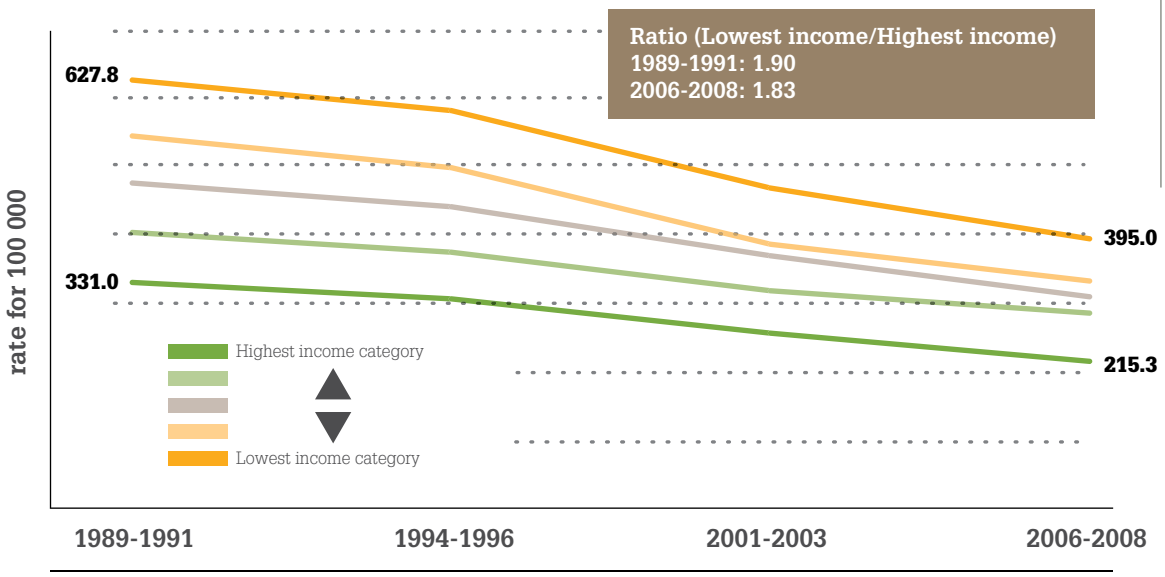


Data source:1989-1991 Infocentre, INSPQ. 2006-2008 :
Death registries, MSSS; Demographic projection files, January 2010, ISQ.

Differences in mortality rates remain

In nearly twenty years, mortality rates for all causes have dropped by 23%, from 895 to 690 per 100,000 people. However, we see a gradual increase in death rates as income goes down. Premature mortality (death before the age of 75) is a good example: although the rate has been going down since the 1989-1991 period (Figure 1.3), regardless of income category, it is still one and a half times higher in the lowest income category. During that period, it is worth noting that the gap between the death rates of the richest and the poorest has narrowed, although the ratio remains more or less the same.

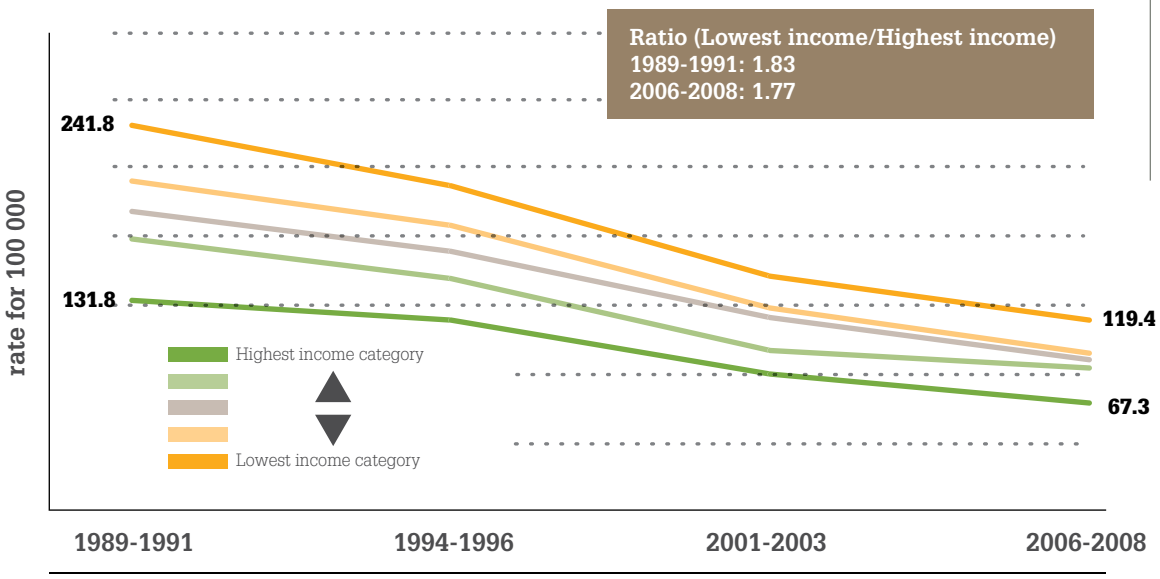
Figure 1.3. Premature mortality rate (before age 75) by income, Montréal, 1989-1991 to 2006-2008



Data source: 1991, 1996, 2001 and 2006 censuses, Statistics Canada; Death registries, MSSS; Demographic projection files, January 2010, ISQ.

Many deaths can be prevented if appropriate medical care is given at the right time. This "preventable" mortality increases as the income level drops (Figure 1.4). As in the case for premature mortality, the gaps persist. For example, despite a drop in the overall rate of preventable deaths over the last twenty years, the rate among the poorest is still 77% higher than that of the most affluent.

Figure 1.4
Preventable mortality rate by income, Montréal, 1989-1991 to 2006-2008



Data source: 1991, 1996, 2001 and 2006 censuses, Statistics Canada; Death registries, MSSS; Demographic projection files, January 2010, ISQ.

Since 1989-1991, the gaps by income level have persisted. In the best of cases, there has been a modest improvement for most causes, but the mortality rate is still nearly twice as high in the lowest income category.

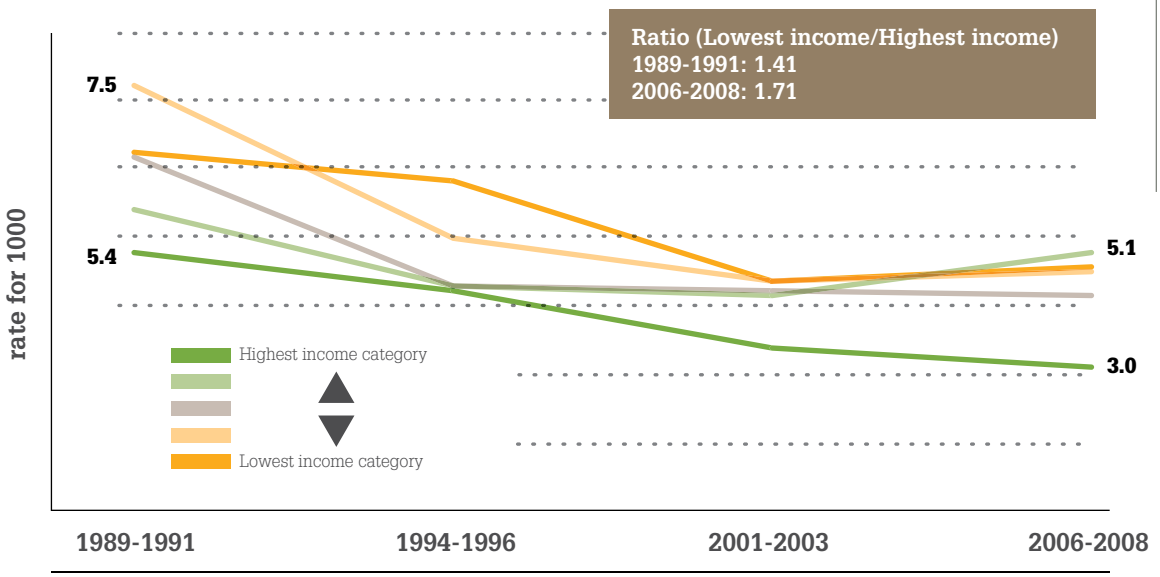
At the same time, for all of the causes considered, we see higher mortality rates in the lowest income category compared to the highest income category. The differences in mortality rates between the rich and the poor are particularly marked for lung cancer, suicide, alcohol-related problems and respiratory diseases.

Since 1989-1991, the gaps by income level have persisted. In the best of cases, there has been a modest improvement for most causes, but the mortality rate is still nearly twice as high in the lowest income category.

Unequal in the face of death ... from birth

The decrease in infant mortality is one of the great strides forward in health made in most industrialized countries since the beginning of the twentieth century. In Montréal, mortality in children under the age of one has gone down notably since 1989-1991. Although it has decreased for both the richest and the poorest (Figure 1.5), infant mortality is still higher in the lowest income category than in the highest income category.

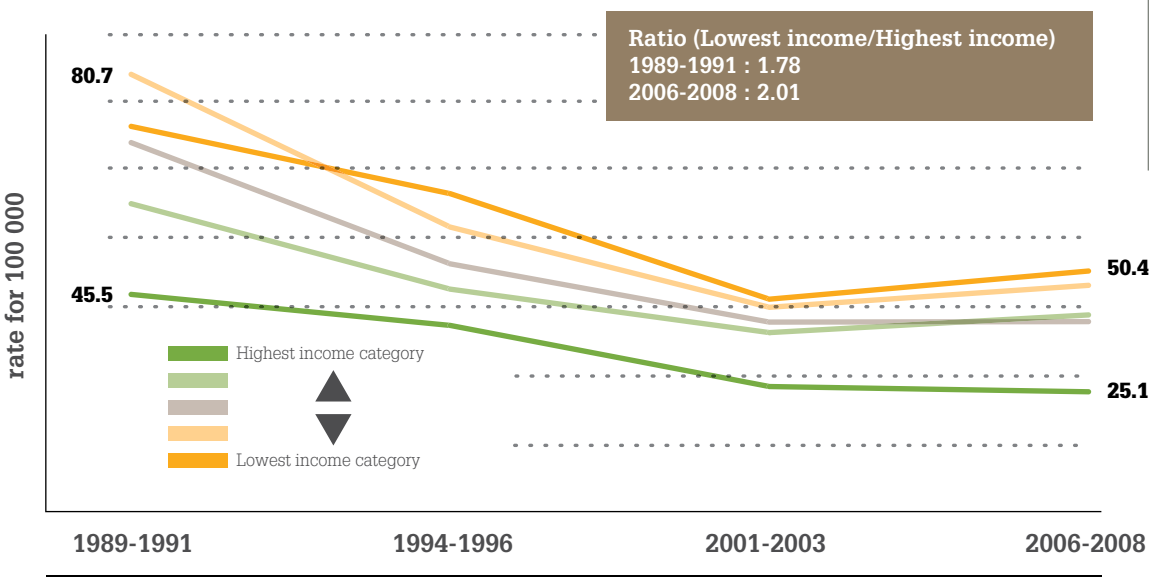
Figure 1.5
Infant mortality by income, Montréal, 1989-1991 to 2008-2008



Data source: 1991 and 2006 censuses, Statistics Canada; Death registries, MSSS; Demographic projection files, January 2010, ISQ.

Throughout Québec, as in Montréal, considerable efforts have been made to prevent premature deaths in children and teenagers. Overall, the efforts have borne fruit. In the Montréal region, the mortality rate among people under 20 years of age dropped by 42% from 1989-1991 to 2006-2008. However, the death rate is twice as high among the poorest compared to the richest (Figure 1.6).

Figure 1.6. Youth mortality rate (0-19 years) by income, Montréal, 1989-1991 to 2006-2008



Data source: 1991, 1996, 2001 and 2006 censuses, Statistics Canada; Death registries, MSSS; Demographic projection files, January 2010, ISQ.

Among young people aged 10 to 19, a sizeable proportion (36%) of deaths are due to so-called preventable causes, such as transportation accidents, suicides and fires/burns.

In the Montréal region, the mortality rate among people under 20 years of age dropped by 42% from 1989-1991 to 2006-2008.

Money still makes a difference in health

Whatever the indicators used, a disadvantaged socioeconomic position is linked not only to early mortality, but also to fewer years lived in good health. Good health is defined as the absence of activity limitations and disabilities. Activity limitations (difficulty engaging in certain activities of daily life like hearing, seeing, communicating, walking, climbing stairs, bending over, learning or similar activities) are significantly more frequent in people whose income is inadequate (24% vs 13% in the highest-income group). Although the proportion of people with limitations has gone down in all income groups since 2003, the gap between the richest and the poorest has steadily widened.

Disabilities, which appear or worsen with age, generally emerge earlier in the lives of low-income people. In the districts of the Pointe-Saint-Charles Community Clinic and of CLSC des Faubourgs and Hochelaga-Maisonneuve, healthy life expectancy was less than 60 years for men and 65 years for women in 2005-2007. This situation contrasts sharply with the figures for the district of CLSC Lac-Saint-Louis, one of the most economically advantaged in Montréal, where residents live in good health an average of 11 years longer than in Pointe-Saint-Charles (58.3 years).

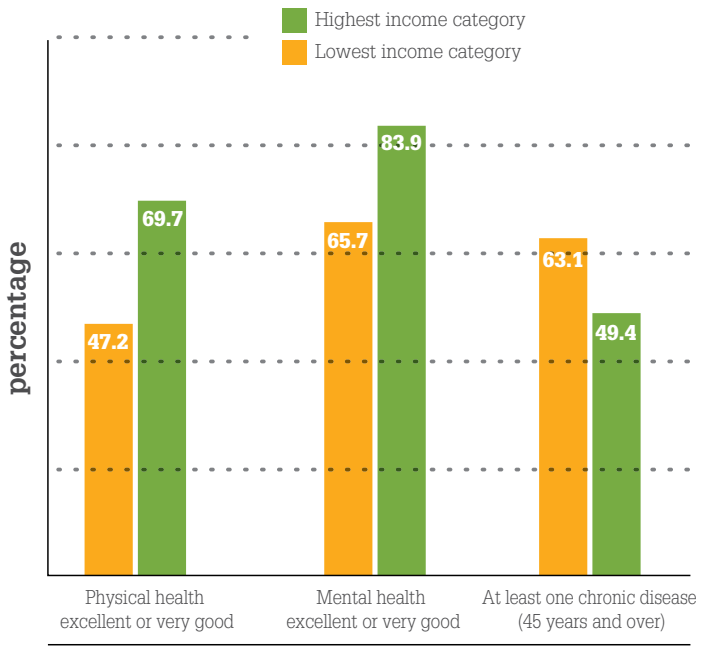
The perceived or self-assessed state of health (compared to that of people the same age) is a revealing reflection of the health status of the population. Health surveys conducted since 1987 show clearly that low income is related to a more negative assessment of one's health. The difference in perceived health between the income group extremes is considerable: in 2007-2008, compared to the richest, four times more low-income individuals perceived their health as being poor or fair (19% vs 5%).

» In 2007-2008, compared to the richest, four times more low-income individuals perceived their health as being poor or fair (19% vs 5%).

Differences of perception also exist in mental health. While eight people out of ten (84%) in the highest income group perceive themselves as being in very good or excellent mental health, that opinion is shared by only 66% of people in the lowest income group, a difference that was already observed in 2003 (Figure 1.7).

Physical health data support the perception the least affluent have about their health. According to the most recent figures available, the prevalence of at least one chronic disease (chronic bronchitis, emphysema, chronic obstructive pulmonary disease, hypertension, cancer, diabetes or heart disease) in people aged 45 and older tends to be higher in the lowest income group (63%) than in the highest income group (49%) (Figure 1.7). Chronic diseases account for nearly three-quarters of all deaths in Montréal.

Figure 1.7. Perceived health and chronic diseases by income, Montréal, 2007-2008



Data source: 2007-2008 Canadian Community Health Survey, Share File–Québec, Statistics Canada.

Social inequalities in health rooted in childhood

Health inequalities begin to take shape at birth, and in fact, even during the fœtal stage. Low birth weight (less than 2500 g), prematurity (birth before 37 weeks of gestation) and intrauterine growth retardation (IUGR[2]), three closely related phenomena, can have a significant impact on the immediate health of newborns and even in the longer term. Low-weight newborns are at greater risk of developing health problems. Even slight or moderate prematurity is associated with an increased risk of death in the first year of life. Lastly, IUGR is often associated with behaviour and attention deficit problems as well as with increased rates of foetal-infant morbidity and mortality.

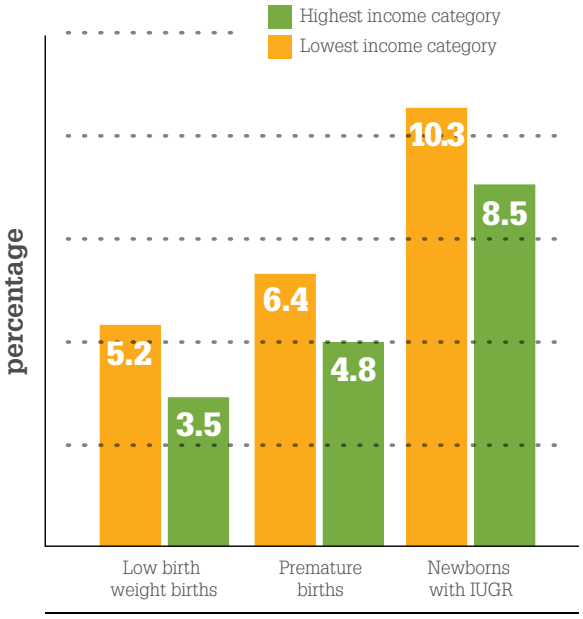
2. Intrauterine growth retardation, or IUGR: IUGR is a state in which the newborn's weight is less than it should be for its gestational age (weight less than the 10th percentile). The concept is based on *in utero* growth curves, which vary by sex. The curves are used to draw a boundary that distinguishes normal from retarded growth.

These three perinatal health risk factors weigh more heavily on the newborns of the least affluent. The proportion of low-weight babies in singleton pregnancies went down by nearly one percentage point between 1989-1991 and 2006-2008 (from 5.4% to 4.5%), in all income groups. And while the gap between the lowest and highest income groups has narrowed since 1989-1991, it is still apparent in the statistics for 2006-2008 (Figure 1.8).

Health inequalities begin to take shape at birth, and in fact, even during the fœtal stage.

The proportion of premature births, which is more stable over time, is also higher in the lowest income category (6.4%) than in the highest income category (4.8%). The proportion of IUGR births has dropped significantly since 1989-1991 in all income groups. However, while the overall rate has tracked downward, the gap between rich and poor has certainly not gone away (Figure 1.8).

Figure 1.8.
Perinatal risk factors by income, Montréal, 2006-2008



Data source: 2006 Census, Statistics Canada; Live birth registry, MSSS.

The proportion of low-income births is on the rise in Montréal

The number of births in Montréal's lowest income category rose by 4% between 1989-1991 and 2006-2008, while dropping by 14.5% in the high-income group over the same period.

This is a worrying trend, because there are more risk factors for newborns of lowest income mothers, and the socioeconomic conditions of these mothers are more difficult. The most recent data show that a growing proportion of babies are being born into economically disadvantaged environments. Health disparities at birth cannot be reduced unless the socioeconomic conditions of mothers are improved.

One social condition which partly explains health problems at birth is the age of the mother; younger age is associated with more obstetrical complications and a higher rate of low-weight or IUGR births as well as higher rates of neonatal and postnatal mortality and morbidity. Teenage pregnancies also often predispose young mothers to a life of poverty by preventing them from finishing school.

Social inequalities in health are unacceptable at any age. But for small children and young people, the inequalities present when they start out in life weigh more heavily, because the consequences continue to be felt beyond childhood. Child poverty is often synonymous with dropping out of school, and frequently means a shorter life expectancy and more years to live with disabilities. In the absence of adequate remedial measures, inequalities in starting points burden the lives of people born in poverty, and ripple out through society as a whole.

Over ten years ago, Québec adopted a law against poverty and a series of policies to prevent inequalities from worsening. The following section of the report looks at Québec's relative performance within Canada and compares the situation in Montréal to trends in other large Canadian cities and elsewhere in Québec.

Part Two:
How Montréal compares

Montréal is home to seven out of every ten immigrants who settle in Québec and choose to stay. They are joined by many small town and rural Quebecers who are moving to the big city for economic or other reasons. Montréal's neighbourhoods are economically and culturally diverse. The contrasts are striking: sometimes people of the most modest of means live a block away from the very well-to-do; in fact, in the past, they might sometimes have lived in the same building. What has historically been excellent for social diversity and created opportunities for a more uniform offering of local services (schools, parks and businesses) is now threatened by the polarization of living conditions in neighbourhoods.

This phenomenon has become more acute in many big cities, and Montréal is no exception. Because social inequalities in health are closely associated with income inequalities, our starting point will be Montréal's socioeconomic profile. We will begin by looking at income trends and polarization in Canada (and to a certain extent abroad), then zoom in on the situation in Québec, and finally compare social inequalities in health in larger cities across the country.

The Canadian context

The average incomes of Canadians in each socioeconomic category are higher than those of people in the corresponding categories across the member countries of the Organization for Economic Cooperation and Development (OECD). What has caught the OECD's attention is the widening income gaps between the rich and the less rich within countries. The Organization notes that Canada's rates of poverty and inequalities have risen more than the OECD averages in recent years. The number of low-income[3] individuals climbed by three percentage points since the mid-1990s to reach a rate of 12% in Canada by the mid-2000s. The OECD's country note on Canada also indicates that, although there are fewer poor workers in Canada than on average in other member countries, when Canadians slip below the low income cut-off, they are likely to remain poor longer than people in the same situation in a comparable country. In Canada, not all age groups are as affected by the low income rate: among the elderly it is around 6%, and for children roughly 15% (OECD, 2008).

According to sociologist John Myles, since the end of the 1990s, Canada's redistribution mechanisms have been unable to correct the increase in income inequalities among households, due to changes in the job market (declining rates of unionization, for example) and changes in the structure of households (Myles, 2010).

3. A number of income thresholds are used to measure poverty. The Low Income Measure (LIM), which generally corresponds to half of the median income (but sometimes 40% or 60% depending on the study or the country), is widely used in Europe because it makes international comparisons easier. It may be less useful in longitudinal studies because it may underestimate the prevalence of low income when the median income is lower, during recessions, for example. The OECD uses the LIM.

Québec has been somewhat more successful at reducing inequalities in after-tax incomes (OECD, 2008; Myles, 2010). The most recent Statistics Canada data are revealing in this respect. The following table (Figure 2.1) shows that there has been some progress in Québec these last few years, according to the Market Basket Measure (MBM)[4], and that Québec weathered the 2008 recession better than the other provinces.

» According to sociologist John Myles, since the end of the 1990s, Canada's redistribution mechanisms have been unable to correct the increase in income inequalities among households,

Figure 2.1. Percentage of persons below low income cut-off, by Market Basket Measure* - Canadian provinces

* 2008 base

	Atlantic	Québec	Ontario	Prairie provinces	British Columbia
2000	15.5	11.6	9.9	11.4	16.8
2001	14.5	11.5	9.2	10.3	14.7
2002	14.8	10.3	9.7	9.3	15.7
2003	14.1	9.2	9.5	10.5	14.8
3004	13.5	8.4	10.5	10.4	13.8
2005	12.7	8.9	10.1	9.3	12.8
2006	12.8	9.0	10.0	8.3	12.3
2007	11.7	8.2	8.7	7.6	10.4
2008	12.1	9.5	9.4	6.9	11.5
2009	12.3	9.5	10.5	9.8	13.0

Data source: Statistics Canada – CANSIM Table 202-0802. 16 June 2011. "Persons in low-income families, annual", based on the Survey on Consumer Finances and the Survey of Labour and Income Dynamics.

» Canada's rates of poverty and inequalities have risen more than the OECD averages in recent years.

4. The Market Basket Measure (MBM) is based on subsistence and social integration costs, adjusted for household size and varying depending on the community, since the cost of living is not the same in all regions. Aside from the costs of housing, food and clothing, the MBM includes transportation, personal care, telephone service and some recreational activities. Under the MBM, a family is considered "low-income" if its income available for consumption falls below the cost of the goods and services in the Market Basket. Unlike approaches that define poverty only in relative terms, the MBM is an absolute measure that can be used to calculate the minimum income required to purchase the goods and services included in the Basket.

Another recent OECD study looked at public policies targeting parents, and particularly policies intended to facilitate work-life balance. Compared to the OECD average, Canada performed well on several key indicators relating to families and scored even better on women's employment rates and the academic results of young people. Canada scores less well on recognized childcare services for children under 6, with a rate of coverage of only 40%. In Canada, over one million young people under the age of 17 are living in poor families. Additionally, in families with children in which neither parent is working, the low income rate in Canada (85%) is above the OECD member country average (53%). For single-parent families, the low income rate is 42% compared to an OECD average of 31%, despite the fact that the employment rate of single parents in Canada is as high as 80% (OECD, 2011).

Canada performed well on several key indicators relating to families and scored even better on women's employment rates and the academic results of young people. Canada scores less well on recognized childcare services for children under 6, with a rate of coverage of only 40%.

The authors of the OECD report note Québec's efforts and its family-supportive policies: support for preschool and after-school childcare, benefits for working parents and single-parent families, and paternal leaves (OECD, 2011). Considering its degree of integration into the North American economy and a federal system that tends to standardize social policies, the "Québec model" has performed relatively well, since Québec did better than others at controlling its social inequalities between 1981 and 2007 (Bernard and Raïq, 2011). Compared to other countries with social-democratic regimes like Sweden, Québec's performance is less impressive, but Québec nevertheless stands out in its efforts to reduce the poverty of the poorest (Bernard and Raïq, 2011).

