

**Vital**Signs.  
OF GREATER MONTREAL

# TERRITORIAL INEQUITIES



Produced by



VIVRE EN VILLE



Foundation of Greater Montréal

## PRODUCTION

---

### Vivre en Ville

Florence Desrochers, Advisor, Territorial Equity

Léa Ilardo, Coordinator, Territorial Equity

Brigitte Lavallée, Coordinator, Urban Design and Urban Planning

Jeanne Robin, Senior Director

Christian Savard, Executive Director

Marianne Turcotte-Plamondon, Advisor, Territorial Equity and Active Aging

---

### FGM - Vital Signs team

Catherine Fiset, Director, Public Affairs and Communications

Karel Mayrand, President and CEO

Marion Van Staeyen, Advisor, Communications and Publications

---

---

### English Translation

Bronwyn Haslam

Emily Wilson

---

### Graphic Design

Patricia Gaury

---

### Printer

Tabasko

---

To find out more about Vital Signs™ initiatives across Canada, please visit [www.vitalsignscanada.ca](http://www.vitalsignscanada.ca)



COMMUNITY  
FOUNDATIONS  
OF CANADA

**VitalSigns.**

The Vital Signs™ trademark is used with permission from Community Foundations of Canada.

Recommended bibliographic entry: Foundation of Greater Montréal and Vivre en Ville (2024).

*Territorial Inequities*, 136 p. (Vital Signs of Greater Montreal collection).

ISBN: 978-2-924893-40-1 (Print)

ISBN: 978-2-924893-41-8 (PDF)

Legal deposit — Bibliothèque et Archives nationales du Québec, 2024.

Legal deposit — Library and Archives Canada, 2024.

Foundation of Greater Montréal and Vivre en Ville (2024)

Aussi disponible en français.

# TABLE OF CONTENTS

**START CONVERSATIONS. TAKE ACTION.** If you or your organization is moved or motivated by what you read, consider using this report as a starting point for positive action.

**PASS IT ON.** Share this report with your friends, colleagues, employees, students, neighbours, and elected officials, as well as your local library or community centre.

**FIND OUT MORE.** Learn about the many organizations working to improve our communities and find out how you can get involved.

**GET IN TOUCH.** We have a solid grasp on the issues facing our community and we know the organizations working to improve them. If you'd like to make a difference but aren't sure how, we're here to guide you. [www.fgmtl.org](http://www.fgmtl.org)

List of maps	5	<b>2. Methodology</b>	<b>18</b>
List of tables	5	Study area	19
A word from the President and CEO of the Foundation of Greater Montréal	6	Objectives	20
A word from the Executive Director of Vivre en Ville	7	Report structure	20
Territorial acknowledgement	8	Data	21
Statement on Justice, Equity, Diversity, and Inclusion	8	Limitations of the analysis	21
Summary	9	<b>3. Socioeconomic profile of Greater Montreal</b>	<b>22</b>
Steering committee	10	A land with a history long predating Montreal	23
Glossary	11	A brief history of the city's modern development	24
Acronyms and abbreviations	11	Current state of disadvantage in Greater Montreal	27
<b>1. Introduction: The urgent need to address territorial inequalities</b>	<b>12</b>	<b>4. Dimensions of the built environment and public space</b>	<b>32</b>
Crises both exposing and aggravating inequities	13	<b>Housing</b>	<b>34</b>
Better understanding inequities for more effective action	14	What is territorial equity in housing?	35
Tackling territorial inequities to improve health and quality of life	16	Limited access to housing for the most vulnerable	35
Tackling other factors of inequality	17	Limited residential mobility and access to the territory	40
		People excluded from the housing system	48
		The housing crisis: clear cause for alarm	50
		What our analysis of housing reveals about territorial equity	52

# TABLE OF CONTENTS

<b>Local resources</b>	<b>53</b>	<b>At the intersection of territorial inequities</b>	<b>99</b>
Local shops and services	54	When disadvantages accumulate	99
Food environment	56	Example neighbourhood: Saint-Michel	100
Community health	58	<b>Further information</b>	<b>103</b>
Community organizations	60	<b>5. Taking action towards territorial equity</b>	<b>104</b>
Trees and parks	62	Territorial inequities exist in Greater Montreal	105
Local cultural facilities	66	Which areas of Greater Montreal should be prioritized?	107
Schools	69	Priorities for improving the built environment and public space	108
What our analysis of local resources tells us about territorial equity	70	How can we best work to reduce territorial inequities?	110
<b>Mobility</b>	<b>71</b>	Territorial equity, a key to reducing economic and social inequalities	113
Mobility profile of low-income households	72	<b>Bibliography</b>	<b>114</b>
Safety of active travel	74	<b>Appendices</b>	<b>121</b>
Road environment around public elementary schools	76	Appendix 1 – Municipalities, boroughs, and subregions of Greater Montreal	122
Structuring public transit system	78	Appendix 2 – Maps: Methodology and data sources	123
Cycling infrastructure	80	Appendix 3 – Tables: Methodology and data sources	129
What our analysis of mobility reveals about territorial equity	82	Appendix 4 – Adapted transport services in Greater Montreal	131
<b>Environmental risks</b>	<b>83</b>	<b>Acknowledgements</b>	<b>132</b>
Extreme heat	84		
Flooding	88		
Air pollution	92		
Environmental noise	94		
What our analysis of environmental risks reveals about territorial equity	98		

## LIST OF MAPS

Greater Montreal area	19
Disadvantaged census tracts	31
Rental housing concentration by subregion	41
Proportion of social and community housing by municipality	43
Ratio of low-rental housing units to number of households	46
Pedestrian access to shops and services	55
The food environment of eastern Montréal-Nord (Montreal)	57
Local community services centres (CLSCs)	59
Canopy cover	63
Parks, cities of Montreal and Longueuil	65
Local public cultural facilities	67
Estimated risk of collision for pedestrians and cyclists in the urban agglomeration of Montreal	75
Road environment around École La Visitation elementary school (Ahuntsic-Cartierville borough, Montreal)	76
Road environment around public elementary schools	77
Structuring public transit system coverage	79

Major cycling infrastructure	81
Heat islands and cooling islands	85
Temperature variations in Saint-Lambert and Longueuil (urban agglomeration of Longueuil)	86
Low-lying, water-retaining areas in the urban agglomeration of Montreal	89
Areas flooded in the Pierrefonds-Roxboro and L'Île-Bizard-Sainte-Geneviève boroughs (Montreal)	90
Areas exposed to traffic-related air pollution	93
Exposure to environmental noise in the urban agglomeration of Montreal	95
Exposure to various sources of environmental noise in a section of the Mercier-Hochelaga-Maisonneuve borough (Montreal)	96
Road and rail infrastructure in the neighbourhood of Pointe-Saint-Charles (Montreal)	97
Accumulation of unfavourable characteristics in the built environment and public spaces in the neighbourhood of Saint-Michel (Montreal)	102

## LIST OF TABLES

Distribution of households between disadvantaged areas and other areas	29
Proportion of tenant households by household type and subregion	37
Proportion of social and community housing in Montreal boroughs	44
Supply and demand for low-rental housing (families and individuals under 60 living alone, urban agglomeration of Montreal)	47
Supply and demand for low-rental housing (individuals 60 and over, urban agglomeration of Montreal)	47
Change in the number of people experiencing visible homelessness between 2018 and 2022	48
Canopy cover in disadvantaged areas and other areas	62
Road environment around public elementary schools	76
Proportion of the region covered by heat islands and cooling islands	84
Proportion of the region near a major thoroughfare	92
Exposure to environmental noise in the urban agglomeration of Montreal	94
Summary of observed territorial inequities: Distribution of characteristics of the built environment and public space in Greater Montreal	106

## A WORD FROM THE PRESIDENT AND CEO of the Foundation of Greater Montréal



The *Vital Signs* are reports produced by community foundations in cities across Canada. They measure the vitality of their communities, assess major trends, and use key indicators to identify priority actions in all areas determining quality of life. Through its *Vital Signs of Greater Montreal* series of reports, the Foundation of Greater Montréal (FGM) aims to inform, bring together, and encourage our community to take action on the most important issues facing us. By collecting and disseminating reliable, contextualized data on the state of our community, we hope to stimulate reflection and support collaboration and the development of solutions that address these issues.

Through its work marshaling philanthropy to support the well-being of the most marginalized populations in Greater Montreal, FGM has an inside view of the impacts of territorial inequities on quality of life. The places where poverty and social exclusion and isolation are most widespread are, inevitably, the areas with the least access to nature, public spaces, and community infrastructure. They are also where people are feeling the consequences of pollution, climate change, and the housing crisis the hardest. It bears mentioning that immigrant, racialized, and Indigenous populations are overrepresented in these areas. With this latest edition

of the *Vital Signs*, we aim to enable our community to better understand and improve the relationship between the environment and people's lives.

Accordingly, this report will pay particular attention to the issues of housing, mobility, access to shops and services, public health, and climate resilience. It provides a consolidated assessment of the current situation, incorporating data from various stakeholders as well as data generated specifically for this study, notably through field interviews.

We thank the members of this edition's steering committee for their invaluable contributions. The committee includes representatives from the Trottier Family Foundation, the Coalition montréalaise des tables de quartier, the Direction régionale de santé publique de Montréal, the City of Montréal's Service de la diversité et de l'inclusion sociale, Centraide of Greater Montreal, and the Communauté métropolitaine de Montréal. By sharing their expertise and perspectives, these representatives have enabled us to holistically reflect on the issues and produce a report that is both more comprehensive and more conducive to action.

And that is indeed our main message: we must take action. The following pages cover many issues. These issues are complex, but the solutions to them are, for the most part, already known. The crises we face call for ambitious interventions, and the time for half-measures is over. All sectors of our community—governments, the private sector, community organizations, philanthropic players, and other leaders—have a duty to act and work together to ensure that our urban environment does not reinforce inequalities, but helps to mitigate and, eventually, eliminate them.

Thank you for your time and attention. Happy reading!

A handwritten signature in black ink, appearing to read 'Karel Mayrand'. The signature is fluid and cursive.

**Karel Mayrand**

President and CEO  
Foundation of Greater Montréal

## A WORD FROM THE EXECUTIVE DIRECTOR of Vivre en Ville



Equity has always been at the heart of what we do at Vivre en Ville. We work to transform urban environments so that they support sustainable living and contribute to health and fulfillment—and that means working to benefit everyone.

For many years now, we've been advocating for green taxation, cost internalization, and resource optimization. These principles support equity by preventing the entire community from bearing the burden of costly personal choices, often made by relatively privileged individuals.

However, if we're not careful, working for everyone's benefit can lead to overlooking the most vulnerable among us. A universal program may prove to be inequitable if its conditions effectively reserve it for those who are better off. When responses are based on citizens' requests, investment often winds up being made where calls for it are the loudest—not necessarily where it is needed most.

That's why Vivre en Ville has been increasing efforts to adopt an equity-based approach in our activities. This approach improves our consideration of vulnerability and discrimination factors, including income bracket, level of education, origins, family situation, gender, sexual orientation, and age, among others.

This shift, which more and more organizations are fortunately making, is especially crucial for those of us examining issues by region. Neighbourhoods can be structured such that they help reduce inequalities, notably through the equitable distribution of infrastructure. Unfortunately, their structure can also exacerbate inequalities, with lasting consequences.

This is a particularly opportune moment to reflect on this responsibility, as the crises we are currently facing call for a profound and rapid transformation of our communities. As we work towards this transformation, we must bear in mind that the goal is not only to make our communities more resilient, but also more just. To achieve this, we need to work together and make sure that everyone's voice is heard.

The mandate entrusted to us by the Foundation of Greater Montréal has enabled us to explore and document territorial inequities across the region. Throughout these months of work, with the support and contributions of many individuals and organizations, our knowledge and understanding have deepened—as has our concern for, even indignation at, environmental injustices.

As we wrap up our work on this edition of *Vital Signs*, our conviction that equity must be at the core of our priorities is stronger than ever. We look forward to working on these pressing issues with you.

A handwritten signature in black ink, which appears to read 'C. Savard'. The signature is fluid and cursive.

**Christian Savard**  
Executive Director  
Vivre en Ville

## TERRITORIAL ACKNOWLEDGEMENT

The Foundation of Greater Montréal (FGM) wishes to highlight the presence of the Kanien'kehá:ka of the Kahnawà:ke and Kanehsatà:ke communities, which have historically been established on the territory now known as Greater Montreal. It wishes to recognize as well that this territory has also been home over time to several Indigenous nations who established themselves here over several historical periods. Today, a diverse Indigenous population, including First Nations, Métis and Inuit individuals, continues to reside on this territory, in socioeconomically varied conditions.

Greater Montreal has long been a place for interaction and exchange among the First Peoples, and is a historic site where the Great Peace of Montreal was signed by 39 First Nations in 1701. In the spirit of peace, justice, and reconciliation, and by drawing inspiration from the ancestral knowledge of the First Peoples, FGM is working to enhance the well-being of the communities of Greater Montreal, and to protect its territory, now and for future generations.

## STATEMENT ON JUSTICE, EQUITY, DIVERSITY AND INCLUSION

The values of justice, equity, diversity and inclusion are at the heart of the Foundation of Greater Montréal's mission. FGM aspires to be a reflection of the community it serves.

In order to break down barriers, and work towards an inclusive society, FGM will listen, learn, and implement purposeful measures in its own organizational culture, its granting activity, its investments, its decisions and its actions. It acknowledges the existence of factors of discrimination towards individuals and groups, manifested both directly and systemically in our society, as well as the intersectionality of different types of discrimination that can be experienced simultaneously, and should not be dissociated nor seen as having a hierarchy.

At the same time, FGM commits itself to:

- continuously making structural changes in its practices, including in its investments and its granting;
- pursuing a program of continuing education on issues of justice, equity, diversity and inclusion;
- contributing to raising awareness among stakeholders and offering spaces for dialogue, exchange and understanding;
- ensuring that the composition of its staff, its volunteer pool and the resources it draws upon reflect the community it serves;
- measuring and evaluating its progress in these areas.

The Foundation of Greater Montreal supports equality of the sexes and genders in all its practices, including its communications. It therefore favours an inclusive writing style.

FGM has committed itself to adopting over time rules for communication that lead to the reduction of inequities.





# SUMMARY

**Not all areas of Greater Montreal offer an equivalent quality of life to their residents. Unfavourable neighbourhood characteristics disproportionately affect people in vulnerable situations and can have significant consequences on health and well-being. When the distribution of risks, hazards, and benefits across the built environment and public spaces disadvantage the most vulnerable populations, these disparities constitute territorial inequities.**

## A context shaped by multiple crises

The built environment and public space play a central role in people's health and quality of life, and figure at the forefront of contemporary issues, particularly adaptation to climate change. However, not all regions have the same capacity to face these present and future challenges, which are exacerbated by the housing crisis and rising social inequalities. Our desire to understand and document territorial inequities in Greater Montreal comes precisely from this urgent need to act more quickly and more effectively.

## Taking stock of territorial inequities

To propose targeted avenues for improvement, this edition of *Vital Signs* focuses on neighbourhoods where characteristics of the built environment and public space are unfavourable to health and well-being and that are also home to a greater proportion of people experiencing vulnerability.

## Identifying disadvantaged areas

After a brief history of the development of our metropolis, the **socioeconomic profile of Greater Montreal** identifies the census tracts that are the focus of our analysis of territorial inequities. In Greater Montreal, 58% of low-income households are concentrated in one third of census tracts.

## Four dimensions of urban environments

The characteristics of urban environments studied in this assessment have been grouped into four dimensions.

**Housing** provides an overview of the residential market. The geographic concentration of the rental, social, and community housing stocks, combined with the lack of supply and the housing crisis, compromises the housing security and residential mobility of vulnerable households.

**Local resources** examines access to local shops and services, outlining the distributional injustices observed in food environments, local healthcare services, community organizations, trees and parks, cultural facilities, and schools.

**Mobility** analyses four aspects related to travel safety (estimated risk of collision for active travel and the road environment around elementary schools) and the distribution of sustainable mobility options (structuring public transit network and cycling infrastructure).

**Environmental risks** focuses on the risks associated with extreme heat, flooding, air pollution, and environmental noise.

This profile of territorial inequities confirms that there is an uneven, unjust, systemic, and preventable distribution of characteristics of the built environment and public space in Greater Montreal, to the detriment of disadvantaged areas.

## Taking action towards territorial equity

Reducing territorial inequities means prioritizing action in **critical areas**, defined as census tracts where people in vulnerable situations are concentrated and where we have observed unfavourable characteristics of the built environment and public space.

We propose a series of **priority actions** for each dimension to improve the built environment and public space, with the aim of reducing inequities. To effect a successful socio-ecological transition in Greater Montreal without leaving anyone behind, we must also rethink **our work methods**.

# STEERING COMMITTEE

The steering committee's role was to position, guide, and monitor the process of producing this edition of the *Vital Signs of Greater Montreal*. The committee also reviewed a preliminary version of the document.

---

## Centraide of Greater Montreal

**Marie-Lyne Brunet**, Vice President, Social Development

---

## Coalition montréalaise des Tables de quartier

**Yves Bellavance**, Executive Director

---

## Communauté métropolitaine de Montréal

**Philippe Rivet**, Director, Monitoring and Strategic Planning

---

## Direction régionale de santé publique de Montréal

**Martine Lévesque**, Planning, Programming, and Research Officer, Environnement urbain et santé des populations

**Anne Pelletier**, Department Manager

**Louis-François Tétreault**, Planning, Programming and Research Officer, Environnement urbain et santé des populations

---

---

## Foundation of Greater Montréal

**Marie-Andrée Farmer**, Director, Strategic Initiatives and Community Partnerships

**Catherine Fisette**, Director, Public Affairs and Communications

**Karel Mayrand**, President and CEO

---

## Trottier Family Foundation

**Erin Hetherington**, Health Director

**Jean-Patrick Toussaint**, Climate Program Senior Director

---

## City of Montréal, Service de la diversité et de l'inclusion sociale

**Thibault Camara**, Division Head, Intelligence d'affaires sociales et Optimisation

**Amadou Lamine Cissé**, Planning Advisor, Équité des milieux de vie

**Yani Cournoyer-Dupuis**, Research Officer, Cartographie et géomatique

---

## GLOSSARY

Built environment.....	20	Hidden homelessness.....	48
Canopy cover.....	62	Intersectionality.....	27
Census tract.....	28	Low-rental housing.....	44
Complete community.....	33	Net residual income.....	51
Cooling island.....	84	Physical accessibility.....	53
Cultural vitality.....	66	Public space.....	20
Disadvantaged area.....	28	Residential affordability.....	36
Dissemination area.....	28	Social and community housing.....	42
Economic accessibility.....	53	Structuring public transit.....	78
Effort rate.....	36	Universal accessibility.....	78
Environmental noise.....	94	Urban renewal.....	24
Front-line services.....	58	Visible homelessness.....	48
Gender-Based Analysis Plus (GBA Plus).....	27		
Geographic accessibility.....	53		
Heat island.....	84		

## ACRONYMS AND ABBREVIATIONS

### Acronyms

**CIUSSS:** Centre intégré universitaire de santé et de services sociaux

**CLSC:** Local community services centre

**CMA:** Census metropolitan area

**CMM:** Communauté métropolitaine de Montréal

**GMF:** Family medicine group

**LIM-AT:** Low-income measure after tax

**SHQ :** Société d'habitation du Québec

### Abbreviations

**dBA:** Decibel



1

# INTRODUCTION

## THE URGENT NEED TO ADDRESS TERRITORIAL INEQUITIES

# CRISES BOTH EXPOSING AND AGGRAVATING INEQUITIES

It sometimes takes a crisis to open our eyes to the problems that were already there. In confining us to our neighbourhoods, the COVID-19 pandemic made many of us aware of how inequities in urban planning both generate and overlap with wider inequalities between different neighbourhoods.

In Montreal, COVID-19 infections disproportionately affected people living in disadvantaged areas, which are home to many front-line workers and people who identify as visible minorities (Adrien, Markon and Springmann, 2020). These areas have lower-quality housing, are densely populated, and offer fewer public spaces for people to meet while maintaining a safe distance (Markon, Springmann and Lemieux, 2020).

It has become impossible to ignore the fact that the characteristics of our urban environments (buildings, road and public transport networks, vegetation, public spaces, etc.) have a major influence on health, quality of life, and opportunities for fulfillment. At the time of writing, the pandemic may be partly behind us, but there are other concurrent crises that make addressing territorial inequities a matter of urgency.

## Addressing the climate crisis to mitigate risks and improve social well-being

Climate change represents the greatest threat to global health in the 21<sup>st</sup> century, and its effects are only set to increase, according to the World Health Organization (Organisation mondiale de la santé [OMS], 2018). We also know that climate change does not affect all neighbourhoods or populations equally, and that people experiencing socioeconomic disadvantages are more vulnerable to its impacts.

The climate crisis is forcing communities to make changes to their environment to cope with various risks (extreme heat, flooding, air pollution, etc.), as well as to reduce their greenhouse gas emissions (residential densification, improved active and public transport networks, etc.). Measures to mitigate and adapt to climate change must be seized as an opportunity to combat social and territorial inequities.

The urban environment has a role to play in fostering social well-being.

## The housing crisis exacerbating inequities

The repercussions of the housing crisis are also being felt across Greater Montreal. The crisis is reinforcing dynamics of exclusion, disadvantage, and marginalization (Foundation of Greater Montréal [FGM], 2022). One might justifiably ask, who truly has a right to the city? Who has the right to participate in their city's development, the right to suitable and affordable housing, the right to efficient public transport, or the right to quality resources close to home? Who has the right to a healthy environment, which the United Nations recognized as a human right in 2022 (Programme des Nations unies pour l'environnement, 2022)?

Ensuring affordable housing is a fundamental element of territorial equity.



# BETTER UNDERSTANDING INEQUITIES FOR MORE EFFECTIVE ACTION

The Greater Montreal area is undergoing, and will undoubtedly continue to undergo, major transformations in response to the many challenges of our times. To work towards the ideal of an equitable Greater Montreal, we first need to better understand how inequities interact in the city, in all of its various dimensions.

What do territories and the people who live in them have to say to us? What dynamics guide how urban environments are structured, and who benefits from them? This edition of *Vital Signs of Greater Montreal* provides an assessment of the inequities in this metropolitan area. Our in-depth examination will define the route we must take in order to improve everyone's health, safety, and quality of life.

## What do we mean by “territorial inequities”?

This term refers to the fact that not all territories offer the same opportunities for development, nor the same access to health and well-being, due to the uneven, unjust, systemic, and preventable geographic distribution of risks, environmental hazards, and benefits.

More specifically, this distribution is:

- **Uneven**, when disparities are present.
- **Unjust**, when these disparities disproportionately harm more vulnerable populations.
- **Systemic**, when these disparities result from past and present actions and decisions, often with mutually reinforcing consequences.
- **Preventable**, when different outcomes were possible.

## Why inequities and not inequalities?

Equal distribution is not enough to ensure equity between populations, as different groups have different characteristics. In examining territorial inequities, it is essential to consider both the characteristics of various populations and the characteristics of the environments in which they live.

“Territorial inequities” refers to instances where the distribution of population vulnerability factors (e.g., low income) and the distribution of environmental vulnerability factors (e.g., low tree cover) overlap, **exacerbating these vulnerabilities**.

For example, a greater number of parks in more affluent neighbourhoods constitutes a territorial inequity. Conversely, better public transit service in a disadvantaged neighbourhood does not.

## Reversing the trend

The principle of territorial equity must guide action in community development and land-use planning if we are to offset social inequalities and mitigate their consequences. Based on **values of solidarity and equal opportunity**, this principle implies a heightened concern for areas that have accumulated unfavourable characteristics (Langevin, 2013).



## Awareness of injustices

Territorial equity is part of the pursuit of **urban justice**, a set of factors that “contribute to economic, human health, civic, and cultural well-being, as well as environmental and aesthetic health of the built environment” (Griffin, 2015). Urban justice is multidimensional and raises questions about participation in the making of the city, as well as the attention paid to different, experiential knowledge.

Discussions of territorial equity generally emphasize four types of injustice (Meerow, Pajouhesh and Miller, 2019).

### 1. Distributional injustices

Distributional injustices include uneven access to territorial resources (such as housing, services, economic opportunities, mobility infrastructure, and green spaces) and uneven exposure to risks and hazards.

### 2. Recognitional injustices

Recognitional injustices reflect root causes: that is, the social structures that underlie other injustices. Recognitional justice involves taking into account the various identities that intersect within societies. It forces us to acknowledge that some identities have been shaped by historical injustices, which can in turn exacerbate individuals or groups’ vulnerabilities and affect their experience of public space and the built environment, including their ability to access and occupy these spaces (Seyedrezaei et al., 2023). Recognitional justice also encourages respect for different identities.

### 3. Procedural injustices

Procedural injustices refer to injustices in decision-making processes and public participation. Generally speaking, people experiencing disadvantages and marginalization often lack access to information, are less involved in decision-making, and have little decision-making power in land-use planning.

### 4. Environmental injustices

Environmental injustices refer to the fact that the populations most exposed to environmental hazards and risks are often those who contribute least to generating them. Consider the example of climate change: the most disadvantaged populations are most vulnerable to its effects, while also being least responsible for causing or worsening the crisis.

**This report focuses primarily on distributional injustices.** However, other types of injustice help explain how these space-based injustices have developed and must be considered in resolving them. The exclusion of individuals or groups from decision-making processes can contribute to an inequitable distribution of resources that are conducive to health and quality of life. Without mechanisms and processes that foster their inclusion, these individuals or groups are less able to participate in public life and are thus less likely to have their specific needs acknowledged.

## Territorial dynamics that exacerbate inequalities

Territorial inequities in Quebec are generally not the result of conscious planning. However, some land-use planning choices tend to increase distributional injustices and social inequality. Dynamics of spatial exclusion that exacerbate territorial inequities include gentrification, middle classes opting to move from the inner city to suburban neighborhoods, and the relegation of low-income households to the outskirts of central neighbourhoods.

The development of Greater Montreal is no exception, and public authorities have a responsibility for this state of affairs, which has resulted from political decisions or a lack of them.

While Quebec has better supported the most disadvantaged groups than other places, thanks in particular to its family and anti-poverty policies, it has not escaped the global trend of growing inequality between socioeconomic groups. Rising inequality has negative repercussions on social cohesion and harms the health and well-being of the population as a whole (Québec. INSPQ, 2021a).

Taking action on territorial inequities is one way to reduce the consequences of inequalities.

# TACKLING TERRITORIAL INEQUITIES TO IMPROVE HEALTH AND QUALITY OF LIFE

A person's health is influenced by a variety of factors known as "health determinants." These determinants are individual, social, environmental, and structural (Réseau francophone international pour la santé [RÉFIPS] and Centre de collaboration nationale des déterminants de la santé [CCNDS], 2022).

The ability to maintain good health therefore depends on factors beyond the individual and their lifestyle. "Social inequalities in health" refer to disparities that expose already disadvantaged population groups to an increased risk of poorer health (RÉFIPS and CCNDS, 2022).

In Quebec, the more materially and socially disadvantaged a person is, the lower their healthy life expectancy (Québec. INSPQ, 2018a). In Montreal, the most materially advantaged health region, the Centre intégré universitaire de santé et de services sociaux (CIUSSS) West-Central Montreal, has an average life expectancy five years higher than the most socially disadvantaged, the CIUSSS du Centre-Sud-de-l'Île-de-Montréal (Direction régionale de santé publique de Montréal, 2023a and 2023b). This difference is largely due to the difference in residents' economic situations, but characteristics of the urban environment also play a role.

Territorial inequities are therefore one form of social inequality in health.

## The neighbourhood effect

Neighbourhoods influence population health by shaping the conditions of daily life, including housing, economic status, personal development, and academic success.

This impact of one's local environment is termed the "neighbourhood effect." Although it may manifest differently for each individual, the neighbourhood effect accounts for a significant proportion of the variation in average health between geographic areas, all other things being equal.

It is important to mention that the most materially and socially disadvantaged people are also the most vulnerable to the neighbourhood effect, as they have less access to the resources needed to compensate for the deficiencies and environmental hazards of their neighbourhood (Centre Léa-Roback, 2007).





# TACKLING OTHER FACTORS OF INEQUALITY

Land-use planning is one area where we can take action to mitigate inequalities (Vivre en Ville, 2022). However, reducing territorial inequities will clearly not be enough to ensure equitable living conditions. Structural factors of inequality, such as political, economic, and social structures, as well as systemic discrimination, extend far beyond the question of territorial planning, and may even influence it (RÉFIPS and CCNDS, 2022).

However, effective neighbourhood design can mitigate the consequences of inequalities—or at least avoid exacerbating them. It also remains necessary to work on these other factors of inequality, while providing all the necessary support to the people and communities that are affected by them, particularly through social programs and by supporting community organizations.

Creating just neighbourhoods won't be enough to create a just society. Just neighbourhoods can, however, contribute to it.

## On vulnerability

Generally speaking, the concept of vulnerability refers to a predisposition towards increased sensitivity or fragility in the face of a threat, whatever its nature. Vulnerability can be broken down into three elements: **exposure** to the threat, **sensitivity** to its potential effects, and the **ability to cope** with the threat and its effects. This predisposition is not evenly distributed across the population.

Vulnerability is not a mere personal characteristic: it is conditioned by determinants of health and is therefore shaped by social contexts and societal structures. As the COVID-19 pandemic has highlighted, we may all be in the same storm, but we are not all in the same boat.

While the notion of vulnerability recognizes the social and contextual nature of fragility, this concept has its pitfalls. Among them, labelling populations has a potential for discrimination that can lead to the essentialization of fragility, or even victim-blaming. To avoid, insofar as possible, exacerbating the vulnerabilities of the populations we wish to support,

we must link vulnerability not to individual people, but to their situations (INSPQ, 2023a). Further, we must identify, to the greatest possible extent, the processes that create this state, including economic structures, the legacy of oppressive systems like colonialism or patriarchy, or cultural and social prejudices like racism or ableism. These factors underlying vulnerability can marginalize population groups, including people with lower levels of education or income, Indigenous people, racialized people, and sexual minorities, among others (Schnitter et al., 2022; Québec. Direction régionale de santé publique de Montréal, 2024a).

As Quebec's public health institute has stated, "focusing on vulnerability therefore also means looking at the possibility of changing certain living conditions or environments when they are shown to be unfavourable to health" (INSPQ, 2023a). We will be keeping this top of mind as we examine territorial inequities in Greater Montreal.

“ The commission concludes that there is an inextricable link between poverty and systemic racism and discrimination. In this sense, land-use planning visually echoes the inequalities that exist in Montreal. Analyzing and fighting poverty is thus essential to combating systemic racism and discrimination. ”

– Office de consultation publique de Montréal (OCPM), 2020.

2

# METHODOLOGY



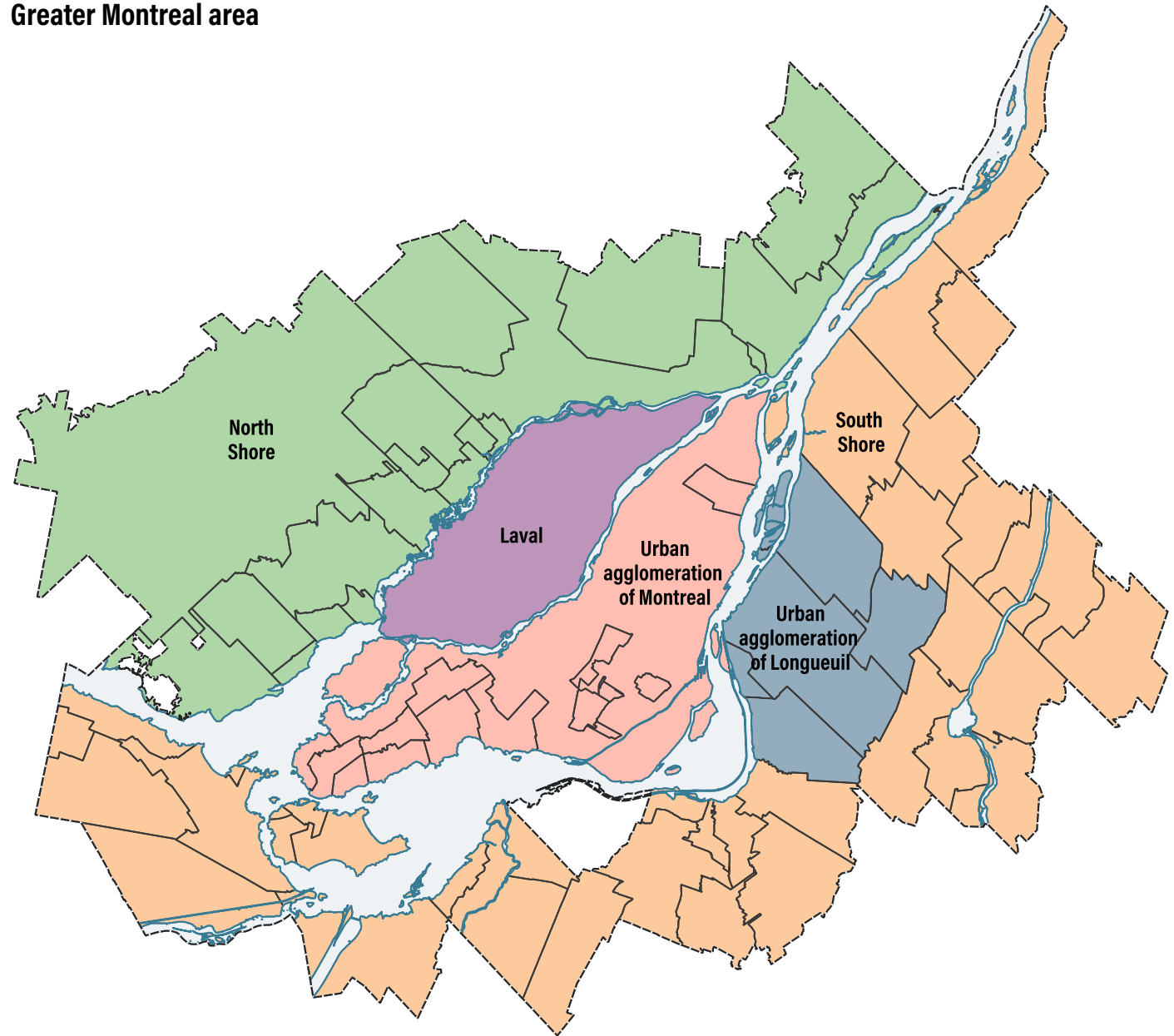
# STUDY AREA

This assessment covers Greater Montreal, known officially as the Communauté métropolitaine de Montréal (CMM). This consists of 82 municipalities in five main areas: the urban agglomeration of Montreal, the urban agglomeration of Longueuil, Laval, the North Shore, and the South Shore. The Kanien'kehá:ka (Mohawk) communities of Kahnawà:ke and Kanehsatà:ke, shown in white on the map, are under separate jurisdiction and management from that of the CMM, and are not included in the study area.

Greater Montreal is home to almost half of Quebec's population: 4.1 million people spread over an area of more than 4,374 km<sup>2</sup>. It includes highly urbanized areas (most of Montreal, some sectors of Laval, and some parts of the urban agglomeration of Longueuil) and less dense areas (the more peripheral regions of the urban agglomeration of Longueuil, of Laval, of the North Shore, and of the South Shore). It also covers a sizeable share of agricultural land and natural environments, including some protected areas.

Greater Montreal is a vast region, and the realities its residents face vary greatly. Given the objectives of this report, our analysis will focus on residential areas with sufficient population density to provide usable data.

## Greater Montreal area



## OBJECTIVES

This assessment aims to take stock of territorial inequities in Greater Montreal. More specifically, it seeks to:

- identify areas where aspects of the **built environment and public space are unfavourable** to health and well-being, and where **a higher proportion of people experiencing vulnerability also live**.
- propose **courses of action** to resolve the identified problems.

The importance of addressing both social inequalities and environmental issues has become increasingly apparent in recent years, particularly in the scientific literature on climate change. Urban planning studies have likewise been analyzing territorial inequities in the Montreal area, as well as their consequences on the health and quality of life of the populations concerned.

This assessment builds on these reflections and aims to develop a common understanding and vision of territorial equity, such that it becomes an essential approach in urban development that ultimately ensures the well-being of all populations.

## REPORT STRUCTURE

This report is divided into three main sections.

### Socioeconomic profile of Greater Montreal (section 3)

The first section provides a detailed picture of Greater Montreal, combining a brief history of its urban development with an overview of its social geography.

### Dimensions of the built environment and public space (section 4)

The second section of the report analyzes various characteristics of the built environment and public space that influence health and quality of life and their distribution across Greater Montreal. These characteristics have been grouped into four categories:

1. **Housing**
2. **Local resources**
3. **Mobility**
4. **Environmental risks**

### Taking action towards achieving territorial equity (section 5)

The report concludes by summarizing the main findings of the analysis, followed by potential courses of action to address territorial inequities in the Greater Montreal area.

#### Glossary

##### Built environment

The built environment refers to the human-made or human-modified physical environment in which people live. This includes buildings (homes, institutions, businesses, etc.), infrastructure, gathering places, parks, and recreation areas, among other things.

Source: Vivre en Ville, based on BC Centre for Disease Control, 2018.

##### Public space

Public space refers to any place intended for everyone's use, without restriction. Such spaces may be traffic areas (e.g., roads) or gathering spaces (e.g., parks and public squares).

Source: Vivre en Ville.

## DATA

A variety of data sources were used. For each source, we opted for the most recent data available. Details for the references and methodology used for each analysis are provided in the appendices.

All **sociodemographic data** were taken from Statistics Canada's 2021 Census (*Recensement de la population 2021* in bibliography).

We have favoured the **census tract** (see section 3) as a scale. Where the data did not permit its use, other scales were employed. A note to this effect appears at the relevant locations in the text.

**Scientific literature** and **grey literature** were also used for analysis, particularly when raw data was unavailable or incomplete.

A dozen **experts** in the topics addressed in this report were met with to confirm the relevance and use of information from their respective fields.

Lastly, a dozen interviews were conducted with neighbourhood round tables (*tables de quartier*) and community organizations to supplement and validate this study with **qualitative data** based on their knowledge of local contexts.

## LIMITATIONS OF THE ANALYSIS

### The complexity of territorial inequities

The causes and consequences of territorial inequities are manifold, as social relations are the product of intersecting and mutually reinforcing dynamics (Carde, 2021). These complex dynamics must be studied with humility. We have endeavoured to approach the issues with care and to avoid hastily establishing causal links.

### A heterogeneous region rendering classification impossible

The size of the area under analysis comes with some limitations; between any two large areas in Greater Montreal, there are major disparities in the built environment and public space. It would therefore be inappropriate to rank disadvantaged areas.

Thus, while our analysis has enabled us to identify areas that are problematic in certain respects, it should not be inferred that other areas are not, especially as inequities may be experienced on a finer scale (neighbourhood, district, etc.).

## Incomplete data

Another limitation of the present report concerns access to data: in many cases, data that would have enabled a precise analysis of territorial inequities were either unavailable, or available at an unsuitable scale. Potential avenues for further analysis are mentioned throughout the document.