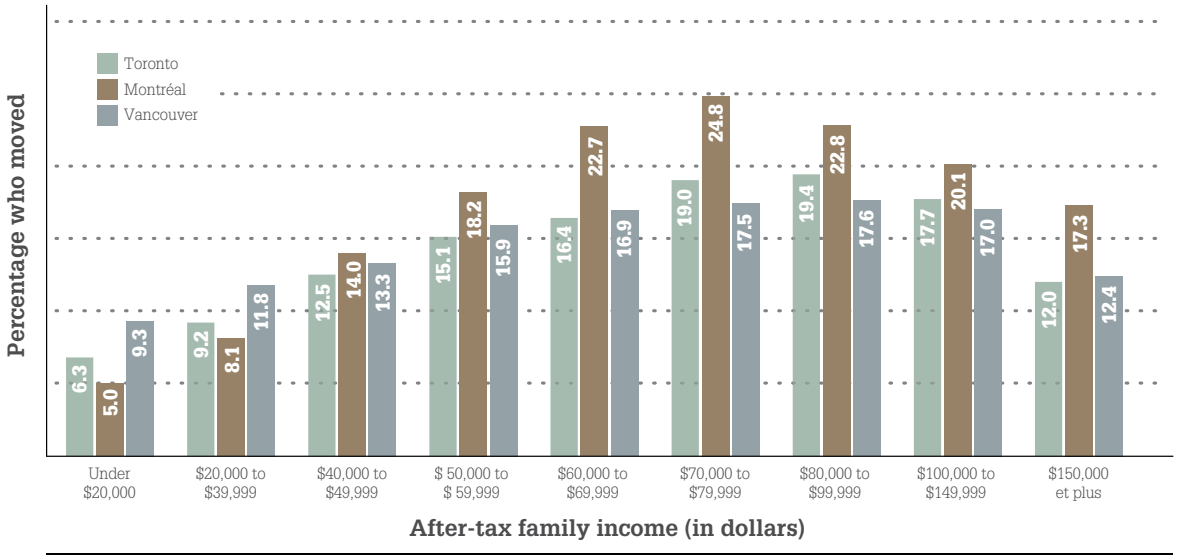
The widening of income gaps leads to neighbourhood segregation (Chen, Myles and Picot, 2011), forming pockets where certain so-called "urban" problems such as poverty, crime and drug use become concentrated and the quality of residential neighbourhoods deteriorates. This phenomenon makes it harder to implement public measures effectively, especially in health. In the United States, where differentiated neighbourhoods are common, such segregation has contributed to urban sprawl, with the attendant consequences for the environment, transportation and tax revenues for municipalities, and to further repercussions on inner city living

conditions and health. Thanks to its social safety net, Canada has been largely spared the deleterious effects of this kind of urbanization, aided by the fact that our elites have continued to see big cities as desirable places to live (Goldberg and Mercer, 1986). But that could change if the socioeconomic polarization within our urban populations continues unchecked.

The situation in Canada's big cities

For the time being, although the situation is not as alarming as it is in Toronto (Hulchanski et al., 2010), Montréal is showing signs of polarization. Québec's largest metropolitan centre, like other large Canadian cities, is having trouble holding on to families with young children, who have tended to migrate away from Montréal's core to the suburbs. Figure 2.2 shows that families with incomes between $60,000 and $100,000 are more likely to make the move from the centre to the periphery than people who have little money, and than those who have even more. This is one trend that is more pronounced in Montréal than in Toronto or Vancouver.

Figure 2.2. Persons with family incomes under $40,000 are less likely to move from a central to a surrounding municipality Turcotte and Vézina, 2010: 10



Data source: 2006 Census, Statistics Canada.

Changes in some of the social determinants of health inequalities point to several overall improvements in Montréal, particularly with respect to incomes and education. At the same time, some of the gains appear to be cancelled out by losses elsewhere (see the table of indicators in Appendix 3).

The picture comes into clearer focus when viewed through the lens of the Market Basket Measure (MBM), which factors in housing cost differences between cities. As we can see in the table below (Figure 2.3), the situation varies from one large city to another. In Montréal, the percentage of people with incomes below the MBM threshold started to drop again in 2009, having begun to move downward a decade earlier before rising again with the 2008 recession. In contrast, Toronto and especially Vancouver have seen the same segment of their populations grow beyond the 2000 numbers. As for Québec City, its progress has been quite remarkable: the low income rate (according to the MBM) declined sharply from 9.2% in 2000 to 3.6% in 2009. This can be explained in part by more generous social programs than elsewhere in Canada, but also by an economic dynamic specific to the Québec City region (Noël, 2011).

Figure 2.3. Percentage of persons below the low income cut-off, by Market Basket Measure* - Census metropolitan areas

* 2008 base

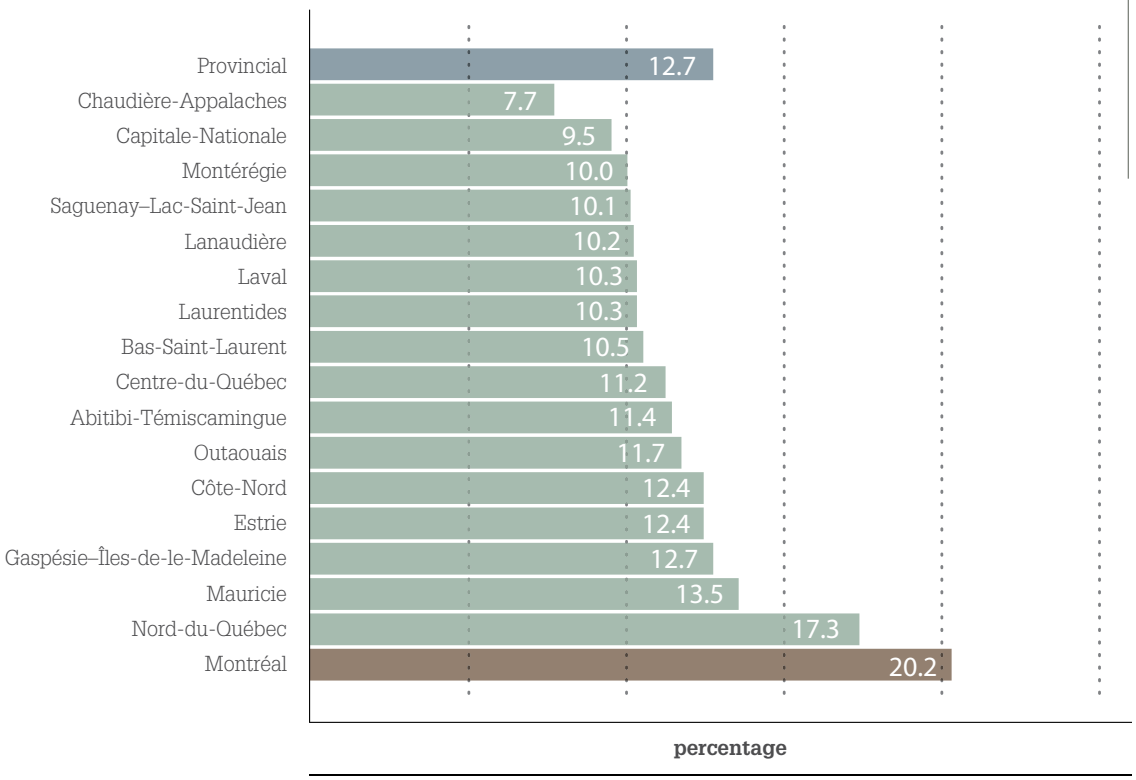
	Québec (Qc)	Montréal	Toronto	Vancouver
2000	9.2	13.4	10.4	14.8
2001	10.0	12.2	9.9	13.6
2002	7.8	11.5	11.1	16.7
2003	7.7	10.0	9.7	13.8
3004	6.4	8.3	11.2	14.2
2005	6.5	9.1	11.9	12.9
2006	6.4	9.1	11.8	12.1
2007	7.8	8.5	10.4	9.8
2008	4.6	12.0	10.4	13.5
2009	3.6	11.6	12.3	16.5

Data source: CANSIM Table 202-0802, Statistics Canada, 15 June 2011. "Persons in low-income families, annual", based on the Survey on Consumer Finances and the Survey of Labour and Income Dynamics.

Montréal within Québec

The progress made in the fight against poverty in Québec has been unevenly distributed. For example, the proportion of people with incomes below the Low Income Measure (LIM) in the Chaudière-Appalaches region is only 7.7%, compared to the provincial high of 20% in Montréal[5]. The Québec average of 12.7% would certainly be lower if Montréal were excluded. The graph below (Figure 2.4) shows the variations in low income rates by region in Québec in 2007.

Figure 2.4. Low-income rate, LIM, after-tax cut-offs, individuals, province of Québec and administrative regions, 2007



Data source: ISQ, according to Statistics Canada, T1 Family File (T1FF).

5. Since the MBM is not available for all regions, the Low Income Measure (LIM) is used here.

The positive movement of low income rates has been greater for households with children, which tends to confirm the positive impact of the family policies and income support measures Québec has introduced in recent years, with a focus on improving the living conditions of families. In fact, among the economic families which seem to have been the most vulnerable in recent years, the Centre d'étude sur la pauvreté et l'exclusion (CEPE) reports that the low income rate is higher for individuals who live alone, particularly women, and for single-parent families (CEPE, 2008).

Low income rates reflect the realities of the large number of people who do not always have enough money to buy all of the goods and services they need. Like elsewhere in Québec, people living alone and single-parent families in Montréal are the most likely to be poor. Montréal's vulnerable groups also include recent immigrants who are having more difficulty integrating than their predecessors. Their unemployment rate is 21% compared to 8.8% for the entire population, despite the higher-than-average proportion of university graduates among immigrants (DSP, 2010)

Compared to the rest of Québec, signs of socioeconomic disparity are evident on several levels in the Montréal region. At the level of the Montréal MRC (Regional County Municipality), the low income rate (after-tax LIM) for children under the age of 17 years stood at 26% in 2008 (ISQ, 2011), compared to the Québec average of 15.2%. The poverty of the children obviously mirrors that of their parents. The child poverty rate fails to distinguish between families who are going through a difficult but temporary period from those for whom poverty is an ongoing condition. However, even when poverty is temporary, it takes a toll on the health of children not just while they are young, but for as long as they live, regardless of how high up the socioeconomic ladder they climb (Shonkoff et al., 2009).

Finally, Montréal has a larger number of low-income residents than the entire population of several regions of Québec.

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Poverty is prevalent for Aboriginal families living in urban settings (...).

Disturbing inequalities persist between Aboriginal and non-Aboriginal Canadians. One of the key findings of the 1996 Royal Commission Report on Aboriginal Peoples was that, "Aboriginal people are at the bottom of almost every available index of socioeconomic well-being, whether [they] are measuring educational levels, employment opportunities, housing conditions, per capita incomes or any of the other conditions that give non-Aboriginal Canadians one of the highest standards of living in the world".

Much has changed over the past decade since the Royal Commission report, yet UNICEF concludes that there are still stark inequities between urban Aboriginal and non-Aboriginal children and their families.

[Translation]
Cloutier, 2011

Recent trends

Appendix 3 presents a number of sociodemographic and socioeconomic indicators for the period from 1990 to 2006. A number of conclusions can be drawn from the changes over that time.

There are fewer low-income earners in certain social groups than in 1990, particularly among single-parent families and seniors aged 65 years and over. This is one indication that public policies have had a positive effect.

Even for those who have been in Canada for ten years, immigrant status remains associated with low income. This may be largely due to the persistent problems newcomers face as they try to make their way into the workforce.

However, by 2006, two significant changes can be seen related to poverty in Montréal. First of all, compared to 1991, the status of immigrant (regardless of date of arrival in Canada) has become synonymous with low income. Even for those who have been in Canada for ten years, immigrant status remains associated with low income. This may be largely due to the persistent problems newcomers face as they try to make their way into the workforce. Secondly, the percentage of low-income seniors aged 65 and over has gone down. We also see a rise in the employment rate and a decline in the unemployment rate. Since 1991, the proportion of people aged 15 and over in the workforce who had worked full time throughout the year slipped from 55% to 52%, while that of people who only worked part of the year or part-time climbed from 45% to 48%. Several key job market indicators show that Montréal was particularly hard hit by the last recession and that the years of economic slowdown were especially hard on workers who were most vulnerable because of their employment status or their social circumstances, that is, the youngest and the oldest, immigrants who had arrived during the five preceding years, less qualified workers and male workers in the manufacturing sector.

There is some good news about education: the proportion of individuals “without a diploma” has decreased and the proportion of people with a university degree has gone up. At the same time, the dropout rate remains very high compared to the rest of Québec. On the island of Montréal, we see considerable gaps in academic success depending on the status of the schools (underprivileged or not) and the CLSC district. The rate of students leaving without a diploma or qualification (“dropout rate”) in Montréal public schools in 2008-2009 was nearly two and a half times higher in the disadvantaged schools. The gap is even greater between some CLSC districts. For example, the drop-out rate is five times higher in Pointe-Saint-Charles than in Lac-Saint-Louis.

On the island of Montréal, we see considerable gaps in academic success depending on the status of the schools (underprivileged or not) and the CLSC district. The rate of students leaving without a diploma or qualification (“dropout rate”) in Montréal public schools in 2008-2009 was nearly two and a half times higher in the disadvantaged schools.

Is the situation worse in Montréal than elsewhere?

The picture of social inequalities in health in Montréal points to the persistence of health disparities based on socioeconomic status. This being said, using some of the available indicators, it might be relevant to analyze the situation in Montréal within a broader context, i.e., by comparing Montréal to five other large Canadian cities: Toronto, Vancouver, Edmonton, Winnipeg and Halifax[6]. This comparative exercise is an opportunity to summarize the socioeconomic conditions that characterize Montréal, to position the health status of Montrealers in relative terms and to compare health disparities between Montréal's rich and poor to those of urban centres elsewhere in Canada.

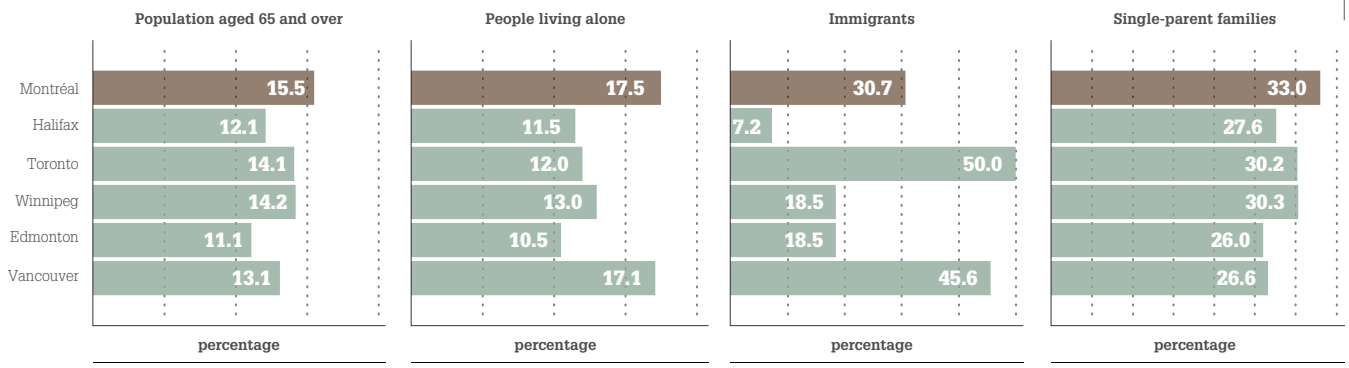
Montréal's unique demographic and socioeconomic characteristics

We should start by recognizing that each of Canada's large cities has its distinct demographic make-up and set of social and economic conditions. By looking more precisely at what sets Montréal apart from the other big cities, we can refine our understanding of health disparities between them.

When Montréal is viewed from the angle of social determinants and vulnerable groups using the figures from the latest available Canadian census data (2006), Montréal appears to be at a disadvantage compared to the other large Canadian cities. To begin with, Montréal's population is comparatively older, and the city has a relatively large proportion of people living alone and single-parent families (Figure 2.5). Furthermore, even though other large urban areas in Canada have higher percentages of immigrants than Montréal, immigrants still make up almost one-third of the island's population. Immigrants may arrive in Canada in good health, but the barriers to integration they encounter are often accompanied by difficult economic conditions which can have adverse effects on their health in the longer term. Of the six cities, Montréal has the largest proportion of single-parent families (33%). This status is highly associated with poverty, since 29% of single-parent families live below the low income cut-off (after taxes), compared to 16% of two-parent families.

6. These health and social service regions were chosen for the purpose of comparing Montréal to other large cities in different parts of Canada.

Figure 2.5. Demographic characteristics in six large Canadian cities, 2006



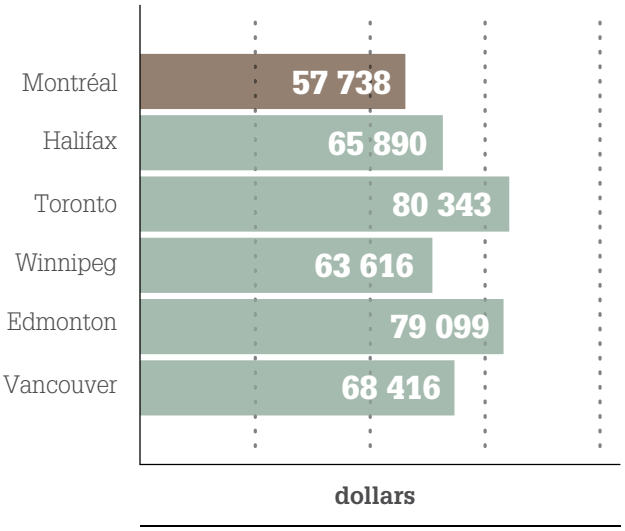
Data source: 2006 Census, Statistics Canada.

When Montréal is viewed from the angle of social determinants and vulnerable groups using the figures from the latest available Canadian census data (2006), Montréal appears to be at a disadvantage compared to the other large Canadian cities. To begin with, Montréal's population is comparatively older, and the city has a relatively large proportion of people living alone and single-parent families

In comparison to residents of the other cities, Montrealers are at somewhat of an economic disadvantage. For example, the average household income on the island of Montréal is the lowest of the six cities (Figure 2.6). The average gross (pre-tax) income is $22,600 less than in Toronto, for example. However, once allowances have been made for taxes and income redistribution, the gap is not as wide as the gap between gross incomes; this is probably due in part to differing income redistribution measures among the provinces and to the gradual increase in the proportion of low-income households in Toronto[7]. On a more positive note, Montrealers have a relatively high level of schooling, although not as high as in Toronto and Vancouver. Over one-quarter of Montrealers aged 15 and over have a university degree.

7. For an analysis of income distribution in Toronto, see Hulchanski et al. (2010).

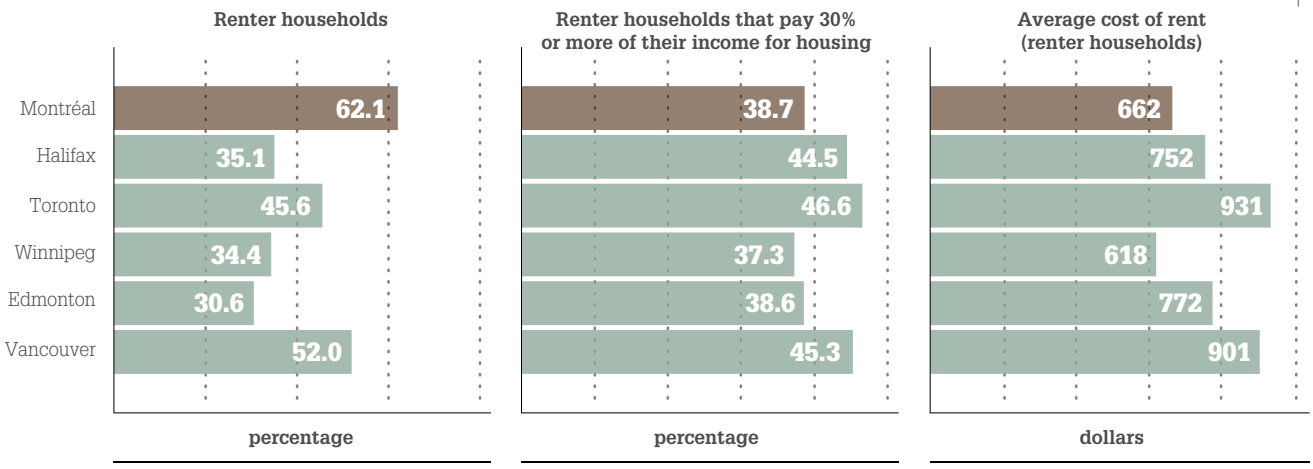
Figure 2.6
Average household income in six large Canadian cities, 2005



Data source: 2006 Census, Statistics Canada.

In addition to the economic statistics, the figures on housing reveal a number of specificities in Montréal, which is much more of a city of renters than its counterparts elsewhere in Canada (Figure 2.7). This longstanding situation can be traced to a history of rent control and tenants' rights. Even today, the average residential rent in Montréal is among the lowest of all large Canadian cities (Figure 2.7).

Figure 2.7. Proportion of households that are renters and average housing cost in six large Canadian cities, 2006



Data source: 2006 Census, Statistics Canada.

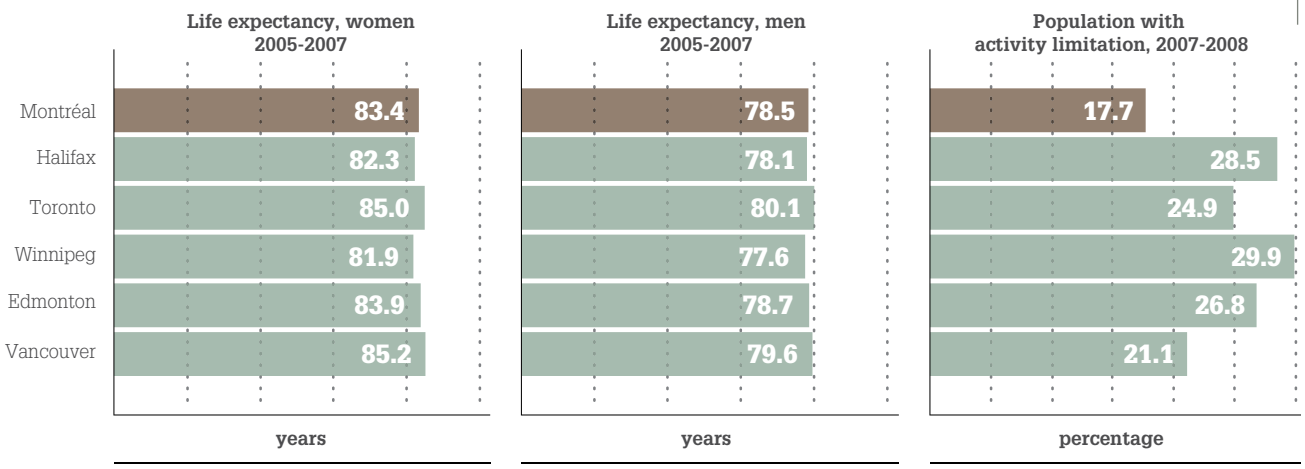
A balanced picture of health in Montréal

Montréal appears disadvantaged in a number of respects, demographically, socially and economically. However, given the established relationship between economic disadvantage and health status, is the overall picture of health in Montréal worse than in the five other Canadian cities? How do health disparities between different income groups in Montréal compare to those of the other big cities?

Overall health status

Several considerations need to be factored into any comparison of the overall health status of Montrealers to that of the other cities. First of all, Montrealers live longer than Haligonians and Winnipegers, but not as long as residents of Toronto and Vancouver, where life expectancy is two years longer than in Montréal (Figure 2.8). The very sizeable immigrant populations of Toronto and Vancouver (50% and 46% respectively) may help explain this difference. Secondly, the data on activity limitations suggest that Montrealers are healthier than the residents of the five other cities studied.

Figure 2.8. Overall health status in six large Canadian cities



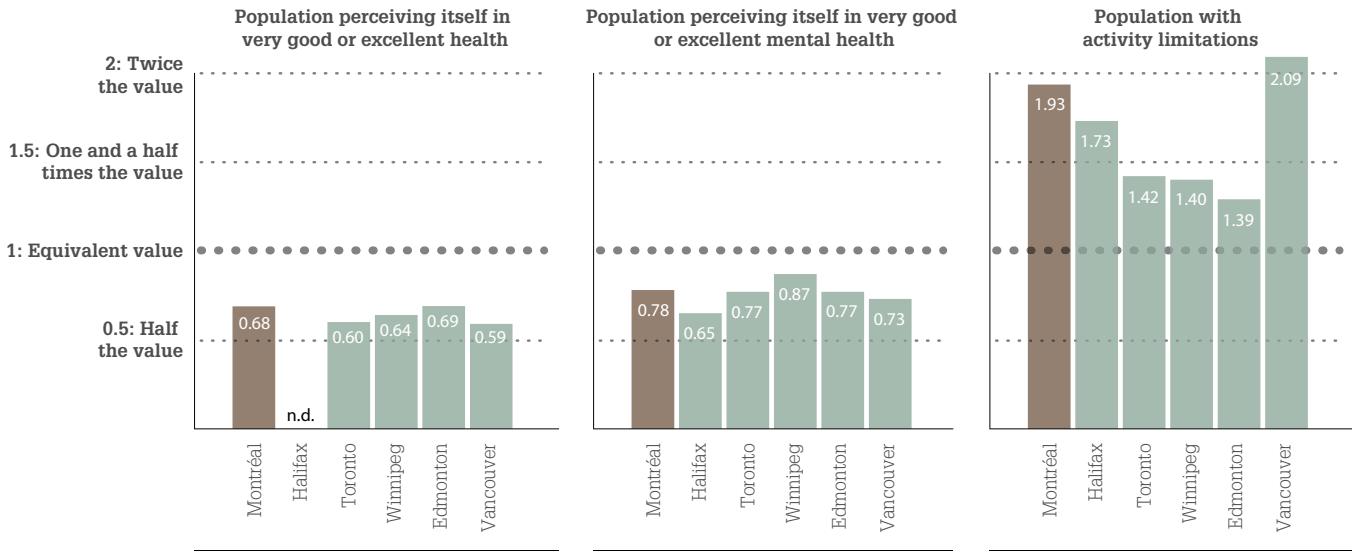
Data source: LIFE EXPECTANCY: "Health in Canada", Statistics Canada. 28 June 2011. ACTIVITY LIMITATION: 2007-2008 Canadian Community Health Survey, Master File – Statistics Canada.

An analysis of disparities in overall health by income clearly reveals significant social inequalities in health in all of the cities (Figure 2.9). In the case of Montréal, the gaps in self-assessed health status (physical and mental) tend to be somewhat narrower, i.e., the poorest Montrealers are slightly more likely to have a self-perceived state of health that is close to that of the city's most affluent residents. At the same time, the advantage in the area of activity limitations that rich Montrealers have over poor Montrealers is greater than in all of the other cities except Vancouver.

How to interpret the gaps between rich and poor

Health disparities between rich and poor are illustrated by the relative differences between the values of an indicator for the lowest and highest income categories, which we refer to as the ratio. For example, the ratio of 1.5 for hospitalization for asthma in Figure 2.13 means that the prevalence of asthma-related hospitalizations among lowest-income individuals is one and a half times higher than that among highest-income individuals. The comparison of social inequalities in health in the six Canadian cities is based on information on hospitalization and survey data. Yet, the differences in hospitalization data cannot be compared to the differences measured by the survey data because of slight variations in the assignment of the income categories. (see Appendix 2)

Figure 2.9. Ratio (lowest income category/highest income category) of overall health indicators, 2007-2008

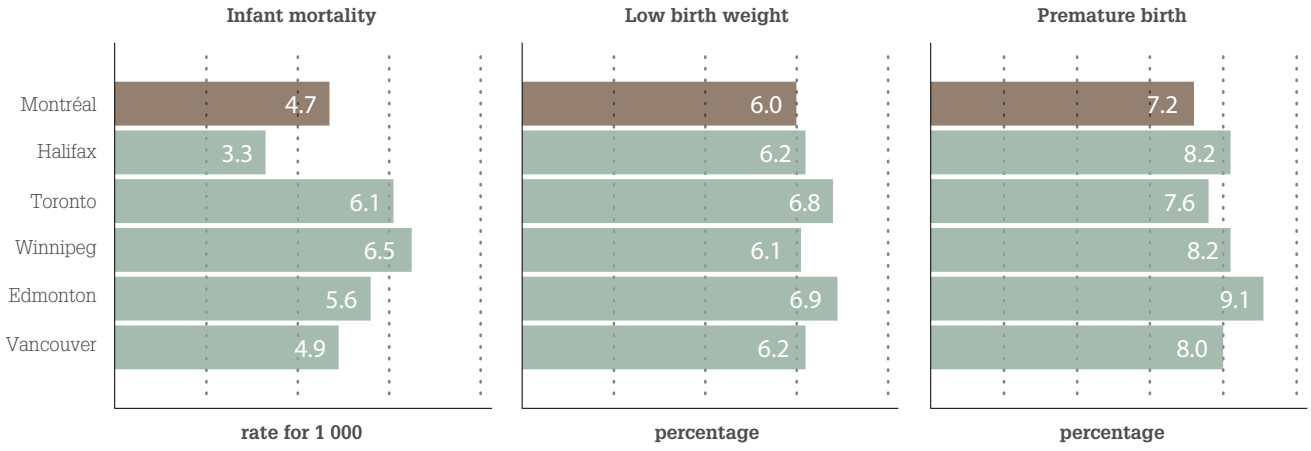


Data source: MONTRÉAL: 2006 Census, Statistics Canada; Live birth registry, MSSS. OTHER CANADIAN CITIES: 2006 Census, Statistics Canada; Special compilation, Canadian Institute for Health Information.

Child health

Montréal ranks particularly well in the area of child health, garnering a number of enviable statistics that lend credence to the arguments in favour of perinatal and family support policies. Only Halifax has a lower infant mortality rate. The proportion of low birthweight babies is significantly higher in Toronto and Edmonton, and premature births are significantly less frequent in Montréal than in the other five cities (Figure 2.10).

Figure 2.10.
Perinatal health indicators in six large Canadian cities, 2005-2007

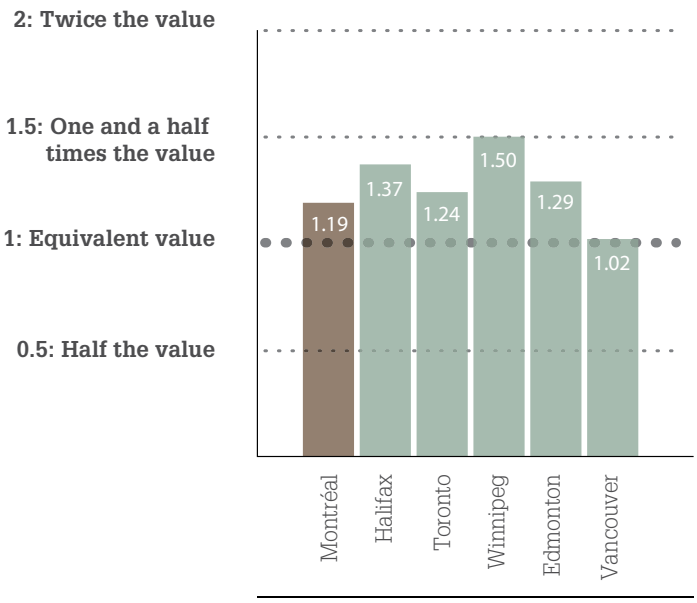


Data source: LOW BIRTH WEIGHT AND INFANT MORTALITY: "Health in Canada", Statistics Canada. 28 June 2011.
PREMATURE BIRTH: CANSIM Table 102-4303, Statistics Canada. 26 May 2011.

The data available to compare the cities in terms of inequalities in child health are limited. Figures on births of low-weight babies are again favourable to Montréal. The relative difference between the extreme income categories is smaller in Montréal than in the other cities, except Vancouver, where there is practically no inequality (Figure 2.11). This being said, the proportion of low-weight births in the lowest income category in Montréal is still around 1.2 times higher than in the highest income category.

» Montréal ranks particularly well in the area of child health, garnering a number of enviable statistics that lend credence to the arguments in favour of perinatal and family support policies.

Figure 2.11. Ratio (lowest income category/highest income category) of low birthweight births in six large Canadian cities, 2006-2008



Data source: MONTRÉAL: 2006 Census, Statistics Canada; Live birth registry, MSSS. OTHER CANADIAN CITIES: 2006 Census, Statistics Canada; Special compilation, Canadian Institute for Health Information.

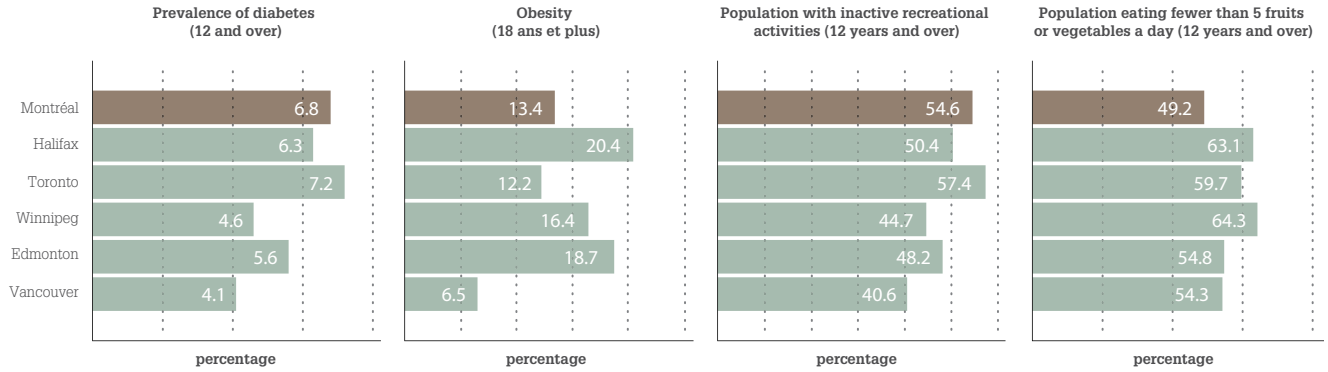
Chronic diseases and risk factors

We can get a balanced picture of the situation in Montréal by reviewing a number of comparable figures on health status and lifestyle habits in Montréal and Canada's other large urban centres. Vancouver tops the comparisons in most respects, while Halifax and Winnipeg come in last more often than not.

At 6.8%, the prevalence of diabetes[8] in Montréal is a matter of concern, since it is higher than in four of the five other cities (Figure 2.12), and above the averages for Québec and Canada. Montréal also has the highest hospitalization rate for diabetes. This may be due in part to the fact that Montrealers are among the least active Canadians during their leisure time, coming in fifth out of six. Montréal also has a high percentage of obese adults (13%), especially in comparison with Vancouver (6%), although this puts Montréal in third place among the six cities and below the averages for Québec and Canada. On the other hand, a higher proportion of Montrealers follow the daily intake guidelines for fruits and vegetables. According to Statistics Canada's Canadian Community Health Survey, of the six cities, Montréal is the only one where roughly one person out of every two reports eating fruits or vegetables at least five times a day.

8. To ensure comparability with the other cities, the prevalence of diabetes in Montréal is taken from the 2007-2008 CCHS. The Survey's self-reported measurement differs from the prevalence data generally used in Québec, which are based on medical-administrative files (8.1% in Montréal in 2008-2009).

Figure 2.12.
Diabetes and associated factors in six large Canadian cities, 2007-2008

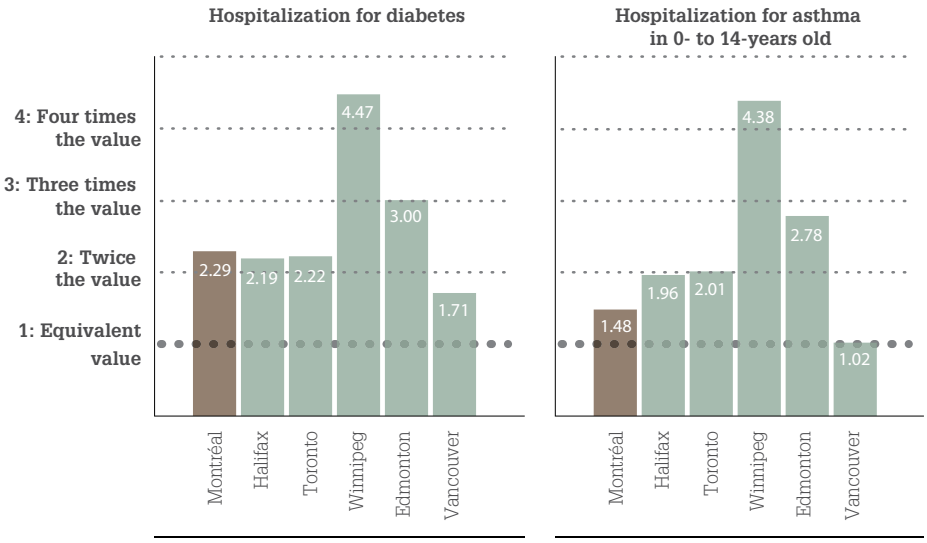


Data source: DIABETES AND OBESITY: 2007-2008 Canadian Community Health Survey, Public Use Microdata File – Québec, Statistics Canada. PHYSICAL ACTIVITY LEVELS AND FRUIT AND VEGETABLE CONSUMPTION: 2007-2008 Canadian Community Health Survey, Master File – Statistics Canada

According to Statistics Canada's Canadian Community Health Survey, of the six cities, Montréal is the only one where roughly one person out of every two reports eating fruits or vegetables at least five times a day.

Social inequalities relating to chronic diseases affect Montrealers in ways that are quite comparable to the other cities (Figure 2.13). For instance, the differences in diabetes-related hospitalizations are particularly large: low-income individuals have hospitalization rates 1.7 to nearly 4.5 times higher (in Vancouver and Winnipeg respectively) than people in the high-income group. In Montréal, the poorest have diabetes-related hospitalization rates roughly 2.3 times those of the most affluent. When we look at Montréal children hospitalized for asthma, the difference between the least and the most affluent is one of the lowest in Canadian cities. Still, the risk of a child in Montréal being hospitalized for asthma is about 1.5 times higher for the city's poorest residents compared to its richest.

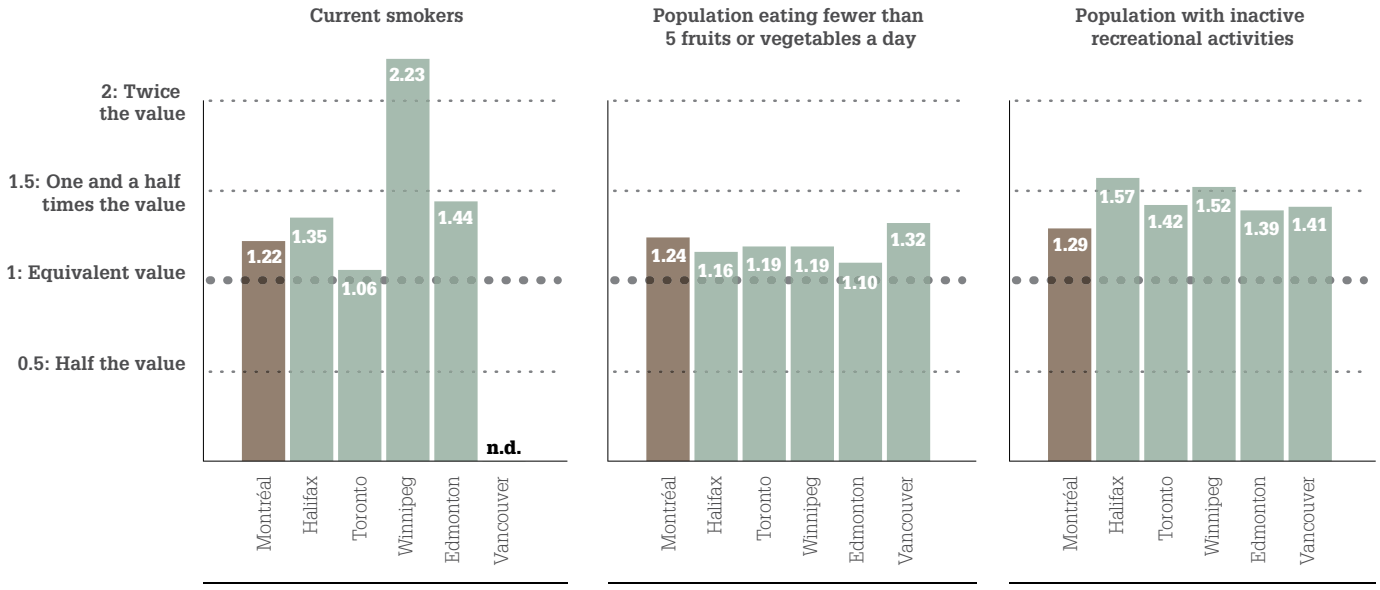
Figure 2.13. Ratio (lowest income category / highest income category) of chronic disease indicators in six large Canadian cities, 2006-2008



Data source: MONTRÉAL: 2006 Census, Statistics Canada; MED-ÉCHO hospitalization registry; MSSS; Demographic projection files, January 2010, ISQ. OTHER CANADIAN CITIES: 2006 Census, Statistics Canada; Special compilation, Canadian Institute for Health Information.

Quite a few of the social inequalities relating to lifestyle habits and metabolic risk factors are less marked in Montréal than in most of the other cities. Although Montrealers smoke more and are less active in their leisure time than other city dwellers in Canada, the differences between rich and poor are generally smaller in Montréal in both cases (Figure 2.14). As for eating habits, individuals who are least affluent are 1.2 times less likely to have the recommended daily servings of fruits and vegetables than those in the highest income group, a finding which is comparable to the figures for the other cities.

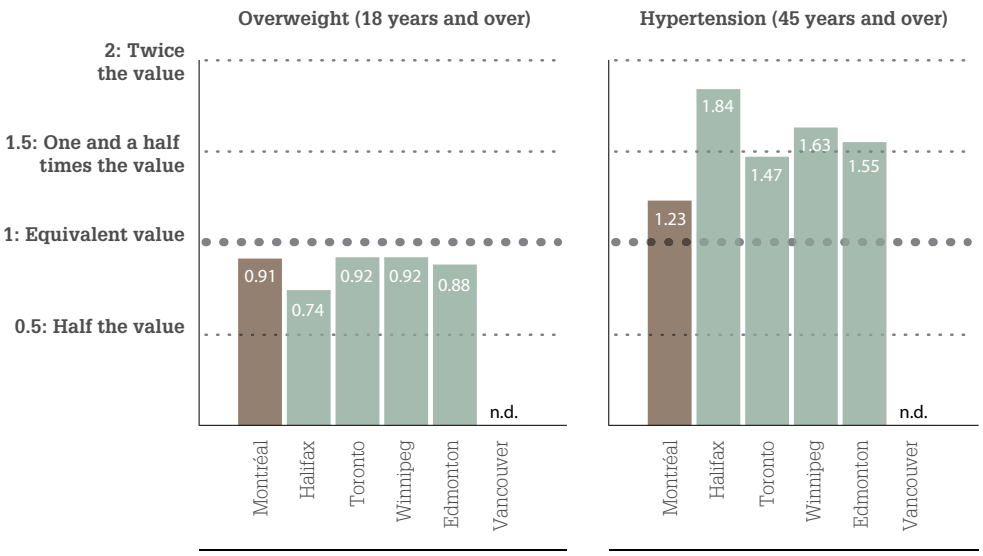
Figure 2.14. Ratio (lowest income category/highest income category) of lifestyle indicators in six large Canadian cities, 2007-2008



Data source: 2007-2008 Canadian Community Health Survey, Master File–Statistics Canada.

The data on overweight and hypertension, two metabolic risk factors associated with several chronic diseases including diabetes, do not indicate that the situation is more alarming in Montréal than in the other cities, at least as far as inequalities are concerned (Figure 2.15). Overweight is slightly more present in the highest income category and the inequalities are relatively small in all of the cities studied. There is also less reason for concern about hypertension in Montréal, where the relative difference between the most and the least affluent is real, but smaller than elsewhere.

Figure 2.15. Ratio (lowest income category/highest income category) of risk factor indicators, 2007-2008



Data source: 2007-2008 Canadian Community Health Survey, Master File–Statistics Canada.

Overall conclusion on social inequalities in health by income category

In conclusion, there are observable differences in various aspects of health between the highest and lowest income categories. The data show that inequalities persist in Montréal, in terms both of the social determinants of health and of their outcomes reflected in lifestyle habits and in disease or mortality rates.

However, it is important to stress that, although the size of the gaps is worrying and unjustifiable compared to other Canadian cities, health inequalities between rich and poor are in most cases smaller in Montréal. In fact, Montréal is never the city where the differences are the greatest, for any of the variables considered in the comparison. On the contrary, in most cases, Montréal's gaps between the two extreme income groups are either the smallest or second smallest. Better still, when differences are analyzed, this encouraging finding is confirmed both in hospitalization rates and in health status and lifestyle habits.

While much remains to be done, when we consider how far we have come since the 1980s and compare the health status of Montrealers with that of several other large cities in Canada, the lesson is that social inequalities in health can be reduced. The next two sections consider the areas where appropriate measures could be particularly effective in narrowing the gap that separates low-income Montrealers from their better-off counterparts.

» However, it is important to stress that, although the size of the gaps is worrying and unjustifiable compared to other Canadian cities, health inequalities between rich and poor are in most cases smaller in Montréal.

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Part Three:
A more just society

In February 2010, the epidemiologist Michael Marmot, who chaired the WHO Commission on Social Determinants of Health, submitted a report commissioned by the British Secretary of State for Health outlining the most effective evidence-based strategies to reduce social inequalities in health. This report stressed the need for cooperation among central and local authorities, public health agencies, private sector actors and community groups (Marmot, 2010). Parts Three and Four of this report are based on the six policy objectives put forward in Dr. Marmot's review.

Social inequalities in health cannot be reduced without interventions by the central government. The reduction of social inequalities is to no small degree conditioned by the type of "welfare state", which determines the kinds and levels of social protection. According to the liberal principles inherited from the Age of Enlightenment, there can be no justice without equality of rights. But a more compelling measure of the justness of a society is how it applies the principle of equality of opportunity and conditions, regardless of a person's status at birth.

In this respect, the winning title goes to the Nordic countries of Europe, which year after year dominate the international rankings for social development. The social-democratic states of Scandinavia (Sweden, Norway, Finland and Denmark) are more egalitarian, certainly more so than the conservative-corporatist welfare systems of continental Europe (Germany, France, Switzerland and the Mediterranean countries), which themselves have achieved more than so-called "liberal" Anglo-Saxon countries like Great Britain, Canada and the United States.

Classification of welfare state regimes

A classification based on type of social protection was developed by sociologist Esping-Andersen, who identifies three welfare regimes with distinct sets of political and social objectives and means to achieve them. The social-democratic regimes are characterized by generous and universal state-sponsored social rights, based on the principle of equality of all citizens. The corporatist-statist regimes give primacy to the family in the provision of care and support, and most social benefits are delivered through social insurance schemes organized according to narrow occupation-based solidarities. The liberal regimes provide support for those who cannot support themselves in the market, through targeted social policies (Palier in Esping-Andersen, 2008).

The success of the Nordic countries and their public policies rests on a few basic principles such as equity and universality. These countries are highly competitive economically, but their governments intervene with considerable resources to ensure equality of opportunity and favourable conditions for all, at all stages of life (Palme, 1999; Raynault, 2009).

In the Nordic countries, the emphasis on access to employment for all helps guarantee the economic and social inclusion of men, women and persons with disabilities. Salaries are high, and fringe benefits provide extensive social protection. Public policies promote gender equity and a life stage approach reflected in work-life balance programs and support for natural caregivers (Raynault and Côté, forthcoming).

The universality of the programs appears to favour broad identification with the social-democratic system while avoiding stigmatisation of low-income people. The state's intervention is intended to be preventive, by investing in young people and adults before they become poor (Raynault and Côté, forthcoming).

The Northern European countries are also distinguished by their model of consensus-seeking on the part of the national authorities that extends not only to local levels of government, but also to civil society and labour unions. Finally, the Nordic countries have opted for a market economy system that actively applies the principles of sustainable development. All of which makes them very different from most of the liberal regimes we are familiar with.

What is the situation in Canada and Québec? We already know that inequality rates have risen more in Canada than on average for OECD countries. Since the early 2000s, Canada's average after-tax Gini coefficient[9] has been 0.32 for all types of households (Figure 3.1). The Gini coefficients for several countries and for Québec in 2004-2005 illustrate the effect of the type of welfare state on the reduction of inequalities.

9. Developed by the Italian statistician Corrado Gini, this indicator measures the degree of inequality in income distribution in a given entity. The Gini coefficient varies from 0 to 1. "Zero" stands for perfect equality, that is, everyone would have the same income; and "1" stands for total inequality, that is, one person would have all of the incomes and no one else would have any.

Figure 3.1.
Gini coefficients (after taxes) for various countries (all households)

	Sweden	Germany	France	Québec	Canada	United States
Regime	Social-democratic	Corporatist	Corporatist	Liberal	Liberal	Liberal
Gini *(Year)*	0.24 *(2005)*	0.28 *(2004)*	0.28 *(2005)*	0.30 *(2004)*	0.32 *(2004)*	0.37 *(2004)*

Data source: COUNTRY GINI: Luxembourg Income Study. 15 July 2011.
QUEBEC GINI: CANSIM Table 202-0702, Statistics Canada. 15 July 2011.

This table confirms that Canada has only done well when compared to the United States. It also shows that for several years Québec has distanced itself quite substantially from the other Canadian provinces, where inequalities have risen more quickly (Bernard and Raïq, 2011; Raynault, 2009; Roy, Fréchet and Savard, 2008). In the late 1990s, the Québec government started adopting a series of legislative measures such as the *Pay Equity Act* and the *Act to Combat Poverty and Social Exclusion.* Other policies to reduce poverty and increase the workforce participation rates of families (for example, parental leave and subsidized childcare for $7 a day) as well as a different taxation system from the other provinces have helped lower the poverty rate of families and limit the increase in inequalities, despite the limitations inherent in the liberal-type welfare system we have in Canada. However, conditions for people living alone continue to be a matter of concern.

The following sections describe the impacts of poverty on health and present the most effective interventions to reduce social inequalities in health.

Enough income to live on

Poor workers

Poor workers are salaried employees whose employment status makes it impossible for them to escape from poverty and to satisfy their fundamental needs (Ulysse, 2006). Their very existence may seem to contradict the notion that working makes one richer. But when the salary is too low, too few hours are worked or fringe benefit coverage is not broad enough, it becomes difficult to make a living. Since people on a small salary who live with their parents or with a better-paid spouse do not necessarily fit the definition of poor workers, it is hard to know exactly how many of them there are in Montréal. They are often poorly educated, and if they are women—and therefore overrepresented in insecure, atypical or part-time jobs—it is likely that there are proportionally more of them among poor workers. Many of the latter work for minimum wage. They make up the bulk of employees at the bottom of the scale. Young and immigrant workers are also likely to belong to this group (Ulysse, 2006).

People who have little money often do without some of the goods and services that would enable them to maintain or improve their health, preferring instead to buy cheaper products that may be unhealthy (Marmot, 2010). Poverty also goes hand in hand with exclusion and lack of social support.

Compared to other big cities globally and elsewhere in Canada, it is relatively inexpensive to live in Montréal. But for low-income individuals, people on social assistance and the working poor, there is not always enough money coming in to eat properly, get around and put clothes on their backs once the rent is paid. In such conditions, the slightest unforeseen event (the fridge stops working, for example) adds to the stress. And stress is known to be extremely bad for the health of people who have little control over their lives (WHO, 2004).

In Montréal, many people are faced with difficult working conditions and do not have enough protection to deal with setbacks. According to the 2001 census, the highest concentrations of workers at the bottom of the ladder in Montréal live in Villeray–St-Michel–Park Extension and Montréal-Nord (where they make up nearly one third of the population), and in the Sud-Ouest, Mercier–Hochelaga-Maisonneuve and Saint-Léonard areas (where they make up nearly one quarter of the population) (Ulysse, 2006). Social assistance recipients are also at very high risk of having health problems. Among last-resort assistance recipients, people living alone and couples without children are particularly vulnerable. Figure 3.2 below shows how inadequate social assistance incomes are in relation to the low income thresholds.