## People and places

Our analysis focuses on areas where there is a higher concentration of people experiencing various disadvantages. Not everyone within these same areas is equally affected by the same aspects of the built environment and public space. What's more, in some areas without a significant concentration of vulnerable people, there are nonetheless people experiencing vulnerabilities.

We must therefore keep in mind that **this report does not paint a complete picture of the living conditions of all people experiencing vulnerability.**

In addition to the lessons contained in this report, which identifies vulnerabilities specific to certain areas, it remains necessary to take action everywhere to reduce the consequences of the various inequities experienced by people across the Greater Montreal area.

The background features a stylized cityscape. On the left, there are several tall buildings in shades of grey, black, and red. In the center and right, there are more colorful buildings, including a prominent red one and a white one. In the foreground, there are several houses of different colors (red, orange, blue, pink) and styles, along with green trees and a white picket fence. A large, dark blue, irregular shape overlaps the right side of the image, containing the number 3 and the title text.

3

# SOCIOECONOMIC PROFILE OF GREATER MONTREAL

# A LAND WITH A HISTORY LONG PREDATING MONTREAL

The land we now call Greater Montreal has been home to a number of Indigenous nations for thousands of years. The Kanien:kehá'ka call Montreal Tiohtià:ke, «where boats and rivers meet.» In Anishinaabemowin, Montreal is called Mooniyaang, meaning “the first stopping place” (Réseau pour la stratégie urbaine de la communauté autochtone de Montréal, 2019).

It would be out of the question to address territorial inequities without mentioning the dispossession of First Nations' traditional territories, especially as many First Nations claim ancestral rights to territories far beyond those of «reserves,» a colonial term for tracts of land reserved for the exclusive use of First Nations and governed by the Indian Act, a federal law still in force. It is preferable to use the term «community” instead of “reserve” (Mikana, n.d.).

Today, 46,000 Indigenous people, or 22% of the Indigenous population in Quebec, reside in the Montreal census metropolitan area (CMA), outside Indigenous communities. They make up approximately 1.1% of Greater Montreal's population according to Statistics Canada (Statistique Canada, 2021).

Canada's colonial history has had a profound impact on the governance, languages, and cultures of Indigenous communities. Violent and assimilative policies, like those of residential schools and forced settlement in communities, as well as the historical land management practices of the Canadian and Quebec governments (Ordre des urbanistes du Québec [OUQ], 2023), have created injustices that persist to this day.

The Public Inquiry Commission on relations between Indigenous Peoples and certain public services in Québec (2019), the Truth and Reconciliation Commission of Canada (2015), and the National Inquiry into Missing and Murdered Indigenous Women and Girls (2019) have recommended that Quebec adopt the United Nations Declaration on the Rights of Indigenous Peoples (Nations Unies, 2007). The Declaration recognizes a range of rights for Indigenous peoples, including the right to self-determination, the right to self-governance, the right to traditional territory and its resources, and the right to develop their own vision for the future of these territories.

Even today, urban and land-use planning practices too often remain insensitive to Indigenous realities. These practices must evolve to acknowledge this historic territorial injustice, the consequences of which are very real and are still being felt today.

Furthermore, as stated by the Assembly of First Nations, the climate crisis is exacerbating “many of the resulting impacts of colonization, including those relating to mental health and well-being, poverty, poor housing, food and water insecurity, and the erosion of rights, culture, and access to lands” (Assemblée des Premières Nations [APN], 2020). Climate action cannot be separated from the fight against social inequalities and must also be informed by the process of reconciliation with the First Peoples.

# A BRIEF HISTORY OF THE CITY'S MODERN DEVELOPMENT

The territorial inequities that currently exist in Greater Montreal are the result of a complex social, economic, and environmental history in which many dynamics are at play. Here we provide an overview of the modern history of the region, which provides necessary insight on the key contexts that have shaped the city.

## Rapid urbanization

At the start of World War II, Montreal was facing a severe housing crisis due to a slowdown in residential construction, caused first by the economic recession of the 1930s and then by the war. In 1942, 40% of Montreal residences were occupied by more than one family. Over a thousand households were making do by living in garages, sheds, basements, and stores. In 1943, the housing committee of the city's urban planning department estimated that 50,000 homes were needed (Choko, Collin and Germain, 1986).

In response to the city's precarious housing situation and significant population growth, several modest standardized dwellings were hastily constructed, including the prefabricated or "veteran" homes of Wartime Housing Limited (a crown corporation) and rental walk-ups. These were mainly built in outlying municipalities and neighbourhoods like Ville-Émard, Côte-des-Neiges, Notre-Dame-de-Grâce, Rosemont, and Longue-Pointe, followed closely by other nearby suburban areas like Saint-Michel, Montréal-Nord, Saint-Laurent, and LaSalle (Linteau, 2017).

## A major transformation of the urban fabric

Montreal's post-war economic growth and Jean Drapeau's election as mayor in 1954 ushered the city into its modern era. Beginning in the 1950s, concerns about urban slums and growing interest in road, cultural, and commercial infrastructure projects led to numerous urban renewal projects, including highways, the widening of Rue Dorchester (now Boulevard René-Lévesque), Place des Arts, and the Radio-Canada tower.

Between 1950 and 1974, urban renewal projects expropriated 150,000 people and destroyed the social fabric of many communities, including English-speaking Black communities in Little Burgundy, immigrant workers on Goose Island, and day labourers in the Faubourg à m'lasse (Brabant 2021a).

The city's "unslumming" projects led to many grassroots movements that fought against the destruction of entire neighbourhoods and pushed for new low-cost housing. Funded largely by the federal government and led by municipal housing offices, several public housing projects were built in Little Burgundy to rehouse the approximately 14,000 people who had been expropriated in the neighbourhood (Paré, 2017).

“ Urban renewal is now a pejorative term. [...] Renewing a neighbourhood is about doing so for the enjoyment and benefit of another part of the population, it's almost never for the part of the population that lives in the neighbourhood being renewed. It's another form of war on people with low incomes. ”

– Joe Baker (see Régnier, 1972)

### Glossary

#### Urban renewal

The process of completely replacing existing urban neighbourhoods.

Source: Vivre en Ville.



## Public housing in Montreal

Montreal's first public housing projects were introduced after the National Housing Act was passed in 1954. The initiative aimed to tackle slums and eradicate dilapidated housing, and then relocate the people who had been evicted.

The very first projects, including the Saint-Martin's Blocks in Little Burgundy, were mainly *grands ensembles*, large housing developments bringing together different types of households.

More modestly sized developments that better matched Montreal's specific urban landscape were soon prioritized. A more systematic separation of facilities for the elderly from those for families and single individuals also became favoured over the early projects that were home to a range of ages.

The Montreal public housing model differs from that of the *banlieues* in France and "the projects" in the United States in that it is mainly made up of smaller buildings dispersed throughout the region, due to needs and the land available at the time of construction (Régnier, 1974).

## Socio-spatial reconfiguration of the city

In 1970, the social composition of the city's neighbourhoods was still very much shaped by Montreal's linguistic and economic history. The west was primarily made up of high- and very high-income neighbourhoods inhabited by English-speaking and immigrant households. The east was predominantly francophone with little concentration of wealth. This is referred to as the inverted "T" of poverty, since the most disadvantaged areas were found mainly in areas around Boulevard Saint-Laurent—a settlement corridor for immigrant populations—in working-class neighbourhoods north and east of downtown, and in declining industrial areas southwest of downtown (Rose and Twigge-Molecey, 2013).

At the time, middle-class French-speaking households were leaving the inner city in droves and settling increasingly further away. Encouraged by new road infrastructure and home ownership policies established in the wake of the oil crisis of the late 1970s, they mainly moved to planned suburbs off the island, especially on the South Shore of the St. Lawrence River. Between 1971 and 1986, the number of children in Montreal's central neighbourhoods decreased by 60% (Senécal, Tremblay and Teufel, 1990).

To curb this exodus, the municipal government implemented policies to revitalize central districts and heritage buildings, including through renovation incentives. With no rent controls in place, many tenants were forced to leave their homes post-renovation, as they were unable to afford the increased rent.

At this time, changes in Montreal's economy led to the rapid and massive deindustrialization of the industrial and working-class neighbourhoods of Sud-Ouest and Hochelaga-Maisonneuve (Linteau, 2007). The shift to high-tech industries and the service sector required a more skilled, but smaller, workforce compared to the previous industries. This resulted in increased unemployment for low-skilled workers in central districts, while the number of educated, childless households rose.

The changing economy and government renovation incentives thus contributed to the inner city's first waves of gentrification. Yet subsidies and financial assistance mainly benefited areas next to attractive, affluent neighbourhoods, such as Westmount, Outremont, and Notre-Dame-de-Grâce (Dansereau, 1988).

In 1978, the Liberal government under Pierre Elliott Trudeau passed the Immigration Act, transforming the city's ethnocultural profile. Montreal's so-called ethnic neighbourhoods, which had primarily been composed of immigrants of European origin, became multi-ethnic neighbourhoods (Germain and Poirier, 2007). Newly arrived immigrant populations from the Global South tended to settle in the post-war suburbs with high concentrations of rental apartments such as Montréal-Nord, LaSalle, and Saint-Laurent. These buildings were often hastily built with poor-quality materials.

Since the 1980s, the geographic distribution of low-income households has spread. Although a large proportion of these households are still found in Montreal's former working-class neighbourhoods, many have moved away from the city centre to the neighbourhoods of Côte-des-Neiges, LaSalle, Montréal-Nord, Saint-Laurent, Saint-Michel, and Parc-Extension, as well as certain areas of Longueuil and Laval.

## A socioeconomically diverse city

Greater Montreal is unique among North American cities for its social and socioeconomic diversity: disadvantaged areas run alongside more affluent areas across most of the region. This distribution of poverty is sometimes called a «leopard print” pattern (Rose and Twigge-Molecey, 2013).

### The mitigating effect of universal public policies on spatial separation

Some public policies have had very concrete effects on the distribution of the city's various socioeconomic groups. According to Séguin and Germain (2000), this is particularly the case with “welfare state” policies in health, education, and social security. Introduced in the 1960s and 1970s, these policies had positive spatial impacts for the Montreal region “by reducing the social division of the metropolitan area and ensuring a comparable range of services throughout the territory, regardless of the local populations’ level of wealth.”

Montreal, in fact, has a very different profile from many cities in the United States, where territorial dynamics of exclusion have had much greater and more detrimental effects, particularly for poor and racialized populations.



# CURRENT STATE OF DISADVANTAGE IN GREATER MONTREAL

## Identifying the most disadvantaged areas

In this *Vital Signs* report, we will focus on areas with a relatively higher prevalence of low-income households. To define these areas, we have used the low-income measure, after tax (LIM-AT), from Statistics Canada's 2021 Census.

## Poverty, a key dimension of disadvantage

The LIM-AT is set at a fixed percentage (50%) of median family income adjusted for household size and composition. This measure assesses the **relative disadvantage** that people with significantly lower incomes may face. It therefore does not measure absolute poverty. For 2021, the LIM-AT threshold for a one-person household was \$26,503.

This indicator was chosen for several reasons:

- **Ease of understanding:** The LIM-AT is a threshold set at half the Canadian median of adjusted household income.
- **Ease of use:** LIM-AT data are accessible and available on different scales, facilitating the transfer of information presented in this report at other territorial scales.
- **Ease of comparison:** Unlike other indicators of low income or poverty, the LIM-AT uses a consistent methodology, allowing the rate of low-income households to be tracked over time.

In sum, the LIM-AT is an indicator of inequality that allows us to assess the relative nature of disadvantage through "shortages, absences, and deficiencies that prevent people from participating in the lifestyles shared by the majority" (Mercier, 1995).

## Poverty and vulnerability factors

Although income is not the only factor that makes households vulnerable, it intersects with other factors, including changes in health. Income-related inequalities coincide with inequalities associated with other socioeconomic factors, creating "intersections of privilege and disadvantage" (Québec. INSPQ, 2021a).

This report does not provide a comprehensive analysis of all the factors of power, privilege, and marginalization (sex, origin, social status, sexual orientation, gender expression, physical and mental ability, etc.), due to the complexity of such analysis. However, an intersectional lens is applied to each characteristic of the studied communities, when the available data allow, to illuminate the various aspects through which individuals may experience territorial inequities.

### Glossary

#### Intersectionality

This concept highlights the multidimensionality of the realities experienced by marginalized people, as well as the complex interplay between discrimination based on sex, gender, ethnicity, religion, functional limitation, sexual orientation, prevailing social norms, and systems of power and oppression, among others.

Source: Crenshaw, 1989.

#### Gender-Based Analysis Plus (GBA Plus)

The GBA Plus approach integrates intersectionality into the analysis of public policy, institutional practices, and research. It is a practical application of intersectionality through an analytical approach that considers disaggregated data, methodologies incorporating qualitative data, and notions of power and hierarchy that may play a role in project implementation.

Source: Saulnier, 2024.

## One third of census tracts in Greater Montreal are disadvantaged

For the purposes of this report, disadvantaged areas of Greater Montreal were determined based on the low-income household rate according to the LIM-AT at the census tract scale.

This *Vital Signs of Greater Montreal* report will describe and compare two types of environments:

- **Disadvantaged areas**, which are census tracts where 15.2% to 49.4% of households are low-income (36% of census tracts in Greater Montreal).
- **Other tracts**, which are census tracts where less than 15.2% of households are low-income (64% of census tracts in Greater Montreal).

## Choice of scale of geographic analysis

The LIM-AT data are available at several geographic scales defined by Statistics Canada for the purposes of the population census, including the dissemination area (a few hundred households) and the census tract (a few thousand households).

In this report, the census tract scale was used to determine disadvantaged areas. Because of their relatively large size, census tracts can mask some smaller areas of concentrated disadvantage, particularly in suburban and less dense areas. They nonetheless make it possible to identify the key dynamics of concentrated disadvantage across Greater Montreal (Apparicio et al., 2008) and highlight the most concerning situations.

## Methodological note on disadvantaged census tracts

Depending on the study, the prevalence thresholds used to identify disadvantaged census tracts range between 30% and 40% of households qualifying as low-income.

Between the 2016 and 2021 censuses, the prevalence of low-income households in Greater Montreal fell by 22%, reflecting a temporary increase in government transfer payments due to COVID-19 (Statistique Canada, 2017; 2021). Using a threshold of 30% or more low-income households, the number of disadvantaged census tracts fell from 91 in 2016 (Leloup, Rose, and Maaranen, 2018) to just 30 in 2021.

To account for this temporary effect, we have adjusted the thresholds in this report to obtain the same proportion of disadvantaged census tracts as in Leloup, Rose, and Maaranen's study (2018).

### Glossary

#### Dissemination area

A dissemination area is a small, relatively stable geographic unit of one or more adjacent dissemination blocks with an average population of 400 to 700 persons based on previous population census data. It is the smallest standard geographic area for which all census data are disseminated.

Source: Vivre en Ville, based on Statistique Canada, n.d.

#### Census tract

A census tract is a small, relatively stable geographic area made up of several dissemination areas. The census tracts of Greater Montreal contain an average of 4,351 individuals.

Source: Vivre en Ville, based on Statistique Canada, n.d.

#### Disadvantaged area

A disadvantaged area is a census tract with a low-income household rate of 15% or more according to the LIM-AT.

Source: Vivre en Ville.

## Widespread but unevenly distributed poverty

Of the 1.7 million households living in the Greater Montreal area, 221,000, or 13%, are low-income according to the LIM-AT (Statistique Canada, 2021). We have two key observations to make on this point.

First, **58% of low-income households are located in a disadvantaged area**. We can therefore conclude that there is a certain, albeit modest, level of concentrated disadvantage in the Greater Montreal area.

Second, **42% of low-income households are located in other types of areas**. This rather widespread disadvantage highlights the need to ensure that adequate resources and services are provided throughout the region to support low-income households.

### Distribution of households between disadvantaged areas and other areas

	Disadvantaged areas	Other areas	Total
Proportion of low-income households	58%	42%	100%
Proportion of households that are <u>not</u> low-income	32%	68%	100%

Source: Vivre en Ville.  
Data: Curbcut Montreal, n.d., based on data from Statistique Canada, 2021.

## Commonalities among disadvantaged areas

### One-person households

There are more single-person households in disadvantaged tracts (45%) than in other tracts (28%).

### More people who identify as a visible minority

The greater the number of low-income households in a census tract, the greater the number of people residing there who identify as a visible minority. In Greater Montreal, 39% of people in disadvantaged tracts identify as a visible minority, compared to 23% in other tracts.

### Overrepresentation of immigrant populations

The ratio of immigrants and recent immigrants in disadvantaged census tracts is 2.5 times higher than in other census tracts. This overconcentration can also be observed, albeit to a lesser extent, among the entire immigrant population, as immigrants are 1.5 times more likely to live in disadvantaged tracts.

## A renter majority

Tenant households make up 72% of the population of disadvantaged tracts, but only 32% in other tracts. Post-war walk-ups and buildings with five or more storeys are overrepresented in disadvantaged tracts, and often considered in need of major repairs by their residents (Leloup, Rose and Maaranen, 2018).

### The invisibilization of people with disabilities

People with disabilities are among the most vulnerable to changes within communities. They have a much lower than average income (Office des personnes handicapées du Québec [OPHQ], n.d.) and have a reduced adaptive capacity to emergencies like climate events.

The lack of access to geospatial data about people with disabilities (for reasons of confidentiality) reinforces the blind spots in terms of actions to include them.

## Locations of disadvantaged areas in Greater Montreal

Overall, the vast majority of disadvantaged areas are concentrated in fairly densely populated urban areas.

The largest contiguous area of census tracts with a **very high prevalence of low-income households** (30% or more) in Greater Montreal spans the downtown area, Centre-Sud, and southern sections of Plateau-Mont-Royal. This part of the city is characterized by an above-average proportion of social and affordable housing, mainly occupied by low-income households. There is also a large, concentrated student population, characterized by residential hypermobility (Conseil jeunesse de Montréal, 2021), due to nearby post-secondary institutions. The area is also home to three times as many recent immigrants than other census tracts.

Several census tracts with a **high prevalence of low-income households** (between 22% and 30%) are also found in these same neighbourhoods. There is a particularly high prevalence in Parc-Extension, where almost the entire neighbourhood has a high rate of low-income households, and in Côte-des-Neiges. For several decades, these two neighbourhoods have served as a first home in Canada for various immigrant communities. Northeast Montréal-Nord also stands out for its high prevalence of low-income households, as does the Chomedey district of Laval.


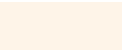
Greater Montreal also has tracts with a **lower, but still significant, prevalence of low-income households** (between 15% and 22%). These are located in the island's central neighbourhoods, including Sud-Ouest, Lachine, LaSalle, Rosemont, Hochelaga-Maisonneuve, Montréal-Nord, Saint-Michel, and Saint-Laurent. They are also present in more peripheral areas, like Sainte-Geneviève, Pierrefonds-Roxboro, and Sainte-Anne-de-Bellevue, as well as off-island in Longueuil, Sainte-Thérèse, and Saint-Eustache.

## Locations of other areas



The remaining census tracts cover a large part of the region and are mostly found in the outlying suburbs in the eastern and western ends of Montreal, and in affluent historical neighbourhoods such as Westmount, Outremont, Hampstead, and the Town of Mount Royal. They are also located in certain areas of neighbourhoods and central boroughs that have been gentrified or that are in the process of gentrification in Plateau-Mont-Royal, Rosemont, La Petite-Patrie, Verdun, Le Sud-Ouest, and Villeray, among others.





## Disadvantaged census tracts

Disadvantaged census tract	Other census tract	
		Percentage of low-income households by census tract
≥15% to 49%	1% to <15%	
333	590	Number of census tracts

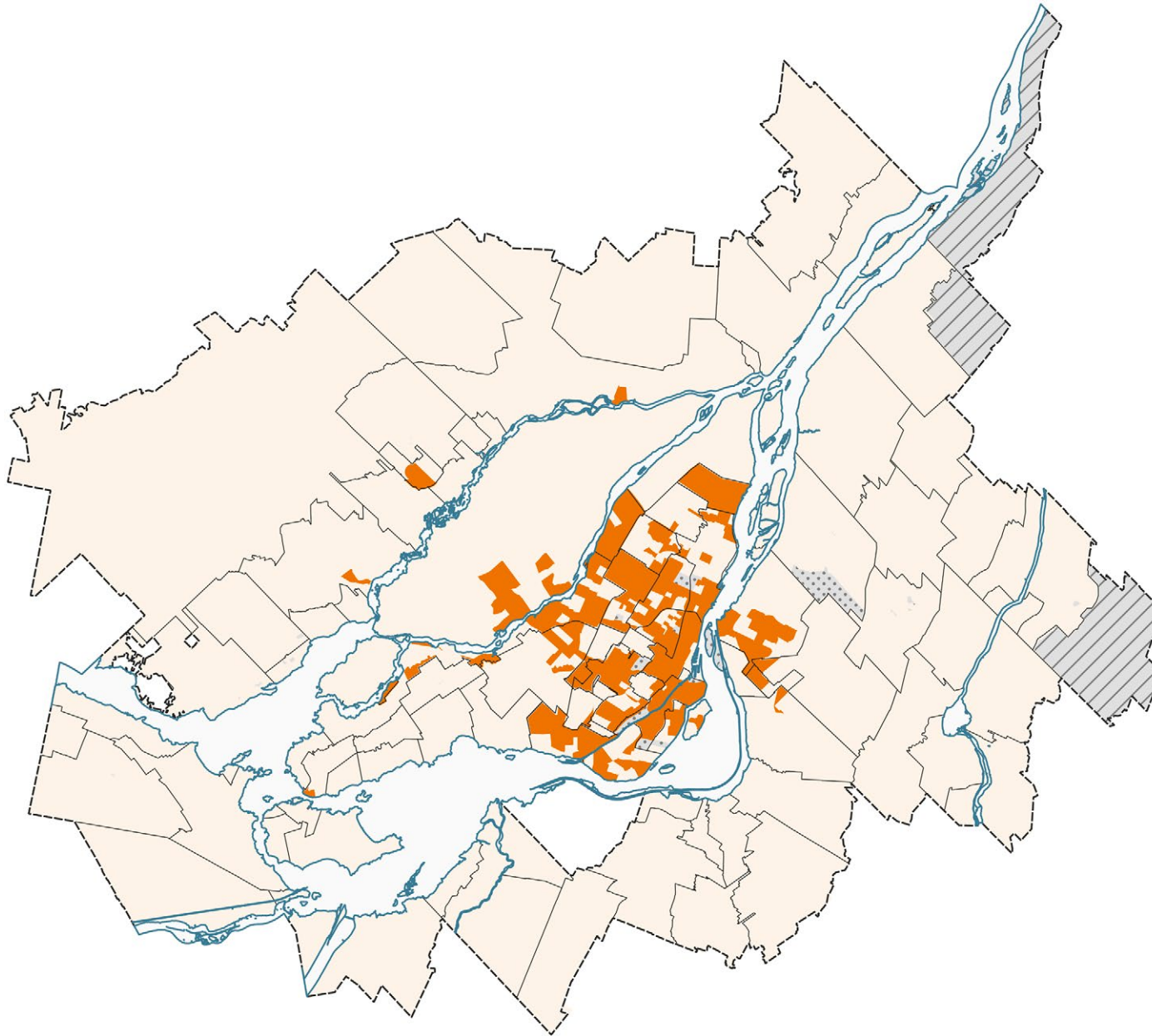
### Areas not covered in this analysis

	Lack of data
14	Number of census tracts
	Not covered by a census tract

### Boundaries

	Municipalities and boroughs
	Study area

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021.





4

# **DIMENSIONS OF THE BUILT ENVIRONMENT AND PUBLIC SPACE**



## Characteristics of the built environment and public space considered in this report

To shed light on distributional injustice in Greater Montreal (see section 1), this report examines the characteristics of the built environment and public space that influence health and quality of life.

Characteristics for analysis were chosen to provide the most comprehensive picture possible of factors that bring areas of Greater Montreal closer to being complete communities, or prevent them from achieving this status.

To provide a clear and useful picture of each community, we prioritized the use of **concrete indicators** over composite indexes.

## Characteristics grouped into four categories

The studied characteristics were grouped into four categories.

### Housing

- Housing conditions
- Rental housing
- Social and community housing
- Visible and hidden homelessness

### Local resources

- Shops and services
- Food environment
- Healthcare services
- Community organizations
- Trees and parks
- Cultural infrastructure
- Schools

### Mobility

- Safety of active travel
- Road environment around elementary schools
- Structuring public transit system
- Cycling infrastructure

### Environmental risks

- Extreme heat
- Flooding
- Air pollution
- Environmental noise

For each characteristic examined, we describe several aspects of its distribution:

- **Its inequitable (or equitable) nature:** Is it distributed inequitably across Greater Montreal?
- **Its territorial profile:** Which areas are most affected?
- **Possible causes:** What causes the disparities observed? What factors could be responsible?
- **Its differentiated effects:** Who are the populations and individuals most likely to be made vulnerable by these territorial inequities? In what ways are they more vulnerable?

Our analysis was sometimes limited by a lack of data. A literature review allowed us to partially fill certain gaps. Where relevant, potential additional avenues for analysis are recommended.

### Glossary

#### Complete community

A complete community allows each person, regardless of their financial means and abilities, to meet their basic needs. It provides a healthy and fulfilling living environment.

A complete community:

- provides adequate housing
- meets everyday needs
- offers safe, efficient transit

More broadly, a complete community:

- provides effective access to jobs and to specialized activities that are not in the immediate area
- protects residents from exposure to environmental risks

Source: Vivre en Ville.

# HOUSING

Access to a territory means first and foremost access to housing. After all, a person's experience of a city starts in their home. Housing is therefore a structuring factor of territorial inequities, as it determines an individual's community: What local resources are available? Can residents get around safely and efficiently? Are they exposed to environmental risks?

The concentration of low-income households in certain areas and their forced relocation to lower-quality neighbourhoods are partly the result of a dysfunctional housing system.

The inequalities pervading the housing system have very real consequences on a territory by shaping its communities and their sociodemographic composition.

For this dimension, we focus on populations that are vulnerable because of unfavourable housing market conditions. Who are these populations? What characteristics of the residential market are the strongest factors of disadvantage?

## What are the housing opportunities for economically disadvantaged people?

This section will focus on households' **access to housing** and the **living conditions** of renters, as this is the most common form of tenure among people facing economic disadvantage.

We draw some findings from the **distribution of rental housing** and of **social and community housing** (specifically low-rental housing) throughout Greater Montreal.

As an essential part of understanding the scope of territorial housing inequities, we include a section on the increase in the number of **people excluded from the residential market** and the rise in visible and hidden homelessness.

Finally, we provide an overview of the **causes and consequences of the housing crisis** to illustrate the systemic mechanisms that contribute to housing exclusion and insecurity.



## WHAT IS TERRITORIAL EQUITY IN HOUSING?

An equitable housing system is one that provides the following:

- **Access to housing:** each household can reside in a home whose characteristics and environment are favourable to health and compatible with their specific life context and needs.
- **The right to residential mobility:** households can relocate according to their changing life contexts and needs without unreasonable constraints.

The housing system in the Greater Montreal area is currently failing to meet both of these requirements.

Forced residential relocation can be expected as a result. With rising prices and a lack of housing supply, many households, especially those that are economically disadvantaged, are forced to leave their neighbourhoods to find adequate housing at a reasonable price.

### What is healthy housing?

Swope and Hernández (2019) define four pillars of healthy housing:

1. **Conditions and quality:** Includes factors such as pollutants, insects, moisture, and mould; drinking water and thermal comfort; and suitable size for the number of residents.
2. **Affordability:** Excessive rental costs can compromise the financial security of low-income households and their ability to meet other needs like food and healthcare.
3. **Residential stability:** The ability to continue living in one's home without experiencing harassment or dispossession.
4. **Neighbourhood:** The location of the dwelling must allow for mobility and access to resources (food, support networks, local resources) while protecting against social risks (e.g., violence), environmental risks (e.g., floods), and anthropogenic risks (e.g., pollution).

## LIMITED ACCESS TO HOUSING FOR THE MOST VULNERABLE

In the current housing crisis, access to housing is deteriorating for a large part of the population of Greater Montreal. Some types of households find themselves in an even more precarious situation, which is reflected in their access to the territory.

### Excessive housing costs

The Housing in Greater Montreal edition of *Vital Signs* (FGM, 2022) demonstrated that certain types of households are at greater risk of spending an unreasonable share of their income on housing.

It should first be noted that low-income households are significantly more likely to face unaffordable housing with an excessive effort rate.

On the Island of Montreal, 71% of individuals with low incomes spend 30% or more of their gross income on housing, compared to only 12% of people who are not considered low-income (FGM, 2022). This is also true in Laval, where low-income households are four times more likely to occupy unaffordable housing, and on the South Shore, where they are 2.2 times more likely (FGM, 2022).

Individuals living alone, single-parent families, immigrants, visible minorities, and tenant households are more likely to spend an excessive share of their income on rent (FGM, 2022).

## Costs with a broad and lifelong ripple effect

Households that spend a significant portion of their income on rent have more difficulty meeting their other **basic needs**. Controllable costs like food, medicine, heating, and air conditioning are often the first to be cut when rent is too high, putting households at risk of food insecurity, health problems, and energy poverty.

On top of these very real effects for those struggling to make ends meet, households that allocate a lot of money to their rent are not left with enough residual income to save. This compromises their ability to build **financial wealth** to deal with unexpected expenses and ensure decent living conditions in their retirement.

In Quebec, real estate assets are the primary source of household assets. Owner households have 20 times more family wealth than tenant households (Boucher and Torres, 2023), reflecting the important role of housing tenure in wealth creation.

Moreover, increasing property values benefit landlords while penalizing tenants. The housing system thus widens the inequalities between owner and tenant households.

## Effort rate, an indicator that merits nuanced analysis at the territorial level

The average effort rate in an area indicates the share of income spent on housing by the households living there. Territorial analysis of effort rates does not, however, allow us to:

### 1. Draw conclusions about the financial comfort of households in the area.

Affluent households can afford to spend a larger share of their income on housing, as the remainder more than meets their other needs. Conversely, the effort rate for households in subsidized housing may be considered acceptable, even though the remaining portion of their income used to meet basic needs is very small.

### 2. Know how an area's affordability has changed over time.

Households move in time and space, making it impossible to effectively compare the average effort rate in an area at different times. For example, the Sud-Ouest borough experienced a significant drop in effort rate between 2001 and 2016, reaching -71% in some areas. As this is mainly due to gentrification, it should not be interpreted as a positive development in housing affordability (Gaudreau, Fauveaud and Houle, 2021).

For the above reasons, we have chosen not to present a territorial analysis of effort rate

## Glossary

### Residential affordability

Residential affordability means that all households in a given area, regardless of their income level, have attractive housing options. Residential affordability refers to the market and not to a single housing unit.

Source: Vivre en Ville.

### Effort rate

The share of gross household income used to cover the cost of housing and rent. Generally, an effort rate of 30% or more is considered critically high.

Source: Statistique Canada, 2023.

## Tenant status becoming more widespread

In Greater Montreal, income is strongly associated with the form of housing tenure; nearly **80% of low-income households are renters** (Communauté métropolitaine de Montréal [CMM], 2022). However, other population groups are also more likely to face an excessive or even critical effort rate. These groups share one key characteristic in relation to housing: tenant status.

Households with an effort rate above 30% rely more than others on the subsidized and unsubsidized rental market to meet their housing needs. **Subsidized tenant households** include a higher share of low-income households. Among **non-subsidized tenant households**, there is also a higher share of several household types with a high effort rate, including people living alone and single-parent families.

### Analysis to be supplemented by other data:

- Energy poverty rates by household and regional characteristics
- Region-based analysis of tenant evictions

## Proportion of tenant households by household type and subregion

	Proportion of households		
	Subsidized tenants	Non-subsidized tenants	Tenants (total)
Greater Montreal	4%	42%	46%
<b>By household type</b>			
Low-income	13%	64%	77%
Higher income	0%	19%	20%
Person living alone	7%	58%	65%
Single-parent family	6%	47%	53%
Couple with children	1%	25%	26%
Indigenous	7%	51%	58%
Immigrant	5%	43%	48%
Without permanent residency	3%	87%	90%
Non-immigrant	3%	39%	42%
<b>By subregion</b>			
North Shore	1%	26%	27%
South Shore	2%	21%	23%
Laval	2%	31%	33%
Urban agglomeration of Longueuil	3%	36%	39%
Urban agglomeration of Montreal	5%	55%	60%

Source: Vivre en Ville.  
 Data: Statistique Canada, 2021, based on data obtained by the CMM.  
 Some data have been rounded.

## Asylum claimants

Asylum claimants face a particularly concerning situation among non-permanent residents since this population is exposed to many factors of housing insecurity:

- The SHERPA University Institute reports that asylum-seeking households with children are forced to move frequently (Institut universitaire SHERPA, 2021), which, according to the Léa Roback Research Centre, can have an impact on children's development and academic success (Centre Léa-Roback, 2021).
- Just over 40% of households seeking asylum live in housing of an unsuitable size compared to 9.1% of the rest of the Canadian population (Tuey and Bastien, 2023).
- The SHERPA University Institute also reports that asylum claimants are less likely to report unsanitary conditions or discrimination for fear that such actions could negatively impact their application status (Institut universitaire SHERPA, 2021).
- Asylum claimants are not eligible for housing subsidized by the Société d'habitation du Québec (SHQ).

This precarity can be particularly consequential for children, who make up almost 23% of asylum claimants (Tuey and Bastien, 2023).

## Overall more difficult living conditions for tenants

In Quebec, access to home ownership remains a strong cultural ideal, especially for the middle class. However, the difference between owner and tenant status is much more than just symbolic. Tenants are more likely than owners to live in housing conditions known to be unfavourable to health.

### Unsuitable housing size

In Greater Montreal, 9.7% of tenant households live in housing that is not large enough for their needs, compared to 2.7% of owner households (CMM, 2022).

On the Island of Montreal, tenant households with children occupy smaller dwellings than owner households with children. While having access to less space is not a housing quality indicator per se, the City of Montréal reports that 11.6% of tenants with children live in a single-bedroom unit (or studio), compared to only 0.5% of owners with children who have sole ownership, and 3.8% of owners with children in condominiums (Ville de Montréal, 2020a), suggesting that this difference in size is imposed rather than chosen.

## Dwellings in need of major repairs

In terms of housing safety, tenants are more exposed to unhealthy conditions than owners and more likely to live in housing that needs major repairs. In the Montreal CMA, 9% of tenants live in poor-quality housing (Statistique Canada, 2021).

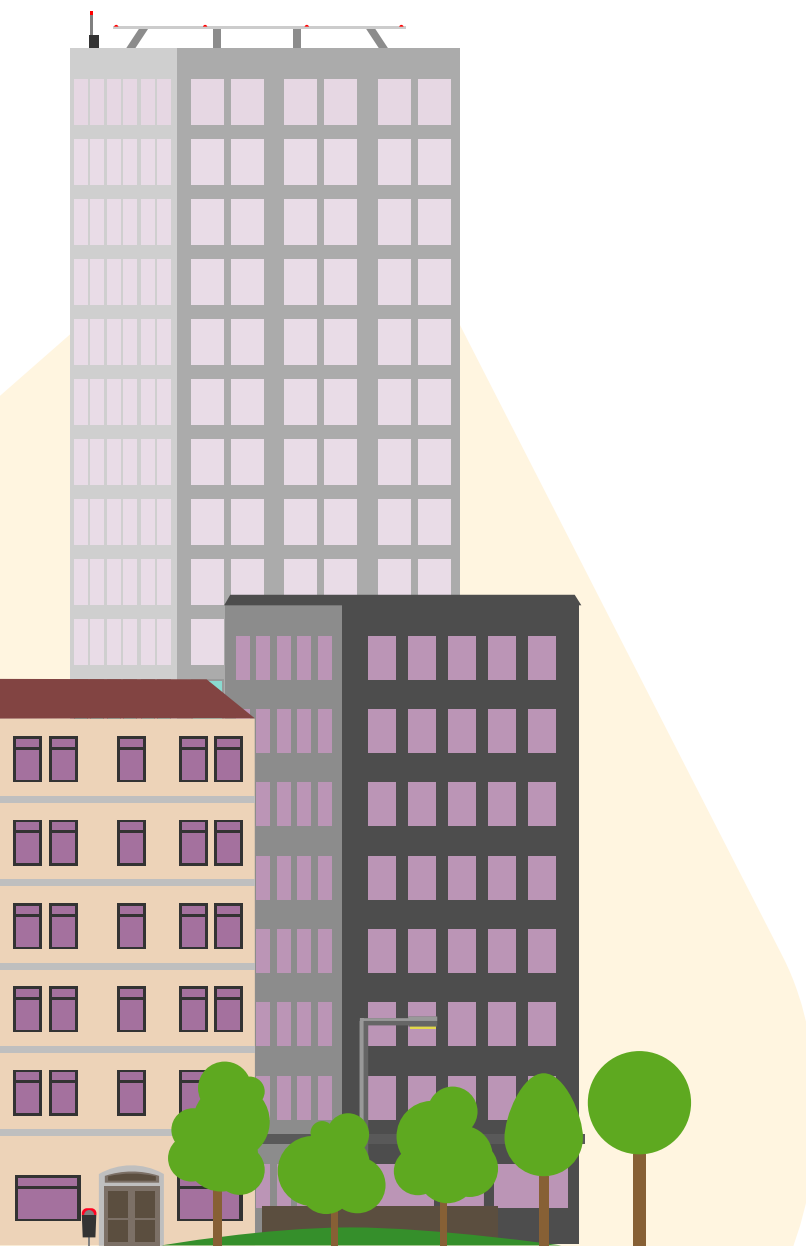
### Eroding rights

Although tenants in Quebec have some protection, the housing crisis endangers their rights. One striking example is the increase in the cost of rent, which is well above the recommended rates. Several tenants' rights organizations are sounding the alarm at the weakening of these rights. As a result, renoventions and changes in dwelling destination have increased significantly in recent years. On the Island of Montreal, the Regroupement des comités logements et associations de locataires du Québec (RCLALQ, 2023) reported a 143% increase (n = 2,306) in forced evictions in 2023 alone.



“ In the end, I want more than a livable city, more than a sustainable city, more than a resilient city. I want more than equality, which doesn't always account for the limitations, disadvantages, or, in some cases, the privileges that render the positions of some in the city unequal. I want a just city where all people, but especially 'the least not,' are included, have equitable and inclusive access to the opportunities and tools that allow them to be productive, to thrive, to excel and to advance through the ranks of social and economic mobility.”

- Toni L. Griffin, professor of urban planning at the Harvard Graduate School of Design, founder and director of the Just City Lab (2015).



## LIMITED RESIDENTIAL MOBILITY AND ACCESS TO THE TERRITORY

Access to housing for low-income households and those with various vulnerability factors relies largely on the rental stock and social and community housing.

Examining the geographic distribution of housing stock therefore provides information on access to the territory for those who are most vulnerable.

### Uneven distribution of rental stock

Rental units are not evenly distributed across Greater Montreal. They are concentrated mainly in the centre, with the Island of Montreal having a 60% rate of tenant households, compared to about 25% on the North and South Shores (CMM, 2023a). In Montreal, there is a higher rate of tenant households in central neighbourhoods and certain outlying neighbourhoods.