Figure 3.2. Total social assistance incomes and low income cut-offs (LIM and MBM), Québec, 2008-2009

	Couple with two children	Single parent one child	Single employable person	Single person with disability
Welfare income (2009)	$22,614	$17,583	$7,312	$10,881
LIM after taxes (2008)	$29,468	$20,628	$14,734	$14,734
MBM (Mtl CMA) (2009)	$28,316	$18,405	$14,158	$14,158

Data source: 2008 LOW-INCOME MEASURE: «seuils de faible revenu, MFR, seuils après impôt, selon le nombre d'adultes et d'enfants par famille économique, Québec, 1973-2008», based on Statistic Canada's Survey on Consumer Finances (1973-1995) and Survey of Labour and Income Dynamics (1996-2008), ISQ. WELFARE INCOMES AND MBM IN 2009: NCW-Canada 2010: A14.

Given that a family of four (two parents and two children) receiving social assistance only has a total disposable income of $22,614 (including social assistance, the GST tax credit and the Québec Child Support and Canada Child Tax Benefits), and that a full-time worker earning the minimum wage takes in about $16,887 (or $9.65/hour for 35 hours/week, 50 weeks/year), it is no surprise to learn that access to resources continues to be unequal, and that many Montrealers have a hard time affording the essentials, starting with food and lodging.

In 2009, the Comité consultatif de lutte contre la pauvreté et l'exclusion sociale (CCLP)—a public organization set up to advise the Minister responsible for the fight against poverty and social exclusion—proposed minimum financial support thresholds equivalent to 80% of the total of the MBM thresholds (indexed for 2008): $10,524 for a person living alone and $14,734 for two people (CCLP, 2009). Since the Market Basket Measure establishes basic needs by household size and living environment, the target of 80% of the MBM is an indication of how difficult it is to organize day-to-day life for households, with or without children. Acceptance of this target is an implicit admission that these people do not have the minimum required to meet their essential needs and integrate into society. The 80% target is all the more modest since even at 100%, the MBM is still a minimum threshold that does not really protect a person from poverty.

People who have little money often do without some of the goods and services that would enable them to maintain or improve their health, preferring instead to buy cheaper products that may be unhealthy.

In a report tabled in the National Assembly in June 2011, the Minister of Employment and Social Solidarity recognized that for people living alone and childless couples without work limitations, social assistance benefits were insufficient to reach the bar of 80% of the MBM as calculated for communities of less than 30,000 people, even though the cost of living is less than in Montréal (MESS, 2011).

For most social assistance recipients, covering their subsistence needs and staying healthy at current benefit levels is "mission next-to-impossible". The question is then, do income support programs enable people to rise out of poverty, or do they on the contrary push them deeper into it? Given the negative effects of poverty on health and the fact that health problems often prevent people from finding work and getting ahead, current income support programs are part of the problem.

In Canada, living conditions for the elderly began improving after the introduction of the old age pension plan in the 1960s. That is proof that poverty can be alleviated, and social inequalities in health reduced in the process. Because the poverty of people living alone is a societal problem, governments must necessarily intervene. Moreover, if there is any period in life in which social programs and policies are effective and highly productive investments, that period starts in the prenatal phase and extends throughout early childhood.

A good start in life

During the prenatal period, one of the main health objectives should be to prevent low birth weight. Prenatal care initiated early and maintained throughout the pregnancy can have a protective effect.

The first years of life are crucial for all children. They have a determining effect on their immediate health, but also on their physical and intellectual development and their acquisition of verbal communication skills. During early childhood, adverse conditions like emotional deprivation, inadequate nutrition or lack of stimulation are known to affect children's chances of success. Sadly, all too many children are robbed of part of their stock of "health capital" before they are even born (Center on the Developing Child, Harvard University, 2010).

A study based on the Québec Longitudinal Study of Child Development (QLSCD) has shown to what extent poverty experienced before birth and at a very young age can affect children beyond early childhood (Séguin, 2007). Other studies have found that the adverse effects of poverty experienced at an early age can also affect health status and life expectancy in adult years, even if that poverty was temporary.

In 2005, there were proportionately three times more low income families with children aged 0 to 5 in Montréal compared to the rest of Québec. As we have already seen, despite some progress in Montréal, there are still more low-weight and premature babies in disadvantaged families, and the gaps between rich and poor remain. However, good prenatal care and breastfeeding are two ways to partially offset social inequalities in health early in life.

Prenatal care

A pregnancy that develops in poor conditions can adversely affect the development of the foetus. Many studies have shown that low birth-weight babies have a higher infant mortality rate. In addition to the known pathologies, several factors can disrupt the proper development of a pregnancy, including nutritional imbalance, stress, smoking, drug abuse and alcoholism (WHO, 2004). Most of these factors can be linked directly or indirectly to poverty.

During the prenatal period, one of the main health objectives should be to prevent low birth weight. Prenatal care initiated early and maintained throughout the pregnancy can have a protective effect. Screening expectant mothers for potential risks, treating their medical disorders and providing counselling to eliminate harmful habits and behaviours are among the types of prenatal care that help lower perinatal morbidity and mortality (Gender and Health, 2011). The situation is not well documented, but one thing is certain: poverty is an obstacle to health care access, and that applies in all likelihood to prenatal care as well. Back in 1997, the National Council of Welfare (NCW) was already reporting that despite our universal health care systems, women with little money and education were not being seen as much during their pregnancies, either because of transportation problems or hesitations on their part. Gaps in the system, the geographic fragmentation of services and lack of coordination between health professionnals could be added to the list of problems (NCW, 1997).

Integrated Perinatal and Early Childhood Services

Since 2004, a province-wide integrated perinatal and early childhood services program, known as SIPPE, has provided integrated perinatal and early childhood services to families living in conditions of vulnerability. A nurse or social worker makes home visits from the prenatal stage until the child reaches the age of five. The main objectives are to lower child morbidity and mortality rates, promote the physical and mental health of parents, favour the optimal development of children and improve families' living conditions. The program is mainly directed at mothers under the age of 20, families living under the low income cut-off or in which the mother has not completed grade 12, and recently arrived immigrant families. The results are conclusive: a study has found that many of the objectives, particularly the developmental goals for children, had been reached, both for mothers under 20 years and vulnerable families (INSPQ, 2010).

Given the current problems of access to medical care, the main issue for all pregnant women is to get an appointment with a doctor during the first trimester of their pregnancy. In Montréal, 61% of women see a doctor during their first trimester, compared to 64% for Québec as a whole (MSSS, 2011).

General practitioners, gynaecologists/obstetricians, paediatricians, nurses, midwives and perinatal service managers who took part in discussion groups for a study on children's access to medical services said that poor women and immigrants were more impacted by these problems of access (Clapperton, Legault and Boucheron, forthcoming). Participating health professionals, who felt that incentives would be inappropriate for this clientele, mentioned a number of explanatory factors, including the way care is organized, especially where practices are less multidisciplinary and human, technical and informational resources are compartmentalized, not to mention problems of geographic and financial accessibility, in particular for screening tests.

Breastfeeding

Of all protective factors, breastfeeding stands out as practically being a panacea, given its ability to offset all of the negative effects of poverty. The scientific literature is unequivocal: breastfeeding is associated with a lower risk of contracting a whole range of diseases, in the short and long terms. Breastfed children are also less likely to suffer from acute middle ear infections, gastroenteritis, serious lower respiratory tract infections, atopic dermatitis, asthma, obesity, diabetes, leukaemia and necrotizing enteritis, and to die from sudden infant death syndrome (AHRQ, 2007).

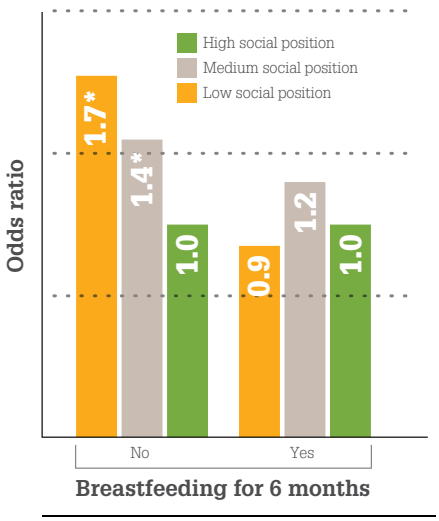
» Breastfeeding during six months is apparently enough to lower the (usually higher) risk of hospitalization of low-income children to the same level as that of high-income children, up to age six.

In economic terms, according to an American study published in *Pediatrics,* breastfeeding would save an estimated 13 billion dollars every year if 90% of American families followed the WHO's recommendation of exclusive breastfeeding during the first six months of life. More importantly, in human terms, breastfeeding would prevent the deaths of 911 babies every year (Bartick and Reinhold, 2010).

Closer to home, an analysis of the data from the Québec Longitudinal Study of Child Development (QLSCD) showed that the protective effects of breastfeeding for at least the first four months of life continue to be observable until the age of six. This study on QLSCD data found some very encouraging data on the benefits of breastfeeding with respect to social inequalities in health: breastfeeding during six months is apparently enough to lower the (usually higher) risk of hospitalization of low-income children to the same level as that of high-income children, up to age six (Paquet and Hamel, 2005) (Figure 3.3).

Figure 3.3. Link between family social position and child hospitalization, by feeding method, Québec, 1998-2002

Adapted from Paquet G, Hamel D, 2005:5.



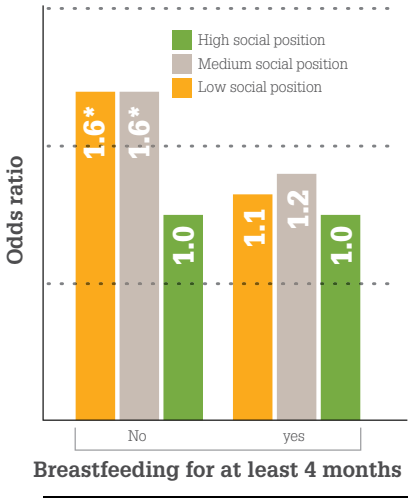
*Significant odds ratios at a threshold of 5%.

Data source: ÉLDEQ 1998-2002, ISQ.

Surprisingly, there are two other lesser-known benefits associated with breastfeeding for at least four months, and the children of less affluent families are the ones who benefit from them the most. There is evidence that breastfeeding not only reduces the probability of being perceived as hyperactive or inattentive, but also plays a positive role in language development. As in the case of hospitalization rates, breastfeeding cancels out the negative effects of family economic status (Figure 3.4).

Figure 3.4. Link between family social position and hyperactivity/inattention by feeding method, Québec, 1998-2002

Adapted from Paquet G, Hamel D, 2005:6.



* Significant odds ratios at a threshold of 5%.

Data source: ÉLDEQ 1998-2002, ISQ.

These data are all the more interesting because the DSP's regional survey on school readiness[10] indicates that the domain in which Montréal children are more vulnerable is cognitive and language development.

Unfortunately, poorly educated mothers are less inclined to breastfeed and the prevalence of breastfeeding, both at birth and four months after birth, drops with socioeconomic level (Dubois, 2004). The one exception is immigrant women, who, in Québec, seem more favourable to breastfeeding for reasons of tradition and culture (ISQ, 2006). The large number of women from other ethno-cultural communities, or recently arrived as immigrants, may explain why women in Montréal are significantly more likely than other women in Québec to breastfeed their babies at birth and up to six months (ISQ, 2006).

Of course, the point is not to make women who choose not to breastfeed feel guilty, regardless of their socioeconomic status, which would amount to condemning them to another form of exclusion. Nevertheless, we have to recognize that Quebecers began turning away from their tradition of breastfeeding in the 1950s, in the name of modernization and progress. If we want everyone to enjoy its benefits, we are going to have to start promoting it again, and more importantly to do the kinds of things that will make breastfeeding the method women prefer.

10. School readiness is a measure of how prepared children are to start school, as determined by their teachers when they enter kindergarten. One hundred questions assess the children's progress in the following areas: 1. Physical health and wellness; 2. Social skills; 3. Emotional maturity; 4. Cognitive and language development; 5. Communication skills and general knowledge. The public school survey of 10,000 children conducted in 2008 covered 71% of all children in kindergarten. Scores were ranked against a Canadian sample, which makes comparisons easier. A child is considered to be vulnerable when his or her score is below the 10th percentile of the reference sample (DSP, 2008).

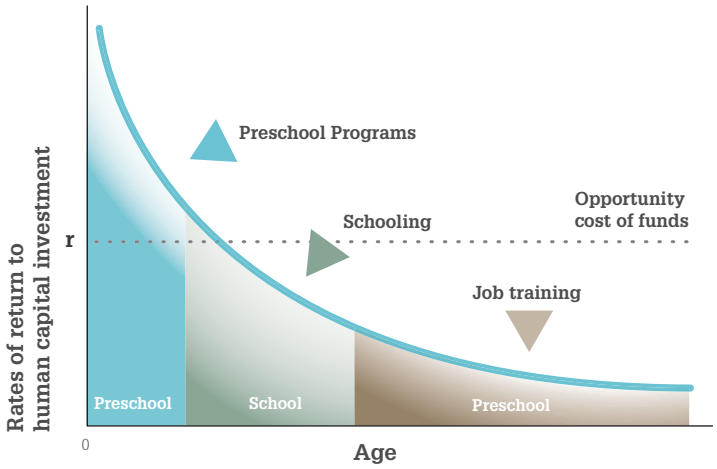
There is evidence that breastfeeding not only reduces the probability of being perceived as hyperactive or inattentive, but also plays a positive role in language development. As in the case of hospitalization rates, breastfeeding cancels out the negative effects of family economic status.

Development opportunities for all

When young people were not lucky enough to get off to a good start, programs to prevent them from dropping out of school and to encourage them to pursue their studies certainly have a role to play, as do job market entry and employability development projects. In fact, some excellent initiatives have been implemented by the Ministère de l'Éducation, des Loisirs et des Sports, the CSSSs and their many community partners. However, as James Heckman, Nobel Prize winner for economics in 2000, has shown, the return on investments (taxpayers' dollars) in the human development of children declines steeply after the age of six (Figure 3.5).

Figure 3.5. Rate of return to human capital investment

Adapted from Heckman J, 2004.



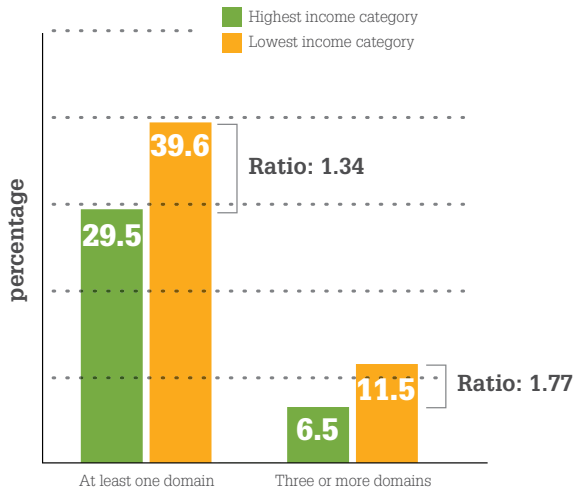
The point here is, the earlier the investment, the better the results, especially when the intent is to equalize opportunities for children from poor backgrounds. Hence the emphasis in this report on actions recognized as effective at reducing health and developmental disparities between young children of poor families and better-off families.

Although the issue is a sensitive one, developmental gaps are evident in school readiness and it is quite obvious that not all children entering school are equally prepared. At the same time, the early education experiences of children decisively influence their academic success, which is in turn associated with employability and future economic prospects, and with the social adaptability of young people and their state of health as adults.

Many studies have found that disadvantaged children are less likely to reach the level of development expected of them when they start school.

The Montréal children school readiness survey En route pour l'école! assessed the developmental levels of children in kindergarten. It showed that children from disadvantaged backgrounds are more vulnerable when they start school and, consequently, more at risk of having difficulties in their academic development (DSP, 2008). More specifically, four out of ten children from the poorest backgrounds are considered vulnerable in at least one developmental sphere, compared to three out of ten children from the most affluent backgrounds. In other words, the poorest children are 34% more likely than the richest to be vulnerable in at least one area of development. When three or more developmental spheres are considered, the risk for the poorest children is 77% greater than for the richest (Figure 3.6).

Figure 3.6. Proportion of children vulnerable in at least one school readiness domain, by income, Montréal, 2006



Data source: SCHOOL: READINESS: Enquête sur la maturité scolaire des enfants montréalais En route pour l'école ! , DSP 2006. REVENUE: 2006 Census, Statistics Canada.

Aside from its developmental consequences, poverty can also have a negative effect on the family environment and the behaviour of children and teenagers, especially in terms of exposure to violence or problems of social adaptation. Cases of victimization[11] in children under the age of 12 and externalisation[12] in young people aged 12 to 17 are generally more frequent when they live in the lowest income areas on the island of Montréal. Some areas are exceptions, probably because other factors relating to family environment or local community are at play.

Four out of ten children from the poorest backgrounds are considered vulnerable in at least one developmental sphere, compared to three out of ten children from the most affluent backgrounds.

In Canada, the chances of children being vulnerable vary greatly, and in particular on the basis of neighbourhood. It is estimated that an average of 25% to 30% of Canadian children are vulnerable, and consequently at a higher risk of failing in school and having problems of juvenile delinquency, dropping out, experiencing mental health issues and suffering at an earlier age from one or more chronic diseases (Hertzman, 2010). The 2006 Montréal children school readiness survey we mentioned earlier found that 35% of kindergarten children are vulnerable in at least one of the domains evaluated and that the largest proportion of them are vulnerable in the domains of cognitive and language development (17%) and emotional maturity (15%). Some Montréal districts have higher proportions of vulnerable children. For instance, over 40% of kindergarten children in the districts of the Bordeaux-Cartierville–Saint-Laurent, Sud-Ouest–Verdun, Ahuntsic and Montréal-Nord CSSSs and the Mercier-Est–Anjou, Park-Extension and Hochelaga-Maisonneuve CLSCs have difficulties in at least one area (DSP, 2008). Other districts such as Pierrefonds have a very large number of vulnerable children, although the proportion is similar to that of Montréal.

What approaches and interventions are the most promising for families, teachers and other people who are actively concerned by the well-being of our children? Some answers can be found in the international literature.

11. The term “victimization” refers to a situation involving an intervention on the part of a Youth Centre for reasons of mistreatment (parental abandonment, neglect, sexual abuse or physical abuse) in the course of a year. An intervention implies that a report has been flagged for evaluation and subsequently been deemed grounded or groundless. The victimization rate (2004-2006) is the relative number of young people for whom such an intervention took place.
12. The term “externalization” refers to a situation involving an intervention on the part of a Youth Centre for reasons of serious behaviour disorders, running away or violating the Criminal Code in the course of a year. An intervention implies that a report has been flagged for evaluation and subsequently been deemed grounded or groundless. The externalization rate (2004-2006) is the relative number of young people for whom such an intervention took place.

Aside from its developmental consequences, poverty can also have a negative effect on the family environment and the behaviour of children and teenagers, especially in terms of exposure to violence or problems of social adaptation.

As Esping-Andersen has shown, if policies to democratize access to education have failed to fully deliver on their promises of equal opportunity, despite the efforts made in all the developed countries, it is because when it comes to social heritage, the mechanisms that really count are deeply ingrained by preschool age. In Europe as in the United States, early intervention programs involving powerful behavioural and cognitive stimulation can effectively contribute to the equality of outcomes, particularly among the children most exposed to failure. This is why the Danish sociologist advocates public measures to support young children, and more specifically to provide access to high-quality childcare centres and preschool facilities (Esping-Andersen, 2008).

Similar results have been achieved here. For example, a Québec study has shown (a) that disadvantaged children (as defined by the mother's low level of schooling) were significantly more successful on their school readiness and knowledge tests (math, vocabulary) if they had been to formal childcare, and (b) that the benefits of attending childcare were greater for disadvantaged children than for the children of more educated mothers (Geoffroy et al., 2010).

The Canadian Council on Learning commissioned a study to identify for whom and under what conditions attending childcare could have a positive effect on children's cognitive development. The study sought more specifically to examine the impacts of the characteristics of the services provided in Québec's universal childcare system on children's skills and school readiness. The study's first conclusion is that the quality of the services is a determining factor, and that childcare centres where the overall quality is high have a positive impact on mastering numbers and general preschool skills. Based on a review of the distinguishing characteristics of high-quality childcare services using a range of criteria (physical facilities and equipment, organization of services, routines and activities, social interactions and educational content), it appears that these characteristics have specific effects on the whole range of aspects of childhood development. Development of vocabulary, for example, is more highly associated with childcare centres where social interactions are excellent (Côté, Mongeau and Xu, 2010).

The study's second conclusion is that while attending high-quality childcare is of benefit to children, it is not enough to offset socioeconomic inequalities. The explanation may lie in the intensity of attendance. Indeed, the researchers noticed that families who had lower incomes and families in which the mother had little formal education use childcare services less regularly and often for a limited number of hours, and that their children start going to childcare at an older age than the children of better-off families (Côté, Mongeau and Xu, 2010).

Lastly, the training of childcare educators and children/educator ratios are other important aspects of the quality of services. In fact, a large-scale study on childcare services in Québec found an association between educational quality and the children/educator ratio (Drouin et al., 2004).

» The Canadian Council on Learning commissioned a study to identify for whom and under what conditions attending childcare could have a positive effect on children's cognitive development.

Going to childcare also turns out to be good for children's health. Enrolment in childcare is particularly beneficial for the mental health of disadvantaged children or children whose mothers are suffering from depression (Herba, 2010). For children from difficult backgrounds, childcare can also offset their high risk of experiencing problems resulting from physical abuse. The protective effect is greater the earlier the children start childcare (Côté et al., 2007). The negative effects of the increased average number of ear infections when children start daycare needs to be put into perspective, because daycare is associated with a lower risk of infections in the first years of elementary school, and therefore with a lower rate of absenteeism during a crucial period for learning (Côté, 2010). It is also important to consider that having a system of accessible, subsidized childcare centres helps ensure the success of policies to encourage mothers to start working again. Going back to work is the best way to reduce poverty, raise family incomes and, as a result, improve children's health (Raynault et al., 2010a).

A recent health impact assessment of different forms of childcare concluded that low-contribution childcare centres (CPE) could potentially reduce socially determined developmental inequalities in children (Raynault et al., 2010b). Unfortunately, these services are often eschewed by the very families most likely to benefit from them. In a recent report, the Eurydice Network on Information on

A recent health impact assessment of different forms of childcare concluded that low-contribution childcare centres (CPE) could potentially reduce socially determined developmental inequalities in children.

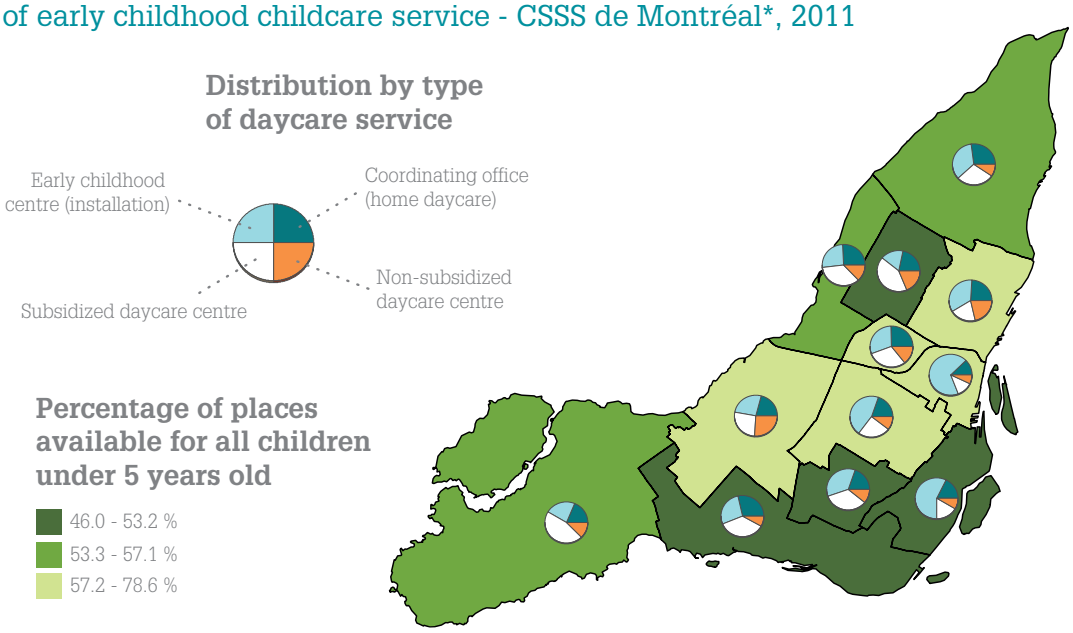
Education Systems and Policies in Europe discussed the preferences of parents from disadvantaged or minority ethnic or religious communities, who choose to have their young children schooled at home or think that children of preschool age are too young to be enrolled in an educational program. According to the authors of the report, these parents probably fail to see the connections between going to preschool, school readiness and academic success (Eurydice, 2009).

Québec may boast about its extensive $7/day childcare system, but this particular social policy, which makes it easier for mothers of young children to work, attracts fewer poor mothers whose children would benefit more than others from early stimulation. In Montréal, field surveys have found significant differences in the preferences of poor parents of widely differing origins (Laurin et al., 2008).

While some low-income parents clearly see the CPE as the best form of childcare, for other disadvantaged parents, CPE access and availability are serious obstacles (Laurin et al., 2008). Indeed, the school readiness survey found the availability of childcare services to be below average in disadvantaged neighbourhoods. As we can see on the map in Figure 3.7, the rate of available places (places per 100 children) is generally lower in the more disadvantaged areas of the island of Montréal.

Early childhood is a crucial period during which government interventions are the most effective and offer the highest return on investment.

Figure 3.7. Places available and distribution of place by type of early childhood childcare service - CSSS de Montréal*, 2011

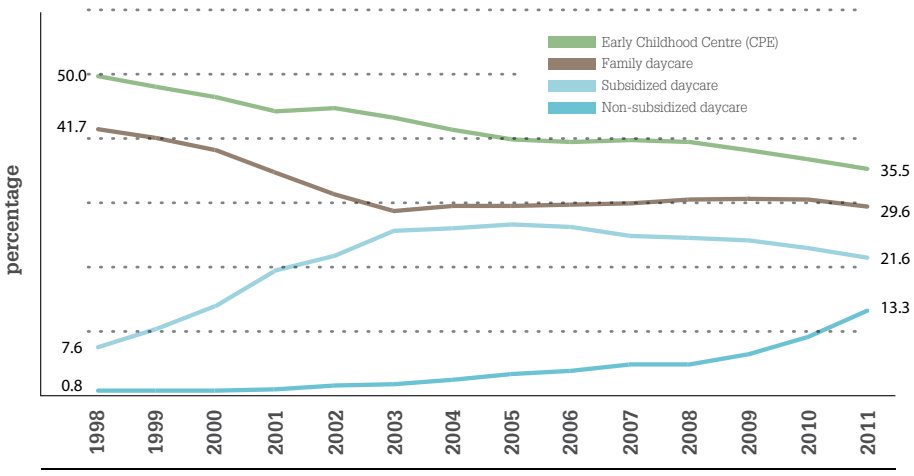


* By location of daycare services

Data source: MFA; Service de développement de l'information, MSSS 2011; Demographic projection files, January 2011, ISQ.

Moreover, considering the quality of services generally provided in CPEs, the available places by type of childcare in Montréal are evolving in a way (Figure 3.8) that suggests that we can expect a decrease in the number of places in high-quality centres, which would make a significant difference in the cognitive and language development of children, especially those from disadvantaged backgrounds.

Figure 3.8. Evolution of places available in childcare services, by type of service, Montréal, 1998 to 2011



Data source: MFA 2011.

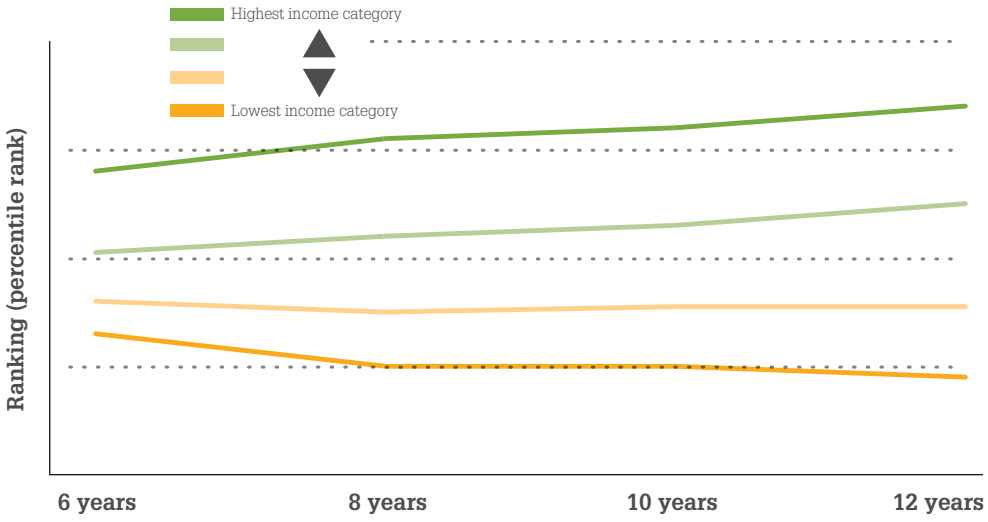
To support the development of Montréal's children and reduce social inequalities in health, we need the best possible early childhood policies, and we need to make the services accessible not only geographically but also financially. Beyond that, it is important that all parents feel welcome as users (Le Blanc and Raynault, 2010).

Early childhood is a crucial period during which government interventions are the most effective and offer the highest return on investment. A host of mental health, obesity, heart disease and learning problems are rooted in the conditions of early childhood.

In summary, whether we are considering the health of tiny tots and young children, their development or their social adaptation, disparities are all too present and they are more unacceptable than ever. As Figure 3.9 shows, the gaps in academic achievement widen over time between children of rich and poor backgrounds. Without adequate interventions, these unequal starting points will go on exacting a heavy toll on society in the form of more school dropouts, social adjustment problems and chronic diseases, greater pressures on the health care system and longer years to live with disabilities.

Figure 3.9. Children's ranking on an aptitude test,* by income and age

Adapted from Heckman J, 2004.



* Average percentile ranking on the Peabody Individual Achievement Test-Math by age and income category. The income groups are calculated on the basis of average family income between the ages of 6 and 10.

This particularly disturbing situation shows how necessary early interventions are to reduce social inequalities and avert their consequences. Many economists have demonstrated that early childhood policies and programs provide the best return on any investment a country can make because their positive effects are life-long (Kershaw et al., 2010; Irwin, Siddiqi and Hertzman, 2007; Heckman, 2004).

Health and equity in the workplace

Work is a recognized means of avoiding poverty and an important contributor to positive status and social integration, providing the pay is enough to live on decently. Work is a way to escape from health problems caused by difficult socio-economic status, but only if working conditions are conducive to health.

Earning a living without ruining your health

Many unemployed Quebecers see themselves as not being in good health, compared to people who have a job (26% vs 7%). They are more numerous to rate their social life as less satisfying (14% vs 7%) and their state of psychological distress as high (38% vs 21%) (ISQ, 2010). Work has its rewards, but it can also make you sick. If we look at life expectancy by occupational category in France, for example, we see that workers do not live as long as executives, but they spend a longer time living with functional limitations, ten years more than executives for men and eight years more for women (Cambois et al., 2008). Similar gaps can be seen not only between completely different job categories, but also within more homogeneous groups such as the British civil service, where the chances of dying prematurely or becoming ill vary according to one's position in the hierarchy, as the Whitehall studies have shown (Marmot et al., 1991; Ferrie et al., 2002).

Work is a recognized means of avoiding poverty and an important contributor to positive status and social integration, providing the pay is enough to live on decently.

Health inequalities in the workplace

Conditions in the work environment are fertile terrain for health inequalities in the workplace. Exposure to contaminants, biological agents and noise, heavy physical loads, repetitive movements, organizational constraints, lack of control and decision-making power and the risk of assault are all potential hazards for the physical and mental health of workers.

Health and safety legislation and regulations … that do not go far enough

In 1979, Québec adopted its innovative *Occupational Health and Safety Act* requiring employers to eliminate, at the source, hazards to the health, safety and physical well-being of workers (Section 2) and to provide workers, where necessary, with collective or individual means of protection or safety equipment (Section 3). The Act is enforced by the Commission de la santé et de la sécurité du travail (CSST) (workers' compensation board), and regional and local occupational health teams are tasked with developing and implementing health programs in workplaces.

Not only do such instruments of protection and prevention not always act as barriers to health inequalities, but they can actually be sources of injustice (Berthelette and Bilodeau, 2008). Here is one example: the CSST funds occupational health interventions in only fifteen sectors of economic activity (identified as priority sectors) out of thirty-two. And the provisions of the *Occupational Health and Safety Act* do not apply in the same way to businesses that employ fewer than twenty workers. In other words, the mechanisms to prevent occupational diseases provided for in the Act only cover 20% of all businesses and 25% of all workers (RSPSAT, 2010). Diseases and accidents make no such distinctions and occur in each and every sector of the economy.

The *Public Health Act* is another legislative tool to protect workers. It requires all government departments and bodies, and municipalities to report any threats to the health of the population to public health authorities (Section 92). Any uncontrolled exposure to agents that are harmful to the health of workers can therefore lead to the implementation of protective measures. Psychological health in the workplace is one aspect of occupational health that is often overlooked, if not ignored. Since 2001, the *Labour Standards Act* recognizes that people have the right to work in an environment that is free from psychological harassment (Sections 81.18 to 81.20).

Scientifically indefensible exposure levels

To perform their duties properly, occupational health teams rely among other things on the *Occupational Health and Safety Regulation,* which sets quality standards for the work environment. There is one small problem: according to the current state of scientific knowledge, many of the exposure values fail to protect the health of workers.

For instance, Québec allows for a level of exposure to chrysotile asbestos that is ten times higher than Ontario, the United States and France, and 100 times higher than the Netherlands and Switzerland (Dubé-Linteau et al., 2011). The Québec exposure level for quartz is four times higher than the level recommended by the American Conference of Governmental Industrial Hygienists. Québec has the highest exposure limit for carbon monoxide of all of the Canadian provinces. Québec does not protect its workers against this risk factor as well as most European countries, (Dupont et al., 2009). With standards like these, how can employers be expected to feel that they really need to reduce exposures to protect their workers' health?

Occupational diseases are seriously underestimated

The occupational diseases and causes of death recognized by the CSST are an incomplete representation of reality. Aside from the odds of a claim being rejected by the CSST, and the fact that benefits are often of short duration, many workers do not submit claims for fear of being unable to find another job or because they are not aware of their rights. Many are quite unaware that they are suffering from an occupational disease because the symptoms can be confused with other illnesses and because doctors do not always make the connection between the symptoms and possible occupational exposure.

When your job makes you sick

Years can pass between an exposure to a hazard and the onset of ill health. Hazards are often invisible, but that does not make them any less real. For instance, many musculoskeletal disorders (MSDs) are due to repetitive movements. MSDs are the number one cause of compensated occupational illness in Québec.

According to the Québec study on working, employment conditions and occupational health safety (EQCOTESST) conducted in 2007 and 2008, fewer than 20% of employees who were absent from work due to musculoskeletal pain related to their main occupation submitted a claim for benefits to the CSST.

Organizational work demands can generate situations of violence, psychological distress and strain to which women are more particularly exposed (ISQ, 2008).

Carcinogens are a major hazard because the diseases they can cause are often fatal. Some diseases occur long after workers have been in contact with contaminants that are present in many sectors (some workplaces expose workers to as many as 25 or more carcinogens). This is particularly the case in construction and in public, professional and scientific or technical services as well as in non-metallic-mineral product and transportation equipment manufacturing (Labrèche et al., 2011).

Young people aged 15 to 24, an age group often over-represented in the worst jobs, are exposed to diesel, polycyclic aromatic hydrocarbons, benzene and wood dust, to name but a few of the potential carcinogens. It is estimated that young female workers exposed before their mid-thirties to organic solvents and chemicals are three times more likely to develop breast cancer when they reach menopause (Labrèche et al., 2010).

» Both job insecurity and unemployment trigger anxiety and depression and undermine mental health.

The effects of job insecurity

European studies have established a link, independent of individuals' characteristics, between low level of autonomy at work and high risk of low back pain, sick leave and cardiovascular disease (WHO, 2004). Other studies have looked at workload-related risks, inadequate recognition of effort and psychosocial environment as determinants of the observed health disparities among social categories.

Stress, whether it be related to lack of control over one's work (working conditions, job atmosphere or safety) or to unemployment, has a tremendous effect on the state of health of workers. Sick leave and premature mortality rates seen in various job categories vary according to level of exposure to stress. In regions of high unemployment, higher incidences of diseases and premature deaths are reported, and the negative effects of stress on workers are often felt as soon as their jobs are threatened (WHO, 2004). The phenomenon of job insecurity, a product of a changing economy and job market that has become generalized since the 1990s, is associated with a state of chronic stress. Chronic stress contributes to absenteeism and increased consumption of health services. Both job insecurity and unemployment trigger anxiety and depression and undermine mental health (WHO, 2004).

In Québec, according to the EQCOTESST survey, over 450,000 workers meet the criteria of a precarious employment arrangement[13], that is, nearly 13% of all of workers covered by the survey (Vézina, Cloutier et al., 2011). The survey found that precarious employment arrangements and employment insecurity limit access to fringe benefits (especially sick leave) and are accompanied by a higher risk of having a work accident and a higher prevalence of psychological distress. Generally speaking, proportionately more people in insecure jobs have negative perceptions of their health status (10.4% vs 5.2%).

The unemployment rate tends to be higher among people who are less qualified, affected by a disability or suffering from mental or physical health problems. Other groups also more at risk of periodic unemployment or insecure employment include single parents, informal caregivers, members of some cultural minorities, young workers and older workers (Marmot, 2010). The EQCOTESST survey found that 1.3 million people suffer from job insecurity in Québec and that there are

13. For the purposes of the EQCOTESST survey, the precarious employment arrangement indicator is positive when a person meets the following criteria: (1) working as a part-time employee (15 to 29 hours) but wanting to work more hours; (2) becoming a self-employed worker at the employer's request; (3) holding a job through a placement agency; and (4) having a fixed-term contract job. In this survey, employment insecurity is considered to be present when a worker considers that he or she has poor job security or if the worker has experienced a period of unemployment during the past two years. "Precarious employment" is an indicator used to measure exposure to the combination of a precarious employment arrangement and employment insecurity.

several subgroups with higher-than-average rates, including workers born outside Canada and people who have not completed high school. In addition, although men and women have similar employment insecurity rates, proportionally more female than male workers work under precarious employment arrangements (15.5 % vs 10.6%).

Pay equity and the value of work

In Québec, pay equity between men and women remains an important issue in the fight against poverty since single-parent families are almost always headed by a woman. Years after the *Pay Equity Act* was adopted, there are still many differences in the salaries of male and female workers. Pay equity revolves around recognition of the value of women's work. According to an analysis by economist Ruth Rose, the average weekly salary of women who have an Attestation of Vocational Specialization is $575 a week compared to $765 for men. Among workers with a Diploma of Vocational Studies, the average salary of women is $542 compared to $706 for their male co-workers. Of course, these gaps reflect career choices that are still quite distinct: women tend to be concentrated in health services and clerical work, while men work in more diversified and better-paying sectors such as mechanical equipment operation and repair, welding, cabinet-making or electrical installation and repair. Yet, the salary gaps between men and women are systematically present for all levels of education (Rose, 2011).

Furthermore, among the less educated, women are disadvantaged compared to men and are much less present in the workplace. Lastly, recently immigrated women have higher unemployment rates than male immigrants and women from Québec, even though they are more qualified academically than the latter (Rose, 2011).

Access to services

Primary care services

As part of an analysis of 30 medical service organization projects in Québec, the Collectif de recherche en organisation des services de santé de première ligne studied service accessibility, continuity of patient follow-up and comprehensiveness of services subsequent to service reorganization introduced by Bill 25. The Collectif, made up of researchers and decision-makers from a range of organizations, has found that access to primary care services has deteriorated in Montréal since 1998, despite the fact that overall use of the services has increased.

Some evidence points to this paradoxical situation being associated with the relatively abundant offering of walk-in services, which at first glance might seem to promote greater access. However, the lack of a regular family doctor is associated with less continuity of care, which may in turn lead to greater use of hospital emergency services for problems that do not necessary require emergency department care (Collectif de recherche, 2005).

The Collectif report also noted that immigrants face cultural or linguistic barriers that make it hard for them to find their way in the health care system. The implications for their access to care and their health status are clear. But even without these barriers, many other factors limit access to health care.

The vulnerability of non-status migrants

People born abroad who have no permanent legal status are usually ranked among the vulnerable groups. Their lack of status makes them hard to quantify. We do know that they are more likely to have health problems and limited access to care. There are a variety of statuses in the immigration system (newcomers, asylum-seekers, temporary workers, live-in caregivers, human-trafficking victims) which determine the types of care and services they are entitled to. The Régie de l'assurance maladie du Québec (RAMQ) covers care for residents and citizens, but migrants and undocumented individuals have access to only a very limited set of services (Brabant and Raynault, forthcoming).

In addition to complicating life for migrants and caregivers, this situation causes delays in getting appointments and treatments, which only worsens the condition of those who are sick. Additionally, immigrants who have arrived during the last ten years are having problems accessing primary care services, judging by the fact that 66% do not have a family doctor and 28% report having unmet needs (DSP, 2010a).

Although this group is heterogeneous, many are young adults who have children, here or in their countries of origin. The vulnerability of migrants, especially in terms of health, is due both to the uncertainty of their present or previous living conditions, and to the circumstances that caused them to immigrate in the first place. In addition to children, women sponsored by their husbands and workers whose temporary visas are tied to an employer are especially vulnerable. Given the nature of the diseases that can be involved (tuberculosis, STBBIs, HIV), any lack of care and adequate follow-up creates a public health risk. Many difficulties become compounded in the host environment and compromise the health of these individuals, including such things as the absence of prenatal and postnatal care, low childcare attendance rates and barriers to education for the children, substandard housing conditions, overcrowding and generally difficult living and working conditions (for instance insufficient incomes to cover day-to-day expenses such as healthy food, health care or medications, and thankless, badly-paid and sometimes dangerous work). All of these difficulties can aggravate prior traumas and sow the seeds of mental health problems. Migrants often forego protections they are entitled to (e.g. CSST, preventive withdrawal, parental leave and employment insurance) out of ignorance, but also out of fear of spoiling their chances of getting immigrant status (Brabant and Raynault, forthcoming). The unfavourable conditions faced by non-status migrants undermine their health.

The vulnerability of Aboriginals

Aboriginal people, who have become increasingly visible in Montréal in recent years, find themselves in comparable conditions. They do not have access in urban settings to the services they are accustomed to in their home communities. Without that support, the shock of the transition makes them more vulnerable. Paradoxically, although some leave home to continue their studies or look for a job, many others are forced to leave because of inadequate housing or to seek specialized care for a health condition. As in the case of immigrants, differences of culture and language combine to make it harder for them to make their way through the health care system. As a result, city-dwelling Aboriginals often have limited access to health services (Diotte and Thibault, 2011).

Sexually transmitted and blood-borne infections

Social inequalities and increased vulnerability go hand in hand when it comes to sexually transmitted and blood-borne infections (STBBI). Injection drug users (IDUs), men who have sex with men (MSMs) and street youth run the highest risk of being exposed to HIV and hepatitis C. Risk-taking is more likely due to psychosocial factors such as isolation, social exclusion, low self-esteem, prejudice and stigmatization. For some, marginal living conditions, mental health issues, homelessness or addiction to drugs or alcohol make it hard to adopt safe behaviours and to access health services adapted to their needs. Also, many IDUs and MSMs do not know that they are infected, which delays medical treatment and contributes to morbidity.

The Montréal Director of Public Health's 2010 Annual Report on STBBIs identified priority strategies around access to equipment, screening and treatment that need to be strengthened to reach more IDUs and MSMs. One of the proposed initiatives—a supervised injection site feasibility study—is an example of joint action to reduce social inequalities in health (DSP, 2010b).

A revealing indicator: the preventable mortality rate

Problems of access to health care and services are not limited to the above-mentioned groups. As we have seen, income inequalities also result in unequal access to the health care system. The preventable mortality rate, i.e., the number of deaths that have occurred despite the existence of demonstrably effective care and treatments, is a recognized indicator of accessibility. The observed differences in preventable mortality rates among income groups can probably be explained by unequal access to services on the part of the less fortunate. It is encouraging to see in Figure 1.4 of Part One of this report that Montréal's preventable mortality rates have dropped by half for all income groups over a period of roughly twenty years. However, the figure also shows that the gap between people in the first and fifth income categories has barely budged in 20 years (the ratio was 1.77 in 2006-2008 and 1.83 in 1989-1991).

Several conclusions on primary care and the reduction of social inequalities in health can be drawn from a study done in 2005 on the accessibility and continuity of primary care services in the Montréal and Montérégie regions. Among other things, the study highlights the difficulties newcomers have in gaining access to services, citing the small proportion of newcomers who have a relationship with a family doctor and their many unmet needs for information or treatment. In addition, the proportion of people who felt they needed to see a doctor but did not see one

follows a downward gradient, meaning that disadvantaged Montrealers have less favourable experiences with accessibility and continuity of care than people who are better off (Lévesque et al., 2007). It is unlikely that the new primary care models like family medicine groups and network clinics will have had any effect at this stage. The situation will be re-assessed when the new models have been in place for a longer period of time.

The example of breast cancer

Cancer rates are a good illustration of social inequalities in health, and incontrovertible proof that such inequalities do kill. The socioeconomic status of individuals affect a number of physical and social factors that can cause disease and influence the frequency of illness as well as access to care (IAEA, 2011). The impact of socioeconomic factors can cause access to health care to vary according to social groups, especially when the concept of accessibility of care is extended beyond diagnosis and treatment to include medical information, early screening, adequate and timely therapies and, of course, the quality of care (IAEA, 2011). People's health literacy (i.e. the information people are able to find, understand and put into practice) and their beliefs, sex, autonomy, mobility, income and insurance coverage are but a few of the factors that determine their ability to correctly perceive their health status, to research and access appropriate services and care, to pay for everything that is not covered by the health care system or to make up for lost income in case they have to take sick leave (Lévesque, 2011). All of these factors are themselves influenced by a person's socioeconomic status.

Breast cancer is a particularly telling example. Women from disadvantaged backgrounds have a lower cancer incidence rate than women in higher income brackets, yet their breast cancer-related mortality rate is equal to and even higher than that of women in the higher income quintiles (see Yost et al., 2001; Woods et al., 2006).

Breast cancer mortality is therefore a unique prism through which to assess the contribution of the health care system to social inequalities in health. Obviously, the health care system does not seek to create social inequalities in health. However, that is often the outcome when prevention and promotion initiatives are solely focused on improving the health of the general population, without taking

disparities among economic and social groups into consideration. The Québec breast cancer screening program, known as the PQDCS, is one initiative which could be improved to more effectively reach poor women in general, and immigrant women in particular.

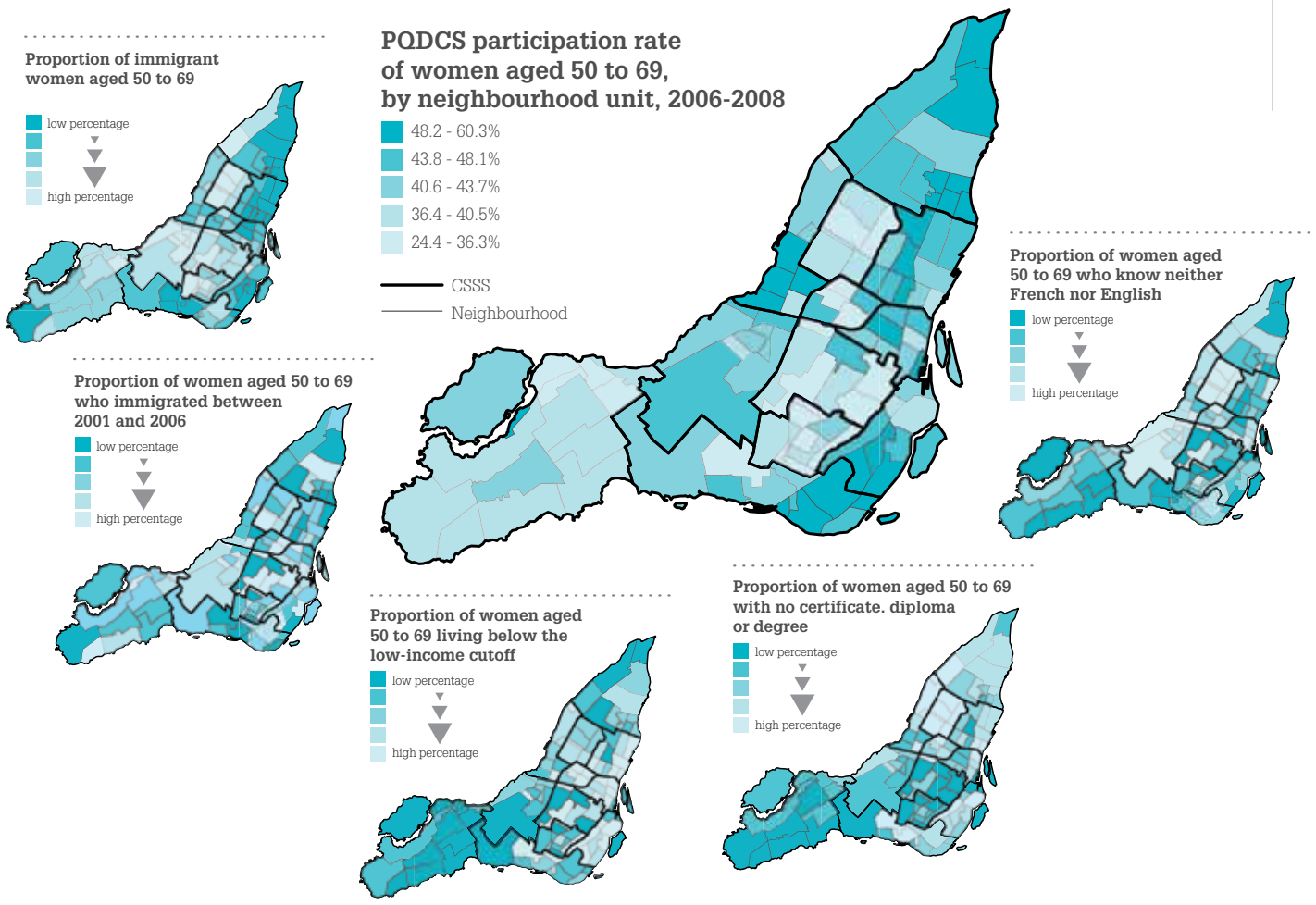
The Québec breast cancer screening program

Under this program, all women aged 50 to 69 who have never had breast cancer are invited to have a screening mammogram every two years at a designated centre. Since 1998, over 160,000 women have responded to the call, but in numbers below the target objective of 70%, which is the level needed to reduce breast cancer mortality by 25%.

Montréal's DSP conducted a survey to find out where the program was attracting fewer participants. Since the early 2000s, the overall number of participants has steadily risen, while tapering off with age. However, compared to the rest of Québec, the participation of women is markedly lower in Montréal (Leaune, 2009). Analysis of the results also shows that the characteristics usually correlated with low participation vary by CSSS and CLSC district.

Although a more detailed analysis of neighbourhoods is yet to be done, the map of Montréal in Figure 3.10 shows some of the differences among the districts where participation in the PQDCS has been low. In CSSS de l'Ouest-de-l'Île, low participation is mainly associated with immigration (recent or not), while in CSSS located in the central and eastern parts of the island, low income and low education levels are the best predictors.