The distribution of tenant households thus closely follows that of low-income households. In the disadvantaged areas of Greater Montreal, 72% of households are tenants, compared to 32% in other areas (Curbcut Montréal, n.d.).

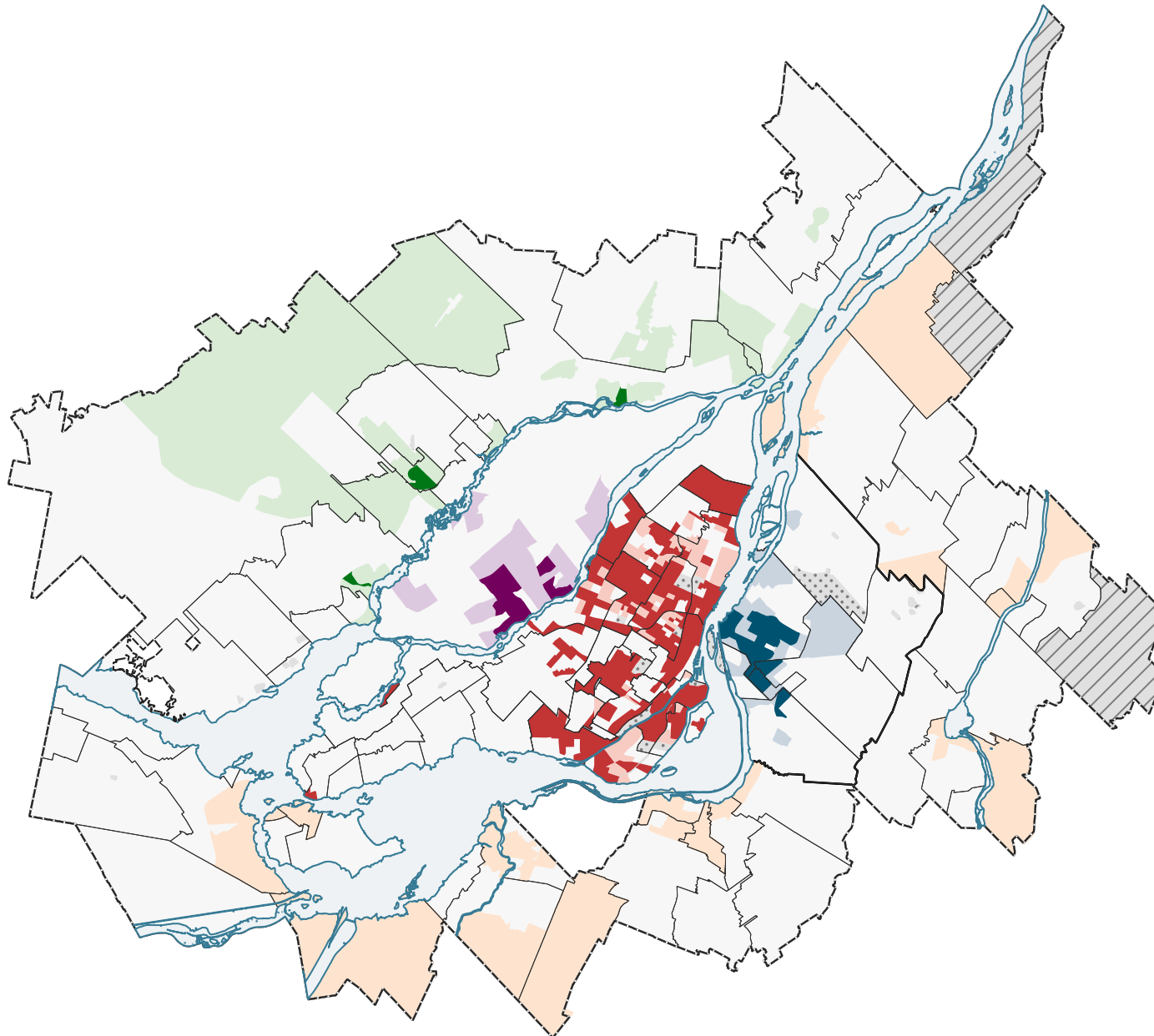
This uneven distribution of rental stock points to a number of territorial equity issues. First, it creates invisible barriers to certain areas for less advantaged households. Second, it hinders the residential mobility of tenant households. Since dwellings can rarely be adapted to changing needs, almost all households have to move at some point in their life (birth of a child, departure of a family member, separation of a couple, etc.). The limited supply of rental housing in some areas compromises the ability to move within one's community.

Finally, we note that rental housing is overrepresented around the structuring lines of public transit (high-frequency metro and bus lines), an attractive feature that can be in particularly high demand among all types of households. In a housing shortage, an imbalance between supply and demand near such transportation infrastructure risks putting pressure on the cost of rent, particularly for units offering rare features (e.g., with three or more bedrooms).

In summary, low-income households have limited access to the territory, and the areas currently accessible to them are at high risk of rising housing costs, which could lead to their eviction.



## Rental housing concentration by subregion



### Above-average rates of tenant households by Greater Montreal subregion

Disadvantaged census tract	Other census tract	Subregion	Average:
Red	Light red	Urban agglomeration of Montreal	60%
Dark blue	Light blue	Urban agglomeration of Longueuil	39%
Purple	Light purple	Laval	34%
Green	Light green	North Shore	27%
	Light orange	South Shore	23%

### Areas not covered in this analysis

Dotted pattern	Lack of data
Diagonal lines	Not covered by a census tract

### Boundaries

Thin solid line	Municipalities and boroughs
Thick solid line	Greater Montreal subregion
Dashed line	Study area

Source: Vivre en Ville.

Data: Curbcut, n.d., based on Statistique Canada, 2021; CMM, n.d.

## Insufficient social and community housing

There are many economic and individual benefits to social and community housing. First, it provides households with better housing security through low-cost rent, or for some households, dwellings with rent that does not exceed 25% of their income. Second, the affordability of such housing is maintained long-term because of its social, rather than market-driven, purpose. All types of social and community housing therefore provide financial relief to their beneficiaries, whether subsidized or not (Houle et al., 2023).

In Greater Montreal, social and community housing accounts for only 4.1% of all housing and 9.1% of rental housing (CMM, 2022). The majority of these dwellings (72%) were built before 1995, when the federal government withdrew its financial commitment to public housing. While other government programs have stepped in to fund the creation of non-profit housing, increase in this stock has remained—and remains—well below the identified needs for the region (see next section).

## Accessible, adaptable, and adapted housing

There is very little data on accessible, adaptable, and adapted housing in Greater Montreal. People with disabilities generally face many barriers to accessing housing and rely more on rental housing. They are 1.8 times more likely to live in unaffordable housing than the population without disabilities (Québec. OPHQ, n.d.).

In Quebec, 14% of the population with disabilities live in subsidized housing, compared to 7% of the population without disabilities (Québec. OPHQ, 2022). On the Island of Montreal, the City estimates that 1.7% of the social and community housing stock is adapted and about 13.5% is adaptable (Ville de Montréal, 2016).

## Analysis to be supplemented by other data:

- Characteristics of social and community housing and its resident population by type of program and region
- Proportion of social and community housing by type of program and region

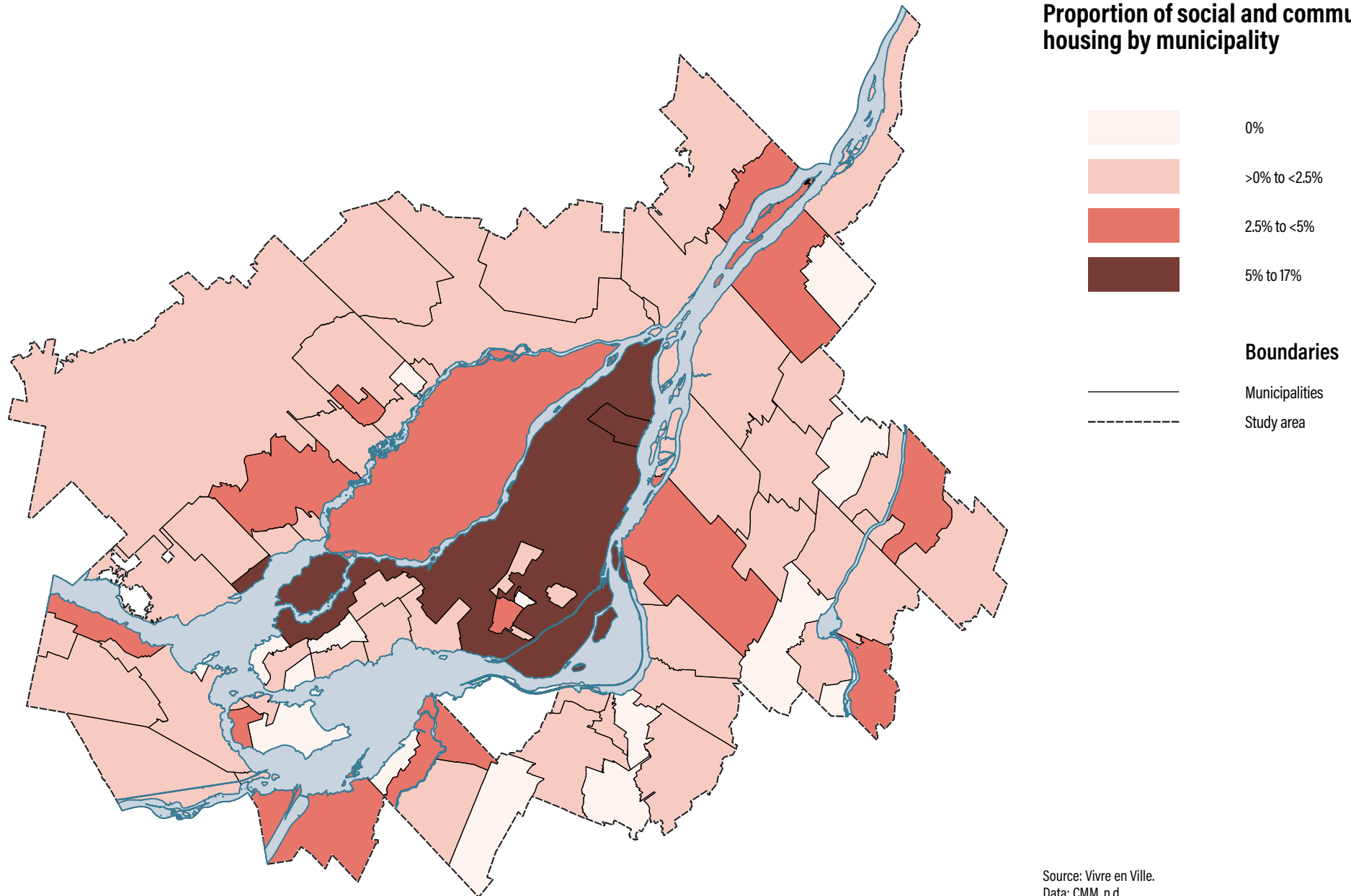
## Glossary

### Social and community housing

Social and community housing (also known as «non-profit» or «off-market” housing) refers to public housing managed by housing authorities and to community housing managed by groups like housing cooperatives and non-profit organizations. This housing category has a form of ownership that pursues a social purpose rather than profit.

Source: Québec. Ministère de la Santé et des Services sociaux [MSSS], 2022.

## Proportion of social and community housing by municipality



## Proportion of social and community housing in Montreal boroughs

Borough	Proportion of social and community housing
Ahuntsic-Cartierville	7.0%
Anjou	2.0%
Côte-des-Neiges-Notre-Dame-de-Grâce	6.2%
L'Île-Bizard-Sainte-Geneviève	0.2%
Lachine	8.0%
LaSalle	3.3%
Le Plateau-Mont-Royal	6.6%
Le Sud-Ouest	18.0%
Mercier-Hochelaga-Maisonneuve	10.3%
Montréal-Nord	4.9%
Outremont	0.8%
Pierrefonds-Roxboro	5.9%
Rivière-des-Prairies-Pointe-aux-Trembles	5.6%
Rosemont-La Petite-Patrie	7.3%
Saint-Laurent	2.1%
Saint-Léonard	1.8%
Verdun	3.6%
Ville-Marie	38.4%
Villeray-Saint-Michel-Parc-Extension	5.7%

Source: Vivre en Ville.  
Data: Ville de Montréal, 2023; Ville de Montréal, n.d.

“ Low-cost housing is a powerful tool for reducing health inequalities. Not only can it provide long-term housing stability, giving tenants space to rebuild and get back on track, but it can also prevent a precarious situation from worsening. [...] It's vital that it be made available early in people's lives to help them avoid the impacts of living with vulnerability. ”

– Houle et al., 2023.

### Glossary

#### Low-rental housing

Low-rental housing is publicly owned housing managed by municipal housing offices. It is mainly intended for low-income households. Some low-rental housing is specifically for elderly people or for families, single people, or couples. All rents are equal to 25% of the tenants' income.

Source: Vivre en Ville, based on Front d'action populaire en réaménagement urbain [FRAPRU], n.d.

## Insufficient access to low-rental housing

Low-rental housing often acts as the last bastion of the social safety net. These units mainly benefit households that are disadvantaged and made vulnerable by socioeconomic factors that drive up rental costs in the private rental market.

Tenants are chosen based on a set of criteria designed to prioritize access for the most vulnerable households. This selection process ensures that those units are used by people who are, on the whole, more disadvantaged than those in other types of social and community housing (Houle et al., 2023).

### Housing stock in need of repair

What the map on the following page does not illustrate is the urgent need for renovation of the low-rental housing stock.

In Montreal, 6% of low-rental housing units, or approximately 1,500 units, are currently vacant due to major renovations underway or pending due to a chronic lack of funding (OMHM data reported by Duchaine, 2024).

In Greater Montreal, nearly 70% of low-rental housing units are in buildings that are considered to be in poor or very poor condition according to the Government of Quebec's infrastructure condition index (CMM, 2023a). Fortunately, new funding has recently been allocated to the SHQ's low-rental housing renovation program, and many upgrades are planned or underway.

## Unequal distribution of low-rental housing

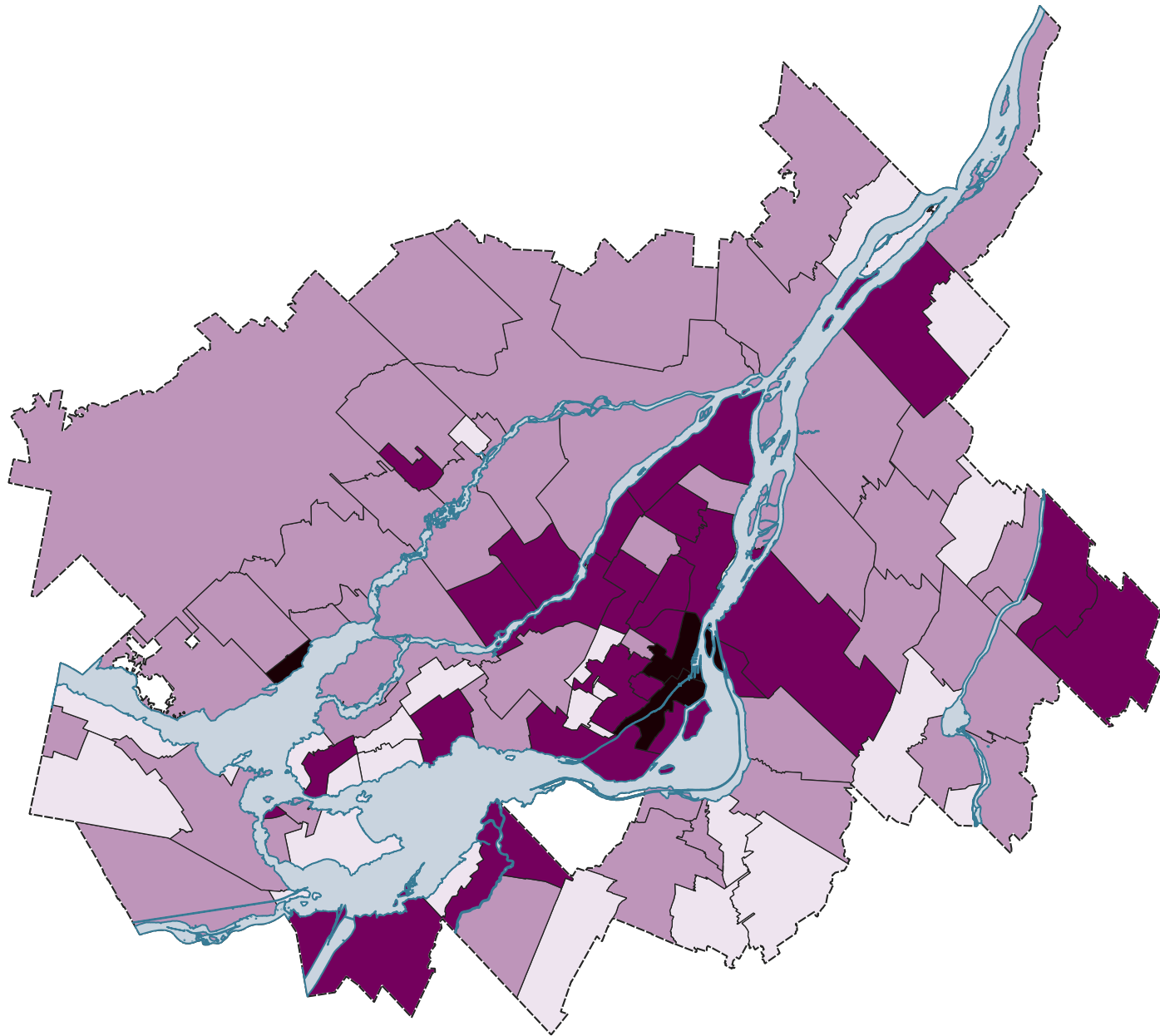
Low-rental housing is unevenly distributed across Greater Montreal. Montreal has a larger share of low-rental housing per household than most other municipalities. Outside the agglomeration of Montreal, almost a quarter of municipalities (16 out of 67) have no low-rental housing.

While Montreal's historic districts have a diversified stock of low-rental housing for seniors, families, and single individuals, the same is not true in former suburban municipalities, which have been slow to implement social housing initiatives, focusing instead on housing for seniors. For example, Montréal-Nord and Saint-Léonard formerly preferred to leave housing for low-income populations to the private market (Dansereau et al., 2002), which explains their relatively lower share of low-rental housing.

## Long wait times for low-rental housing

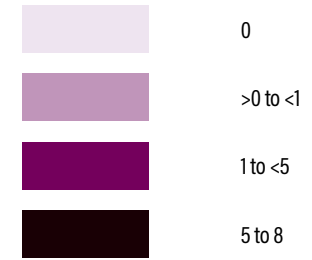
As evidenced by the number of households on the social housing eligibility list, this need is widespread and shared by an overwhelming number of people. In 2021, 30,000 households were waiting for social housing in Greater Montreal, where there is a stock of 26,720 low-rental units (CMM, 2022). In 2022, the average amount of time to obtain a unit in housing stock managed by the Office municipal d'habitation de Montréal was 5.8 years (OMHM, 2022).



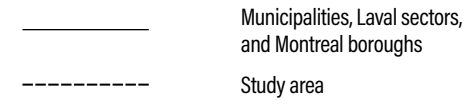


## Ratio of low-rental housing units to households

Number of low-income housing units per 100 households



### Boundaries



Source: Vivre en Ville.  
 Data: Curbcut, n.d., based on Statistique Canada, 2021; Ville de Montréal, 2023; Ville de Laval, 2017; CMM, n.d.

## Inadequate supply for families and individuals living alone

In 18 boroughs and reconstituted cities, there is no low-rental housing for families or individuals living alone. Of the boroughs and reconstituted cities whose stock includes low-rental housing, eight have a waiting list with more resident households awaiting low-rental housing than there are available housing units in the entire stock. We can therefore assume that the waiting period for households residing in these boroughs can be very long.

The 384 low-rental housing units in Montreal's West Island are reserved for people aged 60 and over. Individuals living alone and families therefore cannot hope to obtain low-rental housing in this area, as no such units exist for them. Yet, 372 households residing in this area were on the eligibility list and awaiting low-rental housing in October 2023 (OMHM, 2023). If and when they are selected to move into low-rental housing, they will have to uproot themselves from their communities.

This limited supply is a significant limitation for access to housing and residential mobility for households that wish to remain in their community while benefiting from the security of social housing.

## Supply only slightly higher for seniors

Low-rental housing units for people aged 60 and over have a better geographic distribution across the Island of Montreal. However, the number of residents waiting for low-rental housing is higher than the total number of low-rental units in several boroughs and reconstituted cities on the island. This highlights the issues of access to public housing faced by seniors.

## Supply and demand for low-rental housing (families and individuals under 60 living alone, urban agglomeration of Montreal)

Borough	Number of low-rental housing units	Number of resident households awaiting low-rental housing	Ratio of waitlisted households/low-rental housing units
Ahuntsic-Cartierville	648	1088	1.68
Côte-des-Neiges-Notre-Dame-de-Grâce	557	1388	2.49
LaSalle	80	510	6.38
Montréal-Nord	167	848	5.08
Saint-Laurent	92	841	9.14
Saint-Léonard	100	703	7.03
Verdun	120	385	3.21
Villeray-Saint-Michel-Parc-Extension	784	1891	2.41

Source: Vivre en Ville.  
Data: Ville de Montréal, 2023; OMHM, 2023.

## Supply and demand for low-rental housing (individuals 60 and over, urban agglomeration of Montreal)

Borough	Number of low-rental housing units	Number of resident households awaiting low-rental housing	Ratio of waitlisted households/low-rental housing units
Dorval	24	47	1.96
L'Île-Bizard-Sainte-Geneviève	12	23	1.92
Montréal-Nord	258	378	1.47
Saint-Laurent	197	328	1.66
Saint-Léonard	192	232	1.21

Source: Vivre en Ville.  
Data: Ville de Montréal, 2023; OMHM, 2023.

# PEOPLE EXCLUDED FROM THE HOUSING SYSTEM

Homelessness is an extreme manifestation of social inequality. While visible homelessness is the most noticeable form, many individuals facing severe housing insecurity find themselves in transitional housing or emergency accommodation, or experiencing hidden homelessness due to a lack of access to housing.

## Increase in visible homelessness

From 2018 to 2022, visible homelessness increased significantly (+44%) in all regions of Quebec (Québec, MSSS, 2023). The latest count of people experiencing visible homelessness in Quebec showed that this increase was greater in certain regions bordering the Island of Montreal. However, nearly half of all people experiencing homelessness are on the Island of Montreal, which stands out for its higher proportion of unhoused people in public spaces.

## Change in the number of people experiencing visible homelessness between 2018 and 2022

Region	2018	2022	Increase
Montreal	3,119	4,152	+33%
Laval	169	179	+6%
Laurentides	185	387	+109%
Lanaudière	209	283	+35%
Montréal	281	555	+98%

Source: Vivre en Ville.  
Data: Québec, MSSS, 2023.

Resources to support the growing homeless population are insufficient and already stretched thin, and there is a lack of funding to create new ones (Ouellette-Vézina, 2024). This results in an increase in the number of unhoused people who spend the night in public spaces. In 2023, the City of Montréal dismantled nearly 500 encampments (Boily and Gentile, 2024). While such encampments have traditionally been located close to the city centre, they are now found throughout the region.

Men, Indigenous people, and LGBTQ+ youth are overrepresented among those experiencing visible homelessness. According to the Réseau d'aide aux personnes seules et itinérantes de Montréal (RAPSIM, 2023) and several local stakeholders interviewed, there has been an increase in populations of migrants with precarious status, including families. This is partly due to greater housing instability caused by the housing crisis, as well as lack of access to the social safety net due to their migrant status. Existing homelessness resources and services have not caught up with this new reality, being ill-equipped to address its specific challenges.

### Glossary

#### Visible homelessness

A person is considered to be experiencing visible homelessness if they do not have a permanent and safe home AND if, on the evening of the homelessness survey, they are without shelter in a place not intended for human habitation (for example, a car, a makeshift shelter, or a doorway) or in a temporary resource (emergency accommodation; women's shelter for victims of domestic violence; transitional resource; therapy, rehabilitation, or crisis centre, etc.).

Source: Vivre en Ville, based on Québec, MSSS, 2023.

#### Hidden homelessness

A person is described as experiencing hidden homelessness if they are temporarily housed in another person's home or in a hotel or motel, without having a permanent fixed residence, or if they live in a rooming house.

Source: Vivre en Ville, based on Québec, MSSS, 2023.



## Housing, the missing piece for people experiencing homelessness

The social and individual factors that contribute to the exclusion of individuals from the housing system and keep them in precarious housing situations are many-faceted. They include lack of income, difficulty accessing healthcare, barriers to socioprofessional integration, and discharge from an institution, among others. Regardless of the individual experiences of unhoused people, accessing (and retaining) housing is a necessary step in getting off the streets. Without housing, there's no health; without health, no employment; without employment, no income; without income, no housing.

According to the information collected in the last count, eviction is the reason most commonly cited by people experiencing homelessness for the loss of their last home (Québec. MSSS, 2023). In Laval, nearly three out of five people experiencing homelessness want help finding and retaining housing, making housing their most urgent need.

### Increased risk of homelessness for women experiencing domestic violence

The housing crisis is having a significant impact on highly vulnerable populations, especially women who are victims of intimate partner violence and their children. For these women, access to housing is “a matter of safety or even survival” (Brazeau and Laflamme, 2023), and Statistics Canada identifies the lack of affordable housing as the main challenge for those living in a shelter (Statistique Canada, 2024).

Although women who are victims of intimate partner violence are given priority in obtaining low-rental housing units, the social housing shortage is so acute that the entire chain of support for these women is delayed or even broken. This reality causes increasingly long stays in short-term emergency shelters beyond what is recommended (Statistique Canada, 2024; Morin-Martel, 2024). These interrupted service trajectories often shape the lives of unhoused women who have experienced intimate partner violence (Cousineau and Flynn, 2018).

### Analysis to be supplemented by other data:

- Detailed geographic profiles
- The role of housing in the lives of people experiencing homelessness
- Statistics and qualitative analysis on hidden homelessness



# THE HOUSING CRISIS: CLEAR CAUSE FOR ALARM

Several factors influence Greater Montreal's housing system. Social inequalities, economic conditions, real estate dynamics, the labour market, public policies, discrimination, and housing options are intertwined and act upon one another.

At present, access to housing and residential mobility in Greater Montreal are becoming increasingly precarious. The housing crisis contributes to exacerbating social inequalities and has a harmful effect on the mental, physical, and social health of the population (Québec. Direction régionale de santé publique de Montréal et al., 2022).

The overall increase in real estate and rent costs tends to make households most at risk of economic or social exclusion even more vulnerable. This crisis can be explained in part by an environment conducive to speculation, high demand, and insufficient and excessively slow housing starts.

## Housing shortage

In 2023, Greater Montreal had its lowest vacancy rate in 20 years, at 1.5%. According to the Canada Mortgage and Housing Corporation, this is mainly due to population growth, a strong employment sector, and high property prices, which are forcing more households to find housing through the private rental market (Canada. Société canadienne d'hypothèques et de logement [SCHL], 2024).

The rapid rise in interest rates starting in 2022 has also caused a drop in the number of housing starts in the region, which was already insufficient to meet demand. According to the CMM (2022), in 2021, it would have taken an additional 24,000 to 32,000 units available for sale to reach a balanced ratio of 8 to 10 sellers per buyer.

### Not all housing is equal

In 2023, Centraide of Greater Montreal revealed that vacancy rates for the first three rent quartiles were well below those for the highest quartile of rents, equivalent to \$1,150 and above (Centraide du Grand Montréal, 2023).

In short, the least expensive housing is the rarest. In this category, the vacancy rate for units with three or more bedrooms is particularly alarming at only 0.2%, which poses serious affordability challenges for low-income families seeking suitable housing.

## Rent increases

The combination of a high demand for housing and a scarce supply creates ideal conditions for an overall rise in prices.

In 2023, the average rent for all types of housing increased by 7.7% in Greater Montreal (Canada. SCHL, 2024). The average rent increases in the suburbs have outpaced those on the Island of Montreal in recent years (FGM, 2022). Despite some variation between the different areas of the region, the upward trend is present across them all.

### Rent increases undermine residential mobility

In Greater Montreal, there is a 21.3% difference between the average rent of vacant rental units (\$1,071) and occupied units (\$1,299) (Canada. SCHL, 2024). This difference tends to be higher in the suburbs (35.9%) than on the Island of Montreal (17.3%).

The residential mobility of households is eroding as the gap between vacant and occupied units widens. Between 2017 and 2023, housing turnover decreased from 17.3% (Canada. SCHL, 2017) to 9.6% (Laberge, 2024).

The accelerated financialization of the housing market plays an important role in driving up the cost of rents; this type of real estate acquisition considers housing first and foremost as an investment, thus seeking to respond to financial interests and logic by prioritizing performance targets (Gaudreau, Fauveaud and Houle, 2021).

Financialization results in, among other things, a **rental market concentrated in the hands of a handful of real estate owners**. In Montreal, 0.46% of landlords own 32% of rental units. These units are concentrated mainly in central locations, in the Ville-Marie (31.8%) and Le Plateau-Mont-Royal (17.9%) boroughs, where there is a particularly high concentration of low-income households (St-Hilaire, Brunila and Wachsmuth, 2024).

## A growing disconnect between income and prices

The current logic of the housing system is creating an ever-widening gap between housing costs and household income. Between 2011 and 2021, house prices increased by 90%, while household incomes only increased by 40% (CMM, 2022).

Rental housing is also sensitive to increases in property values, as the cost of buying property directly affects the price of rent. This is creating a more precarious housing situation for an increasing number of tenant households, since the entire rental market is affected by the rise in the cost of rents.

In 2023, Centraide of Greater Montreal (2023) calculated that 19% of Greater Montreal households would start the month with a negative net residual income if they lived in market housing and paid for their basic needs.

## Households face a real risk of eviction from their community

While the housing crisis affects a significant number of households of all types, low-income households are likely to suffer the most severe consequences.

The rising prices limit options for those with limited means. Less opportunity may mean having to settle for smaller or poorer quality housing.

It also reduces the possibility of choosing one's own community. With demand for social housing far exceeding supply and with home ownership unlikely, many low-income households have no other option than the private rental market. However, this market is an increasingly competitive environment in a number of ways.

As we have seen, low-income households are currently largely concentrated in central areas that are served by public transit and offer a high quality of life. These communities are also popular with many higher-income households.

If housing affordability is not protected in the few areas offering a good quality of life on a low income, the most vulnerable people face a real risk of being evicted from their community in the short or medium term.

### Glossary

#### Net residual income

Net residual income refers to the remaining income after taxes and after paying for housing (at market rates) and any other expenses deemed essential for a decent standard of living.

Source: Centraide, 2023.

## **WHAT HOUSING REVEALS ABOUT TERRITORIAL EQUITY**

Housing plays a central and determining role as a factor of precarity and social exclusion. Having housing options (or not) is a major factor in how people experience territorial inequity.

### **Declining affordability of Greater Montreal's housing stock**

Partly due to the housing supply being insufficient to meet demand, widespread price hikes are affecting all housing types across the entire Greater Montreal area. The gap between the cost of occupied and vacant units is widening, jeopardizing the overall affordability of Montreal's housing stock.

Unable to afford rent at market rates, many have no choice but to stay in housing that is sometimes too small, substandard, or poorly located.

### **Limited options for disadvantaged households**

For economically insecure households, rental housing is often the only option.

Our analysis of the geographic distribution of rental housing shows that tenant households have a much more limited choice of location than other households. Because of uneven distribution, some areas of Greater Montreal, particularly in the outskirts, have very low rates of rental housing. This characteristic of the rental market creates a significant territorial inequity for disadvantaged households, all the more so in a housing shortage, which already complicates the search for a home.

### **An unreliable housing social safety net**

Social and community housing often acts as a lifeline for individuals and families who, for a variety of reasons, are unable to live in market housing suited to their needs and abilities (financial, physical, etc.).

With a few exceptions, the number of these units among the housing stock in the different areas of Greater Montreal is minimal and well below current needs.

We studied the case of low-rental housing in greater detail to illustrate the consequences of a lack of social and community housing. Our analysis first showed that applicants, despite their eligibility, have to wait an average of several years before being assigned a unit.

Secondly, applicants have a slim chance of obtaining a unit in their borough or municipality of residence, due to wait lists often exceeding the number of units available. In some cases, there is simply no possibility of finding low-rental housing in their area because it does not exist. This is especially the case for families and people living alone in the West Island, where the limited low-rental housing supply is reserved for people aged 60 and over.

### **A perfect storm pushing people onto the streets**

The growing number of people unable to afford a place to live along with the high demand for social and community housing is contributing to a rise in visible and hidden homelessness. This form of social exclusion illustrates how housing is an essential component of social integration and a major factor in social inequality.

### **Place of residence as a measure of territorial inequity**

The rise in the number of people experiencing homelessness forces us to acknowledge the decisive role of one's place of residence in any study of territorial inequities. As we are analyzing the territory based on people's environments, how do we situate unhoused people, if not by a residence?

### **A housing system that defines life in each neighbourhood**

Our analysis of the intersection of the housing system and household vulnerability demonstrates that the location where a household ends up living is heavily constrained by a set of systemic factors. While there is a wide range of options for wealthier households, who can generally choose whether to stay or leave their community, options are much more limited for disadvantaged households. The impacts of these disparities will be explored in further detail in relation to the following dimensions.

# LOCAL RESOURCES

Local resources shape daily life. Their presence in sufficient number, their physical and geographic accessibility, and their suitability to local needs contribute to a population's health and quality of life.

## Seven types of local resources analyzed for territorial equity

This section analyzes seven types of resources: **local shops and services**, the **food environment**, **community health services**, **community organizations**, **trees and parks**, **local cultural facilities**, and **schools**.

## How to read each subsection

For each of the seven resource types, the analysis presents:

- The chosen **indicator**
- When possible, general observations on its **distribution**: is it generally inequitable—that is to say, detrimental to disadvantaged areas—or not? When possible, our findings are based on a mapping of the indicator, sometimes supplemented with statistical analysis. The details of the methodology are provided in the appendices.
- Where appropriate, a **summary description of the disadvantaged areas** that are the least well served for the chosen indicator
- **Further considerations**, including factors of disadvantage that increase an individual's vulnerability with respect to this indicator
- In some cases, a **brief discussion of other data** that merit study to supplement the analysis

## Glossary

### Geographic accessibility

Geographic or spatial accessibility refers to people's ability to access the territory and its various activities (employment, shops, services, recreation, etc.). It is directly tied to the quality of the territory's available transportation.

Source: Vivre en Ville, based on Centre d'études sur les réseaux, les transports, l'urbanisme et les constructions publiques [CERTU], 2002.

### Physical accessibility

Physical accessibility refers to the ability of people with reduced mobility to move freely from one place to another and to physically access public spaces, public and private buildings (for work, school, recreation, shopping, administration, etc.), and modes of transportation.

Source: Vivre en Ville, based on CERTU, 2002.

### Economic accessibility

Affordability refers to the ability of individuals to pay the costs and fees of goods or services.

Source: Vivre en Ville.

## LOCAL SHOPS AND SERVICES

There are generally significant disparities in pedestrian access to shops and services in Greater Montreal.

### Chosen indicator: pedestrian access to shops and services

This indicator is an index that combines several pieces of information. It was chosen to provide an overview of accessibility, given a lack of capacity to precisely analyze the accessibility of each local resource. Local Logic (CMM, 2023b) developed a pedestrian friendliness index based on two main factors:

- **Ability to meet daily needs on foot:** this primarily takes into account the distance to the nearest grocery store and pharmacy, and access to a variety of local businesses.
- **User-friendliness of the walking environment:** this mainly concerns access to major streets where it is pleasant to walk and the distance from major transportation infrastructure like highways and railway tracks that physically obstruct walking.

## Generally limited pedestrian accessibility

An overall analysis of pedestrian access to shops and services reveals it to be very limited in the Greater Montreal area. In the North Shore, South Shore, and Laval, nearly 100% of households have average, poor, or very poor pedestrian access to shops and services. In the urban agglomeration of Longueuil, this number is 86%, while in the urban agglomeration of Montreal, nearly 40% of households have limited pedestrian access to shops and services (CMM, 2023b).

## No widespread inequitable distribution

The map of pedestrian access to shops and services does not show generally inequitable access to the detriment of disadvantaged areas. A significant proportion of the region that includes disadvantaged areas does have good accessibility.

## Some disadvantaged areas are less well served

Several disadvantaged areas in Greater Montreal have limited access to local shops and services. This is the case for outlying areas of the urban agglomeration of Montreal, including Montréal-Est, as well as some parts of the Mercier-Hochelaga-Maisonneuve and Lachine boroughs.

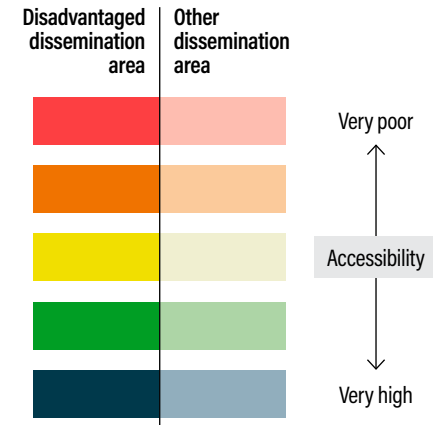
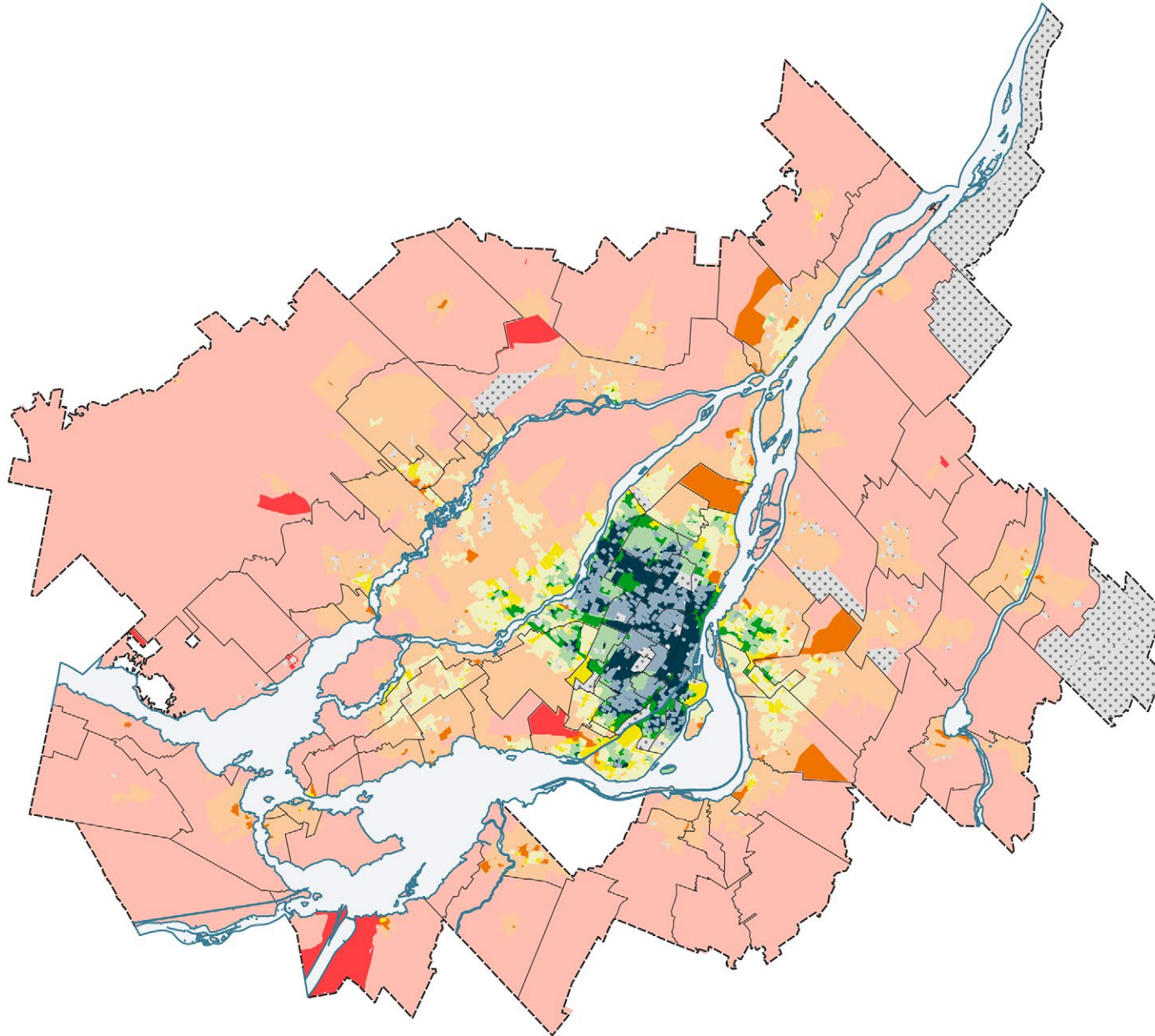
Off-island, among the least well-served areas are the Fatima neighbourhood north of Longueuil and a disadvantaged tract in Saint-Eustache, on the North Shore.

## Accessibility challenges beyond geographical proximity

Accessibility does not depend solely on geographical proximity. Immigrant and racialized people experience discrimination and consequent feelings of a lack of safety that may influence their access to shops and services, and to public space more broadly (Conseil interculturel de Montréal, 2023).





## Pedestrian access to shops and services



### Areas not covered in this analysis

 Lack of data

### Boundaries

 Municipalities and boroughs  
 Study area

Source: Vivre en Ville.  
 Data: Local Logic, 2020, based on CMM, n.d.; Curbcut, n.d., based on Statistique Canada, 2021.

## FOOD ENVIRONMENT

The food environment is defined as the set of conditions under which an individual or group of individuals has access to, chooses, and consumes food (Québec. MSSS, 2017). These conditions depend on the physical, social, economic, cultural, and political factors that impact the **accessibility, availability, and adequacy** of food within a community or region (Rideout, Mah and Minaker, 2015). The food environment plays an important role in adopting and maintaining a healthy diet.

### Unhealthy food environments

Three types of food environments are considered problematic: food deserts, food swamps, and food mirages.

A **food desert** is an area that is disadvantaged and has limited access to food (Québec. INSPQ, 2013). The food desert index of the Institut national de santé publique du Québec (INSPQ) shows that food deserts are mainly present on the eastern side of the Island of Montreal.

A **food swamp** is an area where food with low nutritional value is easily accessible and where there are more sources of unhealthy foods than of healthy foods (Québec. INSPQ, 2018b).

A **food mirage** describes a situation in which healthy food is available nearby but the prices are beyond the means of people with low incomes, meaning it is not truly accessible for them (Centre de collaboration nationale en santé environnementale [CCNSE], 2017).

### Food access, a multidimensional issue

The territorial aspect—that is, the presence and geographic accessibility of food stores—is only one dimension of access to a healthy diet. Among others, **economic accessibility** is one of the main determinants of a quality diet (CCNSE, 2017).

For example, in eastern Montreal, where there are several food deserts, the geographic dimension of access to healthy food is only partially responsible for the reality faced by low-income households, the economic dimension being the main barrier (Audet et al., 2023).

**Cultural accessibility**—the suitability of a resource to the preferences, values, beliefs and attitudes, and culinary knowledge of a given population—is also an important dimension of the food environment for all communities, especially those with an immigrant background. For example, in neighbourhoods with a high proportion of low-income households with immigrant backgrounds, food insecurity can be exacerbated by the scarcity of local ethnocultural food stores. This scarcity creates a cultural barrier to healthy eating for immigrant families (Porto de Oliveira and Gosselin, 2024).

As the multidimensionality of access to a healthy food environment makes it a complex issue to address, this section mainly focuses on distributional inequities.

### Complex and incomplete representation

The territorial analysis of food-related issues comes with a number of challenges that hinder effective mapping.

The databases of food stores in Greater Montreal do not provide information on the cost or cultural characteristics of the food they sell. Mapping food stores would therefore fail to reveal the many instances of food mirages.

To avoid misrepresentation, we have therefore decided not to produce a food access map of Greater Montreal. It would, however, be worthwhile to conduct this analysis for each neighbourhood using more detailed information (Vivre en Ville, 2022b).

#### Analysis to be supplemented by other data:

- Mapping of different grocery store types
- Food banks and other food assistance services
- Physical accessibility of shops
- Types of foods sold (cultural accessibility)
- Price of foods sold (affordability)



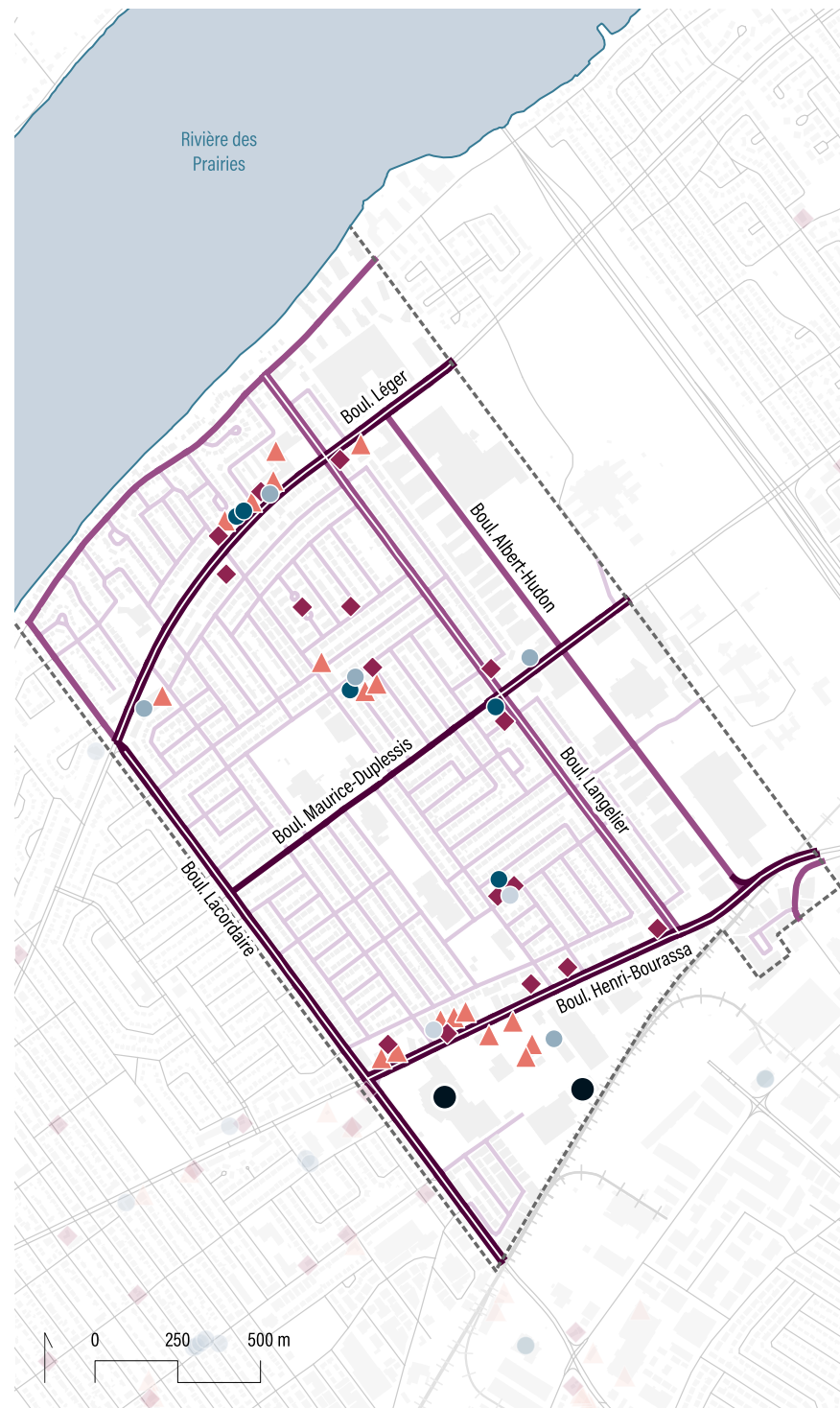
## Food environment in eastern Montréal-Nord

Eastern Montréal-Nord has several characteristics of an unhealthy food environment.

The main food stores are concentrated along the boulevards to the north and south of the area, **limiting geographic and physical access**, especially for people without cars or with reduced mobility.

Several community initiatives have been launched to compensate for the lack of local food stores. Among them was a solidarity food cooperative founded by five organizations in Montréal-Nord, which operated from 2014 to 2022. While community organizations can contribute to food security by taking collective responsibility in the fight against food insecurity, on their own they cannot address its much deeper causes (Enriquez and Klein, 2019).

Eastern Montréal-Nord is also a **food swamp**, as low-nutrient foods are more accessible than healthy foods. For every grocery store, there are 2.4 convenience stores and fast food restaurants.



## The food environment of eastern Montréal-Nord (Montreal)

### Types of food stores

- Supermarket
- Grocery store
- Specialty grocery store
- Bakery, pastry shop, etc.
- ◆ Convenience store
- ▲ Fast food restaurant or diner

### Type of traffic infrastructure

- Arterial road
- Provincial highway or municipal collector road
- Local street

### Boundaries

- - - Eastern Montréal-Nord

Source: Vivre en Ville.  
Data: Ville de Montréal, 2023; MRNF, 2024.

## COMMUNITY HEALTH

Community health is a framework that provides people with services where they live from a holistic health perspective. It encourages interdisciplinary and multidisciplinary approaches. Community health focuses on community action and the specific characteristics of the area through three key pillars (Parole d'excluEs, 2022):

- Social services, healthcare services, and other institutions
- The community sector
- The local population

**Chosen indicator:** location of local community services centres (CLSCs)

CLSCs are front-line public health institutions.

## Fairly equitable distribution

Created in the early 1970s, the CLSC network was designed to serve disadvantaged neighbourhoods with insufficient healthcare services. Although the distribution of disadvantaged households has somewhat changed since the 1970s, CLSCs are still found at the heart of many of the disadvantaged areas identified in this report. This public service appears fairly equitably distributed across the region.

## Some disadvantaged areas less well served

Many disadvantaged areas are relatively far from a CLSC. Areas that are particularly far from a CLSC include parts of eastern Montreal like Montréal-Nord, Montréal-Est, and Tétéreaultville. They can also be found in the centre of the island in Bordeaux-Cartierville, southeastern Rosemont-La Petite-Patrie, northern Saint-Michel, and eastern Lachine. Some areas in the West Island are also far from a CLSC, including Sainte-Genève, Sainte-Anne-de-Bellevue, and Pierrefonds-Roxboro.

## Access even more limited for some populations

Accessing a distant CLSC is more complicated for vulnerable people who have trouble getting around and for whom the cost of public transit is a deterrent (Heck and Lapalme, 2017). Finally, access to local healthcare services is even more limited for people who are ineligible for health insurance due to their migrant status.

### Other health facilities

**GMFs:** Family doctors were gradually transferred from CLSCs to family medicine groups (GMFs, for *Groupes de médecine familiale*) (Plourde, 2016), a model that the Institut national d'excellence en santé et services sociaux has deemed detrimental to the most vulnerable clientele (Québec. INESSS, 2019).

**Pharmacies:** Our spatial analysis of the distribution of pharmacies did not reveal significant territorial inequities.

### Analysis to be supplemented by other data:

- Proportion of GMF clients who live near their clinic
- Access to other medical services (medical testing, etc.)
- Mechanism to assign physician placements according to regional health workforce plans

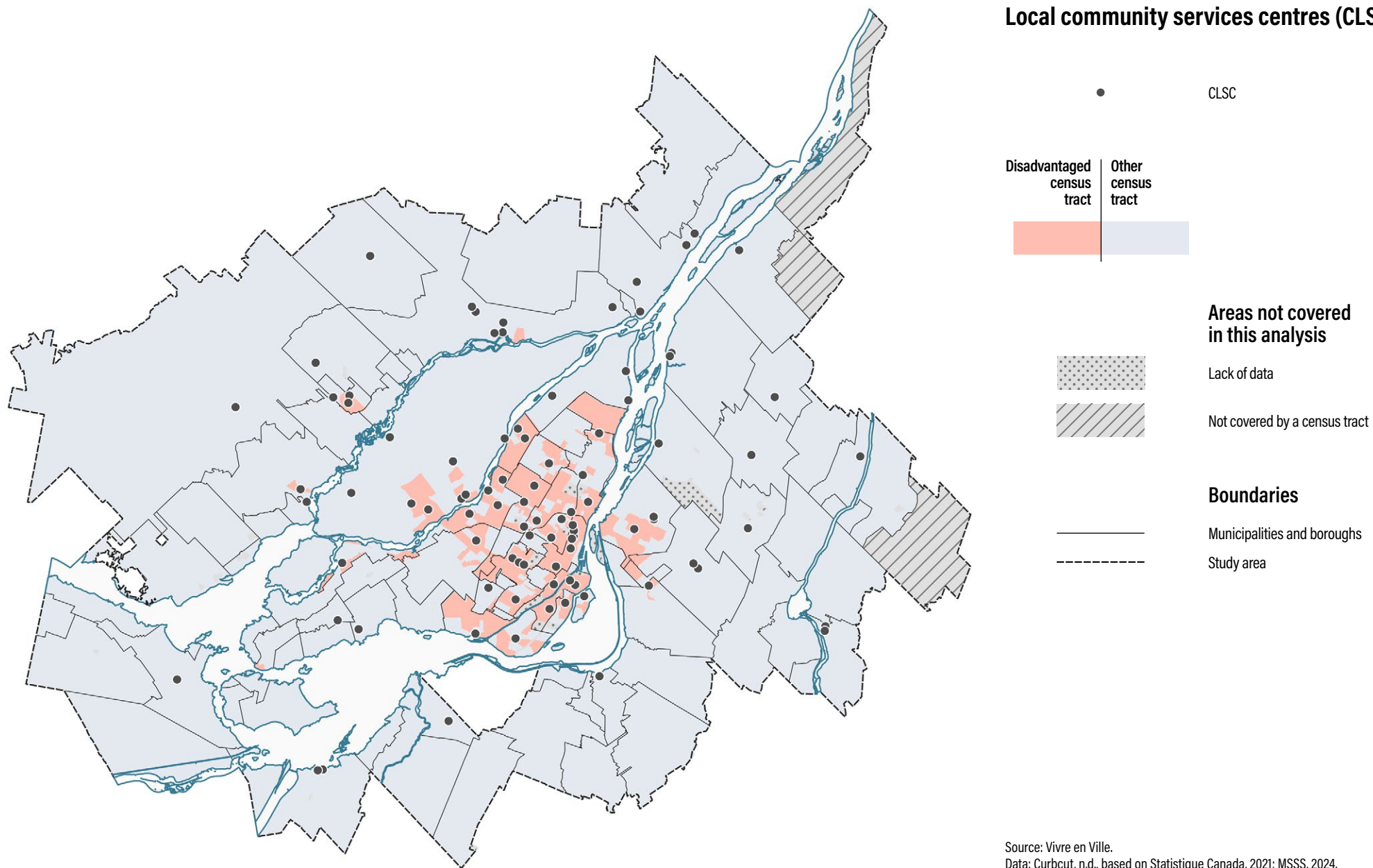
### Glossary

#### Front-line services

Front-line services are "routine" health and social services, including services to promote health, prevent disease, address social problems, and provide non-specialized curative care like family medicine and psychosocial care.

Source: Plourde, 2017.

## Local community services centres (CLSCs)



Source: Vivre en Ville.  
 Data: Curbcut, n.d., based on Statistique Canada, 2021; MSSS, 2024.

# COMMUNITY ORGANIZATIONS

Community organizations provide essential services that are complementary to those provided by the government. They serve populations with specific needs that fall into gaps in social programs and public services.

Their versatility, agility, and in-depth knowledge of their local community make them important local actors. Community organizations are local resources offering services and support tailored to the specific issues experienced by vulnerable populations in their communities. Being location-based, they are often involved in fighting territorial inequities by providing support to those facing the effects of inequity as well as finding solutions applicable to their community.

Since their emergence in the early 1960s, these organizations, often “created by and for” the service user population, have been at the forefront of major grassroots movements in the contemporary history of Greater Montreal and of Quebec (Brabant, 2021b).

## Distribution of community organizations

It is difficult to analyze inequities in how community organizations are distributed across Greater Montreal. Their locations alone do not provide adequate information on the organizations’ various missions or scales of intervention, nor on the different needs of the populations they serve.

## Community action at risk

Despite the large number and high quality of community organizations and programs in Greater Montreal, in meeting with neighbourhood round tables (*tables de quartier*) and community consultation organizations to prepare this *Vital Signs* report, we learned that they both feel that the services currently offered by community organizations are precarious due to insufficient funding and the difficulty of finding suitable, affordable premises.

## Insufficient funding

In recent years, the disastrous consequences of the COVID-19 pandemic, inflation, and the housing crisis have reaffirmed the importance of community action. Despite a general consensus on their essential role, many community organizations do not receive sufficient funding to meet community needs. More specifically, the lack of mission-based funding, the complexity of multiple reporting requirements, and short-term targets hinder their abilities to serve their communities (Lachapelle, 2023).

## Lack of affordable premises

The scarcity of affordable commercial spaces is a major problem for community organizations. This is especially evident in neighbourhoods where real estate prices are rapidly increasing, since the lack of regulations on commercial rents makes them highly sensitive to increasing property values.

Several organizations are provided with premises by the public system, especially by the school system, but they still risk eviction. At the beginning of 2023, the Coalition montréalaise des Tables de quartier counted 48 community organizations in the process of being evicted from such premises due to repossession or sale (Bellavance, 2023). The crisis around community spaces risks increasing the distance between organizations and the vulnerable communities with whom they have built close ties

### Analysis to be supplemented by other data:

- Identification of areas with unmet community service needs
- Community infrastructure (community centres, meeting spaces, etc.)



## TREES AND PARKS

Trees and parks have a range of positive effects on health: they encourage a physically active lifestyle; promote psychological well-being; and reduce stress, feelings of loneliness, and environmental hazards like air pollution and the urban heat island effect (Vivre en Ville, 2022a). A green community therefore reduces social inequalities in disease (Crouse et al., 2017).

**Chosen indicator:** proportion of the land with canopy cover

Canopy cover is the most reliable indicator of the presence and quantity of trees in a given territory.

**Chosen indicator:** proximity (<300 m) to a park with a land surface of at least one hectare (data only available for Montreal and Longueuil)

This indicator provides information on access to green space and seems particularly relevant in a context where many economically disadvantaged households are also renters and less likely to have private outdoor space.

## Inequitable canopy cover

The data collected in several cities, including Montreal, demonstrate inequitable canopy distribution (Pham et al., 2017; Landry, Dupras and Messier, 2020). Our analysis confirms this to be the case in Greater Montreal. The canopy cover is 28% smaller in disadvantaged areas than in other areas. The disadvantaged areas are a long way from achieving the recommended canopy cover, while the other areas come close.

### Canopy cover in disadvantaged areas and other areas

	Disadvantaged areas	Other areas
Proportion of land with canopy cover	21%	29%

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; INSPQ, 2022.

## Many disadvantaged areas with very little green cover

Some disadvantaged areas have very few trees, like downtown Montreal; Centre-Sud; Saint-Michel, and Parc-Extension; and the municipality of Montréal-Est.

### What are the targets?

The 3-30-300 rule was developed based on the latest knowledge of the positive effects of green spaces on health and well-being, with the aim of ensuring equitable access to trees and parks in urban environments. This guideline recommends:

- At least three decent-sized trees visible from one's home, school, and workplace
- A minimum of 30% canopy cover in each neighbourhood
- A green space or park of at least one hectare within 300 metres (about a 5-minute walk) from home

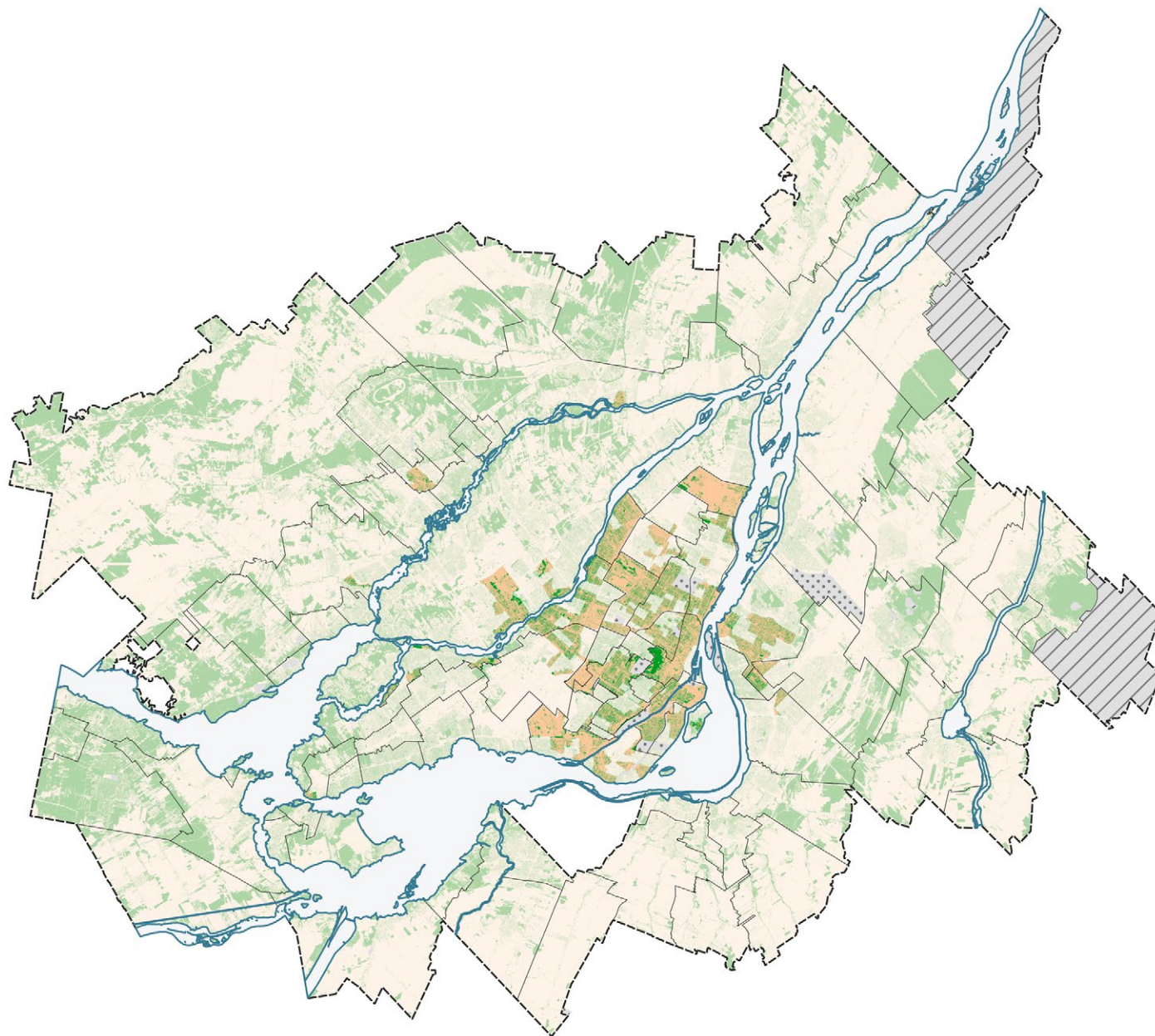
Source: Konijnendijk, 2023.

### Glossary

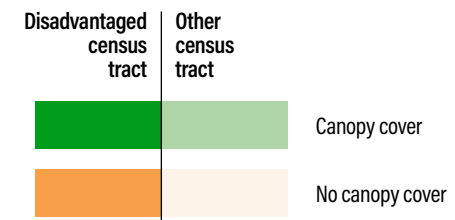
#### Canopy cover

Projection on the ground, visible from the sky, of the crowns of trees or any other vegetation measuring at least two metres high.

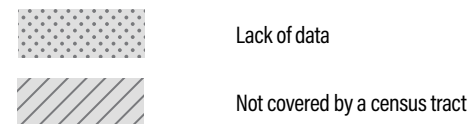
Source: Bour et al., 2022.



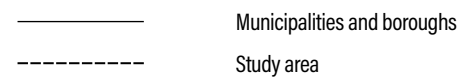
## Canopy cover



## Areas not covered in this analysis



## Boundaries



Source: Vivre en Ville.  
 Data: INSPQ, 2022; Curbcut, n.d., based on Statistique Canada, 2021.

## Park development

Montreal's first large parks (La Fontaine and Mount Royal) were created in the late 19<sup>th</sup> century. Other large-scale parks (Maisonneuve, Jarry) were established in neighbourhoods undergoing urbanization with the aim of controlling urban development and preserving undeveloped spaces. Many neighbourhood parks (e.g., Sir-Wilfrid-Laurier) were built on land contaminated by, among other things, former dumps (Dagenais, 2024). During the same period, according to the City of Montréal, neighbourhood parks, mini-parks, and school parks were developed in working-class neighbourhoods for people unable to travel outside the city or to major parks (Charron, 2020).

## Some disadvantaged areas without access to a local park

The park distribution map shows that some disadvantaged areas have no park of at least one hectare within a 300-metre radius. This is the case for multiple census tracts in Montréal-Nord, Saint-Michel, Le Plateau-Mont-Royal, Verdun, Ville-Émard, and La Petite-Patrie; central Ville-Marie; and some areas of Vieux-Longueuil.

## Road barriers

Most of Montreal's major parks are bounded (and some of them crossed) by major thoroughfares, which pose accessibility challenges, particularly for pedestrians and cyclists. For example, accessing Parc de la Promenade-Bellerive in the Tétéraultville neighbourhood requires crossing Rue Notre-Dame, where there is heavy truck traffic (Centre d'écologie urbaine de Montréal et al., 2022).

## Park accessibility for people with disabilities

According to data from the City of Montréal, the city's existing green spaces offer very little accessibility for people with disabilities.

The 11 criteria of green space accessibility (Paquet et al., forthcoming) are divided into three categories:

1. **Vehicle access:** reserved spaces for vehicles with disabled parking permits, accessible parking lot, drop-off zone, and drop-off zone for adapted transport.
2. **Accessible entrance:** access path, ground-level entrance, access ramp.
3. **Accessible facilities:** accessible in a wheelchair, accessible in a wheelchair with assistance, adapted amenities, accessible toilets.

Of the 1,173 listed green spaces, none met all 11 accessibility criteria. Fewer than 10% of green spaces met at least one criterion, and only 1% met at least one criterion in each of the three categories (Paquet et al., forthcoming).

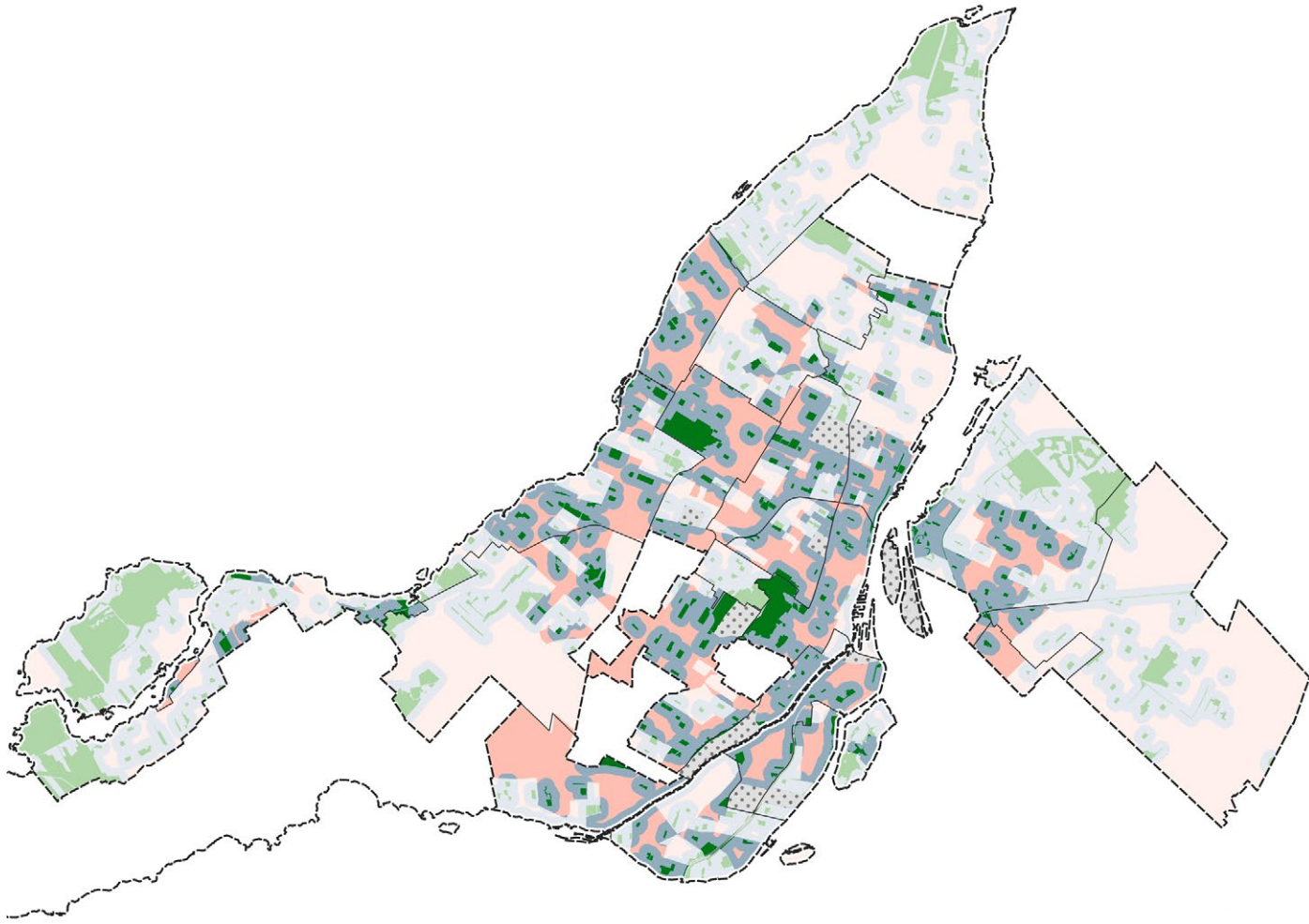
### Analysis to be supplemented by other data:

- Proportion of households with no private outdoor green space that have (or don't have) access to a park within 300 metres





# Parks, cities of Montreal and Longueuil



## Distance to parks of one hectare or greater

Disadvantaged census tract	Other census tract	
		Park with a total area of one hectare or more
		Within 300 m
		Further than 300 m

## Boundaries

	Municipalities and boroughs
	Study area

Source: Vivre en Ville.  
 Data: Curbcut, n.d., based on Statistique Canada, 2021; Ville de Montréal, 2024; Ville de Longueuil, 2024.

## LOCAL CULTURAL FACILITIES

While culture is a multifaceted concept, it acts as a social glue, supports togetherness, and is a vehicle for citizen participation (Culture Montréal, n.d.). Although a region's cultural vitality is not solely dependent on the presence of cultural facilities, this infrastructure plays a key role in enabling artistic expression and access to culture.

**Chosen indicator:** presence of libraries and cultural centres

Libraries and cultural centres (especially Les Maisons de la culture de Montréal) serve as local cultural facilities with free or low-cost entry. They are places for people to meet and exchange ideas. Libraries in particular are a useful resource for newly arrived populations, which underscores their importance as a local service.

### Fairly equitable distribution

The map of libraries and cultural centres does not show overall inequitable distribution to the detriment of disadvantaged areas. Disadvantaged areas in Montreal, in particular, are relatively well served by local cultural facilities.

### Some disadvantaged areas less well served

The following map shows that the eastern and western ends of Montreal are poorly served by cultural facilities. This is also true of census tracts on the outskirts of certain disadvantaged areas, for example, north of Saint-Michel, east of Rosemont, southeast of Saint-Léonard, and east of Saint-Laurent.

In Laval, La Maison des arts is the only cultural centre. Construction of a new building in the Montmorency area, which will include both a central library and a creative arts centre, is scheduled for 2027 (Lalonde, 2024). Although centrally located, it is surrounded by highways and is difficult to access from disadvantaged areas.

Over the course of its history, Greater Montreal has lagged in the development of its library network, notably due to the Catholic Church's refusal to join the public library movement, which was booming in English-speaking communities at the end of the 19th century (Séguin, 2016). Much work has been done over the last two decades to close this historic gap (Guillemette-Labory, 2022).

Montreal's 2005–2015 cultural development policy made specific provisions for modernizing and upgrading libraries, especially in “neighbourhoods with poorer populations, where they are the most outdated” (Ville de Montréal, 2005b). As a result, libraries have been built and renovated in recent years in disadvantaged areas, one example being Bibliothèque Maisonneuve. According to the City of Montréal, other projects are in the pipeline, including a first interborough library, which will serve Ahuntsic-Cartierville and Montréal-Nord (Ville de Montréal, 2024a). This type of library will meet the challenges of areas on the boroughs' outskirts which are far from existing libraries, historically built in borough centres.

Lags have also been identified in Laval (Conseil régional de la culture de Laval, 2017). To determine priorities (library construction, expansion, and renovation), the city is using several criteria, including high population density and a high deprivation index (Ville de Laval, 2020).

#### Glossary

##### Cultural vitality

Cultural vitality is defined as the presence of artists, craftspeople, organizations, cultural and creative industries, and activities that contribute to a rich and diversified cultural life. It is rooted in local communities and depends on the proactive participation of the community and its citizens.



Source: Culture Montréal, n.d.

### Local public cultural facilities


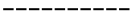
- Library
- ▲ Cultural centre

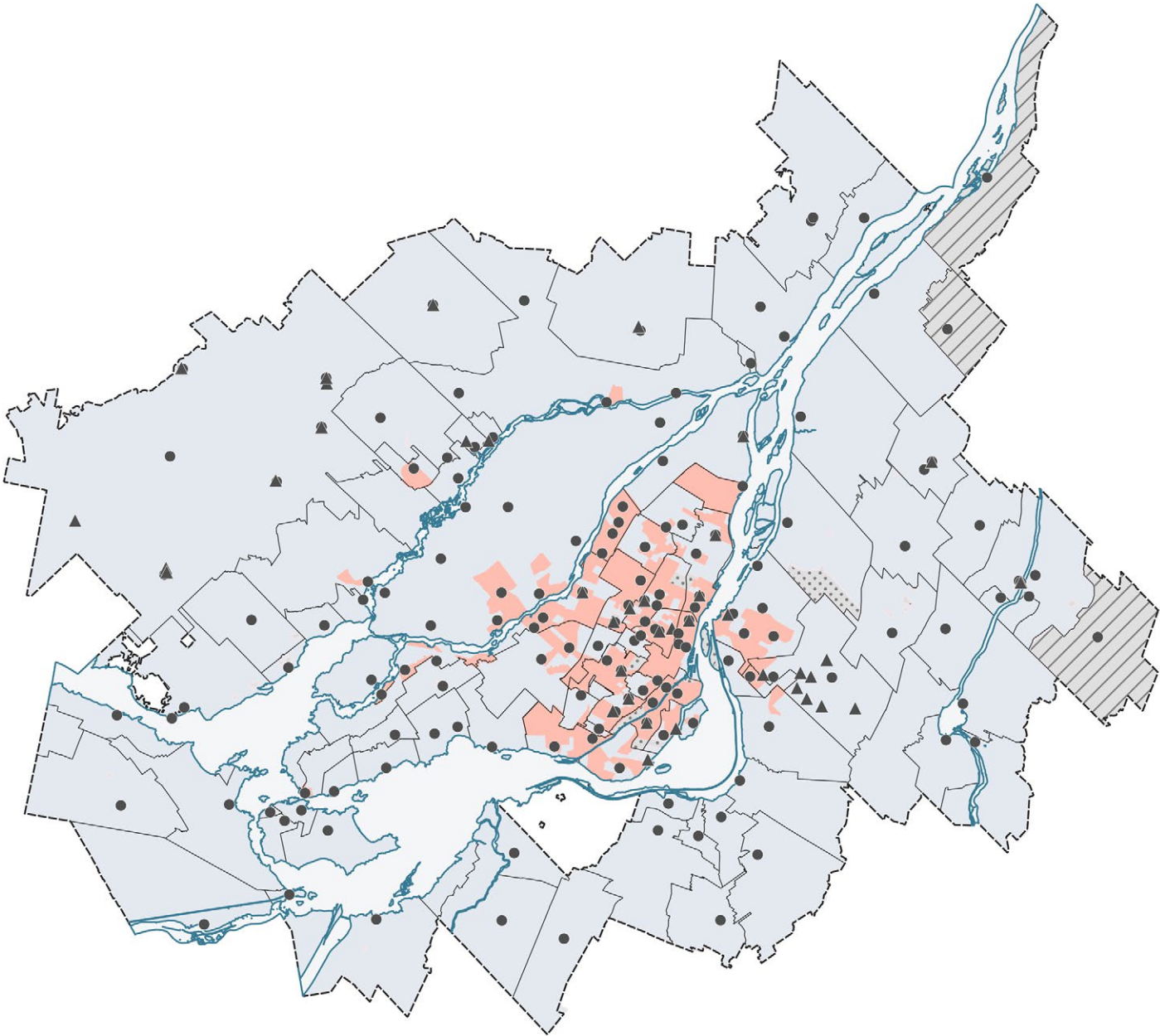
Disadvantaged census tract	Other census tract

### Areas not covered in this analysis

-  Lack of data
-  Not covered by a census tract

### Boundaries

-  Municipalities and boroughs
-  Study area



Source: Vivre en Ville.  
 Data: Curbcut, n.d., based on Statistique Canada, 2021; CMM, 2024.



## From free to inaccessible: cultural activities downtown

Downtown Montreal is a major destination for cultural activities. It is home to some of the highest-priced theatres in the Greater Montreal area, yet also boasts several festivals and activities that are free and accessible to all.

However, access to cultural activities downtown is highly dependent on access to structuring public transit (see “Mobility”). Populations with fewer cultural activities where they live are also the ones for whom mobility is an issue. These populations therefore benefit the least from the cultural life downtown.