Figure 3.10. PQDCS participation rate of women aged 50 to 69, by neighbourhood unit Adapted from Leaune V, 2009.



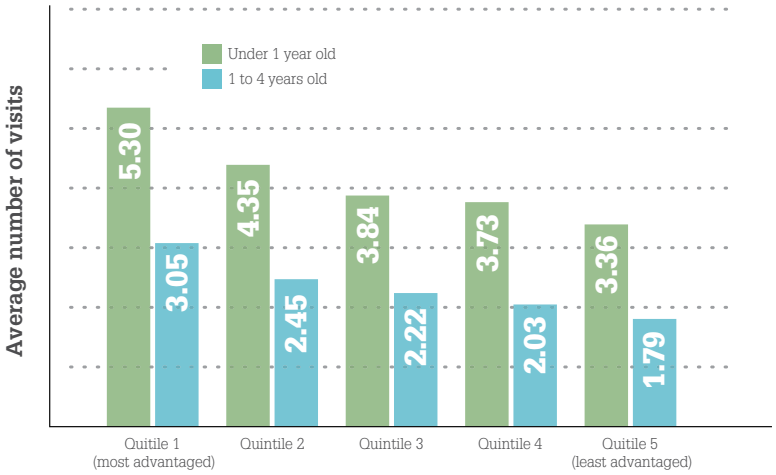
Data source: 2006 Census, Statistics Canada.

Prevention and small children

Health and preventive care for small children is another area in which the system is having difficulty reaching the whole population. Problems of access to health resources are increasingly being felt by families, a conclusion supported by service usage patterns. Regardless of the indicators chosen–office or emergency visits to GPs and specialists, hospitalizations–there are distinct differences among CSSS districts (Blanchard and Clapperton, 2011). Nearly half of Montréal children (46%) using these services live in disadvantaged neighbourhoods, which suggests that poor children are sick more often. In addition, disadvantaged children see fewer paediatricians and other specialists than children from more privileged areas (Figure 3.11), and they use emergency services more often and are more frequently hospitalized (Blanchard and Clapperton, 2011).

Figure 3.11. Average annual number of visits to paediatricians by children under 5 years old, by material deprivation index, Montréal, 2005-2006

Adapted from Clapperton I, Blanchard D, 2011:16.



Data source: Linked databases 2005-2006.

Insufficient coverage of dental care and psychotherapy

Dental care and psychotherapy are two other areas where the likelihood of receiving professional attention is particularly determined by socioeconomic status.

A good set of teeth is important to people's self-esteem and social life and can even affect their ability to get a good job. The consequences of a person losing all of their teeth (edentulism) can be even more serious.

The state of your teeth can affect your physical health. Over the last 20 years or so, various studies have looked at the impact of dental health on cardiovascular disease. A meta-analysis has concluded that periodontal diseases may indeed raise the risk of cardiovascular disease by about 20% (Meurmann et al., 2004). Furthermore, diabetes is directly correlated with periodontal disease. There is evidence that poor hygiene in seniors living in institutional settings increases the risk of pneumonia. Caries are another significant public health problem; they cause pain, abscesses, insomnia and absenteeism, and they lead to tooth loss if not treated in time.

Many factors have an impact on the quality of people's oral health and their access to care. Here again, sizeable disparities separate social assistance recipients and low-income workers from the rest of the population. We know, for example, that regular brushing increases in frequency with education level and income (ISQ, 2008). A recent study reported that the risk of having caries increases by 112% in children who have been living at the bottom of the social ladder since birth. Lower social status and having an immigrant mother also make it highly probable that a child will not be seen by a dentist before the age of about four (Paquet and Hamel, 2005). Seniors and Aboriginals have very high rates of edentulism. In Alberta, where the government pays for the dental care of people over the age of 65, only 38% of those eligible avail themselves of the program. Explanations of this behaviour include not fully understanding the need, problems of mobility and access, and fear of the dentist and of having to pay, despite the fact that the program is subsidized (Asadoorian, 2009).

In Canada, as in Québec, it is again the poor who are disadvantaged when it comes to dental health. The fact that dental care is not universally covered by Québec's public health care system limits access to such care for a significant part of the population. Oral health data from the 2007-2009 Canadian Health Measures Survey indicate that 62% of Canadians are registered with a private dental insurance plan, 6% are registered with a public plan, and fully 32% have no dental insurance at all. Nearly three-quarters of Canadians (74%) have been to see an oral health professional in the course of the last year, but 16% of them did not agree to all of the recommended treatments for financial reasons. Another 17% did not even make an appointment, also for financial reasons (Health Canada, 2010a).

Fluoridation of drinking water

Fluoridating drinking water is an extremely effective means of reducing social inequalities in dental health. Montréal's water is not fluoridated. While the debate between advocates and opponents of fluoridation continues, alternative solutions already implemented in many countries should be considered. One interesting approach is to fluoridate table salt.

Given the preceding statistics, it is not surprising that there are three times more Canadian Health Measures Survey respondents not receiving needed care who are from low-income families or have no insurance than respondents from affluent families or who have private insurance (Health Canada, 2010b). Socioeconomic level seems to be such a powerful determinant that the report's authors estimate that the number of visits to the dentist is inversely proportional to the needs of the patients (Health Canada, 2010c).

In Québec, the cost of oral health care and the relative scarcity of private dental insurance help explain why people from disadvantaged backgrounds rarely seek preventive care and only call for dental appointments when forced to by pain or another problem (ISQ, 2008). The Québec Survey found a gradient of schooling and incomes in perceived dental health: only 8% of people with a university degree think that they have poor oral health, as opposed to 17% of people who do not have a diploma or degree.

Despite the fact that much of dental care is covered, income security recipients are particularly reticent to make preventive visits to the dentist. Interview responses indicate that not only do recipients associate the visits with pain, but they also experience feelings of embarrassment and even humiliation when making an appointment or going to the dentist (Bedos, Levine and Brodeur, 2009).

Access to psychotherapy is also problematic. Although treatment for serious mental illnesses like schizophrenia is fully covered by the public system, this is not the case for anxiety disorders and situational depressions, for which few services are available through the health care network. Private psychotherapy is too expensive for people who have modest incomes or no private insurance.

In conclusion, our health care system may define itself as universal, but it still leaves many people behind. As the examples of care for small children and breast cancer screening show, free access alone does not suffice to eliminate social inequalities in health. And when services like dental care and psychotherapy are not fully insured by the public plan, access is reduced for many low-income workers and retirees. At a time when calls for privatization are resonating with increasing numbers of people, the system's decision-makers will need to be mindful of the major issues raised by social inequalities in health before they make it any more complicated to access services for the least well off. The introduction of fees for services raises the distinct risk that our health care system will be deflected from its primary mission, which is precisely to care for and protect people who are ill from the financial risk of health care services not covered by the universal plan.

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Part Four:
A City for Everyone

Sustainable urban development[14] is intrinsically related to the question of population health, and can only be achieved if governments and civil society work together to ensure good quality of life and social cohesiveness in our big cities, as their populations become increasingly diverse. The social sustainability of cities is determined as much by the policies of various levels of government as it is by choices made locally.

14. This expression is based on the concept of "urban sustainability of cities" developed by Mario Polèse and Richard Stren. It is defined as development compatible with the harmonious evolution of civil society and fostering an environment conducive to the compatible contribution of culturally and socially diverse groups while at the same time encouraging social integration with improvements in the quality of life of all segments of the population. For Polèse and Stren, sustainable urban development is indissociable from efforts to reduce inequalities and the exclusion of marginal and disadvantaged groups and to counteract the forces of spatial polarization (Polèse and Stren, 2000).

As we have seen, immigration laws, taxation policies and programs such as social assistance and employment and health insurance play preponderant roles. At the same time, many elements that support social cohesion take shape at the local level and are expressed through cultural and social institutions, public infrastructures, land use planning policies and housing programs (Polèse and Stren, 2000).

At the turn of the twentieth century, differences in quality of life and health among social groups in the big cities of the industrialized world were appalling. Montréal held the title for the worst infant mortality rate. Pasteurization of milk and development of vaccines had the combined effect of extending the life expectancy of city dwellers, especially the youngest. The tremendous progress made during that period was due to the action of committed medical officers of health and reform-minded politicians. Municipal authorities also played significant roles, and the introduction of clean piped water and sewage systems greatly improved the living conditions and health of urban populations (Ferriman, 2007).

At the turn of the twentieth century, differences in quality of life and health among social groups in the big cities of the industrialized world were appalling. Montréal held the title for the worst infant mortality rate, with more than one child out of every four dying before the age of one. In his book **Histoire de Montréal depuis la Confédération,** historian Paul-André Linteau examines the connections between the mortality and morbidity rate among Montrealers and the sanitation and housing conditions that prevailed in the city's working class neighbourhoods. (Linteau, 2000)

A number of studies in recent years have refocused attention on characteristics of the built environment of our urban centres as factors that can help promote health. In raising the subject, the DSP would like to take the opportunity to call for a renewal of the tradition of public health professionals working together with local authorities to ensure that Montrealers in all neighbourhoods are adequately housed, have access to healthy food and can get around safely in a healthy environment.

Many recent reports (UK Department of Health, 2010; Frank et al., 2008; Duhl and Sanchez, 1999) see local actions and initiatives as key to improving living conditions in our cities. Globally, strategies such as WHO's Healthy Cities Projectand Agenda 21 have been specifically devised to encourage local communities to play active roles, within a framework of sustainable development, in areas as varied as the fight against poverty, health promotion, housing, air quality and waste management.

Housing

In Canada, responsibility for housing is shared among several levels of government. In the mid-1980s, the federal government's gradual withdrawal of contributions to the construction of social housing contributed greatly to a rise in rents across the country (Séguin and Villeneuve, 1999). The immediate result was to make access to decent and affordable housing difficult for low-income earners, for whom paying the rent often meant doing without other things. In a report on Canada published in 2009, the special rapporteur for the UN Human Rights Commission, Miloon Kothari, identified Canada's most vulnerable groups: the homeless and people at risk of homelessness, low-income women and Aboriginals battling with overcrowded and inadequate housing conditions as well as difficulties in access to basic services on reserves (UN Human Rights Council, 2009). The report notes the increase in housing prices and poor condition of Canada's housing stock, and criticizes the cuts in investments in social housing (UN Human Rights Council, 2009).

» Today, 22,000 Montréal households are on the waiting lists of the Office municipal d'habitation de Montréal.

A great many organizations, including advocacy groups for persons with HIV/AIDS, people with mental health problems and immigrants, tenant associations, real estate boards and anti-poverty groups (Canada Without Poverty, 2011) as well as some political parties, particularly the NDP (Open Parliament, 2011) regularly condemn the lack of a national housing strategy in Canada, the only G8 country not to have one.

Access to decent and affordable housing is difficult for low-income earners, for whom paying the rent often meant doing without other things.

Today, 22,000 Montréal households are on the waiting lists of the Office municipal d'habitation de Montréal (OMHM)[15]. Year in, year out, about 1,000 units are allotted. Yet the Office receives some 6,000 new applications a year and some Montréal boroughs have no low-rent housing for families with children or people under 65 who live alone. Some related municipalities have no social or community housing (Ville de Montréal, 2009).

The Québec-wide rental housing market has gone from a vacancy rate of about 7% in 1990 to a situation of scarcity, and the rate has hovered around 2% since the early 2000s in Montréal. Tight supply affects prices as well as availability of dwellings large enough to accommodate families with children. The residential construction market has been booming in recent years, but much of the activity has been centred on condos (Canada Mortgage and Housing Corporation's forecast was for 10,000 units in 2010), which are more profitable for contractors than rental housing units. In 2011, the vacancy rate on the island of Montréal averaged 2.5%, but only 1% for three-bedroom apartments, for which demand is highest (CMHC, 2011) and probably lower still for affordable homes.

Compared to Canada's other large cities, Montréal's rents are still "relatively affordable" according to the Canada Mortgage and Housing Corporation (CMHC, 2010). Perhaps so, but 39% of Montréal renters spend at least 30% of their income on rent, and 19% of them spend over 50% of their income on rent. Montréal's shortage of rental housing, especially larger apartments, has fuelled a steady rise in rents, which are estimated to have risen by nearly 29% since 2000 (IRIS, 2009). The following table (Figure 4.1) shows the average monthly rent for various types of housing and the corresponding annual cost. In the absence of social housing, when the percentage of income devoted to housing rises beyond a certain point, many poor households have no choice but to cut spending on other essential items.

15. Created in 2002 when former municipal housing authorities were merged, the OMHM manages a stock of nearly 30,000 units. Forty percent of low-rent housing residents are seniors, and the other units are occupied by families or people living alone. Another 7,300 units are made available under a rent supplement program (Programme de supplément au loyer – PSL) through which the Office signs agreements with nearly 1,500 landlords to make up the difference between the median private market rent and the share paid by the tenants. As in the cases of low-rent housing tenants, their share is 25% of the household's combined income (OMHM, 2011).

Figure 4.1. Average rent in 2010 on the island of Montréal (private apartments)

	studio	1-bedroom	2-bedroom	3-bedroom	Average rent
monthly	$531	$636	$715	$909	$688
annual	$6,372	$7,632	$8,580	$10,908	$8,256

Data source: CMHC, 2010.

A whole range of factors has contributed in recent years to the rising cost of housing, especially in the big cities, and Montréal is no exception. The situation here may be less dramatic than in Toronto or Vancouver, but an average monthly rent of $715 for a two-bedroom dwelling in Montréal adds up to an annual expenditure of $8,580 (CMHC, 2010). This being the case, the many Montréal tenants who do not have access to subsidized housing are forced to devote a significant part of their incomes to rent: 39% of Montréal tenants spend at least 30% of what they earn on rent, and for 19% of them, rent takes up at least 50% of their monthly income. Housing is a fixed expense that cannot be lowered and once it is paid, low-income earners have little money left over for other needs and contingencies.

For people living alone receiving last-resort assistance benefits, which amount to an annual total of $7,312 (in 2009), once the rent is paid, even on the least expensive studio costing $531 a month, they have less than $1,000 left over to feed and clothe themselves for the whole year. In addition to being unable to meet their other needs, people living alone feel the impacts of poverty on their physical and mental health, which can rapidly compromise their ability to participate fully in society and find a job.

» In 2011, the vacancy rate on the island of Montréal averaged 2.5%, but only 1% for three-bedroom apartments, for which demand is highest.

The low vacancy rate is obviously to the advantage of all owners, but especially to investors who do not live in the buildings. Because of the shortage of affordable housing, there are takers for even the most substandard dwellings, where lack of maintenance creates health risks for the occupants. After conducting a longitudinal study, a Canadian interdisciplinary research group recently concluded that people who are vulnerably housed face the same severe health problems as people who are homeless; they are at high risk of serious physical and mental health problems, problems accessing the health care they need, hospitalization, assault and going hungry (REACH[3], 2010).

For people living alone receiving last resort assistance benefits, which amount to an annual total of $7,312 (in 2009), once the rent is paid, even on the least expensive studio costing $531 a month, they have less than $1,000 left over to feed and clothe themselves for the whole year.

Every year, many inspection requests are made by Montréal doctors who suspect housing conditions to be the underlying cause of medical problems. Over the last two years, the DSP has carried out about 200 investigations in buildings where there have been health risks for the occupants. DSP staff members reported that the poorest tenants were not always able to complete the necessary formalities (sending a letter by certified mail, for example) and were not fully aware of their rights and of the procedures to follow. They rarely file complaints for fear of retaliation (eviction, for example) or having to foot the bill.

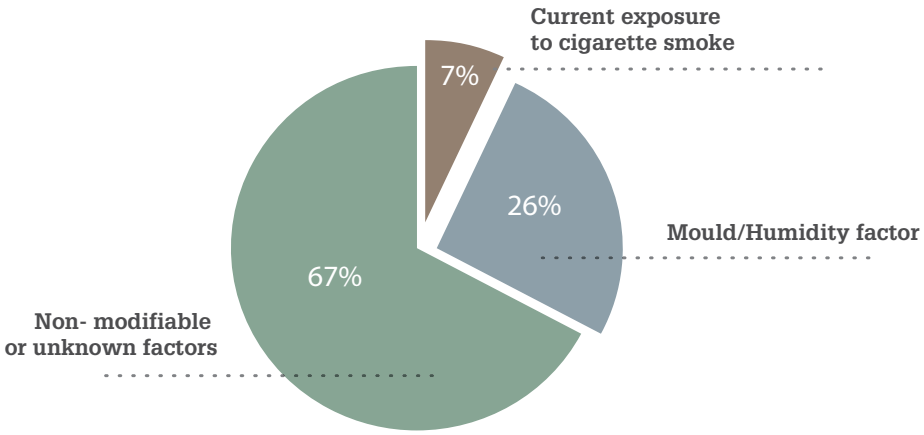
A DSP team recently conducted an epidemiological study on the respiratory health of nearly 8,000 Montréal children aged 6 months to 12 years (Jacques et al., 2011). The study shows that the prevalence of active asthma, respiratory infections and winter allergic rhinitis–the most prevalent illnesses in children–varied by a factor of three or more depending on the district of residence. The study documented the relationship between excessive humidity and mould and the three types of illness (see the example for two types of respiratory infections presented in Figure 4.2). Of the main modifiable risk factors involved, humidity and mould accounted for 26% of the respiratory infections, 17% of the active asthma cases and 14% of the cases of winter allergic rhinitis. By way of comparison,

exposure of children to second-hand tobacco smoke accounted respectively for 7%, 19% and 6% of the cases of these infections. Excessive humidity and mould are very widespread. The same study estimated that 37% of children in Montréal were living in dwellings where there were one or more signs of excessive humidity or mould, a figure which reached 52% in the most affected district.

Figure 4.2. Percentage of cases attributable to risk factors for the main two types of respiratory infections*, island of Montréal, 2006

Adapted from Jacques L et al., 2011:26.

* Otitis or sinusitis and bronchitis, bronchiolitis or pneumonia, in the last twelve months



Data source: Étude sur la santé respiratoire des enfants montréalais de 6 mois à 12 ans, ASSS de Montréal 2011.

Humidity and mould are not the only things causing housing-related health problems. Various mental health disorders such as stress, depression and anxiety are associated with uncleanliness and the presence of vermin. For about ten years now, bedbug infestations have been on the rise again in Montréal and most large urban areas in North America. Another study done in Montréal has shown that, aside from skin problems, bedbugs can cause anxiety, depressive disorders and sleep disorders; 70% of adult tenants exposed to bedbugs reported sleep disorders (difficulty getting to sleep and interruption of sleep) (Susser et al., forthcoming).

DSP staff members reported that the poorest tenants were not always able to complete the necessary formalities (sending a letter by certified mail, for example) and were not fully aware of their rights and of the procedures to follow. They rarely file complaints for fear of retaliation (eviction, for example) or having to foot the bill.

Since the occupants of buildings most likely to be infested are often more vulnerable (low-income earners, recent immigrants), their resilience is even more threatened by the risk of isolation. Whether the problem be bedbugs or other parasites like cockroaches, inappropriate use of pesticides can also worsen health risks for occupants. Yet that is probably what often happens when the landlord takes too long to do anything, or simply when the tenants decide to act on their own to avoid being stigmatized.

When an infestation occurs, the success of the response depends on how quickly the building owner calls in a professional exterminator, and on close cooperation among tenants, landlords, exterminators and municipal authorities. The role of the latter becomes even more important when owners delay taking action. It should be noted that there are no public health inspectors in Québec like there are in most Canadian provinces.

Between 2006 and 2010, the number of bedbug infestations requiring intervention by the OMHM jumped by eight and a half times. According to an Omnibus survey conducted in March 2010, 2.7% of all Montréal households had found bedbugs in their homes during the preceding year. Bedbugs are “equitable” in the sense that they do not distinguish between rich and poor. Their higher incidence in disadvantaged areas is due to the inadequate resources devoted to infestation control (DSP, 2011a).

Nutrition and people with low income

Healthy eating

Nutrition, one of the major determinants of health, is conditioned by a host of cultural, social, economic and environmental factors. In recent years, there have been countless promotional campaigns to change people's eating habits and get them to eat foods like fruits and vegetables, whole grains and dairy products, in an effort to help prevent a range of health problems such as cancer, obesity, diabetes, osteoporosis and cardiovascular disease (Health Canada, 2011).

Eating habits in Montréal are relatively well documented. A nutrition survey[16] that has been conducted since 2002 confirms the influence of income and education levels on the quality of the food Montrealers eat (DSP, 2008a).

Is eating well a matter of knowing better?

If there is a connection between education level and nutrition, it is likely due to the effect of education on income rather than any lack of knowledge about nutrition. Contrary to popular belief, several studies have shown that poor households fail to follow nutritional guidelines not because they are lacking in health literacy, but because of the obstacles in terms of accessibility (Kennedy, 2001). One participatory study done in Montréal to assess the nutritional knowledge and practices of low-income parents came to the following conclusion: these families do not form a homogeneous group, and neither a lack of knowledge nor of cooking and budgeting skills is at issue, especially among least advantaged (social assistance recipients or single-parent families) (MDD, 2009).

16. Since 2002, a nutrition section has been included in the DSP's biannual survey on the lifestyle habits and health of Montrealers. This nutrition section is intended to generate new insights into eating habits by documenting the relationships between consumption of fruits and vegetables, milk and cheese, whole-grain products and legumes and a range of characteristics of the population (DSP, 2009).

Geographic accessibility

Food supply unquestionably influences patterns of consumption of healthy products, but several factors need to be considered to explain this influence. One study that mapped the availability of healthy foods showed that 40% of the population in the central and eastern sections of Montréal did not have access to an adequate supply of fruits and vegetables within walking distance of their homes. However, the study did not establish a clear relationship between median income and food supply in the neighbourhood units (dissemination areas) (Bertrand, Thérien and Cloutier, 2008a). Moreover, Montréal does not seem to have any "food deserts", to borrow an expression used in British studies to describe disadvantaged neighbourhoods where supply is deficient. For example, Montréal's multi-ethnic neighbourhoods are dotted with small shops that complement the supermarket offering of fresh and exotic products, often at competitive prices.

» One participatory study done in Montréal to assess the nutritional knowledge and practices of low-income parents came to the following conclusion: these families do not form a homogeneous group, and neither a lack of knowledge nor of cooking and budgeting skills is at issue, especially among least advantaged (social assistance recipients or single-parent families)

Moreover, geographic accessibility does not explain everything. Food prices are an obstacle that simply cannot be ignored. The objective needs to be access to basic items that everyone can afford.

The income effect

In 2011, according to the Nutritious Food Basket[17] (NFB) pricing list, it costs $7.19 per person per day to prepare three meals (for a family of two adults and two children). This adds up to over $860 per month (using 30-day months), which is about the same amount as the rent, for a total of nearly of $10,500 a year to cover the nutritional needs of a family of four on a small budget.

Under these circumstances, it should hardly be a surprise that so many people do not have enough to eat. According to the 2009-2010 annual report of Moisson Montréal[18], the number of people using food banks rose by 22% in a single year (Moisson Montréal, 2011). Every month, over 140,000 Montrealers now rely on food banks.

For people in low-income groups, the cost of food is unquestionably an essential determinant of access to healthy foods. According to a study by the Montreal Diet Dispensary (MDD), after paying their rent and other incompressible expenses, families on social assistance only have 21% of their budget left over for food. Yet buying the essential nutritious foods in the NFB would require them to spend 32% of their income (MDD, 2006).

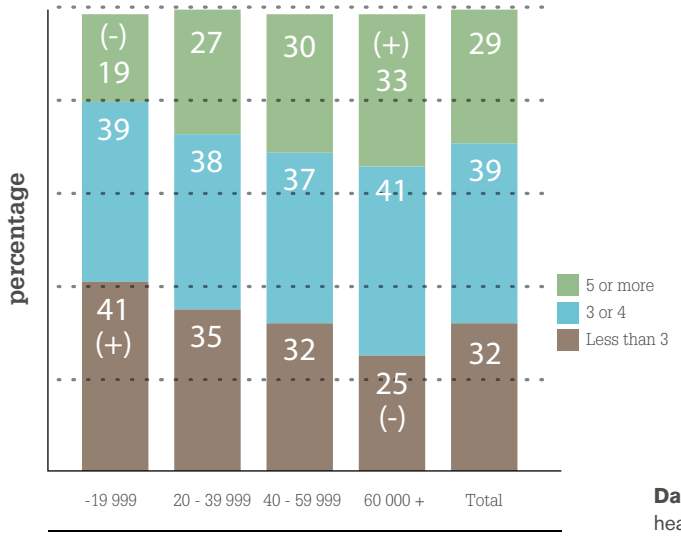
According to the federal Market Basket Measure, a Montréal family of two adults and two children would need to have an income of at least $27,319 a year (after taxes, payroll taxes, deductions at source and other expenses) to cover its basic needs, including an adequate amount of healthy food. Since many Montrealers are far from having that much income left over for food, healthy eating cannot be considered a question of behaviour.

17. The Montreal Diet Dispensary (MDD) determines a minimum cost using the Nutritious Food Basket containing 69 foods required to meet basic nutritional needs on a small budget. This minimum cost does not include any extras and can even require buying more canned or frozen fruits and vegetables than fresh produce.

18. Founded in 1994, Moisson Montréal distributes food to 211 organizations on the island of Montréal. In 2009, it reported an increase of nearly 17% in the number of households using emergency food aid, including many Montrealers who had some employment income and, of course, many children (nearly 40,000) (Moisson Montréal, 2010).

The chart below shows to what extent consumption of fruits and vegetables varies by income group. Only 19% of people whose family income is less than $20,000 a year eat five servings of fruits and vegetables a day; this is the lowest rate of all income groups. In addition, 41% of low-income family members eat less than three portions of fruits and vegetables, compared to 25% of people whose annual incomes are $60,000 and over. In both cases, the social gradient in nutrition could hardly be more evident (Figure 4.3).

Figure 4.3. Distribution of Montrealers aged 15 and over, by family income and daily frequency of fruit and vegetable consumption, 2010 Adapted from Bertrand L, Thérien F, 2011.