### Analysis to be supplemented by other data:

- Quality of cultural facilities and variety of their programming
- Funding granted to establishments

## Artist studios in jeopardy

Artist studios not only play a role in the vitality of the arts ecosystem, but also in the cultural vitality of their neighbourhoods. However, if many artists move to areas where rent is less expensive, their presence risks attracting real estate investors, placing them at the forefront of gentrification processes of which they are then the first victims, as was the case in Saint-Henri and the Mile End in the 2000s.

Despite the City of Montréal’s programs to subsidize rents, this reality, coupled with the current housing crisis, is increasingly threatening the survival of artists’ studios. The organization Ateliers créatifs Montréal estimates that between 2018 and 2021, between 400 and 600 Montreal artists lost their studios due to evictions and rent increases (Collectif d’artistes des Ateliers Casgrain et Ateliers Belleville, 2021). In 2024, this situation continues to be concerning (Lowrie, 2024).

“ Back in the day, there were lots of cultural activities in the different neighbourhoods. Now they’re a lot more concentrated. And people are aware of that. There are some large libraries on Chemin de Chambly, but overall, this is a problem in Longueuil. It’s not that resources are in a rich or poor neighbourhood, it’s that they’re all in the same place. The urban planning wasn’t done through a neighbourhood lens. ”

– Interview with a local community member, 2024.

# SCHOOLS

Elementary schools are a top priority among local services for families and can also serve as an anchor for the community. Being able to walk to school improves children’s physical and psychological health, increases their attendance and performance, and fosters their independence (Québec. Direction régionale de santé publique de Montréal, 2024b).

**Chosen indicator:** presence of public elementary schools

Since every child has access to a neighbourhood school based on where they live, public schools were selected for analysis. Only elementary schools were selected due to the greater importance of proximity than for secondary schools.

## Fairly equitable distribution

Greater Montreal has a fairly good distribution of elementary schools. Almost all households have an elementary school within 1,200 metres of their home, the average distance beyond which school transportation is provided free of charge.

However, a more detailed analysis may reveal some inequities. For school-age children, the modal share of walking decreases considerably after a few hundred metres (Martel Poliquin, 2012). A school 500 metres from home is therefore not at all the same thing as a school one kilometre from home.

## Dense neighbourhoods without local schools

Particularly poor access to an elementary school can be observed in one disadvantaged area in downtown Montreal. Despite its central location, families living in the western part of Faubourg Saint-Laurent, particularly those living in the social housing complex Habitations Jeanne-Mance, have to send their children to school by school-provided transportation, as there is no nearby non-specialized public school.

## Access to schools sometimes compromised

In some cases, lack of space at the nearest school forces some students to attend a different school. Longueuil’s Laflèche neighbourhood is one area where this is the case, as densification is attracting more families (Marceau, 2023).

Many of Greater Montreal’s school buildings are dilapidated (Québec. Ministère de l’Éducation du Québec [MEQ], 2022). The repairs required to bring these facilities up to standard often require that the students be relocated to other schools.

In the case of schools with extensive mould damage, these closures can last a very long time. One such case is Académie Roberval, a high school in Villeray that will be closed for at least ten years (Morasse, 2023).

- Analysis to be supplemented by other data:**
- Proportion of households within walking distance (<500 m) of a school
  - Condition and needs of school facilities
  - School overcrowding
  - Early childhood centres and other daycare services
  - Accessibility of high schools

## WHAT OUR ANALYSIS OF LOCAL RESOURCES TELLS US ABOUT TERRITORIAL EQUITY

The presence of varied and accessible local resources is essential for low-income households. Due to physical and economic factors that can limit their mobility, people in low-income households are often more dependent on shops and services close to home.

### Generally good access to shops and services in disadvantaged areas

On the whole, disadvantaged areas in Greater Montreal have relatively good pedestrian access to shops and services, due in part to the density of the neighbourhoods in which they are located.

Unfortunately, the advantageous locations of many low-income households are susceptible to change. There is a strong upward pressure on rents in dense neighbourhoods that are well served by local resources. If measures are not taken to protect the affordability of the rental stock in these complete communities, less affluent households will be forced to move to the outskirts of these neighbourhoods or outside of them, a phenomenon already evidenced by the emergence of numerous disadvantaged areas in outlying areas in recent decades.

### Presence of local resources: an insufficient measure

Analysis of the territorial distribution of several types of resources, particularly those related to the food environment, community health, and community services, is insufficient to provide a complete picture of accessibility, which needs to be supplemented by the affordability and real availability of services.

### Inequitable access to trees and parks

While the benefits of green spaces are well known, access to such spaces close to home is not guaranteed for all Greater Montreal residents. Analysis revealed inequitable canopy coverage, with disadvantaged areas generally having sparser vegetation than other areas.

The analysis of park distribution also highlighted a lack of local parks in several disadvantaged areas.

### Developing local culture to promote equity

We examined access to culture based on the distribution of libraries and cultural centres. Overall, disadvantaged areas are relatively well served by the current coverage of these public cultural facilities. Even so, some disadvantaged areas do not benefit from such facilities, often for historical reasons.

### Schools

On the whole, most disadvantaged areas have access to a public elementary school. However, the dilapidated state of some schools, particularly in older neighbourhoods, and their inadequate size for the number of children prompt concerns about students being sent to schools farther away. More research is needed to examine the actual accessibility of neighbourhood schools.

### A complex dimension to analyze

In many respects, this dimension of the urban environment proved difficult to analyze. Firstly, selecting the characteristics to analyze and specific indicators is inherently incomplete and reductive. While universal needs exist, more specific needs—but nonetheless essential—have been left out of the equation.

Secondly, the indicators were selected based on whether consolidated data was available for Greater Montreal. For example, the lack of large-scale data on parks made it impossible to analyze their distribution on the North and South Shores.

Finally, it proved difficult to draw comprehensive conclusions about access to local resources based on their location, since several other major factors, including affordability, are also in play.

# MOBILITY

Access to the city and the resources and opportunities it offers is entirely predicated on a person's ability to get around. Mobility depends on individual factors (age, gender, physical capacity, etc.) and external factors (available transport, fares, physical access, etc.).

Mobility can increase social equity, as it gives people access to a wider range of opportunities. This includes, for example, access to job centres, healthcare, and food stores, which are key elements of health and quality of life.

The available infrastructure and transit services therefore act as a driver of equity or of social and economic exclusion (Lachapelle, Boisjoly, and Vermesch, 2020). Inequities in access to transportation have adverse impacts in all areas of life (Bickerstaff, 2018).

## Four aspects of mobility analyzed for territorial equity

This section provides a brief **mobility profile** of low-income households, then details four aspects of mobility. The first two relate to safe transportation: the **safety of active travel** and the **road environment around elementary schools**. The other two aspects concern mobility infrastructure: access to **structuring public transit system** and access to **cycling infrastructure**.

## How to read each subsection

For each of the seven resource types, the analysis presents:

- The chosen indicator
- When possible, general observations on its **distribution**: is it generally inequitable—that is to say, detrimental to disadvantaged areas—or not? When possible, our findings are based on a mapping of the indicator, sometimes supplemented with statistical analysis. The details of the methodology are provided in the appendices.
- Where appropriate, a **summary description of the disadvantaged areas** that are the least well served for the chosen indicator
- **Further considerations**, including factors of disadvantage that increase an individual's vulnerability with respect to this indicator
- In some cases, a **brief discussion of other data** that merit study to supplement the analysis



# MOBILITY PROFILE OF LOW-INCOME HOUSEHOLDS

## Greater use of walking and public transit

People in low-income households use active travel to a greater extent, especially walking and public transit (Lachapelle, Boisjoly and Vermesch, 2020).

For many low-income households, buying and maintaining a vehicle is too expensive. For people who are unable or no longer able to drive—due to a disability, for example—private vehicle use is simply inaccessible (Bickerstaff, 2018).

## Cars, a costly necessity

People living in low-income households make 60% of their trips by car (Lachapelle, Boisjoly, and Vermesch, 2020). This high proportion reflects the lack of public transit in many areas.

Most of the Greater Montreal region was planned around automobile use. However, as seen earlier in this report, poverty has spread to the outlying areas of Montreal, especially the eastern part of the island, Longueuil, and Laval, where public transit is less developed and there is higher car dependency. Low-income residents of these outlying areas therefore have limited transportation options, and this constraint on mobility can constitute a form of exclusion.

## Some data on how low-income households get around

In Greater Montreal:

- Women from low-income households get around more frequently by public transit or as passengers in a vehicle than men from low-income households.
- Travel at off-peak times is more common among people with low incomes, especially women. However, transit services are generally less frequent at off-peak times than during peak periods.
- Precarious jobs are scattered throughout the Greater Montreal area. We have not observed a significant difference between the level of public transit service to access these jobs and to access other jobs located in the same areas.

Source: Lachapelle, Boisjoly and Vermesch, 2020.

“It is of course possible to choose to have a motor vehicle for greater mobility and independence in order to have access to more activities, resources, services, and opportunities. However, this type of acquisition makes households in precarious situations even more economically vulnerable.”

– Parole d'excluEs, 2019.





## SAFETY OF ACTIVE TRAVEL

The characteristics of the road environment directly impact the risk of collisions for pedestrians and cyclists. Traffic volume, roadway geometry, and intersection geometry have a greater effect on road safety than season, time of day, or sociodemographic characteristics. Road safety can therefore be improved through actions that address the road environment (Québec. INSPQ, 2011).

**Chosen indicator:** number of collisions causing injury or death to pedestrians or cyclists, relative to the volume of non-motorized trips, by municipal sector as defined in the *Enquête origine-destination*.

This indicator makes it possible to weigh the number of collisions by the volume of trips made, and in turn, reveal unsafe road situations which would otherwise be masked by the low level of walking and cycling in certain areas.

Detailed data are only available for the Island of Montreal.

## Central areas of the Island of Montreal safer than its outskirts

The following map illustrates the variation in the estimated risk of collision when walking or cycling on the Island of Montreal. It suggests that the risk is higher on the outskirts than in more central locations but does not show overall inequitable distribution to the detriment of disadvantaged tracts.

## Some disadvantaged areas especially impacted by unsafe roads

Disadvantaged areas in the centre of the island seem to have a lower collision risk for pedestrians and cyclists, while several disadvantaged areas on the outskirts have a high estimated risk. The estimated collision risk in Pierrefonds-Roxboro, Côte-Saint-Luc, LaSalle, Saint-Léonard, and Montréal-Est is particularly high. Lachine-Est, Saint-Michel, and Montréal-Nord face the same problem.

A high risk of road collisions for pedestrians and cyclists may be the result of heavier road traffic, higher traffic speeds, lack of safe infrastructure, or a combination of all three.

### Analysis to be supplemented by other data:

- Detailed statistics on walking and cycling collisions in other subregions of Greater Montreal
- Data on falls in public spaces
- Detailed data by age and gender
- Mapping of cycling and pedestrian infrastructure, and traffic calming measures
- Presence, quality, and maintenance of sidewalks

## Mobility for seniors: where road design counts

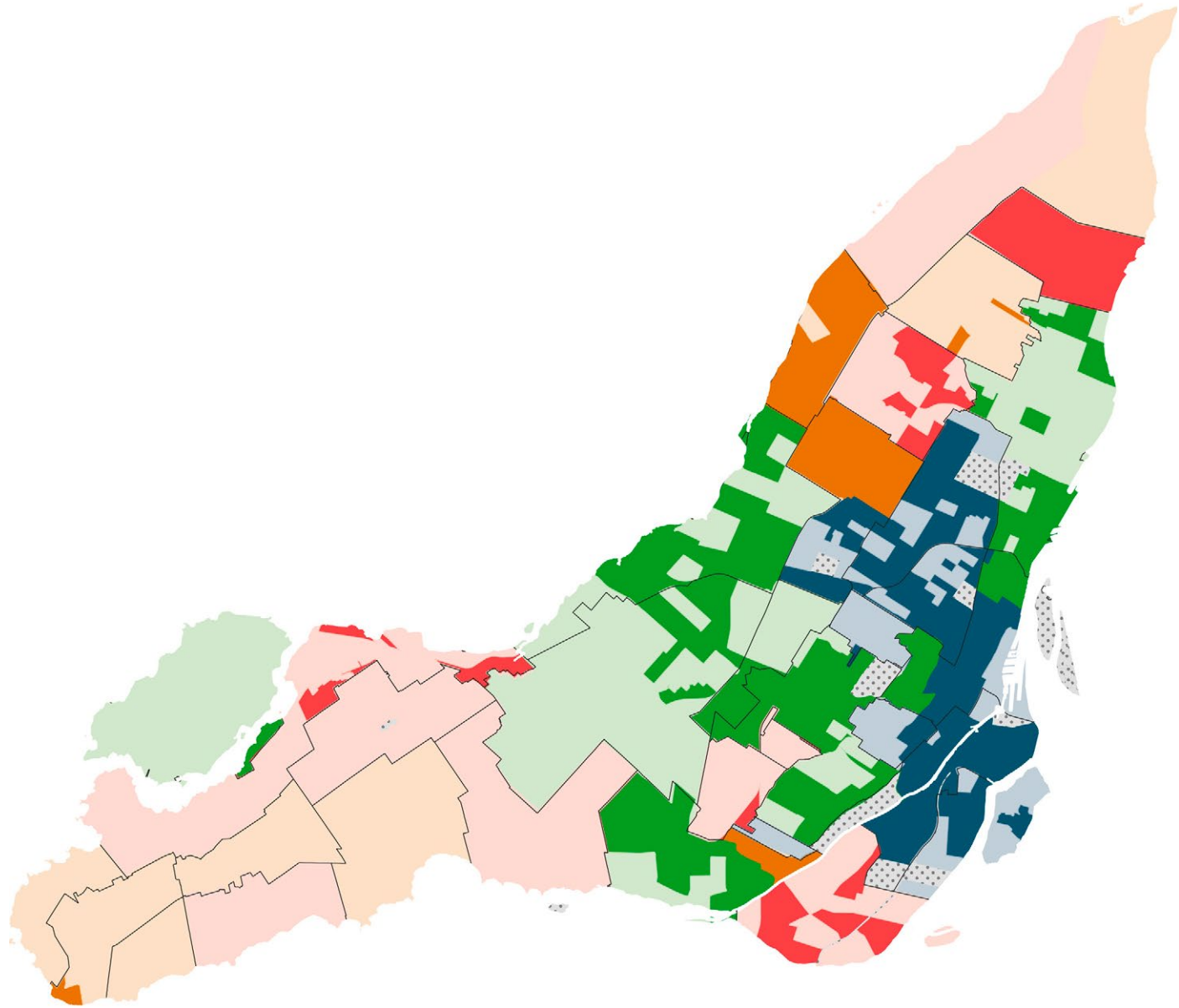
In addition to its many positive health effects, walking allows seniors to continue their activities after having lost, surrendered, or had conditions added to their driver's license. However, seniors are more likely to suffer serious or fatal injuries in a road collision. In Quebec, people aged 65 and over account for nearly 50% of pedestrian fatalities over the past decade, a proportion that far exceeds their demographic weight (18% in 2016) (Piétons Québec, 2021).

Seniors are also more likely to have disabilities that can affect, for example, their vision, agility, hearing, mobility, memory, or cognition (Québec. Institut de la statistique du Québec [ISQ], 2023). This can make it more difficult for them to get around and requires adaptations in the built environment.

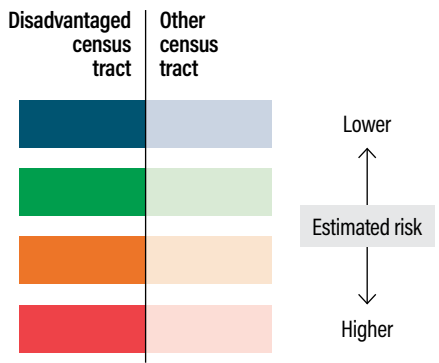
However, some features favour comfortable and safe travel:

- Wide, clear, continuous, undamaged, and well-maintained sidewalks, all year round
- Benches in sufficient quantity for pedestrians to take breaks along their route
- Adequate intersection crossing times for slower walking speeds (Vivre en Ville, 2019a).

# Estimated risk of collision for pedestrians and cyclists in the urban agglomeration of Montreal



Number of collisions involving pedestrians or cyclists compared to the volume of non-motorized trips, by municipal sector



- Areas not covered in this analysis**
  - Lack of data (dotted pattern)
- Boundaries**
  - Municipalities and boroughs (thin black line)

Source: Vivre en Ville.  
 Data: Ville de Montreal, 2022; ARTM, 2018; Curbcut, n.d., based on Statistique Canada, 2021.

# ROAD ENVIRONMENT AROUND PUBLIC ELEMENTARY SCHOOLS

Walking or cycling to school is a great opportunity for children to have daily physical activity and build their independence. However, they must be able to do so in a safe and pleasant environment. Unsafe roads, whether this danger is real or perceived, are one of the main reasons cited by parents for choosing cars as their child’s mode of transportation to and from school (Québec. INSPQ, 2011).

In the Montreal area, half of all serious collisions involving youth under 15 years of age occur on a main arterial road (Piétons Québec, 2024). Having to travel on major roads compromises children’s safety, health, and quality of life.

**Chosen indicator:** proportion of the road network consisting of major thoroughfares (arterial roads, provincial highways, regional roads, and collector roads) within a 1,200-metre radius of each public elementary school

This indicator provides information on the road environment in which children travel between home and school. The 1,200-metre radius represents the average distance beyond which children generally have access to school-provided transportation.

## Disadvantaged schools face a more hazardous road environment

The road profile within a 1,200-metre radius of public elementary schools shows a generally inequitable distribution across Greater Montreal. For example, only 6% of disadvantaged schools are located in an area with very few major roads (less than 2% of the road network), compared to 22% of other schools. Just over a third of disadvantaged schools have a road environment with a proportion of major roads equal to or greater than 10%, compared to a quarter of other schools.

### Road environment around public elementary schools

Proportion of road network consisting of major thoroughfares within a 1,200-metre radius	Disadvantaged schools*	Other schools
0% to <2%	6%	22%
2% to <6%	19%	25%
6% to <10%	40%	29%
10% to 26%	35%	24%
<b>Total</b>	<b>100%</b>	<b>100%</b>

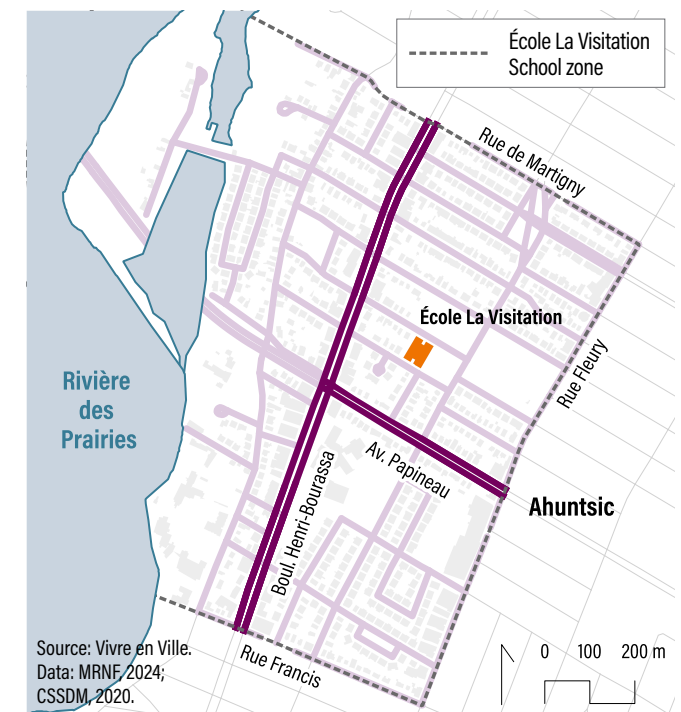
Source: Vivre en Ville.  
Data: Québec. MEQ, 2024; Québec. Ministère des Ressources naturelles et des Forêts [MRNF], 2023.

\*Based on the 2022–2023 socioeconomic environment index (SEI) (Ministère de l’Éducation, 2024).

## Areas with a high concentration of major roads

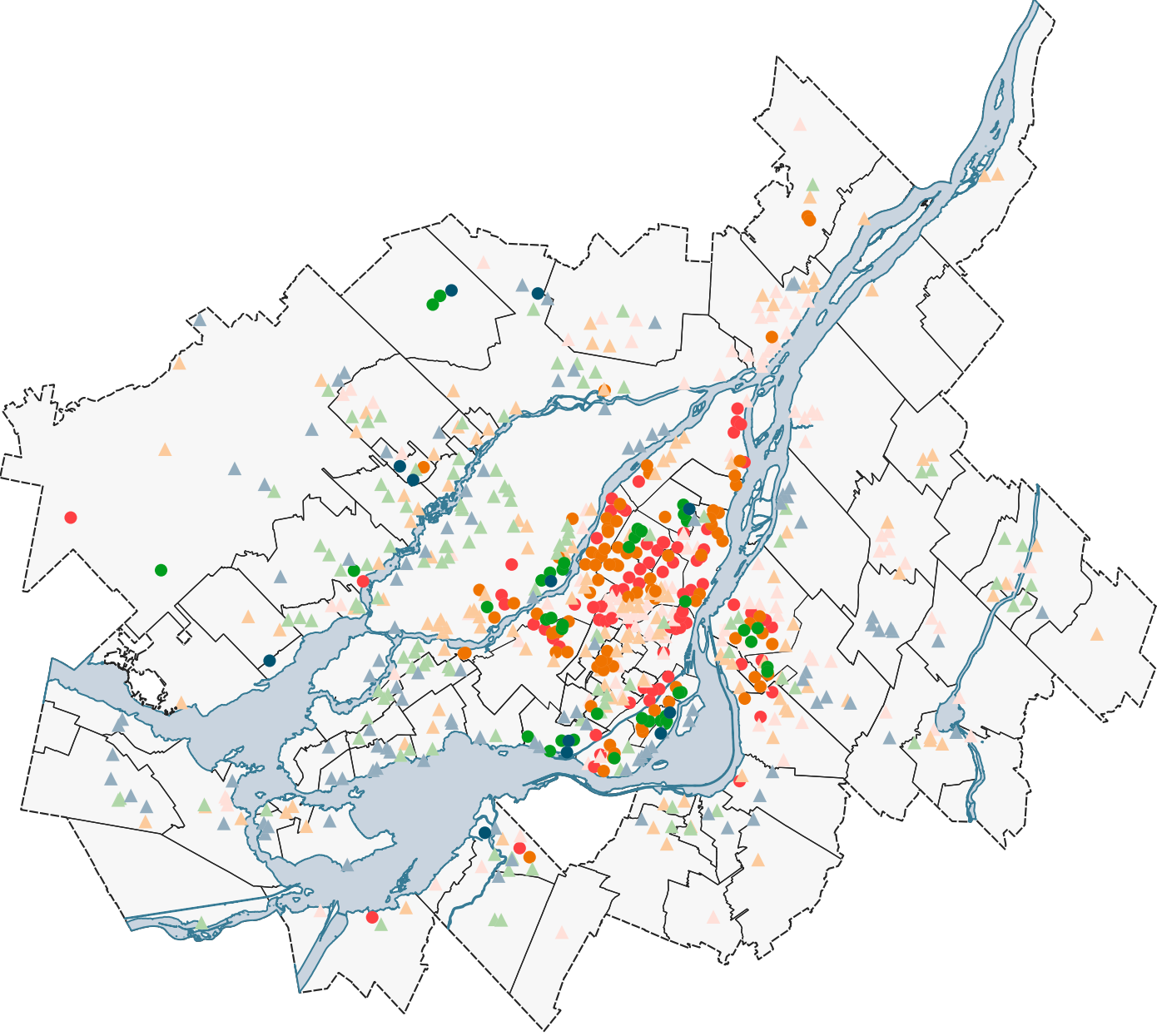
Some disadvantaged tracts have a particularly high concentration of major roads near schools. This is the case for disadvantaged areas in Saint-Henri, Little Burgundy, LaSalle, Centre-Sud, Hochelaga, Parc-Extension, and Montréal-Nord. Schools in some tracts in Saint-Michel, Saint-Léonard, and Nouveau-Rosemont also have a high proportion of major thoroughfares in their road environment.

### Road environment around École La Visitation elementary school (Ahuntsic-Cartierville borough, Montreal)



École La Visitation is located at the intersection of two major roads: Avenue Papineau and Boulevard Henri-Bourassa. In accordance with the criteria established by the Centre de services scolaire de Montréal, transportation provided for this school is reserved for students in specialized classes (École La Visitation, 2024).

# Road environment around public elementary schools



Proportion of the road network consisting of major thoroughfares\* within a 1,200 m radius of public elementary schools by deprivation index\*\*

Disadvantaged school	Other school	
●	▲	0% to <2%
●	▲	2% to <6%
●	▲	6% to <10%
●	▲	10 to 26%
217	478	Number of schools

**Boundaries**  
 — Municipalities and boroughs  
 - - - Study area

\* Arterial roads, provincial highways, regional roads, and collector roads.  
 \*\* According to the Quebec's socioeconomic environment index for the 2022-2023 school year.

Source: Vivre en Ville.  
 Data: MEQ, 2024; MRNF, 2024.

# STRUCTURING PUBLIC TRANSIT SYSTEM

In addition to promoting inclusion, public transit helps people maintain an active lifestyle and is very safe: for the same distance travelled, the risk of death is ten times lower than for automobile passengers (Manceau et al., 2021). Access to public transit also eliminates the expense of owning a private vehicle and improves access to jobs and other activities.

**Chosen indicator:** location near a station in the structuring transit network and direct access to the city centre via this network

This indicator provides information on access to a competitive network that connects to major job centres. The 600- and 800-metre radii represent the walking distances deemed acceptable for accessing structuring public transit from home (Vivre en Ville, 2019b).

## Limited access to structuring public transit

Only a small part of Greater Montreal is served by the structuring public transit system. Much of the region served is made up of disadvantaged areas, so overall distribution cannot be said to be inequitable.

## Several disadvantaged areas without access to structuring public transit

On the Island of Montreal, several disadvantaged areas have no access to public transit: Pierrefonds-Roxboro, Montréal-Est, eastern Montréal-Nord, LaSalle, Lachine, and Cartierville. In Laval, Autoroute 15 separates Chomedey from the metro, lengthening the walking distance to the station, a problem that also affects some areas of Laval-des-Rapides. No disadvantaged area on the North Shore, and almost none on the South Shore, has access to structuring public transit.

Some disadvantaged areas that lack direct access to the city centre via public transit have high-frequency transit lines: those located along the route of the future Blue Line extension eastward, western Notre-Dame-de-Grâce, and part of Lachine.

## Even more limited accessibility for people with disabilities

Public transit can improve access to the territory for people with functional limitations. In Greater Montreal, the level of universal accessibility is as follows:

- Montreal: 100% for buses and 40% for the metro (Société de transport de Montréal, n.d.)
- Laval: 40% (Société de transport de Laval, n.d.)
- Longueuil: 31% (Réseau de transport de Longueuil, n.d.)
- Elsewhere: 20% for trains and 0.4% for buses (Exo, n.d.)

Adapted transport may be offered in conjunction with regular transit, but is restrictive in many respects (see Appendix 4).

### Analysis to be supplemented by other data:

- Coverage of local public transit
- Overall coverage of public transit
- Affordability of public transit (cost of use by area and existence of social fares)

## Glossary

### Structuring public transit

A structuring public transit system provides a high level of service because of its high frequency and volume, priority measures to ensure reliability, high capacity, high commercial speed, and quality infrastructure.

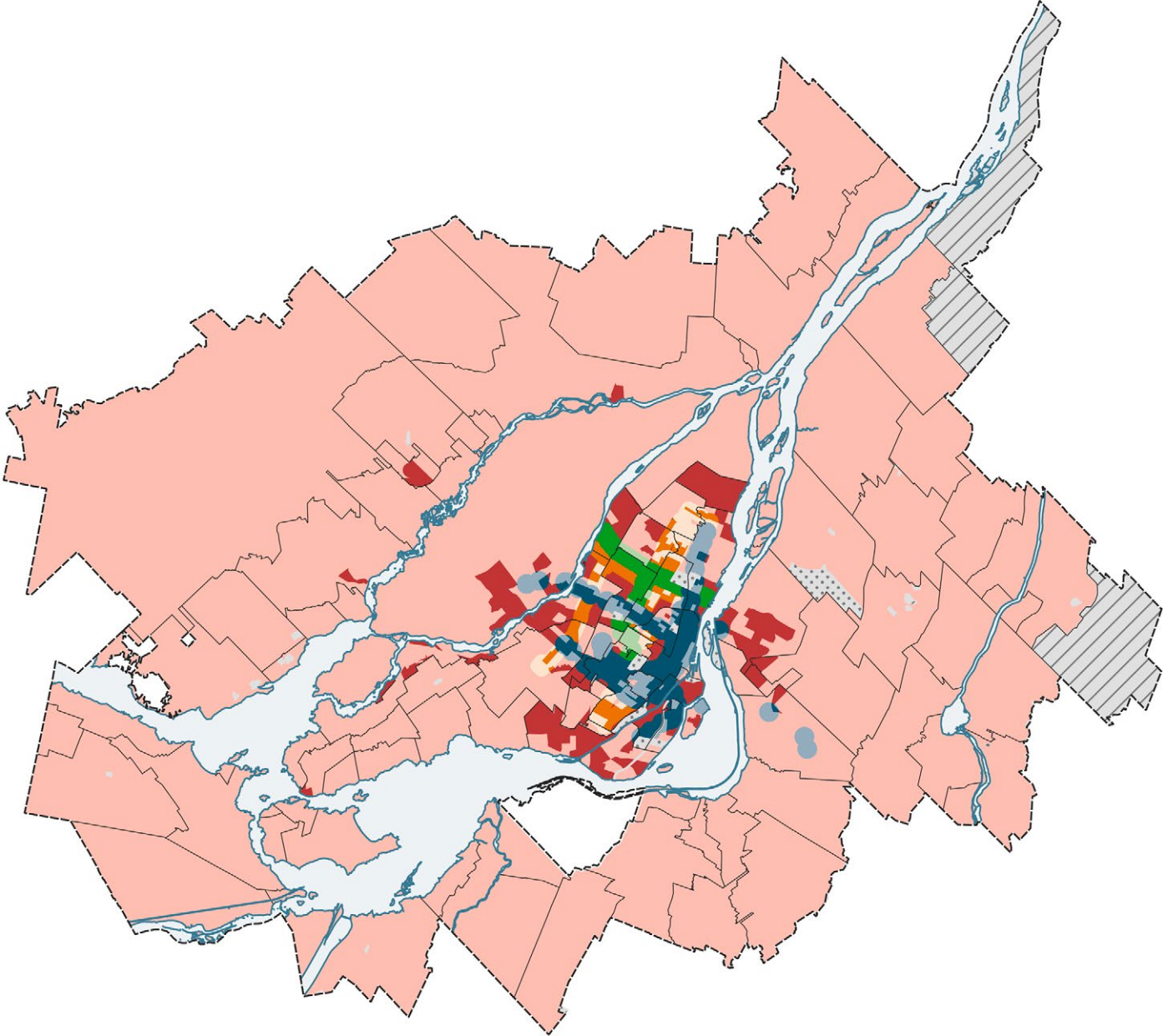
Source: Vivre en Ville, based on Vivre en Ville, 2014.

### Universal accessibility

Universal accessibility is the characteristic of a product, process, service, informational resource, or environment that, with a view to equity and inclusiveness, enables any person to engage in activities independently and achieve equivalent results.

Source: Centraide du Grand Montréal, 2021, based on Langevin et collab., 2011.

# Structuring public transit system coverage



Disadvantaged census tract	Other census tract	Distance	Description
Dark Blue	Dark Blue	<800 m	of a metro station or a bus stop with high-frequency, all-day service with direct access to the city centre
Green	Light Green	<800 m	of a metro station or bus rapid transit without direct access to the city centre
Orange	Light Orange	<600 m	of a bus stop with high-frequency, all-day service without direct access to the city centre
Red	Light Red	∅	No direct access to the structuring public transit system

## Areas not covered in this analysis

- Lack of data
- Not covered by a census tract

## Boundaries

- Municipalities and boroughs
- Study area

Source: Vivre en Ville.  
 Data: REM, 2024; SRB, 2024; STM, 2024; Curbcut, n.d.,  
 based on Statistique Canada, 2021.

# CYCLING INFRASTRUCTURE

In addition to its many positive health effects (Québec. INSPQ, 2017), cycling offers many collective benefits: less noise, better air quality, less wear and tear on roadways, and less congestion, among other things (Jarry, 2021).

The presence of cycling infrastructure is essential to promote cycling. A higher proportion of commuters cycle to work in densely populated areas equipped with cycling infrastructure and bike-sharing services (CMM, 2023b).

**Chosen indicator:** dedicated cycling infrastructure (bike paths and multi-use paths)

This indicator provides information on access to a cycling network with a high level of service that is safe and comfortable to use.

**Chosen indicator:** presence of BIXI bicycle sharing stations

This indicator provides a summary of access to the network of self-service bicycles operated by the non-profit organization BIXI Montréal (10,000 bicycles and 900 stations).

## Incomplete territorial coverage

Dedicated cycling infrastructure can be found almost everywhere in Greater Montreal, although it is not possible to identify generally inequitable distribution with regard to disadvantaged areas. The network is, above all, incomplete and fragmented.

The bicycle sharing network is also very incomplete in terms of territorial distribution, but not generally inequitable.

## Some disadvantaged areas less well served

Some disadvantaged areas, like Montréal-Nord and Côte-des-Neiges, are poorly equipped with bike paths. Future developments in Montreal's Réseau express vélo will address some of these inequities (Ville de Montréal, 2024b).

BIXI bicycle sharing stations can be found in most disadvantaged areas. However, many areas, even in densely populated urban neighbourhoods, lack BIXI stations. For example, Montréal-Nord has a few stations on its west side, but none in the east. In Saint-Michel, the stations are mainly located on the south side of the neighbourhood near Parc Frédéric-Back, but there are none north of Boulevard Crémazie.

## Bicycle use contingent on more than available infrastructure

In addition to the presence of cycling infrastructure throughout the region, promoting cycling also requires further measures to make it accessible to everyone. Setting up maintenance and repair workshops and offering courses for the general public to learn how to ride a bike offer promising avenues to achieve this.

Some people may not have access to the bicycle sharing network for economic reasons, including the requirement that they have a credit card.

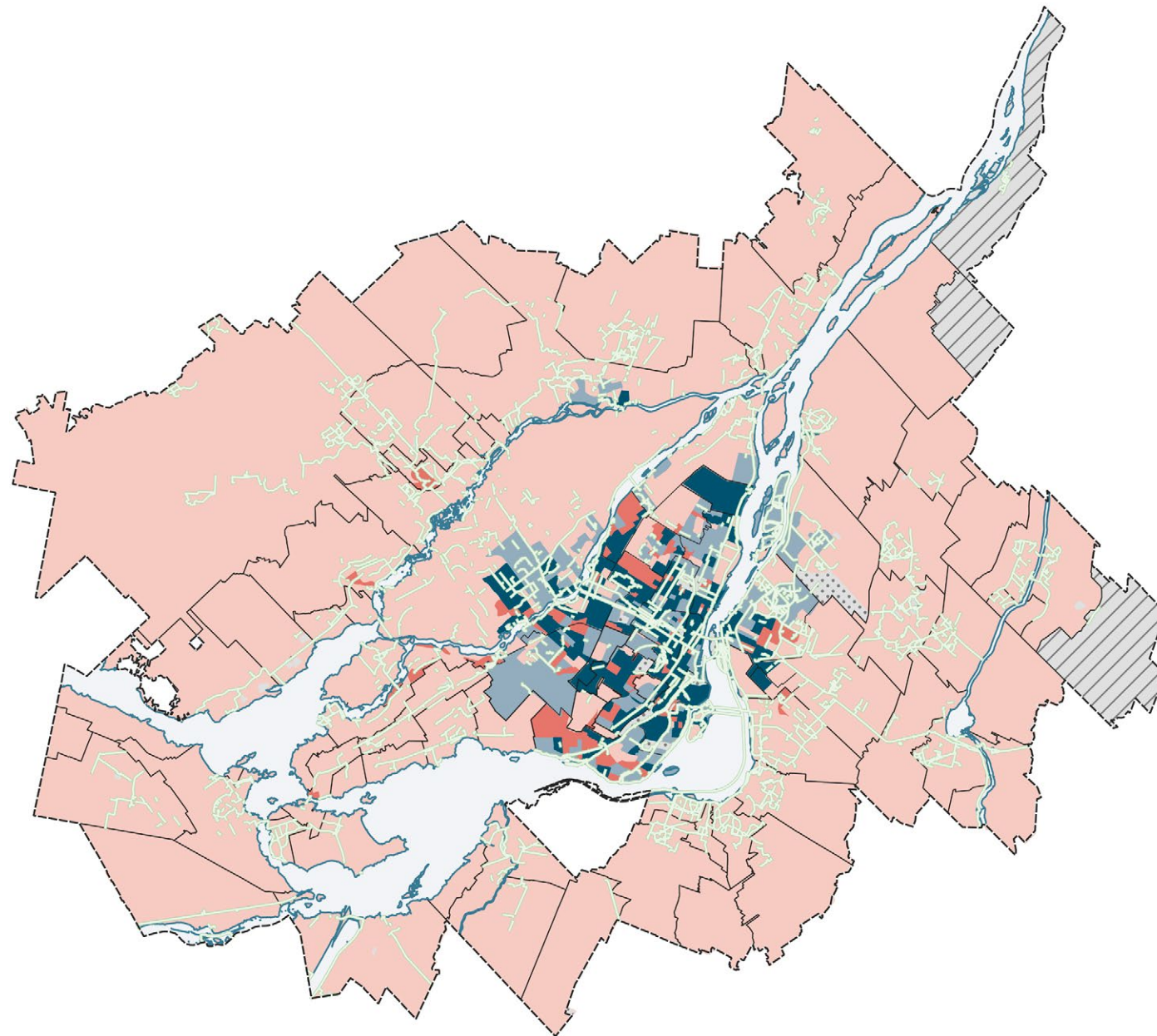
### Analysis to be supplemented by other data:

- Bicycle ownership and proficiency rates, by profile
- Density of bicycle sharing stations






## Major cycling infrastructure



### Dedicated cycling network

 Bike path or multi-use path

### BIXI stations


Disadvantaged census tract	Other census tract
----------------------------	--------------------

		One or more stations
---	---	----------------------

		No station
---	---	------------


### Areas not covered in this analysis

 Lack of data

 Not covered by a census tract

### Boundaries

 Municipalities and boroughs

 Study area

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; Vélo Québec, 2023;  
BIXI Montréal, 2024.

# WHAT OUR ANALYSIS OF MOBILITY REVEALS ABOUT TERRITORIAL EQUITY

Our analysis provides a broad picture of mobility conditions in Greater Montreal and assesses whether these conditions are equitably distributed.

## Higher estimated risk for active travel users in outlying disadvantaged areas

An analysis of the **number of collisions in relation to the number of active trips** reveals a higher estimated risk of collision in all outlying disadvantaged areas on the Island of Montreal. The estimated risk is lower in central disadvantaged areas. Due to the lack of available data, this analysis could not be done for the other subregions of Greater Montreal.

## Distinctly inequitable conditions for travel to school

Our analysis of the road environment around public elementary schools reveals a largely inequitable situation. The **proportion of the road network consisting of major thoroughfares** is greater around schools identified as disadvantaged than around other schools.

This results in more challenging travel conditions, on average, for students attending schools identified as disadvantaged. This can compromise safety and deter active travel, to the detriment of the students' health and quality of life.

## Inequitable distribution of transit penalizes several disadvantaged areas

Our analysis of **structuring public transit** and **cycling infrastructure** did not show that the distribution was generally inequitable for disadvantaged areas.

However, several disadvantaged areas are less well served. This is most often the case in disadvantaged areas far outside the city centre: the North and South Shores, Laval, and the western and eastern ends of the Island of Montreal. This problem also affects some more central disadvantaged areas, in Pointe-Saint-Charles, for example.

## Beyond geographic accessibility: economic and universal accessibility to transportation infrastructure

Our analysis focused on the built environment and public space as well as on geographic accessibility. To take full advantage of the mobility options available and of the improvements planned for disadvantaged areas, it will still be necessary to ensure affordability, which has not been studied here. Since many people living with functional limitations also have low incomes, the issue of universal accessibility, barely touched upon here, must also be a key consideration in future initiatives.

## Mobility options and housing affordability

Much of the rental housing in Greater Montreal is located near public transit, especially in centrally located neighbourhoods.

In the current housing crisis, which is generally pushing up prices, there is a real risk that the housing stock with the best access to sustainable mobility options will become largely unaffordable for low-income households, especially since access to public transit is a factor in property value appreciation (Des Rosiers, 2021).

If no measures are taken to protect the rental stock, including by increasing the number of social and community housing units near public transit, many low-income households may risk forced residential mobility and have no choice but to leave the area, sacrificing their quality of life.

# ENVIRONMENTAL RISKS

Protecting the population from environmental threats is a priority for public health action. Environmental health includes air, water, and food quality; climatic conditions; and natural and industrial hazards, among other concerns.

It is widely recognized that in many living environments, economically and socially disadvantaged populations are more exposed to certain environmental threats, like poor air quality and environmental noise.

At the same time, **climate change** is exacerbating the threats posed by a number of natural hazards, such as extreme heat and flooding.



## Four types of environmental risk analyzed for territorial equity

This section will focus on four types of environmental risk: **extreme heat, flooding, air pollution, and environmental noise.**

### How to read each subsection

For each of the seven resource types, the analysis presents:

- The chosen **indicator**
- When possible, general observations on its **distribution**: is it generally inequitable—that is to say, detrimental to disadvantaged areas—or not? When possible, our findings are based on a mapping of the indicator, sometimes supplemented with statistical analysis. The details of the methodology are provided in the appendices.
- Where appropriate, a **summary description of the disadvantaged areas** that are the least well served for the chosen indicator
- **Further considerations**, including factors of disadvantage that increase an individual's vulnerability with respect to this indicator
- In some cases, a **brief discussion of other data** that merit study to supplement the analysis

# EXTREME HEAT

The United Nations reports that 2023 was the hottest year on record (ONU [Organisation mondiale des Nations Unies] Info, 2024). Rising average temperatures caused by climate change are compounded by an increase in the number of days of extreme heat and heat waves. In Montreal, the number of days exceeding 32°C is projected to increase three- to five-fold in 2049–2070 relative to today (Québec. INSPQ, 2021c).

**Chosen indicator:** presence of heat islands and cooling islands

Heat islands exacerbate the effects of extreme heat on human health. During the summer heat wave of 2018, the majority of people who died in Montreal as a result of the extreme heat lived in a heat island (Québec. Direction régionale de santé publique de Montréal, 2019).

## Heat islands concentrated in disadvantaged areas

Our analysis reveals an overall inequitable distribution of heat islands, to the detriment of disadvantaged areas. Disadvantaged areas in Greater Montreal have three times the proportion of heat islands and one-fifth the proportion of cooling islands than other areas. Note that this distribution closely follows that of the canopy cover (see “Local resources”).

### Proportion of the region covered by heat islands and cooling islands

	Area of disadvantaged census tracts	Area of other census tracts
Heat islands	32%	11%
Neither heat islands nor cooling islands	60%	52%
Cooling islands	8%	37%
Total	100%	100%

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; Québec. INSPQ, n.d.

## Highly affected areas

Numerous heat islands can be found in central and eastern Montreal, Longueuil, Brossard, and the central neighbourhoods of southern Laval.

Downtown, southwestern, and northeastern Montreal and Vieux-Longueuil are particularly lacking in cooling islands.

## Aggravated effects for certain vulnerable groups

Seniors, people with mental health problems, people experiencing homelessness, and young children are particularly sensitive to the negative effects of heat, since they have a more limited ability to protect themselves during heat waves (Québec. INSPQ, 2024a).

### Glossary

#### Heat island

A heat island is an area where the temperature is higher than in the areas surrounding it. Heat islands form as the result of several factors: low vegetation cover; impermeable urban materials that retain heat; urban morphology; and heat emitted locally by vehicles, air conditioning, and industrial activity.

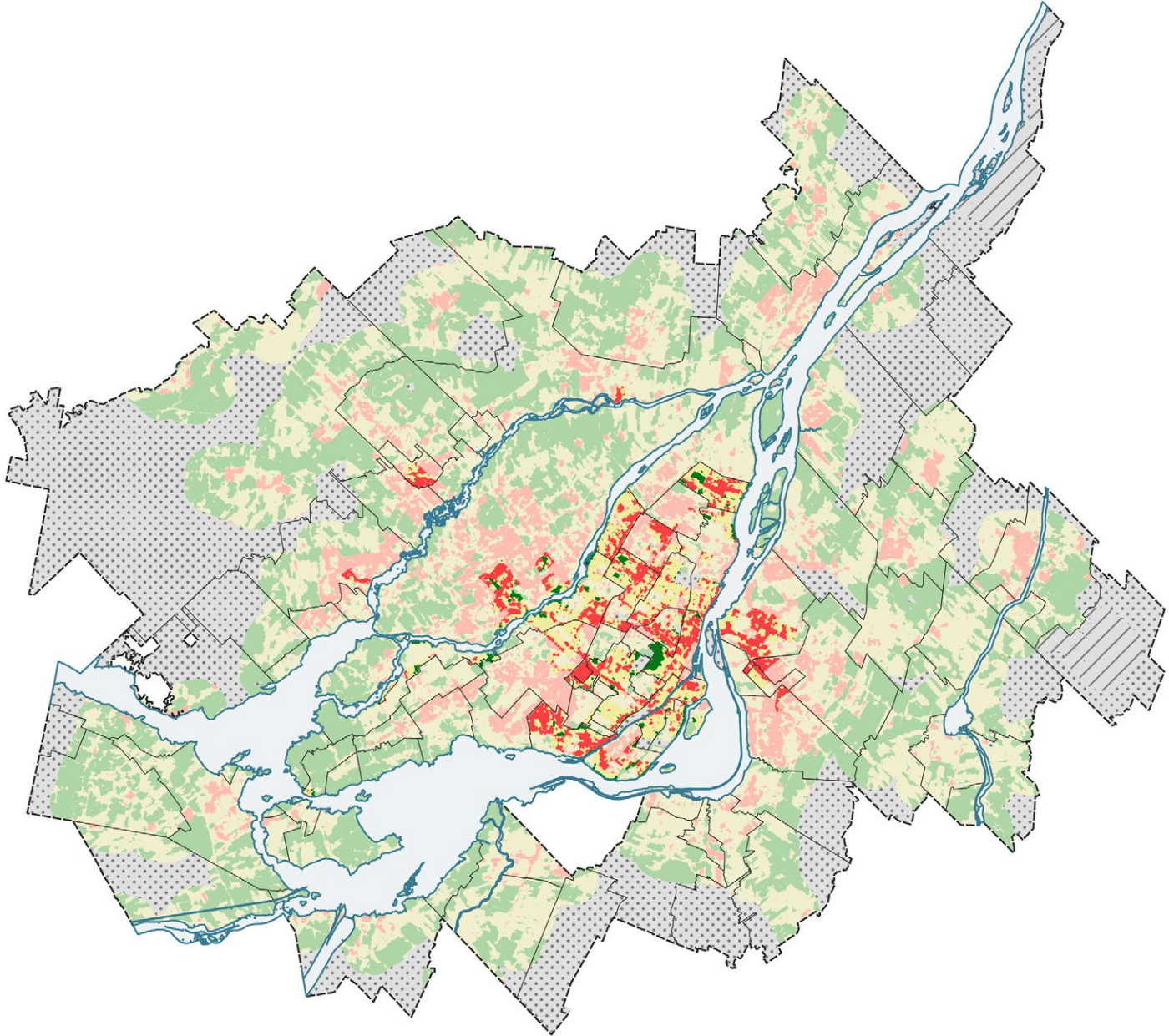
Source: Vivre en Ville, based on Québec. INSPQ, 2021b.

#### Cooling island

The opposite of a heat island, a cooling island is a naturally cool or refreshing area.

Source: Vivre en Ville.

# Heat islands and cooling islands



Disadvantaged census tract	Other census tract	
Red	Light red	Heat island
Yellow	Light yellow	Neither heat island nor cooling island
Dark green	Light green	Cooling island

**Areas not covered in this analysis**

Dotted pattern	Lack of data
Diagonal lines	Not covered by a census tract

**Boundaries**

Solid line	Municipalities and boroughs
Dashed line	Study area

Source: Vivre en Ville.  
 Data: Curbcut, n.d., based on Statistique Canada, 2021; INSPQ, 2023.

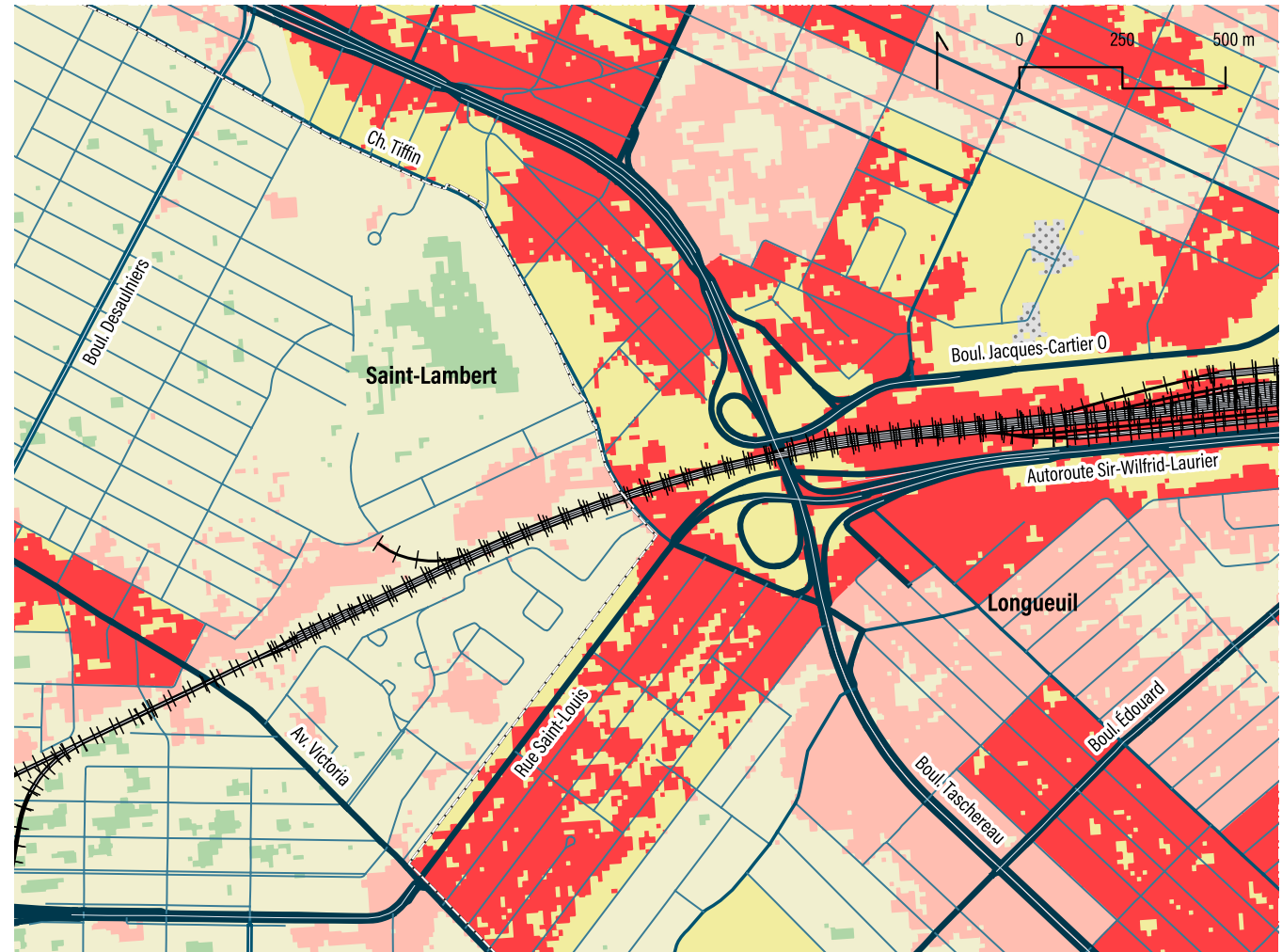
## Inequities in access to individual adaptation measures

Among the possible measures to adapt to extreme heat, improving housing quality remains one of the important levers for action. However, low-income households have less control over their home environment, especially since the vast majority of them are renters.

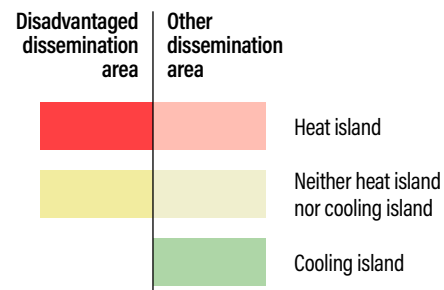
While tenant households can make some adjustments to limit the effect of heat in their homes (e.g., installing thermal insulated curtains), they have no control over major insulation and ventilation upgrades and repairs to the building.

On an equal income, renters in the Greater Montreal area are also less likely to have access to air conditioning (52%) than homeowners (69%) (Québec. Direction de santé publique, 2016), while the former group is overrepresented in many of the areas affected by heat islands.

## Temperature variations in Saint-Lambert and Longueuil (urban agglomeration of Longueuil)



### Temperature variations



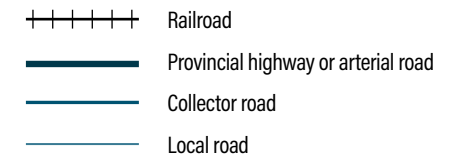
### Areas excluded from the analysis



### Boundaries



### Transportation network



Source: Vivre en Ville.  
Data: INSPQ, 2023; Curbcut, n.d., based on Statistique Canada, 2021.



# FLOODING

Greater Montreal faces two main types of floods: those caused by **rising water**, i.e., a river overflowing (in open water conditions or because of ice jams), and those caused by **heavy rain** (by runoff or sewer backup). It is estimated that the Island of Montreal has lost 82% of its streams in nearly 150 years due to urbanization (Lacroix-Couture, 2016). The conversion of land to impermeable surfaces and the reduced vegetation cover exacerbate the risk of flooding by reducing local absorption of water (Québec. INSPQ, 2021c).

The effect of climate change on the frequency and intensity of flooding remains difficult to estimate. The recent increase in large-scale spring flooding is not necessarily indicative of future trends; the intensity of such floods is even expected to decrease over the long term. However, the recurrence of heavy rainfall causing runoff flooding is expected to increase (Québec. INSPQ, 2021c).

**Chosen indicator:** low-lying topography that retains water

Detailed data are only available for the Island of Montreal.

## Runoff flooding widely scattered

Runoff flooding mainly affects areas of low-lying topography. These areas are scattered throughout the Island of Montreal, without any discernible pattern of overall inequitable distribution.

## Some disadvantaged areas more affected by runoff flooding

Certain disadvantaged areas are particularly affected by flood risks. There is a concentration of low-lying topography in the Saint-Michel neighbourhood and in Hochelaga-Maisonneuve, Sud-Ouest, Verdun, Montréal-Est, and Centre-Sud.

**Basement residences more exposed and less protected**

A report carried out for the City of New York in the United States (Nair and Kramer Mills, 2024) has analyzed the exposure of basement dwellings to flood risks, and the risks incurred by the often more vulnerable populations occupying them. Tenant insurance does not generally cover flooding, and federal insurance programs are limited to coastal flooding areas and often do not cover these pluvial flood zones. Programs in Quebec are similarly limited.

## Vulnerability exacerbated at every phase during floods

Each phase of civil protection during a flood—prevention, response, and recovery—is more limited for low-income households, particularly those dealing with other vulnerability factors (e.g., single-parent families, seniors, people with disabilities). One reason for this is that prevention information is less likely to reach them. They also have a reduced ability to prepare for and recover from such events, due to a lack of economic resources to, for example, purchase protective equipment. Having tenant status also limits control over post-disaster housing recovery.

**Analysis to be supplemented by other data:**

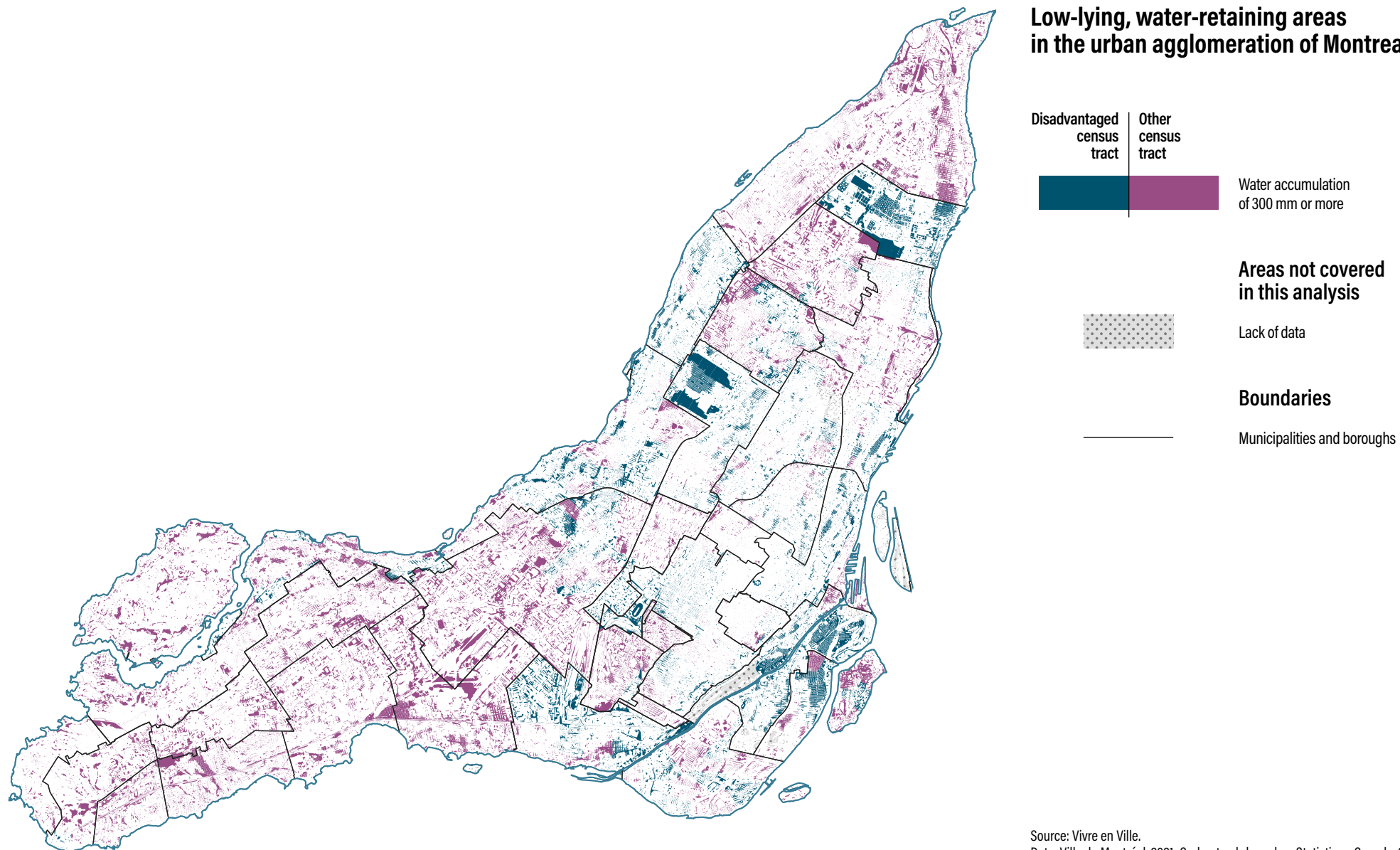
- Water-retaining low-lying zones throughout Greater Montreal
- Occupancy status of basement residences in flood zones and water-retaining zones

“ During the floods, all the tenants moved. But there are very few units available in the area, especially units for families, so we saw a rise in overcrowded units after the floods. ”

– Interview with a local community member, 2024.



## Low-lying, water-retaining areas in the urban agglomeration of Montreal



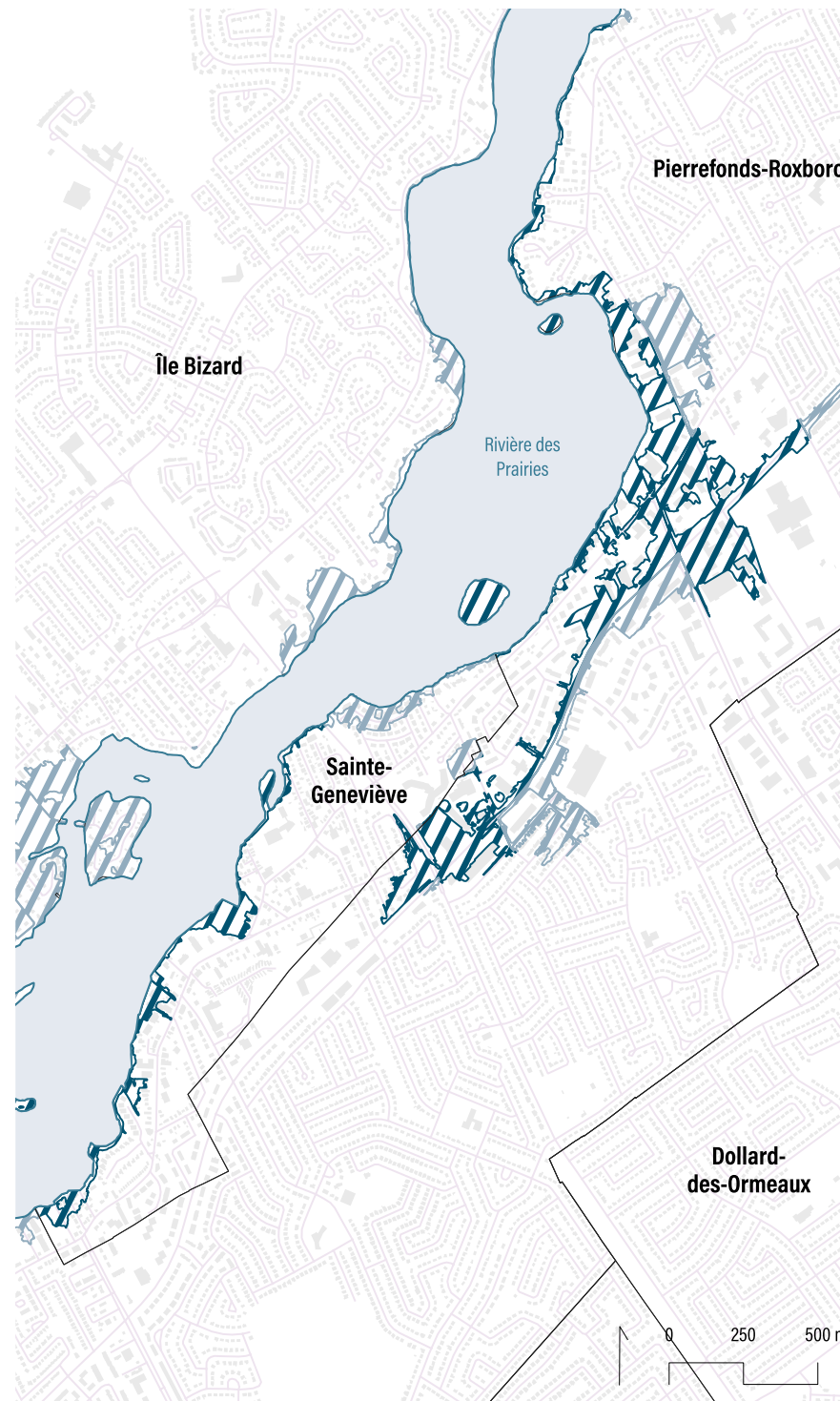
## River overflow flooding affects certain disadvantaged areas

Floods threaten households that live near waterways, especially Rivière des Prairies. Some disadvantaged census tracts, such as those in Sainte-Genève and Pierrefonds-Roxboro, are particularly affected by this risk. Areas that flooded in 2017 and 2019 correspond to areas where low-income populations are concentrated.

## The creation of green and drainage infrastructure guided by redevelopment projects

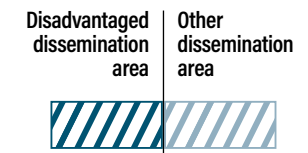
Strategies to fight flooding, like “sponge cities”, are increasingly emerging. A sponge city relies on green and drainage infrastructure (e.g., vegetated curb extensions, sponge parks) to absorb water during heavy rains, thereby reducing the risk of flooding.

In Montreal, this type of infrastructure is mainly added as the opportunity arises; for example, as part of a major redevelopment project (of a park, neighbourhood, etc.) or road rehabilitation. However, vulnerability factors are being taken into account to prioritize areas where there is a concentration of populations especially vulnerable to this type of hazard (Madénian and Van Neste, 2024).



## Areas flooded in the Pierrefonds-Roxboro and L'Île-Bizard-Sainte-Genève boroughs (Montreal)

Areas flooded during the 2017 and 2019 spring floods



Boundaries

Municipalities and boroughs

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; MELCCFP, 2022.



“ We generally act when we have the opportunity. When there's no specific financial assistance, we maximize water retention every time we redevelop a park. ”

– Interview with a borough employee, 2024.

## AIR POLLUTION

Air quality can be affected by air pollution from natural sources (e.g., forest fires) and anthropogenic sources (e.g., industrial activities, transportation, agriculture, etc.). Air pollution is a major contributor to numerous health problems, including respiratory and cardiovascular diseases. In Quebec, Health Canada estimates that this type of pollution is responsible for an estimated 4,000 premature deaths annually (Santé Canada, 2021).

Despite a period of improved air quality in Greater Montreal in recent years, climate change could lead to an increase in the level of certain pollutants (Egyed et al., 2022). Global warming will also result in more frequent forest fires, potentially increasing the Greater Montreal population's exposure to smoke (Québec. Direction régionale de santé publique de Montréal, 2024a).

**Chosen indicator:** areas within 150 metres of a major thoroughfare

The transportation sector is the largest emitter of fine particulate matter (PM<sub>2.5</sub>) into the atmosphere in Montreal (Ville de Montréal, 2024c). The average annual concentrations of fine particulate matter and nitrogen dioxide (NO<sub>2</sub>) are higher within 150 metres of a major thoroughfare.

## Insufficient data for a detailed picture

In 2023, there were 34 days of poor air quality on the Island of Montreal, including 12 days of smog. The sources and events responsible for these poor air quality days include industries in eastern Montreal, workshops at the Montréal-Nord public works yards, highway traffic, operations at the Port of Montreal, traffic on Rue Notre-Dame East, wood heating, fireworks, and forest fires (Ville de Montréal, 2024c).

Air quality for the day is considered poor when fine particles exceed a certain concentration for at least three hours at a given station. However, the 11 permanent sampling stations cannot give a full geographic picture of these air pollution peaks, since poor air quality days affect the entire urban agglomeration of Montreal. Even if the levels of pollutants measured remain low, a large number of people are still chronically exposed to them, incurring risks to their health (Québec. Direction régionale de santé publique de Montréal, Ville de Montréal et ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs [MELCCFP], 2023). This is particularly true for people exposed to road traffic.

## Exposure to road pollution, a factor of inequity

A study carried out in Montreal in 2012 indicated that the low-income population and, to a lesser extent, visible minorities, tend to reside in more polluted areas near major roads (Carrier et al., 2014). This was corroborated by our analysis.

## Proportion of the region near a major thoroughfare

	Area of disadvantaged census tracts	Area of other census tracts
Located within 150 m of a major thoroughfare	45%	15%

Source: Vivre en Ville.

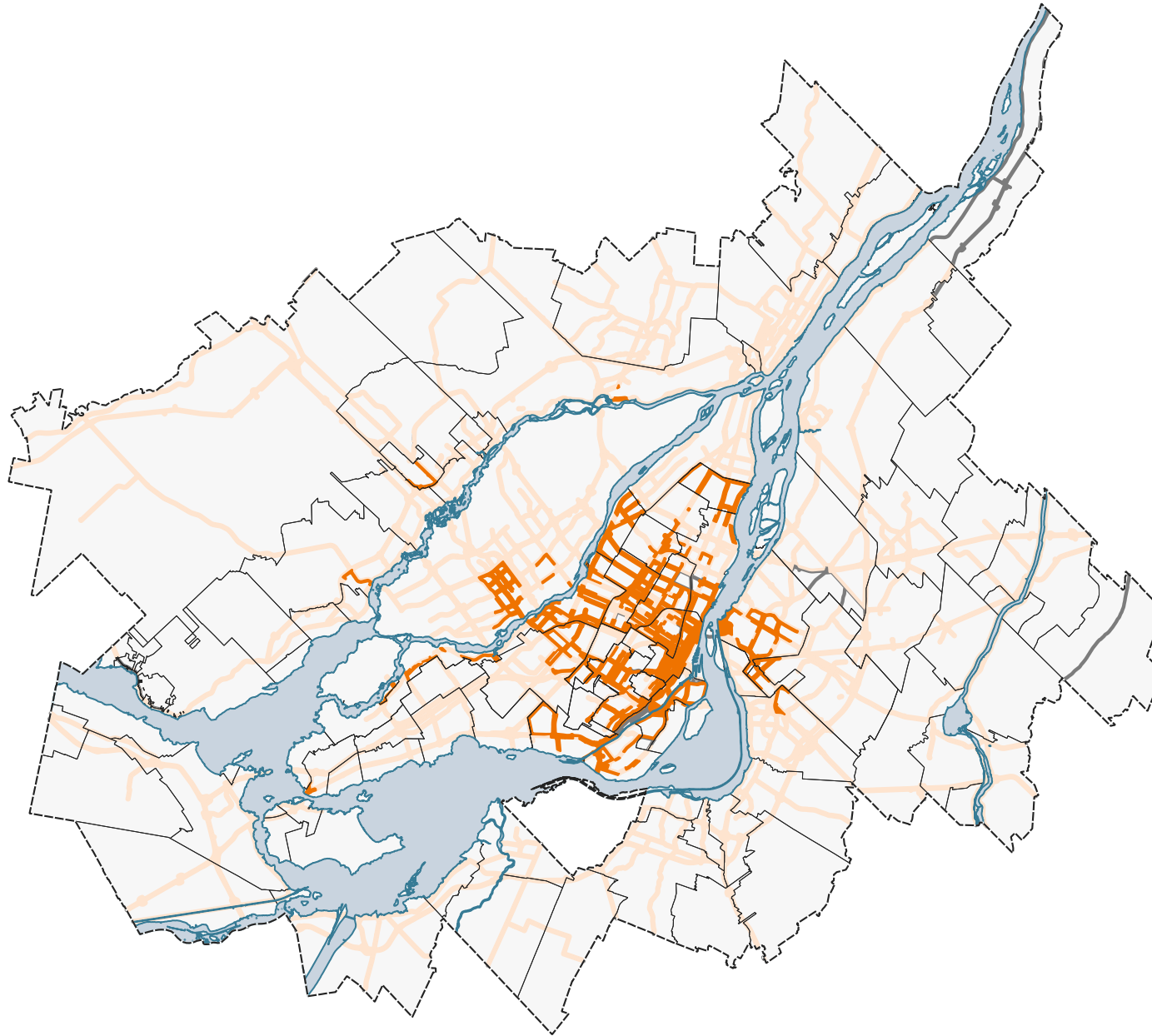
Data: Adresses Québec, 2023; Curbcut, n.d., based on Statistique Canada, 2021.

Several disadvantaged areas are particularly exposed to pollution from road traffic. Centre-Sud, Saint-Michel, Pointe-Saint-Charles, Hochelaga, and the downtown area of Montreal, as well as the Chomedey district in Laval, are particularly affected.

## Proximity to urban highways

From the 1950s onwards, urban freeways (limited access highways) were built through already densely urbanized areas. At the time, the speed and fluidity of motorized transport took precedence over public health considerations related to pollution or noise (Potvin, 2019). Even today, "the urban freeway creates a narrow fringe of value depreciation." Buildings that directly overlook freeways (especially the A-15 and A-40) tend to be more run-down and of low rental value (Sénécal, Archambault and Hamel, 2000).

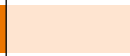
## Areas exposed to traffic-related air pollution



Disadvantaged  
census  
tract



Other  
census  
tract



Areas within 150 m of  
a major thoroughfare\*

### Areas not covered in this analysis

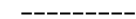


Lack of data

### Boundaries



Municipalities and boroughs



Study area

\* Limited access highways, arterial roads, provincial highways, and regional roads.

Source: Vivre en Ville.

Data: Curbcut, n.d., based on Statistique Canada, 2021; MRNF, 2024.

# ENVIRONMENTAL NOISE

Noise-induced damage to health and quality of life is said to be the second most significant environmental risk after air pollution: its effects are associated with sleep disturbances and disorders, cardiovascular disease, hearing loss, and tinnitus (Québec. INSPQ, 2023b).

The main sources of noise in urban environments are road, rail, and air transport; construction work; and neighbourhood noise. Road traffic is reported to be the main source of noise annoyance for urban Canadians (Michaud et al., 2022).

**Chosen indicator:** proportion of households exposed to an average outdoor noise level of more than 60 decibels (dBA) over 24 hours

Sixty decibels is the lowest noise level that causes discomfort to the human ear.

Data are only available for Montreal, at the dissemination area level.

## Inequitable distribution

In Montreal, research on environmental noise is unanimous that disadvantaged households are exposed to higher noise levels than the rest of the population. Road noise levels are higher where visible minorities and people with low incomes are highly represented (Carrier, Apparicio and Séguin 2016). A study by Carrier et al. (2014) found a correlation between the length of major traffic arteries and the proportion of individuals with low incomes.

Our analysis also reveals inequities in noise exposure.

### Exposure to environmental noise in the urban agglomeration of Montreal

	Proportion of disadvantaged dissemination areas	Proportion of other dissemination areas
<b>30% or more of dwellings exposed to 60 dBA or higher</b>	38%	27%

Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; Ragettli et al., 2016.

## Certain areas overexposed

The downtown area is heavily affected by noise, as are the borough of Mercier-Hochelaga-Maisonneuve, the municipality of Montréal-Est, and the Pointe-Saint-Charles neighbourhood.

A 2019 study specifically looking at the location of noise barriers (vegetated berms, walls of concrete or sheet metal, or willow shrubs that reduce noise along roads) in Greater Montreal revealed a double inequity for low-income populations, who are not only overrepresented near major traffic routes, but also underrepresented in areas protected by noise barriers (Potvin, 2019).

**Analysis to be supplemented by other data:**

- Environmental noise measurements across Greater Montreal

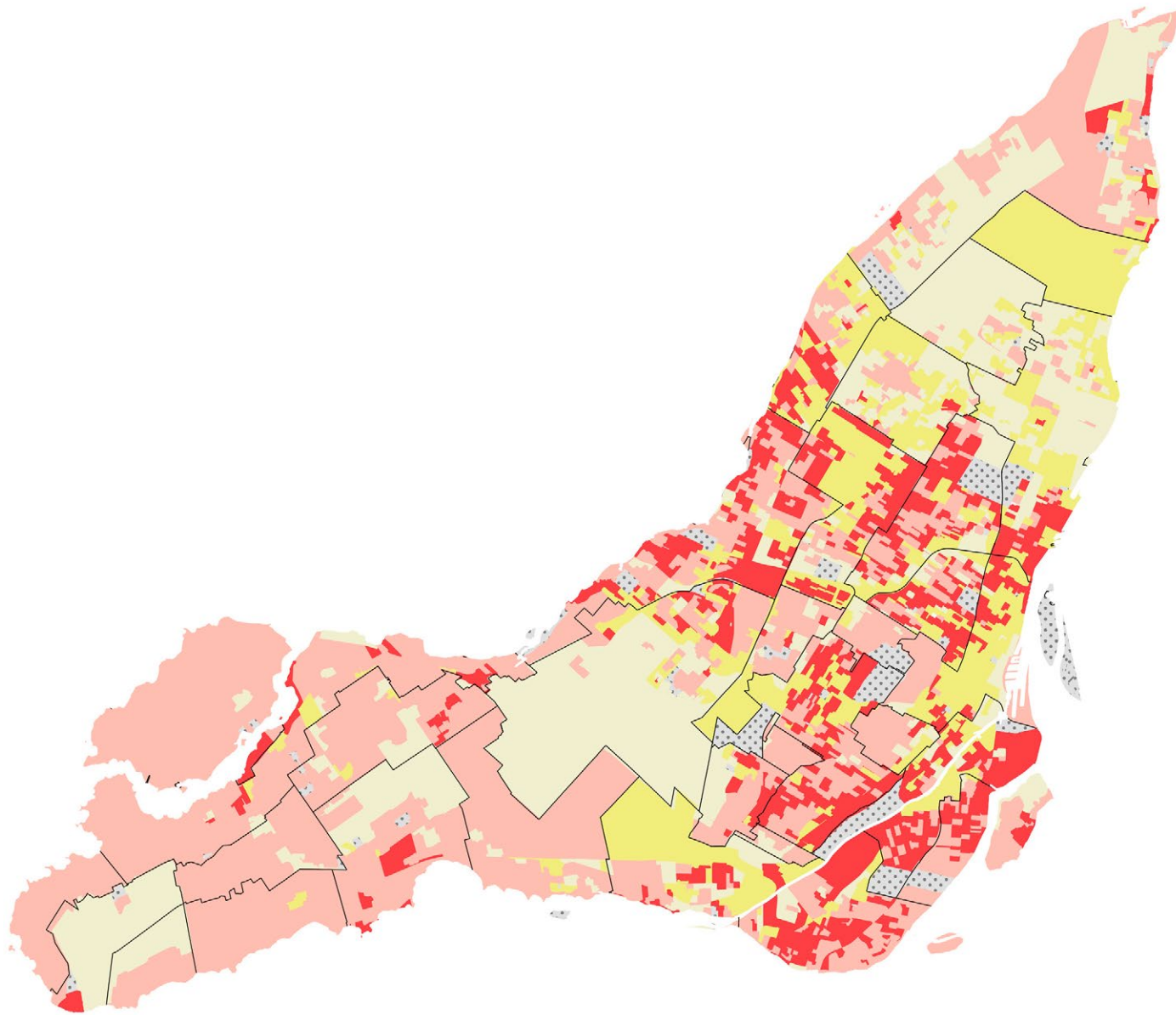
### Glossary

#### Environmental noise

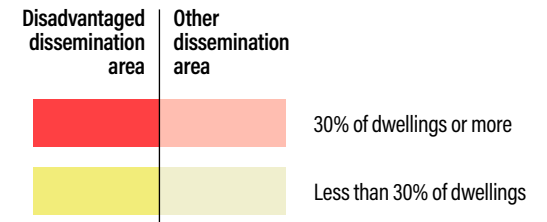
Environmental noise is noise to which the population is exposed outside of the workplace (Québec. INSPQ, 2023b). It is divided into two categories: noise from **mobile sources** (road, air, and rail transport) and noise from **stationary sources** (construction and public works, industries, commerce, cultural and recreational activities).