Data source: Biannual survey of health determinants, DSP 2010

The minimum NFB prices as calculated by the MDD add up to more than what low-income families actually spend to feed themselves (Figure 4.4). The above-mentioned participatory study to evaluate the knowledge of low-income parents showed that participants spent less to feed their families (with grocery receipts as proof) than the daily estimated NFB amount, that is, sometimes less than $5 a day, per person, for three meals. The observed differences in the amounts in Table 4.4 can be explained as follows: while many of the participants in the first phase of the study, who were mostly women, cooked regularly with basic ingredients, participants in Phase 2 had less time to cook and served more prepared foods. If there is one fact that is worth remembering, it is that having an employment income is no ticket to the high life; in 2010, 13% of the households assisted by Moisson Montréal had employment incomes (Moisson Montréal, 2011).

Figure 4.4. Estimated food expenditures per person per day vs cost of NFB, 2007

Adapted from DDM, in collaboration with DSP, 2009:3.

	Family characteristics	Food expenditure	Cost of NFB
Phase 1 may 2007	Single-parent families, social assistance	$4.50	$6.32
	Two-parent families, social assistance	$4.65	
	Low-wage families (< $30,000/year)	$5.54	
	Average	$4.88	
Phase 2 september 2007	Families with incomes < $30,000/year	$6.49	$6.67

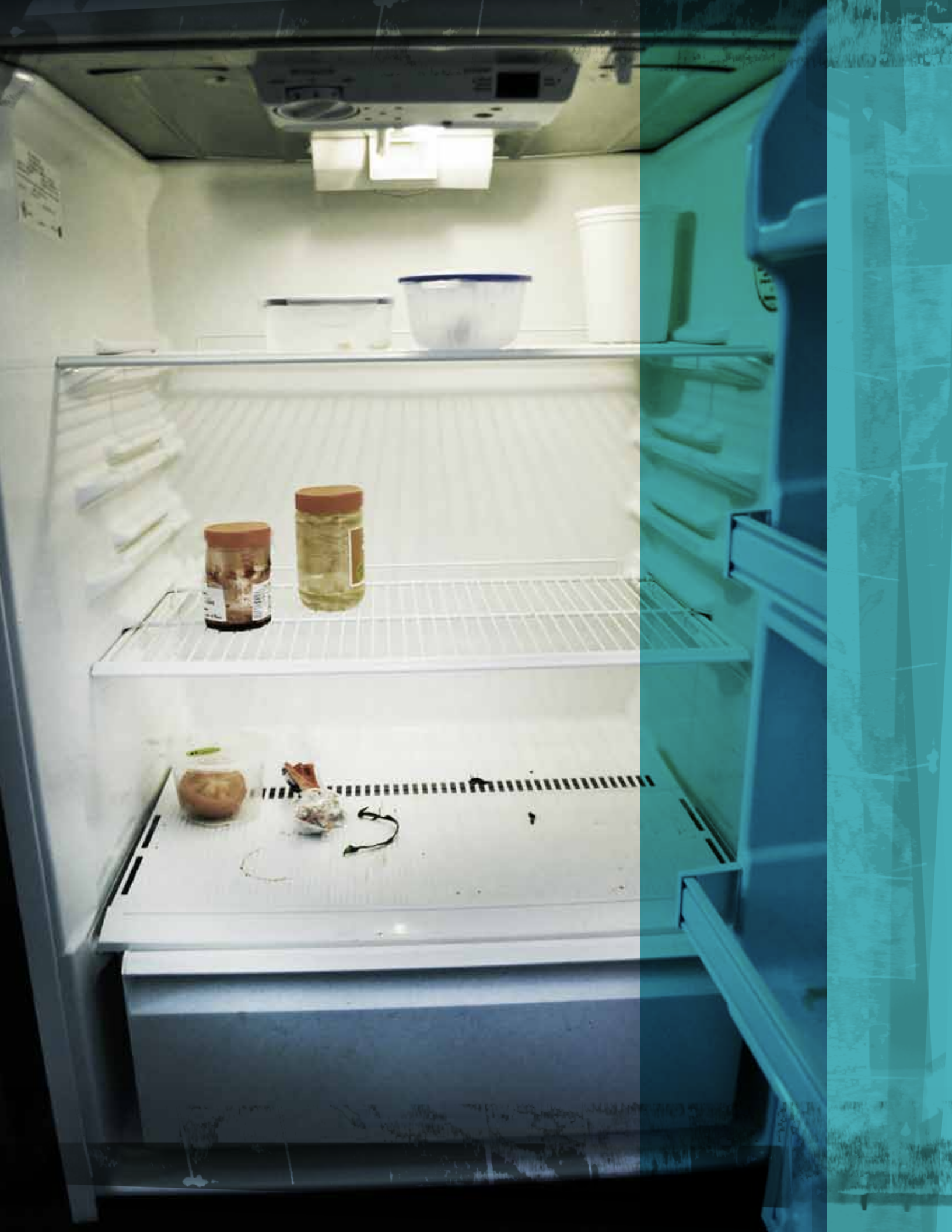
Data source: Étude sur le coût du panier à provisions nutritif dans divers quartiers de Montréal, MDD 2007.

Limited financial resources remain the main obstacle to healthy eating.

Food insecurity

When a sizeable portion of one's income goes to paying the rent, the budget for food is limited. It is not unusual under such circumstances for food insecurity to occur, with the attendant risks of privation for parents and their children. And when food insecurity implies going to a food bank, that is an additional blow to the sense of dignity and self-esteem of people living in poverty.

For low-income families whose means are limited, the nutritional quality of food is less important than its quantity. Then, there is the added stress of wondering whether there will be anything to put on the table, or enough to feed the whole family. This is why the concept of food insecurity as it is used in Québec is not confined to lack of food, but also considers the fear of not having enough food and the constraints that force people to choose food items that are less nutritious.



In Montréal, 17% of the population suffers from food insecurity, according to a DSP survey that asked people questions about lacking food or fearing a lack of food because they did not have enough money (DSP, forthcoming). Another survey done by the DSP in 2007 found that 8.7% of households ran short of food at least once during the year, some more than once, and that 11.2% of households worried about not having enough food (DSP, 2008a).

In recent years, the concept of food security has driven a variety of public health initiatives aimed among other things at strengthening local communities' capacities to act within a framework of sustainable development. For example, by connecting an improved supply of quality food products with neighbourhood revitalization, or advocating the creation of public spaces that lend themselves to small-scale markets or community gardens, this strategy seeks to bring together conditions that favour the best possible nutrition for everyone (DSP, 2008a). Such initiatives, like cooking workshops and community kitchens, can be organized locally and most certainly contribute to making healthy products more available. This being said, there can be no doubt that limited financial resources remain the main obstacle to healthy eating.

» Another survey done by the DSP in 2007 found that 8.7% of households ran short of food at least once during the year, some more than once, and that 11.2% of households worried about not having enough food.

Motor vehicle traffic and social inequalities in health

People living on or near major arteries face two problems–air quality and safety of movement–that have one thing in common: both are traffic-related determinants of health that can be acted on locally.

Back in 2006, the Montréal Director of Public Health's Annual Report on urban transportation drew attention to the scale of the health problems caused by the growing number of fossil fuel-burning motor vehicles[19] and daily automobile trips

19. The population of the island of Montréal is roughly 1.85 million, and a total of 3.6 million people live in the Greater Montréal region. A study done in 2007 by the Centre Léa-Roback estimated that 1.3 million vehicles entered and left the island of Montréal via the 19 entry and exit points that existed at the time (Côté, 2007).

on the island of Montréal. In addition to road injuries, the report presented an in-depth analysis of the impact of transportation-related air pollution on health, particularly in urban areas (DSP, 2006). Poor air quality increases the number of hospitalizations and deaths due to chronic diseases, especially respiratory diseases[20].

The most recent origin-destination survey published in 2008 noted an increase in the proportion of public transit trips in and toward Montréal—an increase of 16% over 2003 during morning rush hour—and a decrease of 6% in the number of automobiles on the road in Montréal. In the Greater Montréal region, the percentage of households owning at least one automobile increased slightly from 78.8% in 2003 to 79.6% in 2008. The car ownership rate is obviously much higher in the north and south suburban rings (94% in 2008) than on the island of Montréal (67%). Still, much remains to be done, and there is no question that more money will have to be invested in public transit.

Road accidents: crushing impacts on health

Between 1999 and 2008, 9,411 pedestrians and 9,266 cyclists were injured in road accidents in Montréal and required ambulance services. These figures include 1,799 pedestrians and 1,972 cyclists aged 5 to 17. The map of the downtown area (Ville-Marie borough) presented on Figure 4.5 shows that the problem is not confined to a few intersections.

20. For a detailed description of the impacts of urban transportation on the health of Montrealers, the 2006 report is still relevant. In this section, transportation is being considered primarily from the point of view of the relationship between motor vehicle travel and social inequalities in health. Active transportation is discussed in the next section in relation to urban design and development.

Figure 4.5. Distribution of injured pedestrians, Ville-Marie borough, 1999-2008

Adapted from Morency P, Tessier F, forthcoming.

* Victims of road collisions that required an ambulance intervention

** 1 January 1999 to 31 July 2008

Source: *INJURED ROAD USERS:* Urgences-santé. *ROAD NETWORK:* City of Montréal.

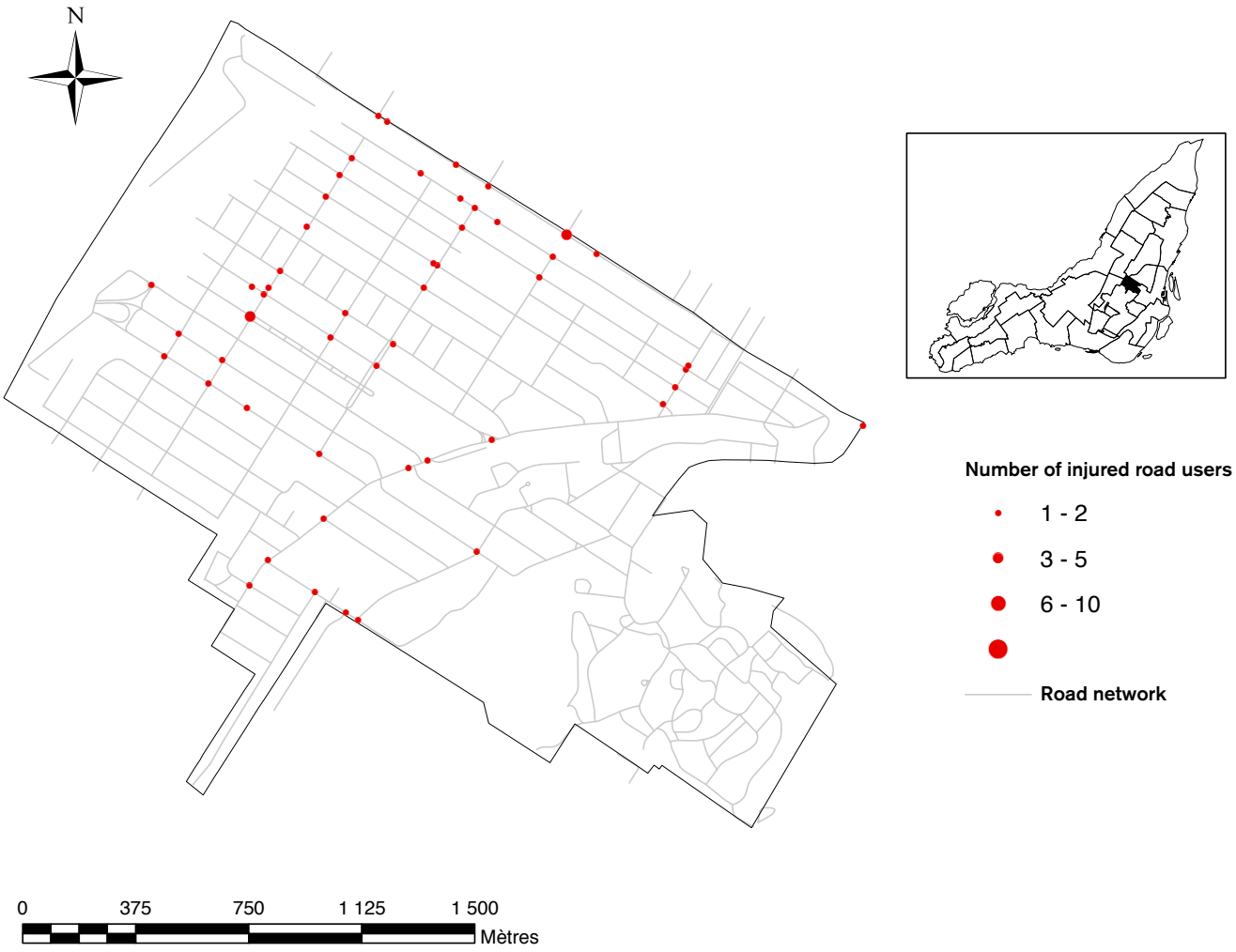
There is a surprising contrast between the neighbourhoods of Rosemont–La Petite-Patrie, Hochelaga-Maisonneuve and Plateau-Mont-Royal, on the one hand, and the borough of Outremont[21]and the cities of Westmount and Town of Mount Royal, on the other. In the well-to-do neighbourhoods, streets and main arteries were probably designed with the peace, quiet and safety of residents in mind rather than the free flow of traffic. Unfortunately, in most Montréal neighbourhoods, motor vehicles take

21. Outremont has only been part of Montréal since 2002, and Town of Mount Royal, which was developed on the "garden city" model, became independent again in 2004.

precedence over pedestrians and cyclists. In Montréal's poorest census divisions, there are more arteries and more motor vehicle traffic, both of which are associated with a high risk of collision and injury. The resulting relative difference in the number of accidents is striking, as evidenced by accident surveys in the boroughs of Plateau-Mont-Royal and Outremont (Figures 4.6 and 4.7).

Figure 4.6. Distribution of injured pedestrians, Outremont borough, 1999-2008

Adapted from Morency P, Tessier F, forthcoming.



* Victims of road collisions that required an ambulance intervention
** 1 January 1999 to 31 July 2008

Source: *INJURED ROAD USERS:* Urgences-santé. *ROAD NETWORK:* City of Montréal.

A Montréal study reports that the rate of collision-related injuries (cyclist and pedestrians combined) is four times higher among children in the poorest neighbourhoods; for young pedestrians only, it is six times higher

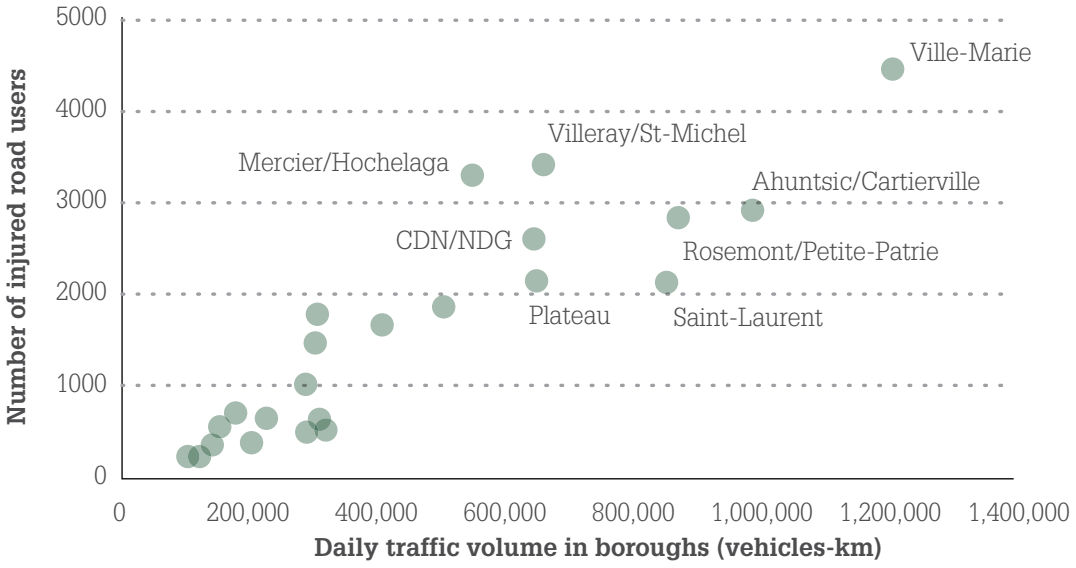
Figure 4.7. Distribution of injured pedestrians. Plateau-Mont-Royal borough, 1999-2008 Adapted from Morency P, Tessier F, forthcoming.

* * Victims of road collisions that required an ambulance intervention
** 1 January 1999 to 31 July 2008

Source: *INJURED ROAD USERS:* Urgences-santé. *ROAD NETWORK:* City of Montréal.

Traffic volume seems to be one of the major factors behind the number of accidents, as we can see in the following chart:

Figure 4.8. Number of injured road users increases with traffic volume in boroughs Adapted from Drouin L et al., 2007: 8.



* Includes pedestrians, cyclists, motorcyclists and motor vehicle occupants.
** Overall volume of vehicle traffic, excluding expressways.

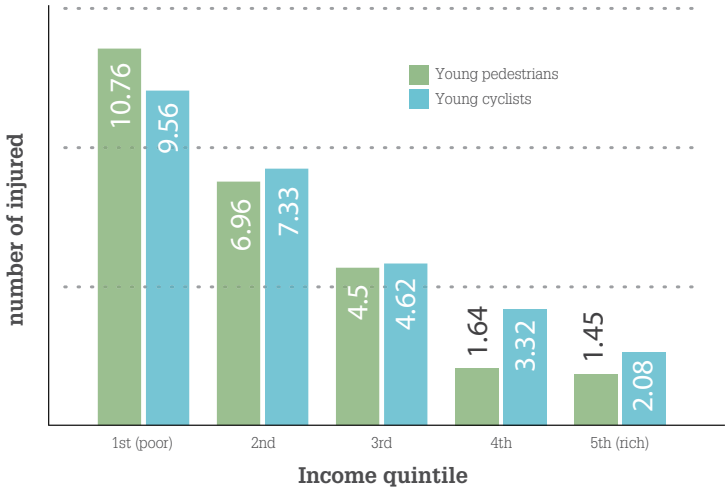
Data source: INJURED ROAD USERS: Urgences-santé. TRAFFIC VOLUME: Enquête O-D 1998 (C Morency). BUROUGHS 2001: City of Montréal.

A question of volume and urban design

Although the volume of traffic is clearly part of the problem, it is not the whole story. Affluent municipalities on the island of Montréal, including Westmount which borders on downtown, have excellent records in terms of injuries of pedestrians, cyclists and drivers at intersections. Road accidents are undeniably another source of social inequality given the sharp socioeconomic divide that is readily apparent in the chart below (Figure 4.9). This more positive situation in the affluent neighbourhoods is undoubtedly due to design decisions made at the local level which placed more emphasis on pedestrian and cyclist safety.

Figure 4.9. Number of children injured at 100 intersections, by average family income in the boroughs or cities (island of Montréal)

Adapted from Morency P, Tessier F, 2010.



Data source: INJURED ROAD USERS: Urgences-santé 1 January 1999 to 31 July 2008. REVENUE: 2006 Census, Statistics Canada BUROUGHS AND RECONSTITUTED CITIES 2010: City of Montréal.

Local choices

The provincial and federal governments' road infrastructure programs have a huge impact on living conditions and population health (Lessard, 2009; DSP, 2008b). Nevertheless, local initiatives can make a difference.

In Québec, as in Montréal, road accident mortality and hospitalization rates are highly associated with material deprivation (Hamel and Pampalon, 2002). A Montréal study reports that the rate of collision-related injuries (cyclists and pedestrians combined) is four times higher among children in the poorest neighbourhoods; for young pedestrians only, it is six times higher (Dougherty et al., 1990). Social position partly determines the occurrence of injuries (Laflamme and Diderichsen, 2000). According to the Laflamme model, social position can influence exposure to risk of collision as well as risk of injury associated with exposure (Laflamme et al., 2009). The poor rely more on walking and public transit to get around (Chapleau, 2004). Non-ownership of an automobile is associated with walking to go to school, number of streets crossed and total daily amount of time spent walking (Rao et al., 1997; Roberts et al., 1997). According to a case-control study done in Auckland, New Zealand, the risk of being hit by a car is twice as high for children of families

that do not own a car (Roberts et al., 1995). In California, the poorest neighbourhoods are three times more likely to be exposed to high traffic volumes (500,000 vehicles per square mile) (Gunier et al., 2003).

Applying the principles of sustainable mobility and traffic calming can be a winning strategy to reduce social inequalities in health. For example, in the United Kingdom, a city that implemented wide area traffic calming measures on almost all of its territory reduced the ratio of injury rates between the least and the most affluent neighbourhoods from 3.2 to 2 between 1992 and 2000 (Jones et al., 2005).

Strategies to reduce the overall volume of vehicle traffic include better public transit coverage, coherent management of the supply of parking spaces, and tax or other financial measures (congestion charges, for example). Other more local strategies seek to reduce the volume of transit traffic and vehicle speeds in neighbourhoods. They include a wide range of traffic calming measures that have proven effective in reducing the number of people injured by motor vehicles and improving the quality of life in neighbourhoods (Elvik, 2001; Bunn et al., 2003; Morrison et al., 2004). A meta-analysis has shown that these measures can result in a significant decrease in the number of people injured on residential streets (25%) and arterial roads (10%). The beneficial effect of traffic calming has been demonstrated by studies in many countries over the last three decades. The decrease in the number of collisions appears to be proportional to the reduction in the volume of traffic, but other factors are also at play (reduced speeds, for example).

Finally, we should remember that the first to benefit from a sustainable community are children. They are more vulnerable than adults to poor air quality and, given the amount of walking and biking they do every day, they are also more exposed to road accidents.

» Considering that most low-income people do not get around by car, access by transit to jobs that match their skills is absolutely crucial.

Public transit: a winning strategy to reduce social inequalities in health

Access to public transit is another area where we see significant inequalities based on socioeconomic status. An analysis published by the Brookings Institute in May 2011 shows to what extent the economies of large metropolitan centres are dependent on the ability of transit systems to get workers to where the jobs are. It also highlights the considerable variations in the level of transit service from one city to another and even within the same city. The Brookings Institute study estimates that on average, in the United States, 33% of jobs requiring highly qualified labour are well serviced by public transit—undoubtedly because jobs of this type are usually concentrated in the urban core where transit lines normally converge—compared to 25% of jobs requiring workers with few or no qualifications and generally located in the periphery (Tomer et al., 2011).

» Some Canadian cities like Saskatoon charge a reduced rate—its Discount Bus Pass costs $15—to low-income earners (people on social assistance, new job market entrants, workers receiving income supplement benefits) to lower their transportation costs and improve their mobility.

Public transit is an issue for businesses and cities, but also for individuals. Considering that most low-income people do not get around by car, access by transit to jobs that match their skills is absolutely crucial. In Montréal, the percentage of car-less households doubles from high to low socioeconomic level: only 21.7% of people in the most affluent quintile do not have cars, compared to 40.2% of people in the least affluent quintile. In 2006, the Annual report of the Director of Public Health noted that "here as well, the organization of transportation can engender inequalities with respect to access likely to lead to social and health inequalities" (DSP, 2006).

A geo-referencing study done by the Centre Léa-Roback, which cross-referenced data from the origin-destination survey, the census and the Société de transport de Montréal with the material characteristics associated with the deprivation index, found that density of bus stops is higher in more affluent neighbourhoods (Charafeddine et al., 2008). Service in disadvantaged neighbourhoods is inadequate because of both frequency of service and bus routes, meaning that

residents of these neighbourhoods are limited in their ability to get around, especially in their own neighbourhoods, to tend to their activities of daily living (e.g. doing errands, going to medical appointments). Cost of transportation further limits access to public transit. Acknowledging this fact, some Canadian cities like Saskatoon charge a reduced rate–its Discount Bus Pass costs $15–to low-income earners (people on social assistance, new job market entrants, workers receiving income supplement benefits) to lower their transportation costs and improve their mobility (Lemstra and Neudorf, 2008). In France, public transit fares are based on the right to mobility, so reduced fares are available for seniors, students and recipients of social assistance and unemployment insurance.

In Montréal, the monthly transit pass for an adult currently costs $72.75, which represents over 5% of the monthly salary of a worker earning the minimum wage, providing he or she is lucky enough to work 35 hours a week. Considering that a single ride currently costs $3 (or two tickets for $5.50), many low-income people have to think twice before taking the bus or metro. As we have already mentioned, many low-income parents only have $5.50 a day to feed each of their family members.

In its notice to the Minister of Employment and Social Solidarity on the impacts of fare hikes, the Comité consultatif de lutte contre la pauvreté et l'exclusion sociale stated that reasonably priced public transit was essential to promote social inclusion and sustainable development (CCLP, 2008). Better funding for public transit and better service in disadvantaged neighbourhoods would help increase the mobility of low-income people who live there, and help reduce the risks of social exclusion. In addition, a more effective and affordable transportation system could go a long way to reducing vehicle traffic on the island of Montréal, which generates pollution and causes many accidents, a disproportionate number of whose victims are socioeconomically disadvantaged.

Neighbourhood design

Aside from designing streets and roads to reduce traffic and increase pedestrian safety, a range of other urban planning measures can also be effective means of reducing health inequalities among Montrealers. The neighbourhood is not the only factor that counts, of course, but those who are "trapped" there are all the more vulnerable because their mobility is limited. This is the case for seniors, children and people with disabilities. The neighbourhood remains the main pool of resources for disadvantaged individuals (Centre Léa-Roback, 2007).

Montréal's Master Plan starts by recognizing the important role played by urban planning and development in the viability of communities and the diversity of urban experiences. It adds that "the quality of the urban environment has impacts on public health. Therefore the Master Plan supports an ensemble of measures linked to the quality of dwellings, public facilities, nature areas and the environment, in order to improve the quality of life of Montrealers" (Ville de Montréal, 2004). Of the Plan's seven planning goals, high-quality, diversified and complete living environments top the list. The Plan calls more specifically for improvements to the quality of existing living environments and the construction of 60,000 to 75,000 housing units by 2014 to attract new households to Montréal (Ville de Montréal, 2004). The following section looks at the connections between built environment and social inequalities in health.