Source: Vivre en Ville, based on Québec. Direction régionale de santé publique de Montréal, 2017.

## Exposure to environmental noise in the urban agglomeration of Montreal



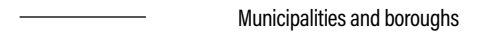
Proportion of dwellings exposed to average noise levels of 60 dBA or more over 24 hours



Dissemination areas excluded from the analysis



Boundaries



Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; Ragettli et al., 2016.

## Coexistence of residential areas and industrial, rail, and port activities

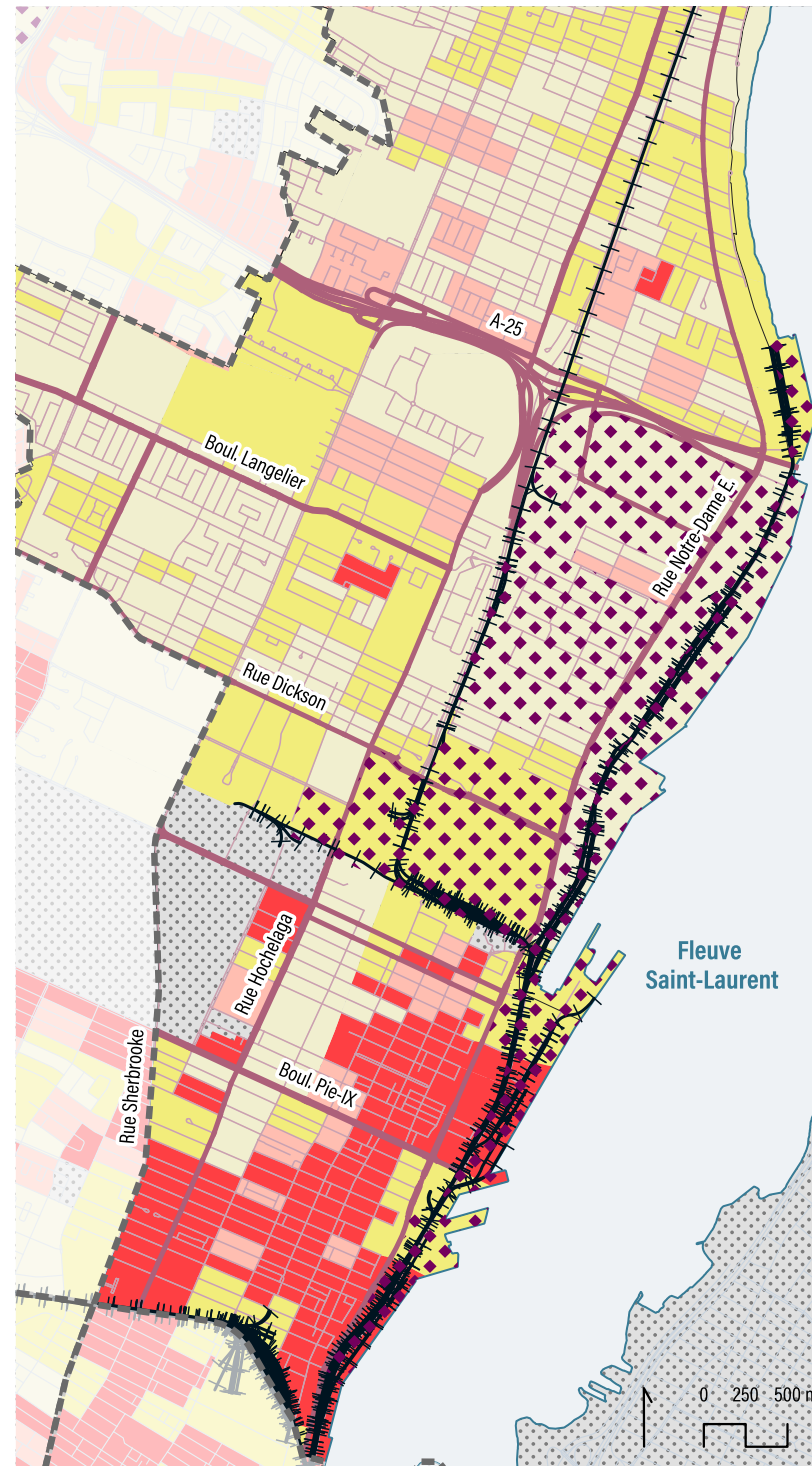
In addition to road traffic, industries also contribute to noise pollution that varies with their proximity to the residential fabric.

### Noise in Assomption Sud-Longue-Pointe

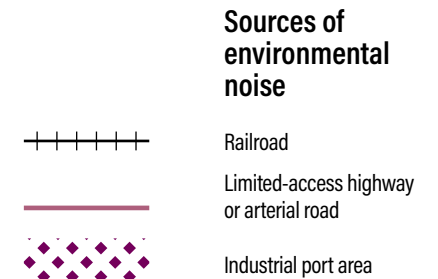
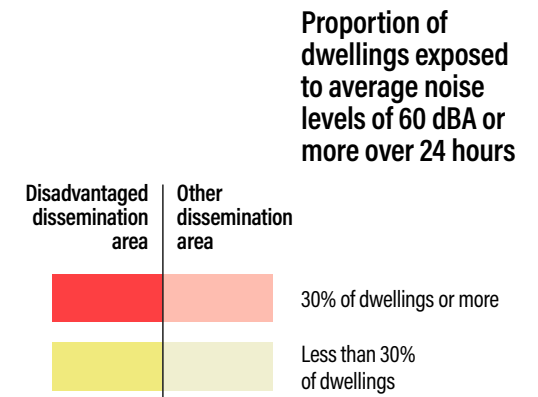
In eastern Montreal, the Assomption Sud-Longue-Pointe district is unique for its intertwined residential and specialized areas and the presence of major metropolitan arteries.

The district's areas for residential and industrial use have coexisted since the area was first developed. Starting in the 2000s, however, open spaces that served as buffer zones between the residential neighbourhoods and industrial areas have gradually decreased due to the growth of the logistics industry. This has intensified the pressure on the residential areas and contributed to the isolation they experience today (Lambert, Ananian and Racine, 2021).

Industrial port activities continue to expand in the district, threatening the well-being and quality of life of the approximately 3,550 people who live there and the 50,000 who live within a one-kilometre radius (Ananian et al., 2024).



## Exposure to various sources of environmental noise in a section of the Mercier-Hochelaga-Maisonneuve borough (Montreal)



Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021; Ragetti et al., 2016.



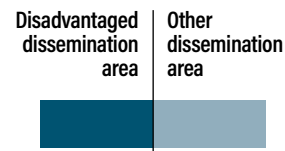
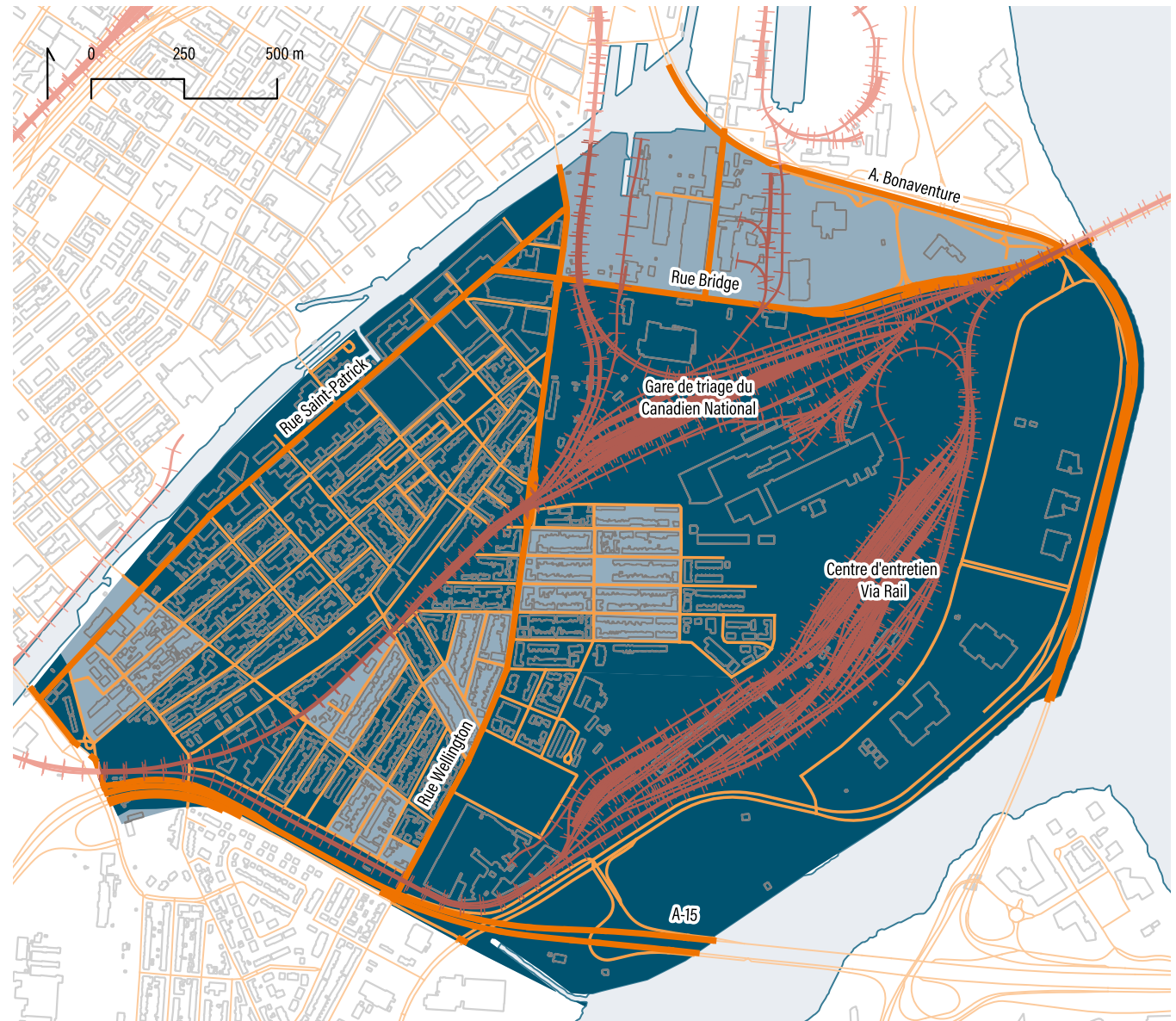
## Pointe-Saint-Charles

The Pointe-Saint-Charles neighbourhood is located in the Sud-Ouest borough of Montreal. It has a high prevalence of certain chronic diseases: this CLSC territory has the city's highest number of cases of chronic obstructive pulmonary disease (COPD) in the 35+ age group, and coronary heart disease in the 20+ age group (Québec. Direction régionale de santé publique de Montréal, 2023c).

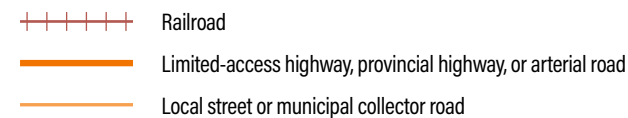
Pointe-Saint-Charles is subject to a number of hazards caused by industrial and railway activities. A rail yard and railway tracks have a major impact on the neighbourhood and generate noise and dust. While a causal link cannot be established between the population's exposure to these hazards and the higher prevalence of chronic diseases, we know that noise and air pollution are associated with the development of pulmonary and cardiovascular diseases.

In terms of noise pollution, an acoustic study carried out in 2022 revealed that, with the 56 passenger and freight trains observed to pass on the day under study, "good-quality sleep is not possible, whether during the day, evening, or night. [...] The noise of passing trains prevents residents from having an ordinary conversation, pursuing their hobbies, sleeping well, resting, or doing work that requires thought and concentration" (Vinacoustik Inc., 2023).

## Road and rail infrastructure in the neighbourhood of Pointe-Saint-Charles (Montreal)



### Transportation network



Source: Vivre en Ville.  
Data: Curbcut, n.d., based on Statistique Canada, 2021.

## WHAT OUR ANALYSIS OF ENVIRONMENTAL RISKS REVEALS ABOUT TERRITORIAL EQUITY

Environmental risks are major determinants of health; they directly influence a population's health and well-being. These risks, sometimes exacerbated by climate change, illustrate the reality of territorial inequities in Greater Montreal.

### Extreme heat exposure in disadvantaged areas

Our analysis revealed an inequitable distribution of heat and cooling islands across Greater Montreal. This finding is linked to the inequitable distribution of the canopy cover and parks examined in the "Local resources" section. This is particularly worrying given that vulnerable populations are often more susceptible to extreme heat due to having less favourable health conditions.

### Increasing flood risks

Some disadvantaged areas in Montreal are particularly vulnerable to runoff flooding, an increasingly common event that is prompting public authorities to accelerate the installation of green and drainage infrastructure, but without a clear focus on areas of social vulnerability.

### Evident inequitable exposure to road traffic pollution

Disadvantaged areas are very clearly overexposed to pollution from major traffic routes. During periods of high heat, this pollution is even more harmful since high temperatures increase the concentrations of several pollutants, including those emitted by road traffic.

### More homes exposed to high noise levels in disadvantaged areas

There are also inequities in the distribution of environmental noise. Since road traffic is also a major source of noise, these inequities are related to the pollution exposure discussed in the previous section. Again, low-income households have few means at their disposal to adapt to these hazards. Housing quality also plays an important role in noise protection.

### Cumulative and mutually reinforcing hazards

To summarize, environmental risks are a good example of cumulative hazards that reinforce and influence each other. Asphalt and impermeable surfaces are conducive to the formation of heat islands as well as floods. Heat islands are present in large numbers along industrial zones, major roads, and railways, which are also sources of air pollution and environmental noise.

Nobody chooses to live in an environment that is polluted or hazardous to their health. This analysis highlights the urgency of prioritizing the health and quality of life of populations affected by environmental injustices.



# AT THE INTERSECTION OF TERRITORIAL INEQUITIES

## WHEN DISADVANTAGES ACCUMULATE

Throughout this report, we have worked to identify areas where there is a higher proportion of residents in vulnerable situations and where dimensions of the built environment and public space are detrimental to health and well-being.

### Identifying priority areas

In taking action to address territorial equity, it makes sense to prioritize disadvantaged areas that have poor access to resources and services and are the most exposed to risks and hazards.

These areas are shown on the maps for each section detailing characteristics of the built environment and public spaces. Some are also mentioned in the text.

### Impossible to rank disadvantaged areas

As already mentioned, it is not possible to rank areas by their level of disadvantage. One reason is that the different areas of Greater Montreal are too diverse to be compared. Another reason is that our analysis of the distribution of economically disadvantaged households shows that poverty is distributed rather diffusely, and several small areas of concentration are obscured by the choice of the census tract as our scale.

## Areas affected by multiple inequities

It is important to note that in most cases, areas are affected by several aspects of territorial inequity. There are two main types of inequity in Greater Montreal:

1. Areas poorly equipped with facilities, infrastructure, and services. These share poor access to **local resources** (shops and services, healthcare facilities, cultural infrastructure, etc.) and poor **mobility** conditions (poor access to public transit and cycling infrastructure, unsafe roads). They are often outlying areas (eastern, northeastern, and western districts on the Island of Montreal; Laval; the North and South Shores).
2. Areas exposed to greater hazards from **anthropogenic sources**. These share a concerning **environmental risk profile** (high presence of heat islands, air pollution, environmental noise, concentration of major roads around elementary schools). These areas are often more densely populated, particularly in central neighbourhoods of Montreal.

In terms of **housing**, it should be noted that rental stock, non-profit housing, and public low-rental housing are most prevalent in this second group.

Finally, some areas face a combination of these different types of inequities. This is particularly the case in the Saint-Michel neighbourhood, which is described below by way of example.

## EXAMPLE NEIGHBOURHOOD: SAINT-MICHEL

The Saint-Michel neighbourhood occupies an important place in Montreal's historical development. The former Miron quarry (now Parc Frédéric-Back) and Francon quarry occupy 42% of the territory, creating numerous challenges in terms of isolation, mobility, and hazards.

### Montreal's mining centre

At the end of the 19<sup>th</sup> century, Saint-Michel was a rural area specializing in limestone mining. Multiple small quarries operating in the area were gradually acquired and merged, either by the Miron brothers or the nearby company Francon Ltd. In the 1950s, the two mining sites had become the largest in the region. At the time, Montreal had a major need for stone and concrete to construct buildings, roads, and highways. Growing demand for concrete led the Miron quarry to establish an on-site cement plant in 1959. Saint-Michel was known as "the mining centre of the Montreal region" (Fontaine and Thibault, 2008). Major buildings like CHU Sainte-Justine, Habitat 67, Place Ville Marie, and Complexe Desjardins were all built using materials extracted from Saint-Michel.

While the mining activities made Montreal's development possible, the local residents bore the brunt of their harmful impacts. In the 1960s, Saint-Michel's residents began to protest the impacts of dynamiting, noise, and dust on their quality of life (Trudelle et al., 2011).

### A new divide: Boulevard Métropolitain

After the Second World War, the population of Saint-Michel increased ten-fold, from 6,000 in 1946 to 68,000 some 20 years later. This population growth was due to the expansion of the quarries, which attracted a pool of workers to the area, and the arrival of the first waves of immigrants from Italy and Portugal. Housing at this time was located very close to the industrial zones. This period is considered the golden age of Saint-Michel, as many businesses and public services were established in the area during this time. However, the construction of Boulevard Métropolitain in 1960 destroyed the core of the municipality by splitting the district in two. Several infrastructure projects were built on the south side of the neighbourhood, consolidating a tendency for people to choose to live on this side. Local resources followed the same trend. The Saint-Michel metro station, inaugurated in 1986, reinforced the south side's status as an important hub (Fontaine and Thibault, 2008).

### From limestone extraction to waste disposal

In the late 1960s, the Miron quarry shifted its focus to landfilling. Between 500 and 1,000 trucks a day carried the city's garbage (up to half of Quebec's municipal waste) to the quarry, which gained the nickname "Montreal's garbage bin" in the 1980s (Rendez-vous télé, 2021). Saint-Michel continued to shoulder the burden of environmental hazards on behalf of the urban agglomeration of Montreal, though it was now downstream of the consumption chain, rather than upstream. The dump generated foul odours and noise and dust from trucking, thus escalating conflict between the local population and landfill activities.



## Isolation and multiple hazards: history has left its mark

After many years of protest, both quarries closed in the 1980s, although garbage trucks continued to dump their contents into the Miron quarry until 2000 (Fontaine and Thibault, 2008). With a view to modernizing the neighbourhood and addressing growing environmental concerns, a large-scale environmental complex project was constructed on the site, which today includes Parc Frédéric-Back. The arrival of Cirque du Soleil and TOHU in the 2000s also transformed the character of the neighbourhood.

However, environmental hazards are far from a thing of the past. The Francon quarry has become a snow dumping site, which still receives around 40% of the snow collected on the island. During a snow-clearing operation, some 150 trucks per hour drive through the area to dump snow. During these periods, the local population suffers day and night from trucking-related hazards, including road safety issues, noise pollution, and exhaust pollution. In addition to these wintertime activities, the site serves as a municipal warehouse for street furniture and a training site for snow removal vehicles (Vivre Saint-Michel en santé, 2020).

Today, Saint-Michel is still dealing with the ongoing effects of its past. The decline of the extractive industry, the fragmentation caused by Boulevard Métropolitain, and poor urban planning have impoverished the neighbourhood. With the Francon quarry running through its centre, Saint-Michel is bounded to the south by Boulevard Métropolitain, to the north by a railway, and to the east and west by two major thoroughfares, Boulevard Pie-IX and Avenue Papineau. This isolation has had obvious consequences for the neighbourhood: mobility is very limited, and the businesses, resources, and services are concentrated in the south.

While the creation of Parc Frédéric-Back can be considered a step toward redressing Saint-Michel's mining past, surveys conducted in the neighbourhood show that a very small proportion of residents actually make use of it, making it more of an urban attraction for outsiders (Jolivet and Carré, 2017).

“ Residents on the north side say they never go to the south because of this barrier, which is both symbolic and very real, made up of infrastructure like Boulevard Métropolitain. But that's where most resources are. The highway really acts as a border, it's as if there are two different neighbourhoods. ”

– Interview with a local community member, 2024.

## A restoration project by and for the local community

Saint-Michel's grassroots struggles have forged a strong community, supported by the Vivre Saint-Michel en santé round table. Saint-Michel is a landing pad for many immigrant communities, who arrive seeking community welcome centres, support networks, and affordable rent. The cultural and political identity of the neighbourhood has been built around the many negative externalities it has faced (Jolivet and Carré, 2017).

Unlike the Miron quarry, which was rehabilitated without any real involvement of the local population, the round table is now undertaking a citizen participation project to rehabilitate the Francon quarry. Four major recommendations have emerged from this process:






- Construction of a multidirectional and multifunctional footbridge
- Construction of social and community housing
- Creation of a multi-use site for cultural, sporting, and social initiatives
- Creation of a permanent public market (Vivre Saint-Michel en santé, 2020)

These four elements respond to the key needs of the residents, particularly in terms of housing, mobility, and access to local resources.


# Accumulation of unfavourable characteristics in the built environment and public space of the neighbourhood of Saint-Michel (Montreal)






## Sources of geographic isolation

-  Highway
-  Provincial highway, regional road, arterial road, or collector road
-  Railroad
-  Service yard or snow disposal site
-  Park

## Air pollution caused by major thoroughfares

-  Within 150 m of a limited-access highway, arterial road, provincial highway, or regional road

## Structuring public transit

-  Metro station without direct access to the city centre
-  Bus rapid transit station without direct access to the city centre
-  High-frequency, all-day service bus stop without direct access to the city centre

Source: Vivre en Ville.  
Data: MRNF, 2024; SRB, 2024; STM, 2024.

## FURTHER INFORMATION

This section provides a list of resources to complement and expand upon the work started in this *Vital Signs* report.

### Reports

- CONSEIL INTERCULTUREL DE MONTRÉAL (2023). *Reducing Territorial Inequalities and Preventing Urban Discrimination: A roadmap for transforming City of Montréal initiatives*. Montreal, City of Montréal [PDF]. 95 p.
- QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2024). *Évaluation de la vulnérabilité de l'agglomération de Montréal aux changements climatiques – Rapport final*. Montreal, CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF]. 116 p. + appendices (available in French only)

### Actions

- The Inclusive and Resilient Neighbourhoods (QIR, *Quartiers inclusifs et résilients*) approach launched by the City of Montréal via pilot projects in three areas facing territorial inequities.

### Platforms for map exploration and data visualization

- **The City of Montréal's *Indice d'équité des milieux de vie*** [living environment equity index] (available in French only at <https://services.montreal.ca/indice-equite-milieux-vie/>)

The purpose of the *Indice d'équité des milieux de vie* is to identify the living environments with the greatest urban vulnerabilities in Montreal, in order to prioritize and focus municipal investments. This index characterizes areas with a combination of social, economic, and environmental vulnerabilities; and vulnerabilities related to access to local resources; access to cultural, sports, and leisure resources; and urban safety.

- **Curbcut Montréal** (available at <https://montreal.curbcut.ca/>) and **Curbcut Laval** (available at <https://laval.curbcut.ca/>)

Curbcut is a platform for exploring urban sustainability at multiple spatial and time scales. It offers a justice- and inclusion-based approach to urban issues, integrating the widest possible range of information to help inform interested individuals, communities, policy-makers, and members of the research community.

- **Indicateurs vitaux du Grand Montréal** (available at <https://indicateurs-vitaux.cmm.qc.ca/>)

The *Indicateurs vitaux du Grand Montréal* platform is a joint initiative of the Communauté métropolitaine de Montréal and the Foundation of Greater Montreal. It aims to provide reliable strategic data on various dimensions related to well-being, quality of life and the development of complete, sustainable communities in the Montreal metropolitan region.

- **Observatoire du Grand Montréal** (available at <https://observatoire.cmm.qc.ca/>)

The *Observatoire du Grand Montréal* is a platform to disseminate the analyses and statistical and cartographic data provided by the Communauté métropolitaine de Montréal in order to monitor the development of the region and its 82 municipalities, and set it in the context of North America's major metropolitan regions.

- **Vulnérabilité aux changements climatiques** [Vulnerability to climate change] (available in French only at <https://donnees.montreal.ca/dataset/vulnerabilite-changements-climatiques>)

Interactive map of vulnerabilities to climate hazards and open data from the urban agglomeration of Montreal, published by the Bureau de la transition écologique et de la résilience of the City of Montréal.

5

# TAKING ACTION TOWARDS TERRITORIAL EQUITY





# TERRITORIAL INEQUITIES EXIST IN GREATER MONTREAL

Does the built environment and public space across Greater Montreal present an **uneven, unjust, systemic, and preventable distribution** of positive and negative characteristics? The answer to this question, which this report has sought to address, is unfortunately yes, in several respects.

## A widespread, inequitable distribution of most environmental risks

Many of the features of the built environment and public space studied in this report are inequitably distributed, to the detriment of disadvantaged areas across Greater Montreal.

This is particularly true for environmental risks. We have observed a disproportionate concentration of **heat islands, air pollution, and environmental noise** in disadvantaged areas. Several of these areas suffer from an accumulation of factors detrimental to the health of their residents. They also have fewer **cooling islands** than other areas.

In terms of local resources, disadvantaged areas have far fewer **trees** than more privileged areas.

In terms of mobility, there are also major inequities in terms of the safety and user-friendliness of active travel. The **road environment** around disadvantaged elementary schools is far less user-friendly than for other elementary schools.

## A partially inequitable distribution of local resources and mobility infrastructure

For some of the characteristics examined, we have not observed an overall inequitable distribution. We did, however, find problematic situations in several disadvantaged areas, many of which are more peripheral, though some are central.

There is a partially inequitable distribution of many local resources. Many disadvantaged areas are less well equipped with local **shops and services, healthcare services, parks, and cultural facilities**.

The situation is similar for mobility. Many disadvantaged areas suffer from a **higher estimated risk of collision during active travel**, limited **cycling infrastructure**, and poor access to **public transit**. This issue is particularly problematic as low-income households are more reliant on public transit.

## Further analysis required for some local resources

The lack of data and the complexity of the analyses required made it impossible to paint a clear picture of the distributional equity of some local resources.

This is particularly true for **food environments** and **schools**, where factors beyond geographic accessibility come into play. Cost, physical accessibility, and eligibility criteria also have an impact on actual accessibility.

## Additional population vulnerability factors to consider

Exposure to problematic aspects of the built environment and public space has variable consequences depending on the characteristics of the population affected. This calls for a more nuanced analysis of their distribution.

One such example is **flooding**, for which preparedness and recovery capacities are unequal. **Community organizations'** services should also be analyzed in the light of people's specific needs.

Finally, it's worth recalling that lack of access to a resource or exposure to an environmental hazard often has more serious consequences for the most vulnerable populations.

## Lack of choice in housing, an aggravating factor

Our analysis of housing characteristics has shown that low-income households have access to limited areas. Their dependence on the **rental market** and the limited supply of **social and community housing** restrict their choice of residence and location. Furthermore, with the pressure of the current housing crisis, the areas available to them risk shrinking further, and drifting further from neighbourhoods with more favourable characteristics.

This observation should lead to two complementary commitments: first, to improve the characteristics of the built environment and public spaces, in disadvantaged areas first and foremost; and second, to preserve affordable housing in better served areas.

### Summary of observed territorial inequities: Distribution of characteristics of the built environment and public space in Greater Montreal

	Widespread inequitable distribution	Partially inequitable distribution	Requires further analysis
Local resources	Trees	Local shops and services Healthcare services Parks Cultural facilities	Food environment Community organizations Public elementary schools
Mobility	Road environment around public elementary schools	Estimated risk of collision for pedestrians and cyclists Access to public transit Cycling infrastructure	
Environmental risks	Heat islands and cooling islands Air pollution Environmental noise		Floods
Housing	A dysfunctional housing system is an aggravating factor for all territorial inequities.		

## WHICH AREAS OF GREATER MONTREAL SHOULD BE PRIORITIZED?

Where should we take action so that the urban environment and public space help reduce inequalities rather than increase them? As we have stated, universal measures are not enough. They can be useful to avoid creating inequalities, but all too often the **processes** that create inequities (see section 1) and the **realities** of people suffering from economic disadvantage or other vulnerabilities fall into such measures' blind spots.

Increased awareness of territorial inequities has been leading more and more organizations to adopt an **equity-based approach** in implementing measures. This joint assessment is intended to help equip the community, public partners, and philanthropic players to take such an approach.

As we have emphasized throughout this report, our assessment of territorial inequities does not allow us to rank the census tracts of Greater Montreal, nor to conclude that some areas are without need. Recall that vulnerability factors are scattered throughout the region (see section 3). Nevertheless, the identification of disparities in **population characteristics** and in the **built environment and public space** can help inform decision-making.

## Some areas are critical due to the population who lives there

The first key element in our analysis is the concentration of people with vulnerability factors. In Greater Montreal, one third of census tracts have a prevalence of **low-income** households exceeding 15% (see section 3). These disadvantaged areas are also home to a greater number of **immigrants**, people who identify as **visible minorities**, **people living alone**, and **renters**.

Obviously, the idea is not to limit measures to these critical areas; people experiencing vulnerabilities exist throughout the Greater Montreal region. However, it is necessary to pay particular attention to these disadvantaged areas throughout decision-making processes. If a measure overlooks these areas, it will likely exacerbate rather than reduce inequalities—whatever the objective reasons may be for omitting them (lack of space, location, lack of opportunities, implementation difficulties, etc.).

The identification of disadvantaged areas (see section 3) would benefit from being complemented in a number of ways:

- Using other territorial **scales**
- Using other vulnerability and discrimination **factors, in accordance with** intersectionality and GBA Plus-type approaches (age, disability, origins, etc.)
- Being repeated **over time**, to reflect changes in the distribution of Greater Montreal's population

## Some areas are critical due to the characteristics of their built environment and public spaces

In the framework of reducing territorial inequities, the other key element of our analysis is our observation of unfavourable characteristics of the built environment and public spaces for health and quality of life. In Greater Montreal, the **housing** supply, access to **local resources**, **mobility** infrastructure, and **environmental risks** are unevenly distributed. Some tracts have a longer way to go to reach the definition of a complete community than others (see section 4).

Greater Montreal covers a vast region made up of very distinct neighbourhoods. It is not feasible, in the medium term, for all to offer ideal characteristics. Nevertheless, this report's identification of less well-served areas (see section 4) can help inform decision-making so that measures to improve the built environment and public space may be implemented equitably.

## The two aspects combined

The main contribution of this assessment lies in the **superposition** of these two key elements.

To take action equitably, it is essential to pay particular attention to the areas, identified in each map in this report, where **concentrated economic disadvantage** overlaps with **unfavourable characteristics of the built environment and public space**. As we have emphasized, this focus must not mean that we leave other areas in the lurch.

# PRIORITIES FOR IMPROVING THE BUILT ENVIRONMENT AND PUBLIC SPACE

This report has analyzed the distribution of many characteristics of the built environment and public space across Greater Montreal. These characteristics are grouped into four broad categories: housing, local resources, mobility, and environmental risks. In examining each of these characteristics, we have generally opted for **concrete**, easy-to-understand indicators, rather than composite indexes, which are harder to interpret. This choice also has the advantage of making it easier to identify actions likely to improve the built environment and public space with a view to reducing inequities.

## Take action on housing, a prime concern

The lack of adequate housing undermines all spheres of life. Our housing system currently does not enable the most vulnerable to maintain, let alone improve, their **housing situation**. The cost of rent is consuming a growing share of household budgets, undermining food security, mobility, and the ability to meet basic needs.

Ensuring the **right to residential mobility** will allow households to choose a place of residence that aligns with their life circumstances, is conducive to their health, and enables them to settle or remain in the neighbourhood of their choosing, while respecting the budgetary balance necessary to meet all their essential needs.

Guaranteeing **affordable housing** will also support efforts to improve neighbourhoods without fear of negatively impacting the people most vulnerable to exclusion through resultant increased property values and rental prices. Improvements such as enhancing public transit services may have such an effect.

### Priority actions for housing:

- Increase the supply of social and non-profit housing, prioritizing better served areas (in terms of public transit, local resources, etc.).
- Increase the supply of rental housing, including in areas where it is scarce.
- Implement all solutions that will establish residential affordability and ensure a sustainable exit from the housing crisis (see *Portes ouvertes*, *Vivre en Ville*, 2022c).

## Improve access to local resources

Several disadvantaged areas are less well served in terms of local resources. Priority should be given to **filling the gaps** in these often outlying areas. We can improve our current situation by taking an equity-based approach to the 15-minute city concept, which has inspired the revised metropolitan land use and development plan (PMAD, *plan métropolitain d'aménagement et de développement*). For shops and services, particularly food retailers, this will mean setting **better guidelines** for their locations.

There are inequities in distribution for many types of **public facilities**, including healthcare services, cultural facilities, and schools. Siting these facilities in neighbourhood cores is often hampered by a lack of available space, particularly as these are large-scale facilities with restrictive specifications and limited budgets—factors that may be partly amended by a review of **management practices**.

Last but not least, we need to re-establish equity in the distribution of **trees and parks**, which are essential green infrastructure, particularly in the context of the climate crisis.

### Priority actions for local resources:

- Adopt an equity-based approach to implementing the 15-minute city concept (CMM, 2023c).
- Set better guidelines for siting shops and services to prevent them from being too concentrated outside neighbourhood centres or located along high-traffic roads.
- Make proximity a priority criterion in planning public services and siting public facilities.
- Set up incentive programs to encourage the use of public facilities by people experiencing vulnerability.
- Increase canopy cover, prioritizing disadvantaged areas.

## Make mobility a vehicle for equity

While transportation is an essential cog in the wheel of economic and social participation, it also generates environmental hazards (unsafe roads, pollution, greenhouse gas emissions, noise, etc.). Our analysis shows that the most vulnerable people in Greater Montreal suffer the most negative consequences.

**Shifting to sustainable mobility** is therefore in itself an equity-promoting measure.

While most disadvantaged areas are suffering the consequences of our massive car use, some are also heavily dependent on it, due to a more limited **sustainable mobility infrastructure** (public transit and cycling infrastructure). This imbalance needs to be addressed.

Finally, inequities in **road safety** call for a rethinking of street design, with priority given to disadvantaged areas.

### Priority actions for mobility:

- Make the shift to sustainable mobility (better financing of public transit, cost internalization for vehicle use, rethinking street design standards, etc.).
- Prioritize the development of a structured public transit network in disadvantaged areas that are less well served and sufficiently dense.
- Ensure the affordability of public transit through a universal pass or social fares.
- Increase cycling infrastructure, prioritizing disadvantaged areas that are less well served.
- Democratize bicycle use through programs targeting disadvantaged areas and people experiencing vulnerability.
- Implement large-scale traffic calming and active travel safety measures in disadvantaged areas.

## Bolster resilience to environmental risks

Of our four categories, environmental risks are the most inequitably distributed across Greater Montreal. Measures targeting them should therefore be implemented in **disadvantaged areas as a matter of priority**. This is not currently the case for road noise, for example, as corrective measures are generally implemented following local citizen mobilization, often by more privileged populations (Potvin, 2019).

Many environmental risks (extreme heat, air pollution, environmental noise) are linked to transportation activities, and their mitigation depends on the **mobility** measures already presented.

**Climate change** makes it all the more necessary to seek equity, due to climate hazards such as extreme heat and flooding. This involves not only measures addressing the built environment, but also a strong social fabric, support for community organizations, and targeted preparedness and recovery measures.

### Priority actions for environmental risks:

- Ensure equitable implementation of environmental risk mitigation measures and avoid maladaptation.
- Shift towards sustainable mobility (see priority actions for mobility).
- Implement heat mitigation measures (tree planting, water management, etc.) as a priority in disadvantaged areas.
- Adapt the housing stock to climate event hazards.
- Better support community organizations and the development of social ties.
- Develop preparedness and recovery programs targeting disadvantaged areas and people experiencing vulnerability.

## Improve the quality of the built environment and public space throughout Greater Montreal

As we have discussed, people in vulnerable situations are more likely to suffer from unfavourable features of the built environment and public space. The **development of complete communities** is therefore, in itself, equity-promoting. It also frames Quebec's policy on architecture and land-use planning (*Politique nationale de l'architecture et de l'aménagement du territoire*) (Québec. MAMH and MCCC, 2022).

This is all the more necessary as people in vulnerable situations may be subject to **unwanted residential mobility**. The housing crisis, which is driving up rents, combined with the lack of social and non-profit housing means that households forced to leave their homes are not guaranteed to find an adequate alternative in their neighbourhood.

# HOW CAN WE BEST WORK TO REDUCE TERRITORIAL INEQUITIES?

Inequities in the built environment and public space can exacerbate social exclusion and put populations already made vulnerable by a set of factors and injustices at further risk. The unevenly distributed effects of the climate and housing crises, food insecurity, and the environmental and social impasse of urban sprawl mean that reducing territorial inequities must become an integral part of Greater Montreal's socio-ecological transition.

We need to rethink our approach if we are to make this transition without leaving anyone behind.

## The contributions of restorative justice

Territorial inequalities stem in part from various forms of injustice (see section 1). Restorative justice has been developed in response, offering an approach that makes it possible to highlight the wide range of justice needs of affected groups. These needs include redress for historical injustices, recognition, participation, redistribution, and assistance. Restorative justice also fosters a transformation of mindsets that helps prevent future injustices (Engone Elloué, 2018).

## Respond according to science and knowledge rather than demands

Developing knowledge about the characteristics of the built environment and public space, as well as their impacts on residents, is a crucial element in reducing territorial inequities. Decisions that are not based on data are more likely to be guided by political and civic pressures; unfortunately, these tend to favour residents with greater social and cultural capital, thereby perpetuating inequities (Centre Léa-Roback, 2007).

## Collect and disseminate data

Gathering data, monitoring changes in this data over time, and developing trend charts are essential territorial decision-making aids for effective action, at all levels of government. Sharing data will also facilitate research and advocacy. This report has greatly benefited from sociodemographic and territorial databases.

## Continue to improve scientific knowledge

A better understanding of how neighbourhood characteristics influence the life course and health of individuals can contribute to informed decision-making. For example, being able to associate the territorial organization of certain areas with the prevalence of chronic diseases would be a major lever for public health action.

## Diversify data sources

In working on territorial inequities, we must draw on a wide variety of data to account for their multidimensionality. To this end, it is important to make space for experiential knowledge and to amplify different points of view from an intersectional perspective.