Access to parks and public sports facilities

The persistence of urban planning-related social inequalities in health is also worrying when we consider access to parks. Having a park, nature area or sports facility nearby has a tremendous effect on people's levels of physical and sports activity. This is particularly true for families with small children, who tend to be more captive in their neighbourhoods and cannot afford memberships at private facilities. A study has found that children in neighbourhoods where there are more parks report being more active than other children. On top of that, the authors suggest that the likelihood of children walking to get to school or just for fun increases by over 50% when the environment is pleasant to walk in (Barnett et al., 2009).

An earlier study on the population's use of parks in Montréal based on their health status (poor, average or good) found that parks where facilities were unattractive, covered with graffiti or poorly lit were associated with CLSC districts where the level of health was poor. Furthermore, people felt less secure when the parks were located near abandoned buildings, industrial parks or heavily travelled roads (Bédard and Jacques, 2010).

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A geomatic study of park spaces in eight materially disadvantaged boroughs shows that the situation varies among and within the boroughs. The Sud-Ouest borough has 36 parks for 10,000 families, while Côte-des-Neiges–Notre-Dame-de-Grâce only has nine parks for the same number of families (Bédard and Jacques, 2010). The Mercier-Ouest section of the Mercier–Hochelaga-Maisonneuve borough has quite a few large parks, but none have any of the water features found in the small parks scattered throughout the Hochelaga-Maisonneuve section (Bédard and Jacques, 2011).

A second section of the same study on access to parks looked at the safety of adjacent intersections and connections with the bike path system. According to an analytic profile drawn up for the Mercier–Hochelaga-Maisonneuve borough, only 6 parks out of 21 are directly connected to the bike lanes that extend into residential areas. No bike paths go directly to the borough's metro station. Most of the bike lanes run east-west and 21% of them are not continuous. Various obstacles, including the Mercier-Est railway tracks, further complicate moving around in the borough, especially in the southern portion.

In summary, according to the study's authors, physical obstacles, hard-to-access crossings, especially for parents pushing baby carriages, and inadequate road signage are among the factors that limit access to parks. This has a particularly negative effect on the level of physical activity of young children (Bédard and Jacques, 2011). From a public health point of view, for people who do not have a car, these obstacles also make getting around more complicated and make it harder to access the resources they need in their daily lives and economic activities.

Heat islands

Urban heat islands are a new source of concern for public health authorities working to prevent deaths and illnesses during periods of oppressive heat. Given their connection with global warming, they represent a challenge both for the environment and for urban planning.

During periods of oppressive heat, some people are more at risk than others: seniors, people who are obese, chronically ill, mentally ill or disabled, people who are physically active, newborns and young children under the age of four, as well as people living in substandard housing

An "urban heat island" is an urban area where the maximum daytime and nighttime temperatures can range from five to ten degrees higher than in the immediate surrounding area. Some heat islands are caused by human activity involving such things as manufacturing plants, engines and air-conditioning systems. Others are related to land use, and result more from changes made to the city's surface and the reduction of green spaces (Guay and Baudoin, 2005).

Road surfaces, roofs and many buildings are built using dark-coloured materials that absorb heat during the day and give it off at night. Our streets and roads and large open-air parking lots, as well as the flat tarred roofs that are everywhere in Montréal, are major contributors to the problem. During heat waves, heat islands increase air pollution and aggravate the effects of smog and its harmful effects on health. Heat islands increase allergy rates and can cause respiratory and cardiovascular problems that contribute in no small way to excess mortality.

In the summer, it gets hotter in Montréal than in the countryside, which is one indication of the effect of vegetation on ambient air. There are also temperature differences of several degrees between the leafy neighbourhoods on the island and the more densely populated areas in the centre. One study has found that the mortality rate starts rising above 26 oC and rises significantly above 33 oC (Litvak et al., 2005). During periods of oppressive heat, some people are more at risk than others: seniors, people who are obese, chronically ill, mentally ill or disabled, people who are physically active, newborns and young children under the age of four, as well as people living in substandard housing (Guay and Beaudoin, 2005).

Dwellings located near expressways are particularly affected. For instance, people living near the Metropolitan Expressway, one of Montréal's heat islands, are subjected year-round to constant traffic noise and higher levels of air pollution than elsewhere in the city, but it all gets worse during a heat wave.

As Québec's former Commissioner for Sustainable Development Harvey Mead has said, bad development and design choices magnify the negative consequences for urban populations, and especially for disadvantaged groups.

The DSP began raising the issue of heat islands as part of its program to prevent deaths and illnesses associated with periods of extreme heat precisely because it is important to get the message to those who are the most affected. Dealing with the number, size, location and effects of heat islands in Montréal neighbourhoods is essentially a matter for urban planners and other people whose decisions determine the development of our built environment (DSP, 2011b).

Better urban planning is key to improving the wellness of people who live in our cities, especially of the least fortunate. As Québec's former Commissioner for Sustainable Development Harvey Mead has said, bad development and design choices magnify the negative consequences for urban populations, and especially for disadvantaged groups. On the other hand, good choices focused on the population's well-being are a very cost-effective way of spending public funds, and they often do more for economic development than policies and programs that are supposed to stimulate progress, business or industry. The former Commissioner's work on ways to measure improvements in the population's well-being is inspiring. Also, positive results can be achieved by combining local actions with a governmental sustainable development strategy that includes objectives, deadlines and relevant indicators. Civil society as a whole can do much to promote sustainable social development in our cities, as the involvement of many Montrealers in the City's Action Plan goes to show (Mead, 2009, Ville de Montréal, 2010).

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Conclusion and Recommendations

Mixed Results

We conclude with an encouraging observation: the life expectancy of Montrealers is longer now and the overall mortality rate has declined significantly over the past 20 years. Unfortunately, with a few exceptions, health disparities between rich and poor persist and there are still significant differences in health and mortality among the territories of the island of Montréal.

These inequalities, socially produced and therefore avoidable and unjust, influence health throughout life: low birth weight, premature mortality, accidental death among youth and numerous chronic health problems.

In Montréal, there are many vulnerable groups—including older people, low-income households, people living alone, immigrants and Aboriginal people—and their proportions are higher than in the rest of the province. Montrealers' incomes are lower than the average for residents of other Canadian cities. Consequently, we could expect even more glaring health inequalities than in other cities. Yet, the situation is more nuanced than we thought: life expectancy for men and women is comparable to that for residents in other cities, as is the rate for low birth weight. Montrealers are more likely to suffer from diabetes and have more sedentary leisure activities; conversely, they have fewer health-related activity limitations and eat more fruit and vegetables. Moreover, infant mortality and premature births are less common. Of note: a comparison with other Canadian cities, based on survey and hospitalization data, demonstrates that there are often fewer health inequalities between rich and poor in Montréal.

The mixed results reflect, on one hand, growing income inequality in Canada and, on the other, the positive effects of Québec's social policies, particularly those related to families. These social investments are starting to pay off. There is reason to suppose that all of Québec society would benefit from additional actions to counter exclusion and diminish the suffering of poor people, and to ensure they can participate fully in Québec's sustainable development.

The public health department's interventions

In Montréal, the Direction de santé publique (DSP) implements several programs on the island that are likely to reduce social inequalities in health at all stages of life.

The DSP intervenes with vulnerable pregnant women through the Integrated Perinatal and Early Childhood Services program (SIPPE), and actively promotes breastfeeding. Its primary vaccination programs are aimed at all young children in care settings on its territory.

More recently, the DSP has focused on preparing children for school by organizing summits on school readiness. The summits have led to intersectoral and community projects as well as to new research initiatives to better adapt public health interventions.

The DSP shows concern for more vulnerable groups by adapting its practices to various clienteles, such as patients with tuberculosis, injection drug users or homeless youth. A number of professionals at the DSP are also interested in clinical preventive services and critically examine the equitable nature of the care and services offered to the population.

The DSP's occupational health interventions favour early cancer prevention among the most vulnerable workers. It has also developed clinical expertise in this field that enables it to identify harmful exposures and advocate for fair compensation for exposed workers.

Working in conjunction with the Institut national de santé publique, the DSP has put together a research team that examines equity of access to primary care resources The work of this team has prompted Québec's Health and Welfare Commissioner to recommend stronger measures to make health care coverage more equitable. For almost 10 years now, the DSP has also housed the Léa Roback Research Centre on Social Inequalities in Health. The Centre evaluates best interventions to reduce social inequalities in health.

Through its Urban Environment and Health sector, the DSP is pursuing several targets for improvement of living conditions, including the availability of affordable and nutritious food; improvement of inadequate housing; elimination of heat islands; identification of risks of injury to pedestrians and cyclists; and evaluation of the health impacts of infrastructure improvement projects. The DSP, along with the City of Montréal and Centraide, funds collaborative intersectoral and community committees in city boroughs.

The DSP is publishing its regional public health plan concurrently with this report. The plan outlines the priorities the department plans to carry out with its regional partners, including the 12 health and social services centres (CSSS). The first priority is to reduce social inequalities in health. However, the Director of public health is very aware that there are limits to the actions he can undertake. He also must ensure that these programs do not themselves create inequalities,

as is sometimes the case for screening programs; offering health promotion or prevention programs without giving much thought to reaching the most deprived individuals can widen the gaps. The Director is committed, with **the CSSS and other partners, to making preventive services accessible to all and ensuring these services are used by all segments of the population. In this regard, implementing conditions to encourage breastfeeding is a priority because not only is this practice effective, it can also reduce social inequalities in health and have an impact over the long term.**

As such, the Director is calling on all stakeholders to collaborate to reduce social inequalities in health. He is appealing to the provincial and federal governments, who are responsible for broad social protection policies. He is also inviting cities on the island of Montréal, particularly the City of Montréal, to better coordinate their actions with those of the DSP so as to improve the health of all citizens. For ethical, civic and economic reasons (in this era of knowledge economy), the DSP and its municipal partners cannot simply leave a third of Montrealers behind. Health is an invaluable asset to which all citizens have a right. It fosters full participation in a region's community life and economic activities. In this sense, it benefits the entire community as well as each of its constituents.

Recommendations to Reduce Health Inequalities

As Sir Michael Marmot stated in his report as President of WHO's Commission on Social Determinants of Health, we can close the gap in social inequalities in health in a generation by tackling the inequitable distribution of power, money and resources, and by improving poorer people's daily living conditions.

All levels of government are involved in reducing social inequalities. They have the power to set forth and apply policies that support increased incomes, democratization of education, building and renovation of social housing, as well as delivery of preventive and curative social and health services. In this spirit, the Director addresses the first 6 recommendations to the Québec and Canadian governments; the latter's role is to support provincial governments through social transfers. He highlights the importance of broad housing policies and recognizes that the City of Montréal and other municipalities on the island are primarily concerned with improving Montrealers' living conditions, particularly through integrated urban revitalization initiatives. Therefore, the last four recommendations are directed to municipal authorities in particular.

Recommendation 1:
Improve the incomes of the poorest people

Forty years ago, Canada committed to reducing poverty among older people. Its success was acknowledged by international organizations such as OECD. However, over the past few years, the OECD has noted an increase of inequalities in Canada.

Households with incomes below the market basket measure threshold face significant health risks: it has been demonstrated that these families cannot devote an appropriate share of their budget to healthy foods. In most cases, the cause is not lack of knowledge about nutrition (which could be remedied by a health education program) but rather lack of money, as evidenced by the dramatic increase in use of food banks in Montréal. The Director of public health is favourable to the principles put forward in the Plan gouvernemental pour la solidarité et l'inclusion sociale 2010-2015, and salutes the provincial government's recent

efforts to improve the lot of single-parent families. The measures put forward should be renewed and enhanced. The Director insists on **the importance of increasing welfare rates, especially for people living alone considered employable.** Scale rates for last-resort benefits are clearly inadequate when compared with the market basket measure threshold, and recipients' health is endangered because they lack the resources to stay healthy.

Recommendation 2:

Increase access to government-funded early childhood centres (CPE) in low-income neighbourhoods

The OECD has emphasized Québec's efforts to implement redistributive measures related to family policy, in particular the reduced-contribution daycare program. Indeed, these childcare centres are one area in which Québec stands out from the rest of Canada, which lags behind significantly in terms of early childhood services. These universal measures, which also target gender equity, are similar to those in Nordic countries, who come out on top every year in the fight against poverty. CPE have proven not only to increase the number of women in the labour force in Québec—which helps increase family incomes—but also to reduce social inequalities in child development. Given the decline in the share of government-run childcare centres in relation to the overall number of daycare centres in Montréal, **the Director of public health recommends that various levels of government increase the geographical access and number of places in government-funded childcare centres in deprived neighbourhoods and broaden the economic accessibility of low-income families. He also recommends that we seek to enhance understanding of the main determinants for childcare attendance by low-income children.**

Recommendation 3:

Increase funding for social and community housing and ensure that the mechanisms used to set housing rental rates are rigorous and effective

Since the first annual report on social inequalities in health was published in 1998, the price of housing has continually risen in Montréal. A majority of low-income households do not benefit from subsidized housing and must deal with the price of rents in the private market. The growing portion of a household's budget required for rent means that there is less left over for other essential needs, with food being at the top of the list. **The Director recommends that funding for social and community housing be increased and that mechanisms used to set housing rental rates be rigorous and effective.**

Recommendation 4:

Maintain and develop the public health care system

The growing role of the private sector in the area of health is a constant concern, and for good reason. We note that while in general, deprived individuals and immigrants have less positive experiences with the public health system, the situation is more dramatic when they must use the largely private system, as is the case for psychotherapy and dental care. **The Director recommends that free and universal access to the health system be preserved, and that measures to develop the health system be taken, while bearing in mind the health problems affecting the poorest individuals.**

Recommendation 5:

Develop services and programs to better integrate immigrants

Since the 1990s, we have witnessed a demographic change in Montréal and many immigrants have found it difficult to integrate the job market. Services and programs must be adapted to these new needs, whether by improving recognition of qualifications–for prior training and previous work experience–or by upgrading services. Labour market integration is essential for successful and harmonious immigration. **The Director recommends that adapted services and programs be developed to better integrate immigrants and reduce their poverty.**

Recommendation 6:

Invest in public transport and make it more affordable

Deprived populations are more confined to their neighbourhoods and own fewer cars. Despite this situation, they are more likely to be subjected to the negative impacts of traffic volume (road accidents and poor outdoor air quality). It is imperative that public transport be developed. But it is especially important to do so for people at the bottom of the economic ladder, who depend on public transport to travel to work and participate fully in the community. **The Director recommends adding resources to improve the effectiveness of the public transit system so as to better serve all neighbourhoods, and to make public transport more affordable.**

Recommendation 7:

Introduce a process to evaluate the impacts on social inequalities

Cities have levers they can use to reduce social inequalities in health, such as policies on sport and recreation, administration of last-resort programs and development plans. The City of Montréal is already pursuing a policy of sustainable development that should include social development, a component of which is equality. **The Director recommends the following: Similar to what the provincial government has been doing in the area of health since the adoption of Section 54 of the *Public Health Act* in 2001, introduce a process to evaluate the impacts on social inequalities of regulations and projects discussed by borough councils, the City of Montréal's municipal council, Montréal's metropolitan community council and the agglomeration council.**

Recommendation 8:

Support collaborative intersectoral committees and community groups

Society is complex and the exercise of citizen power often comes up against a brick wall. Legal and administrative processes that govern society make it difficult for anyone other than large corporations or institutions to have their voices heard. To foster a better understanding of citizens' needs and to enhance collaboration with elected officials towards improving neighbourhoods, **the DSP has been working with the City of Montréal and Centraide for several years to support collaborative committees in city neighbourhoods, especially in the most deprived areas. The Director recommends pursuing this initiative to foster democratic participation and invites his partners to maintain this alliance and enhance their support to community groups working to improve the living conditions and defend the rights of the most disadvantaged individuals.**

Recommendation 9:

Encourage active transportation and ensure users' safety

Poorer downtown neighbourhoods are disproportionately affected by traffic accidents involving pedestrians. **The Director encourages the City of Montréal to systematize traffic calming measures and active transportation safety (walking, cycling) interventions.**

Recommendation 10:

Ensure adequate and accessible housing

Quality of daily life often goes hand in hand with quality of housing, that is, healthy housing and the space required for residents to have healthy, non-stressful interactions. Not all cities on the island of Montréal participate as much as they could in social housing programs; some do not have such programs. **The Director recommends the development of more healthy, affordable, accessible and well-located housing, as well as building units that are large enough to meet the needs of families.**

Disadvantaged individuals, particularly recent immigrants and those seeking refugee status, are more likely to live in Montréal's substandard housing and are often less well prepared to advocate for their rights. **The Director recommends that inspection and complaint processes be reviewed and bolstered to deal with unhealthy housing conditions.**

Social injustice sickens and kills. Yet, social inequalities in health are avoidable as long as all levels of government join forces. That is why the Director of public health's recommendations are intended mostly for these bodies. Moreover, several sectors of society must be mobilized to implement new practices and policies for the poorest individuals. This supports ongoing discussions within community organizations and requires the collaboration of the corporate sector. Above all, combating social inequalities in health involves the commitment of all Montrealers. Not only must they recognize injustices, they must also support preventive and remedial actions taken by governments.

Recommendations

The Director of public health undertakes and invites his partners from the health network

- to make preventive services accessible to all and ensure these services are used by all segments of the population.

He calls upon the governments of Québec and Canada to

- improve the incomes of the poorest people;
- increase access to government-funded early childhood centres in low-income neighbourhoods;
- increase funding for social and community housing and ensure that the mechanisms used to set housing rental rates are rigorous and effective;
- maintain and develop the public health care system;
- develop services and programs to better integrate immigrants;
- increase the effectiveness of and economic accessibility to public transportation.

He calls upon municipal authorities to jointly

- introduce a process to evaluate the impacts on social inequalities;
- support collaborative intersectoral committees and community groups;
- encourage active transportation and ensure users' safety;
- ensure housing is adequate and accessible.

Appendix 1
A few words about income

There are no longer any doubts that income and economic inequality play a role in accounting for health inequalities.

Over time, low income leads to poorer health than high income. This phenomenon can be explained by various mechanisms that act indirectly, such as, unequal access to education and employment, risk factors linked to lifestyle habits and to exposure in workplaces and living environments, and varied access to resources and services.

Worldwide, data show that, in general, the more disadvantaged an individual's socio-economic position is, the worse is this person's health: This social gradient concerns the entire socioeconomic ladder, from bottom to top. Therefore, social inequalities in health affect everyone.

For this reason, we chose income as the baseline variable to cross-tabulate with health status in order to draw up a profile of how social inequalities in health have changed in Montréal.

More specifically, we considered household income since income categories reflect individuals' social positions based on the household income to which they are associated. An individual's social status is especially a function of the production and reproduction unit the household represents rather than his or her socioeconomic status considered individually (Ferland, 2002).

Ferland M. 2002. *Variations des écarts de l'état de santé en fonction du revenu au Québec de 1987 à 1998.* ISQ.

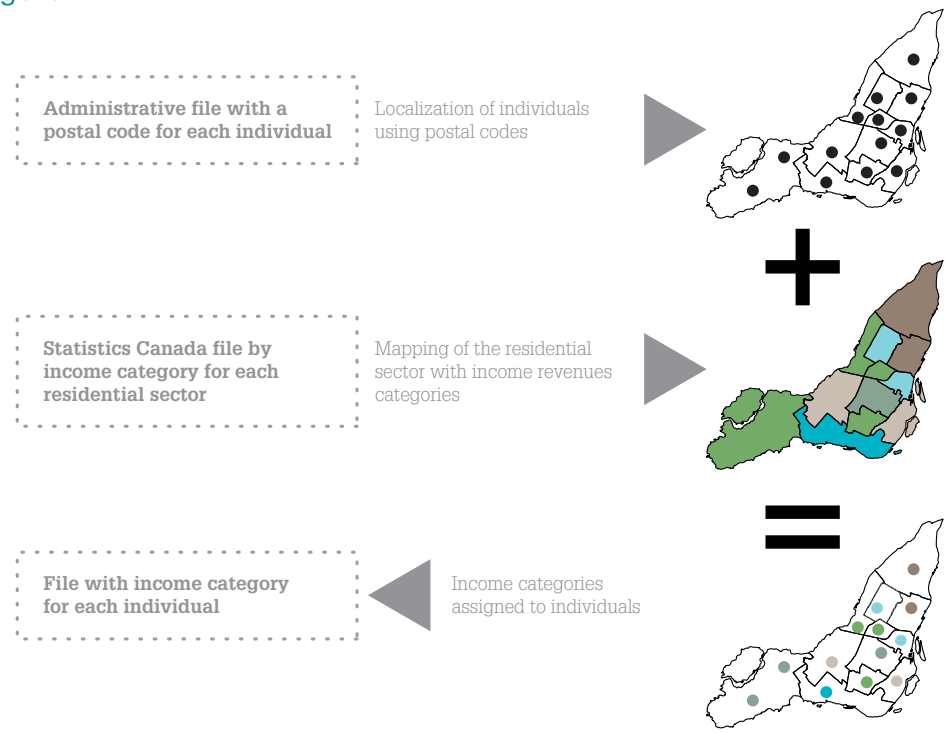
Appendix 2
How inequalities are measured in the report

The analyses performed to measure health disparities according to income are based on five income groups. In other words, health characteristics (e.g. health status, services utilization, birth, cause of death) are compared over five income-based population subsets. However, the way these subsets were created differed according to the data source used.

Assignment of income categories for data originating from medical administrative databases

Medical administrative data (births, deaths, services utilization) do not generally include information on the individual or household income of the persons listed. However, their residential postal codes are included. Since there is a strong association between household income and average household income in residential sectors (information we have), it is possible to estimate the incomes of individuals listed by assigning to them the income category of their residential sector (Figure 1).

Figure 1



These categories represent quintiles: all residential sectors in Montréal have been distributed among five equal categories of about 20% of households, arranged in order from highest to lowest income. In the report, we use the terms lowest income category (20% with the lowest income) and highest income category (20% with the highest income).

Assignment of income categories for data originating from health surveys

Health surveys that provide information on health status and lifestyle habits contain information on respondents' incomes. For analysis purposes, individuals' incomes were classified into five categories based on multiples of the low income cutoff (LICO) proposed by Statistics Canada.

Since the LICO takes size of household into account, income category limits vary according to the size of each individual respondent's household. The LICO is recalculated each year and, therefore, the limits are also recalculated for each survey year, making it possible to compare categories over time. For instance, Figure 2 lists the limits of the different categories for Cycle 4.1 Survey analyses (2007-2008).

Figure 2. Income category limits for the Canadian Population Health Survey, Cycle 4.1 (2007–2008)

	1-2 people	3-4 people	5 people or more	Terms used in the report
Inadequate	0-24,000	0-37,000	0-49,000	Lowest income category
Lowest adequacy (1 to 1.5 X LICO)	24,000-36,000	37,000-555000	49,000-73500	▲
Middle adequacy (1.5 to 2 X LICO)	36,000-480000	55,500-74,000	73,500-98,000	
Upper adequacy –1 (2 to 2.5 X LICO)	48,000-60,000	74,000-92,500	98,000-122,500	▼
Upper adequacy –2 (2.5 X LICO or higher)	60 0000 and over	92,500 and over	122,500 and over	Highest income category

Caution: The estimated health disparities obtained through these two income categorization methods are accurate and statistically valid. However, given the difference between the methods, it is not appropriate to compare the health disparities obtained with indicators from these two different sources. To simplify the text, we assigned the same terminology to the different categories, regardless of the method used.

Appendix 3
Sociodemographic and socioeconomic indicators, Montréal, 1991 to 2006

	1991	1996	2001	2006
Total population	1,775,875	1,775,845	1,812,725	1,854,445
Population living alone	14.7	16.1	17.1	17.5
65 years or more living alone	32.8	34.7	35.6	35.9
Single-person household	33.7	36.2	37.6	38.2
Single-parent families	29.4	31.7	33.0	33.0
Immigrants	23.5	26.5	27.6	30.7
Recent immigrants (last 5 years)	-	6.7	5.7	7.5
Without a diploma (15 years +)	-	33.9	29.4	21.5
With a university degree (15 yeasr +)	15.6	18.5	21.6	25.8
Unemployment rate	13.2	13.2	9.2	8.8
Employment rate	55.4	52.2	57.0	58.0
Worked full time all year[1]	55.0	51.3	53.7	52.0
Worked part of the year or part-time[1]	45.0	48.7	46.3	48.0
Households with income below $30,000	48.1	50.0	42.0	36.9
Households with income over $70,000	13.9	15.2	21.1	25.0
Average household income	$40,118	$40,847	$49,429	$57,738
Average income 15 years and over	$23,116	$23,568	$28,258	$32,946
Average household income (2006 constant $)	$51,304	$49,610	$54,826	$57,738
Average income 15 years and over (2006 constant $)	$29,561	$28,624	$31,343	$32,946
Social assistance	12.8	18.0	12.9	11.4
65 years and over GIS [2]	44.7	40.5	40.5	43.1
LICO population	28.2	34.8	29.0	29.0
LICO population aged 0 to 5 years	35.3	44.3	38.1	37.4
LICO population aged 65 and over	36.2	35.5	31.3	28.2
LICO population living alone	47.1	52.4	46.3	44.5
LICO 65 years or more living alone	63.7	62.6	57.7	53.5
LICO single-parent families	44.6	52.9	40.8	38.0
LICO single-parent families (children 0-17 years)	57.7	65.8	52.9	47.8
LICO couple families (with children)	-	24.3	19.6	20.9
LICO couple families (children 0-17 years)	20.7	28.1	23.2	24.7
LICO recent immigrants	-	65.6	57.4	58.0
Renter households	66.5	65.7	64.2	62.1
Average gross rent	-	$543	$570	$662
30% or more goes toward housing (rent)	-	44.7	37.2	38.7
Population who has moved (past 5 years)	49.6	48.0	47.6	43.3

1 Distribution of the population having worked
2 Data on guaranteed income supplement (GIS) are for the years 1990, 1995, 2000 and 2005
LICO: Low-income cutoff (before taxes)

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