## Set targets

In this report, we have analyzed many features of the built environment and public space (see section 4). In some cases, scientific knowledge or practice has already established targets. These include a maximum of 30% of a household budget devoted to housing, a maximum distance of 600 to 800 metres to a stop on the structuring public transit network, and a minimum of 30% canopy cover, among others.

Setting targets for all neighbourhood characteristics would make it possible to measure the gap between reality and objectives, particularly in disadvantaged areas, and to better articulate policies and practices in order to achieve them.

## Democratize decision-making

In the past, decisions that have led to major territorial inequities in Greater Montreal have been made without consulting local populations (see section 3). The right to participate in decisions affecting one's environment must be strengthened.

## Improve engagement in a period of transformation

Many neighbourhoods are being transformed to adapt to climate change or respond to the housing crisis, making engagement all the more important. The concerns of communities likely to be affected by these transformations must be ascertained and taken into account.

To improve procedural justice, special efforts must be made to involve vulnerable people in decision-making (Vivre en Ville, 2022a). This means making concrete efforts to directly seek the input of people who do not take part in traditional channels of public participation.

## Expand innovative collaborations

In recent years, there have been some inspiring examples of collaboration in Greater Montreal, which must be expanded and systematized. One such example comes from the neighbourhood of Ahuntsic, where a shared project management office has been set up to transform the site of a former municipal pound into an ecodistrict (Louvain Est). This governance body brings together people representing the City of Montréal, the borough of Ahuntsic-Cartierville, and the Solidarité Ahuntsic community development table (*table de concertation*) (Solidarité Ahuntsic, n.d.; Vivre en Ville, 2024).

## Make the community a key ally

Due to limited access to decision-making forums, a lack of time for social engagement, or more urgent unmet needs, populations in vulnerable situations are not always the first to demand improvements to the built environment and public space, although their neighbourhoods are often most in need of enhancement.

## Strengthen our natural intermediaries

Supporting community organizations that work with populations struggling with different forms of vulnerability is a particularly effective way of finding collective solutions that are consistent with a variety of values and needs. Neighbourhood round tables and other consensus-building organizations are key points of contact, able to consolidate concerns and act as intermediaries.

## Strengthen essential solidarity networks throughout Greater Montreal

Community organizations and their networks complement public support and mutual aid. They are just as essential in areas where people in vulnerable situations have historically been concentrated as well as in areas where these populations may move, either voluntarily or as a result of the housing crisis. It is important to strengthen community organizations everywhere.

## Combine action on the built environment and the social environment

Reducing territorial inequities means above all taking action to improve the built environment and public space. But resilience in times of crisis also relies on social ties—which territorial organizations, in fostering neighbourhood interactions, help create.

The effects of extreme heat can be mitigated by reducing isolation and providing targeted support to vulnerable people. The existence of community organizations is therefore a resilience factor during heat waves.

## Publicize successes

Public discussion of territorial inequities must be given special thought and care to avoid stigmatization.

“The lack of local media coverage means that people don't hear about the good things, and we're portrayed as a 'problem neighbourhood.' But some things are going well and they deserve attention too. Living here is nice, it's not hell!”

– Interview with a local community member, 2024

## Improvements should not be conditional on civic engagement

While citizen involvement can facilitate the positive transformation of a neighbourhood, that transformation must not be contingent on such engagement, or inequities will only worsen.

For example, green alleyways, which are dependent on sustained citizen involvement, are more prevalent in areas where income and education levels are higher—and less prevalent in areas where newly landed immigrants and people identifying as visible minorities are concentrated (Pham et al., 2022).

## Adopting an equity-based approach in all policies and crisis responses

Every crisis, whether economic, environmental, or social, risks exacerbating inequalities. To ensure that the most vulnerable do not suffer the worst consequences of upheavals—for which they often bear less responsibility than those who are better off (see section 1)—it is important to adopt an equity-based approach to the development and implementation of solutions.

## The climate crisis: an environmental and social emergency

This report has documented the presence of inequities in exposure to climate event hazards, which overlap with inequalities in susceptibility to their impacts and ability to cope with them. These three factors shape people's level of vulnerability, which climate change adaptation measures must take into account.

In the case of the climate crisis, an equity-based approach should help avoid what is known as maladaptation—i.e., aggravating the problem by trying to avoid it. For example, the proliferation of air conditioners increases the heat island effect to the detriment of people who don't own them. Focusing on nature-based solutions (greening, water management, etc.) rather than technological ones can help avoid this pitfall.

## Territorial transformations present both risks and opportunities

Our territories must be transformed to address the ever-worsening effects of the climate crisis, to reduce our ecological footprint, and to meet housing needs. For populations in vulnerable situations, these transformations come with risks, particularly if these groups are left out of decision-making processes.

However, these transformations also provide us with a chance to correct course on inequity, provided we adopt an equity-based approach. The planning stages of neighbourhood transformations provide opportunities to integrate equity objectives and repair the negative consequences of past decisions.

### Remaining conscious of past legacies

Some identities have been shaped by historical injustices. These may affect people's experience of public space and the built environment, including their ability to access and occupy them (OCPM, 2020). Acknowledging these legacies can foster every person's participation in public life, as well the consideration of specific needs, to break out of the mechanisms that reproduce inequalities.



# TERRITORIAL EQUITY, A KEY TO REDUCING ECONOMIC AND SOCIAL INEQUALITIES

This *Vital Signs* report presents a necessary assessment of a specific type of inequality based on where a person lives. It does not pretend to address the vast problems of poverty, exclusion, and discrimination, nor the persistence of such inequalities. A just society won't be created by just neighbourhoods alone. Just neighbourhoods can, however, contribute to building a just society.

## Territorial inequities are a consequence of socioeconomic inequalities

This report shows that there is an uneven, unjust, preventable, and systemic distribution of many features of the built environment and public space in Greater Montreal. Economic and social inequalities are at the root of these territorial inequities. If the characteristics of the built environment are less favourable in areas where low-income households are concentrated, it is because disadvantaged areas exist and therefore because inequalities persist.

## Territorial inequities aggravate socioeconomic inequalities

Territorial inequities also exacerbate economic and social inequalities. In compromising the health and fulfillment of vulnerable people, they add another layer of disadvantage to people already penalized by a number of factors.

## One prong in combatting poverty and discrimination

The fight against territorial inequities is not a substitute for measures combatting inequalities. It should rather be seen as one approach to reducing some of the consequences of the injustices that permeate our society.

## Taking action together to build an equitable Greater Montreal

This assessment complements and builds on knowledge developed by public authorities and the many organizations working in the Greater Montreal area. Over the course of producing it, we have witnessed a commitment to reducing the consequences of inequalities, and a growing awareness, at many levels, of the need to tackle territorial inequalities.

This report now belongs to the community. Let us hope that the findings presented herein will help strengthen efforts towards building an equitable Greater Montreal.

## BIBLIOGRAPHY

ADRIEN, Alix, Marie-Pierre MARKON, and Vicky SPRINGMANN (2020). *Inégaux face à la pandémie : populations racisées et la COVID-19*, Montréal: Direction régionale de santé publique de Montréal [PDF].

ANANIAN, Priscilla, Ariane PERRAS, Olivier LAMBERT, and Maude LE BRUN (2024). *Synthèse des constats des atlas cartographiques à visée urbanistique d'Assomption Sud-Longue-Pointe*, Montréal: Observatoire des milieux de vie urbains [ESG-UQÀM] [PDF].

APN [ASSEMBLÉE DES PREMIÈRES NATIONS] (2020). *Rapport sur le Rassemblement national sur le climat : mener à bien le changement, diriger des solutions*, APN [PDF].

APPARICIO, Philippe, Anne-Marie SÉGUIN, Éric ROBITAILLE, and Patrick HERJEAN (2008). *Le repérage des zones de concentration de la pauvreté à Montréal : l'identification des micro, meso et macro zones de pauvreté*, Montréal: INRS-UCS [PDF].

AUDET, René, Éliane BRISEBOIS, Sylvain A. LEFÈVRE, Geneviève MERCILLE, Alessandra GALLANI, and Marjolaine VERVILLE-LÉGARÉ (2023). "L'accès à la saine alimentation dans l'est de l'île de Montréal : entre alignements et discordances", *Lien social et Politiques*, 90, 218-240. [DOI: 10.7202/1105095ar].

BC CENTRE FOR DISEASE CONTROL (2018). *Healthy Built Environment Linkages Toolkit: Making the links between design, planning and health, Version 2.0*, Vancouver: Provincial Health Services Authority [PDF].

BELLAVANCE, Yves (2023). "Crise des locaux communautaires à Montréal : le gouvernement du Québec doit prendre ses responsabilités", *Coalition montréalaise des Tables de quartier*. [http://www.tablesdequartiermontreal.org/crise-des-locaux-communautaires-a-montreal-le-gouvernement-du-quebec-doit-prendre-ses-responsabilites] (Accessed May 22, 2024).

BICKERSTAFF, Julie (2018). *Avis de la Direction de santé publique de la Montérégie dans le cadre de la Consultation de la Commission du Transport de la Communauté métropolitaine de Montréal (CMM) concernant la tarification sociale du transport en commun*, Longueuil: CISSS de la Montérégie-Centre, Direction de santé publique [PDF].

BOILY, Daniel, and David GENTILE (2024). "Itinérance : Montréal se donne 6 mois pour réfléchir aux campements et centres de jour", *ICI Radio-Canada*. [https://ici.radio-canada.ca/nouvelle/2062305/itinerance-montreal-reflexion-campements-centres-jour] (Accessed May 7, 2024).

BOUCHER, Geoffroy, and Sandy TORRES (2023). *Les inégalités de patrimoine au Québec*, Montréal: Observatoire québécois des inégalités [PDF].

BOUR, Batistin, Marc-Antoine GENEST, Camille ARMELLIN, M. RASHIDFAR, and Mathieu VARIN (2022). *Cartographie de la canopée des six régions métropolitaines de recensement du Québec par apprentissage profond et données lidar*, Centre d'enseignement et de recherche en foresterie de Sainte-Foy inc. [CERFO] [PDF].

BRABANT, Annick (2021a). "Les comités de logement à Montréal : au cœur des luttes citoyennes", *Mémoire des Montréalais*, Ville de Montréal. [https://ville.montreal.qc.ca/memoiresdesmontrealais/les-comites-de-logement-montreal-au-coeur-des-luttes-citoyennes] (Accessed May 8, 2024).

BRABANT, Annick (2021b). "Le mouvement communautaire à Montréal, une histoire de solidarité", *Mémoire des Montréalais*, Ville de Montréal. [https://ville.montreal.qc.ca/memoiresdesmontrealais/le-mouvement-communautaire-montreal-une-histoire-de-solidarite] (Accessed May 21, 2024).

BRAZEAU, Annick, and Véronique LAFLAMME (2023). "Violence conjugale : le logement social, une clé pour s'en sortir", *La Presse*. [https://www.lapresse.ca/debats/opinions/2023-06-29/violence-conjugale/le-logement-social-une-cle-pour-s-en-sortir.php] (Accessed May 7, 2024).

CANADA. SCHL [SOCIÉTÉ CANADIENNE D'HYPOTHÈQUES ET DE LOGEMENT] (2017). *Rapport sur le marché locatif : faits saillants - Québec*, Ottawa: SCHL [PDF].

CANADA. SCHL [SOCIÉTÉ CANADIENNE D'HYPOTHÈQUES ET DE LOGEMENT] (2024). *Rapport sur le marché locatif 2024*, Ottawa: SCHL [PDF].

CARDE, Estelle (2021). "Les inégalités sociales de santé au prisme de l'intersectionnalité", *Sciences sociales et santé*, 39, 5-30. [DOI: 10.1684/sss.2021.0189].

- CARRIER, Mathieu, Philippe APPARICIO, and Anne-Marie SÉGUIN (2016). "Road traffic noise in Montreal and environmental equity: What is the situation for the most vulnerable population groups?", *Journal of Transport Geography*, 51, 1-8. [DOI: 10.1016/j.jtrangeo.2015.10.020].
- CARRIER, Mathieu, Philippe APPARICIO, Anne-Marie SÉGUIN, and Dan CROUSE (2014). "The application of three methods to measure the statistical association between different social groups and the concentration of air pollutants in Montreal: A case of environmental equity", *Transportation Research Part D: Transport and Environment*, 30, 38-52. [DOI: 10.1016/j.trd.2014.05.001].
- CCNSE [CENTRE DE COLLABORATION NATIONALE EN SANTÉ ENVIRONNEMENTALE] (2017). *Déserts et marais alimentaires : une introduction*, Vancouver: Centre de collaboration nationale en santé environnementale [PDF].
- CENTRAIDE DU GRAND MONTRÉAL (2021). "Qu'est-ce que l'accessibilité universelle", *Centraide du Grand Montréal*. [https://www.centraide-mtl.org/blogue/quest-ce-que-laccessibilite-universelle/] (Accessed August 27, 2024).
- CENTRAIDE DU GRAND MONTRÉAL (2023). *Engagé.es pour le logement : rapport de synthèse*, Montréal: Centraide du Grand Montréal [PDF].
- CENTRE D'ÉCOLOGIE URBAINE DE MONTRÉAL ET COLLAB. (2022). *Pour des parcs accessibles : rapport de l'analyse d'accessibilité en transport collectif et actif du parc Angrignon, du parc de la Promenade-Bellerive et du parc-nature de la Pointe-aux-Prairies*, Montréal: Métropole en santé et Montréal physiquement active [PDF].
- CENTRE D'ÉTUDES SUR LES RÉSEAUX, LES TRANSPORTS, L'URBANISME ET LES CONSTRUCTIONS PUBLIQUES [CERTU] (2002). *Concept « Ville accessible à tous »*, France: Ministère de l'Équipement, des Transports, du Logement, du Tourisme et de la Mer [PDF].
- CENTRE LÉA-ROBACK (2007). "Mieux comprendre le lien entre le quartier et la santé", *Le point sur... l'effet de quartier*, 1 [PDF].
- CENTRE LÉA-ROBACK (2021). "Les effets sur la santé et le développement des enfants", *Le point sur... l'abordabilité des logements au Québec*, 1 [PDF].
- CHARRON, Simon (2020). Évolution des discours institutionnels concernant les parcs et les espaces verts de la région montréalaise de 1953 à 2002, Master's thesis, INRS-UCS, Montréal [PDF].
- CHOKO, Marc H., Jean-Pierre COLLIN, and Annick GERMAIN (1986). "Le logement et les enjeux de la transformation de l'espace urbain : Montréal, 1940-1960, Première partie". *Urban History Review / Revue d'histoire urbaine*, 15(2),127-136. [DOI: 10.7202/1018618ar].
- CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (2022). "Portrait de l'habitation dans le Grand Montréal", *Cahiers métropolitains*, 10 [PDF].
- CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (2023a). "Les grands indicateurs du logement locatif dans le Grand Montréal, édition 2023", *Les notes de l'Observatoire du Grand Montréal* [PDF].
- CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (2023b). "Les cibles du PMAD : bilan 2023", *Cahiers métropolitains*, 11 [PDF].
- CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (2023c). *Plan métropolitain d'aménagement et de développement: agir ensemble pour un aménagement durable. Avant-projet pour un PMAD révisé*, CMM [PDF].
- COLLECTIF D'ARTISTES DES ATELIERS CASGRAIN ET ATELIERS BELLEVILLE (2021). "Pour la pérennisation des ateliers d'artistes", *Le Devoir*. [https://www.ledevoir.com/opinion/idees/606972/montreal-pour-la-perennisation-des-ateliers-d-artistes] (Accessed May 28, 2024).
- CONSEIL INTERCULTUREL DE MONTRÉAL (2023). *Réduire les inégalités territoriales et prévenir les discriminations dans l'espace urbain : vers une transformation de l'action publique à Montréal*, Montréal: Ville de Montréal [PDF].
- CONSEIL JEUNESSE DE MONTRÉAL (2021). *Les jeunes montréalais.es et le logement locatif : une situation précaire*, Montréal: Ville de Montréal [PDF].
- CONSEIL RÉGIONAL DE LA CULTURE DE LAVAL (2017). *Diagnostic culturel de la région de Laval*, Laval: Ville de Laval [PDF].
- COUSINEAU, Marie-Marthe, and Catherine FLYNN (2018). *Violence faite aux femmes de la part de partenaires intimes et itinérance : mieux comprendre pour intervenir de façon concertée*, Montréal: Université de Montréal [PDF].
- CRENSHAW, Kimberlé W. (1989). "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics", *University of Chicago Legal Forum*, 1(8), 139-167.
- CROUSE, Dan L., Lauren PINAULT, Adele BALRAM, Perry HYSTAD, Paul A. PETERS, Hong CHEN, Aaron van DONKELAAR, Randall V. MARTIN, Richard MÉNARD, Alain ROBICHAUD, and Paul J. VILLENEUVE. (2017). "Urban greenness and mortality in Canada's largest cities: a national cohort study", *The Lancet Planetary Health*, 1(7), 289-297. [DOI: /10.1016/S2542-5196(17)30118-3].
- CULTURE MONTRÉAL (n.d.). "La vitalité culturelle dans les quartiers : un vecteur de mixité sociale et de participation citoyenne", *Culture Montréal* [https://culturemontreal.ca/la-vitalite-culturelle-dans-les-quartiers-un-vecteur-de-mixite-sociale-et-de-participation-citoyenne/] (Accessed May 28, 2024).
- DAGENAIS, Michèle (2024). *Nos grands parcs urbains : réservoirs de nature ou lieux de société?* Montréal: McCord Stewart Museum. [https://www.musee-mccord-stewart.ca/fr/audio-video/grands-parcs-urbains-reservoirs-nature-lieux-societe/] (Accessed June 4, 2024).
- DANSEREAU, Francine (1988). "Les transformations de l'habitat et des quartiers centraux : singularités et contrastes des villes canadiennes", *Cahiers de recherche sociologique*, 6(2), 95-114. [DOI: 10.7202/1002050ar].
- DANSEREAU, Francine, Stéphane CHARBONNEAU, Richard MORIN, Anne REVILLARD, Damaris ROSE, and Anne-Marie SÉGUIN (2002). *La mixité sociale en habitation : rapport de recherche réalisé pour le Service de l'habitation de la Ville de Montréal*, Montréal: INRS-UCS [PDF].
- DES ROSIERS, François (2021). *Effets d'une infrastructure de transport en commun d'envergure sur les valeurs foncières et immobilières*, Report presented to Ville de Montréal, Montréal [PDF].
- DUCHAINE, Gabrielle (2024). "Crise du logement : moins de HLM laissés vacants au Québec", *La Presse*. [https://www.lapresse.ca/actualites/2024-03-13/crise-du-logement/moins-de-hlm-laissees-vacants-au-quebec.php] (Accessed May 7, 2024).
- ÉCOLE LA VISITATION (n.d.). "Le transport scolaire", *Centre de services scolaire de Montréal*. [https://la-visitation.cssdm.gouv.qc.ca/services/transport/] (Accessed May 29, 2024).

EGYED, Marika, Phil BLAGDEN, David PLUMMER, Paul MAKAR, Carlyn MATZ, Mike FLANNIGAN, Morgan MACNEILL, Eric LAVIGNE, Benny LING, Diana Valencia LOPEZ, Betty EDWARDS, Radenko PAVLOVIC, Jacinthe RACINE, Pierre RAYMOND, Robyn RITTMASER, Aaron WILSON, and Guoliang XI (2022). "Qualité de l'air". In P. Berry et R. Schnitter (eds.), *La santé des Canadiens et des Canadiennes dans un climat en changement : faire progresser nos connaissances pour agir*, Ottawa: Government of Canada, 319-408 [PDF].

ENGONE ELLOUÉ, Nestor (2018). *Justice environnementale globale et responsabilité historique. Une approche restauratrice*, Ph.D. dissertation, Université Bordeaux Montaigne [PDF].

ENRIQUEZ, Darío, and Juan-Luis KLEIN (2019). "La désertification alimentaire à Montréal : logique économique et réponse sociale", In M. Doyon et J.-L. Klein (eds.), *Pour la sécurisation alimentaire au Québec*, Presses de l'Université du Québec, 21-42.

EXO (n.d.). "Accessibilité". [<https://exo.quebec/fr/accessibilite>] (Accessed August 27, 2024).

FGM [FOUNDATION OF GREATER MONTRÉAL] (2022). *Signes vitaux du Grand Montréal*, Montréal: Fondation du Grand Montréal [PDF].

FONTAINE, Julie, and Suzanne THIBAUT (2008). *La petite histoire de Saint-Michel, de la campagne à la ville 1699-1968*, Montréal: Bibliothèque de Saint-Michel [Ville de Montréal] [PDF].

FRAPRU [Front d'action populaire en réaménagement urbain] (n.d.). "Je veux un logement social", *FRAPRU*. [<https://www.frapru.qc.ca/je-veux-un-logement-social/>] (Accessed July 4, 2024).

GAUDREAU, Louis, Gabriel FAUVEAUD, and Marc-André HOULE (2021). *L'immobilier, moteur de la ville néolibérale : promotion résidentielle et production urbaine à Montréal*, Montréal: Collectif de Recherche et d'Action sur l'Habitat [CRACH] [PDF].

GERMAIN, Annick, and Cécile POIRIER (2007). "Les territoires fluides de l'immigration à Montréal ou le quartier dans tous ses états", *Globe*, 10(1), 107-120. [DOI: 10.7202/1000081ar].

GRIFFIN, Toni (2015). "Defining the Just City Beyond Black and White", In T. Griffin, A. Cohen et D. Maddox (eds.), *The Just City Essays: 26 Visions for Urban Equity, Inclusion and Opportunity*, *The J. Max Bond Center on Design for the Just City at the Spitzer School of Architecture, City College of New York, Next City and The Nature of Cities* [PDF].

GUILLEMETTE-LABORY, Louise (2022). "Ce que cache la bonne note des bibliothèques montréalaises", *Le Devoir*. [<https://www.ledevoir.com/opinion/idees/767857/idees-ce-que-cache-la-bonne-note-des-bibliotheques-montrealaises>] (Accessed May 28, 2024).

HECK, Isabel, and Véronique LAPALME (2017). *Accessibilité des services de santé dans le Nord-Est de Montréal-Nord*, Montréal: Parole d'excluEs [PDF].

HOULE, Janie, Caroline ADAM, Hélène BÉLANGER, Emmanuelle BÉDARD, Jean-Marc FONTAN, Paul MORIN, Louise POTVIN, Paul DUGUAY, Tatiana GOI, Julie LEFEBVRE, Sorel Sean MACKENZIE, Roxanne MONGEAU, André OUELLET, and Meaghan SCOTT (2023). *Logement social et ses effets : rapport final de recherche*, Montréal: Chaire de recherche sur la réduction des inégalités sociales de santé [Université du Québec à Montréal] [PDF].

INSTITUT UNIVERSITAIRE SHERPA (2021). *Le parcours d'installation des demandeurs d'asile au Québec*, Montréal [PDF].

JARRY, Vincent (2021). *La qualité des voies cyclables à Montréal, Laval et Longueuil : construction d'indicateurs de diagnostic et d'aide à la planification*, Master's thesis, INRS-UCS, Montréal [PDF].

JOLIVET, Violaine, and Marie-Noëlle CARRÉ (2017). "Métabolisme urbain et quartiers péri-centraux dans la métropolisation. L'exemple du quartier de Saint-Michel à Montréal", *Cybergeo: European Journal of Geography*, document 816. [DOI: 10.4000/cybergeo.28067] (Accessed May 30, 2024).

KONIJNENDIJK, Cecil C. (2023). "Evidence-based guidelines for greener, healthier, more resilient neighbourhoods: Introducing the 3-30-300 rule", *Journal of Forestry Research*, 34, 821-830. [DOI: 10.1007/s11676-022-01523-z].

LABERGE, Mathieu (2024). *La COVID-19 a créé une épidémie de logements inabordables*, Ottawa: SCHL. [<https://www.cmhc-schl.gc.ca/observateur-du-logement/2024/covid19-cree-epidemie-logements-inabordables>] (Accessed May 7, 2024).

LACHAPELLE, René (2023). "La mesure et le sens : le défi de la reddition de comptes en intervention sociale", *Intervention*, 156, 119-128. [DOI: 10.7202/1097411ar].

LACHAPELLE, Ugo, Geneviève BOISJOLY, and Pauline VERMESCH (2020). *Réalisation d'un portrait des besoins et des habitudes de déplacements des personnes vivant en situation de précarité dans la région de Montréal*, Montréal: Polytechnique Montréal [PDF].

LACROIX-COUTURE, Frédéric (2016). "Environ 82 % des ruisseaux disparus à Montréal", *Métro*. [<https://journalmetro.com/local/outremont/1055893/environ-82-des-ruisseaux-disparus-a-montreal/>] (Accessed July 2, 2024).

LALONDE, Catherine (2024). "Un nouveau centre culturel sera érigé au centre-ville de Laval", *Le Devoir*. [<https://www.ledevoir.com/culture/806516/nouveau-centre-culturel-annonce-centre-ville-laval>] (Accessed May 28, 2024).

LAMBERT, Olivier, Priscilla ANANIAN and François RACINE (2021). *La transformation des parcs d'activités industrielles et les milieux de vie : le cas du secteur Assomption Sud-Longue-Pointe, Fiche synthèse n° 2*, Montréal: Observatoire des milieux de vie urbains [ESG-UQÀM] [PDF].

LANDRY, Félix, Jérôme DUPRAS, and Christian MESSIER (2020). "Convergence of urban forest and socio-economic indicators of resilience: A study of environmental inequality in four major cities in eastern Canada", *Landscape and Urban Planning*, 202(103856). [DOI: 10.1016/j.landurbplan.2020.103856].

LANGÉVIN, Philippe (2013). "Équité territoriale : de quoi s'agit-il?", *Les notes du pôle*, Pôle développement durable et territoires méditerranéens CERIC/CNRS, Aix-Marseille Université. [<https://pddtm.hypotheses.org/176>] (Accessed May 15, 2024).

LELOUP, Xavier, Damaris ROSE, and Richard MAARANEN (2018). *La nouvelle géographie sociale de Montréal : évolution de la distribution socio-spatiale du revenu entre 1980 et 2015 dans la région métropolitaine de Montréal*, Montréal: INRS-UCS [PDF].

LINTEAU, Paul-André (2007). *Une brève histoire de Montréal*. Montréal: Boréal.

LINTEAU, Paul-André (2017). *Une histoire de Montréal*. Montréal: Boréal.

- LOWRIE, Morgan (2024). "La hausse des loyers force des artistes montréalais à délaisser leur atelier", *La Presse*. [https://www.lapresse.ca/arts/arts-visuels/2024-02-11/la-hausse-des-loyers-force-des-artistes-montrealais-a-delaissier-leur-atelier.php] (Accessed May 28, 2024).
- MADÉNIAN, Hélène, and Sophie L. VAN NESTE (2024). *Gouvernance et planification des infrastructures vertes à Montréal : pratiques, outils et processus existants*, Projet PIIVO [PDF].
- MANCEAU, Gabrielle, Émile TREMBLAY, Eudes HENNO, and Julie BICKERSTAFF (2021). Évaluation d'impact sur la santé du Plan stratégique de développement du transport collectif de l'Autorité régionale de transport métropolitain, Longueuil: CISSS de la Montérégie-Centre, Direction de santé publique [PDF].
- MARCEAU, Julie (2023). "Densification urbaine : ces élèves qui deviennent des "surplus" dans les écoles", *ICI Radio-Canada*. [https://ici.radio-canada.ca/nouvelle/2007337/densification-eleves-surplus-ecoles-longueuil] (Accessed May 27, 2024).
- MARKON, Marie-Pierre, Vicky SPRINGMANN, and V. LEMIEUX (2020). *Inégaux face à la pandémie : Le point sur la santé des Montréalais en période de pandémie*, Direction régionale de santé publique de Montréal [PDF].
- MARTEL POLIQUIN, Éric (2012). *Mieux comprendre les déterminants du choix modal*, Montréal, Master's thesis, École Polytechnique de Montréal [PDF].
- MEEROW, Sara, Pani PAJOUHESH, and Thaddeus R. MILLER (2019). "Social Equity in Urban Resilience Planning", *Local Environment*, 24(9), 793-808. [DOI: 10.1080/13549839.2019.1645103].
- MERCIER, Lucie (1995). "La pauvreté : phénomène complexe et multidimensionnel", *Service social*, 44(3), 7-27. [DOI: 10.7202/706704ar].
- MICHAUD, David S., Leonora MARRO, Allison DENNING, Shelley SHACKLETON, Nicolas TOUTANT, and James P. MCNAMEE (2022). "A comparison of self-reported health status and perceptual responses toward environmental noise in rural, suburban, and urban regions in Canada", *The Journal of the Acoustical Society of Canada*, 151, 1532-1544. [DOI: 10.1121/10.0009749].
- MIKANA (n.d.). *Petit guide de terminologies en contexte autochtone*, Mikana [PDF].
- MORASSE, Marie-Ève (2023). "Écoles vétustes : des élèves déplacés... et pour longtemps", *La Presse*. [https://www.lapresse.ca/actualites/education/2023-07-19/ecoles-vetustes/des-eleves-deplaces-et-pour-longtemps.php] (Accessed May 27, 2024).
- MORIN-MARTEL, Florence (2024). "Des séjours plus longs en centres d'hébergement, faute de logements", *Le Devoir*. [https://www.ledevoir.com/societe/809620/sejours-plus-longs-centres-hebergement-faute-logements] (Accessed May 7, 2024).
- NAIR, Ambika, and Claire KRAMER MILLS (2024). *Flood Risk and Basement Housing in New York City: The Impact of Extreme Weather on Vulnerable Housing Stock*, New York: Federal Reserve Bank of New York [PDF].
- NATIONS UNIES (2007). *Déclaration des Nations unies sur les droits des peuples autochtones*, Nations unies [PDF].
- OCPM [OFFICE DE CONSULTATION PUBLIQUE DE MONTRÉAL] (2020). *Racisme et discrimination systémiques dans les compétences de la Ville de Montréal*, Rapport de consultation publique, Montréal: OCPM [PDF].
- OMHM [OFFICE MUNICIPAL D'HABITATION DE MONTRÉAL] (2022). *Rapport annuel d'activités 2022 avec résultats financiers*, Montréal: OMHM [PDF].
- OMHM [OFFICE MUNICIPAL D'HABITATION DE MONTRÉAL] (2023). *Demandeurs par territoire de résidence, octobre 2023*, Montréal: OMHM [PDF].
- OMS [Organisation mondiale de la santé] (2018). *COP24 Special Report: Health & Climate Change*, Genève: Organisation mondiale de la santé [PDF].
- ONU [Organisation mondiale des Nations Unies] Info (2024). "L'OMM confirme que 2023 a été l'année la plus chaude jamais enregistrée, et de très loin" [https://news.un.org/fr/story/2024/01/1142307] (Accessed July 5, 2024).
- OUELLETTE-VÉZINA, Henri (2024). "Itinérance à Montréal : ça déborde de tous les côtés", *La Presse*. [https://www.lapresse.ca/actualites/grand-montreal/2024-04-17/itinerance-a-montreal/ca-deborde-de-tous-les-cotes.php] (Accessed May 7, 2024).
- OUQ [ORDRE DES URBANISTES DU QUÉBEC] (2023). *Déclaration sur la contribution de l'urbanisme à une nouvelle relation avec les peuples autochtones*, Ordre des urbanistes du Québec [PDF].
- PAQUET, Rose R., Sébastien JODOIN, Mélisande CHARBONNEAU-GRAVEL, and Juliette BOURDEAU DE FONTENAY (to be published). "L'accessibilité de la nature en milieu urbain : Le droit à l'égalité des personnes handicapées dans l'accès aux espaces verts à Montréal", *McGill Journal of Sustainable Development Law*.
- PARÉ, Olivier (2017). "Les bâtisseurs de la Petite-Bourgogne", *Mémoire des Montréalais*, Ville de Montréal. [https://ville.montreal.qc.ca/memoiresdesmontrealais/les-batisseurs-de-la-petite-bourgogne] (Accessed May 8, 2024).
- PAROLE D'EXCLUES (2019). *Droit à la ville : Montréal-Nord entre disparités territoriales et racisme systémique vécu*, Montréal: Parole d'excluEs [PDF].
- PAROLE D'EXCLUES (2022). *Cadre pour la santé de proximité*, Montréal: Parole d'excluEs [PDF].
- PHAM, Thi-Thanh-Hièn, Philippe APPARICIO, Shawn LANDRY, and Joseph LEWNARD (2017). "Disentangling the effects of urban form and socio-demographic context on street tree cover: A multi-level analysis from Montréal", *Landscape and Urban Planning*, 157, 422-433. [DOI: 10.1016/j.landurbplan.2016.09.001].
- PHAM, Thi-Thanh-Hièn, Ugo LACHAPPELLE, Basile MANGIANTE, and Alexandre ROCHELEAU (2022). "Les ruelles vertes de Montréal : disparités spatiales et variations", *VRM*. [https://www.vrm.ca/les-ruelles-vertes-de-montreal-disparites-spatiales-et-variations/] (consulté le 25 mai 2024).
- PIÉTONS QUÉBEC (2021). *Piétons un jour, piétons toujours. Aménager des rues conviviales et sécuritaires pour les personnes âgées*, Montréal: Piétons Québec [PDF].
- PIÉTONS QUÉBEC (2024). *Private communications, according to data from police service, 2011 to 2020*.
- PLOURDE, ANNE (2016). *Échec des CLSC ou abandon du ministère de la Santé et des Services sociaux? Institut de recherche et d'informations socioéconomiques*. [https://iris-recherche.qc.ca/blogue/sante/echec-des-clsc-ou-abandon-du-ministere-de-la-sante-et-des-services-sociaux/] (Accessed May 21, 2024).
- PLOURDE, Anne (2017). *CLSC ou GMF? Comparaison des deux modèles et impact du transfert de ressources*. Montréal: Institut de recherche et d'informations socioéconomiques [PDF].

PORTO DE OLIVEIRA, Lya Cynthia, and Véronique GOSSELIN (2024). *Barrières et facilitateurs à la saine alimentation : familles immigrantes et/ou racisées*. Montréal: Montréal - Métropole en Santé (projet Savoir prendre soin +) [PDF].

POTVIN, Stéphanie (2019). *La distribution spatiale des écrans antibruit dans la région de Montréal : une barrière sonore à l'équité environnementale?* Master's thesis, INRS-UCS, Montréal [PDF].

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT (2022). "L'ONU déclare qu'un environnement sain est un droit humain, une décision historique", *ONU - Programme pour l'environnement*. [https://www.unep.org/fr/actualites-et-recits/recit/lonu-declare-quun-environnement-sain-est-un-droit-humain-une-decision] (Accessed May 15, 2024).

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2016). *La climatisation des ménages et la vulnérabilité à la chaleur extrême à Montréal*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2017). *Le bruit et la santé. État de situation - Île de Montréal*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2019). *Vague de chaleur : été 2018 à Montréal, Enquête épidémiologique*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2023a). *Portrait de santé de la population : RTS du Centre-Ouest*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal. [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2023b). *Portrait de santé de la population : RTS du Centre-Sud*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2023c). *Les maladies chroniques : CLSC Pointe-Saint-Charles*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2024a). Évaluation de la vulnérabilité de l'agglomération de Montréal aux changements climatiques – Rapport final, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL (2024b). *Vers des déplacements actifs sécuritaires et conviviaux sur le chemin de l'école*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL, DIRECTION DE SANTÉ PUBLIQUE DE LA MONTÉRÉGIE, DIRECTION DE SANTÉ PUBLIQUE DE LANAUDIÈRE, DIRECTION DE SANTÉ PUBLIQUE DES LAURENTIDES (2022). *Mémoire sur le projet de la politique métropolitaine d'habitation*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. DIRECTION RÉGIONALE DE SANTÉ PUBLIQUE DE MONTRÉAL, VILLE DE MONTRÉAL, and MINISTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS (2023). *La qualité de l'air à Montréal*, Montréal: CIUSSS du Centre-Sud-de-l'Île-de-Montréal [PDF].

QUÉBEC. INESSS [INSTITUT NATIONAL D'EXCELLENCE EN SANTÉ ET SERVICES SOCIAUX] (2019). *Mécanismes d'accès aux services de proximité*, Québec, INESSS [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (n.d.). *Géoportail de santé publique du Québec*, INSPQ. [https://cartes.inspq.qc.ca/geoportail] (Accessed May 31, 2024).

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2011). *Sécurité des élèves du primaire lors des déplacements à pied et à vélo entre la maison et l'école au Québec*, INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2013). *Accessibilité géographique aux commerces alimentaires au Québec : analyse de situation et perspectives d'interventions*, INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2017). « Rendre l'environnement bâti favorable à la pratique du vélo en toute sécurité! », *TOPO, synthèse de l'équipe Nutrition - Activité physique - Poids*, 13 [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2018a). "Les inégalités sociales de santé au Québec - L'espérance de vie en bonne santé", *INSPQ*. [https://www.inspq.qc.ca/santescope/suivre-les-inegalites-sociales-de-sante-au-quebec/esperance-vie-bonne-sante] (Accessed May 25, 2024).

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2018b). "Nutrition, activité physique, poids", *Veille scientifique*, 6(1) [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2021a). *Réduire les vulnérabilités et les inégalités sociales : tous ensemble pour la santé et le bien-être*, Montréal: INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2021b). *Mesures de lutte contre les îlots de chaleur urbains : mise à jour 2021*, Montréal: INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2021c). *Les aléas affectés par les changements climatiques : effets sur la santé, vulnérabilités et mesures d'adaptation*, INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2023a). *L'usage du concept de la vulnérabilité en santé publique : outil d'aide à la réflexion éthique*, Montréal: INSPQ [PDF].

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2023b). "Bruit environnemental", *INSPQ*. [https://www.inspq.qc.ca/bruit-environnemental] (Accessed May 25, 2024).

QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2024). "Chaleur", *INSPQ*. [https://www.inspq.qc.ca/changements-climatiques/menaces/chaleur] (Accessed May 29, 2024).

QUÉBEC. ISQ [INSTITUT DE LA STATISTIQUE DU QUÉBEC] (2023). *Portrait des personnes âgées au Québec*, ISQ [PDF].

QUÉBEC. MAMH [MINISTÈRE DES AFFAIRES MUNICIPALES ET DE L'HABITATION], and MCC [MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS] (2022). *Politique nationale de l'architecture et de l'aménagement du territoire : mieux habiter et bâtir notre territoire. Vision stratégique*, Québec: gouvernement du Québec [PDF].

QUÉBEC. MEQ [MINISTÈRE DE L'ÉDUCATION DU QUÉBEC] (2022). État des bâtiments scolaires, Québec: gouvernement du Québec [PDF].

QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (n.d.). "Orientation et organisations du réseau", *Ministère de la Santé et des Services sociaux*. [https://www.msss.gouv.qc.ca/professionnels/soins-et-services/guide-urgences-orientations-et-organisation-du-reseau/organismes-du-reseau/#chu] (Accessed May 21, 2024).

QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (2017). "Vision de la saine alimentation : l'environnement alimentaire", *Ministère de la Santé et des Services sociaux*. [https://www.msss.gouv.qc.ca/professionnels/promotion-de-la-sante/vision-de-la-saine-alimentation/l-environnement-alimentaire/] (Accessed May 25, 2024).

QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (2022). *Cadre de référence sur le soutien communautaire au logement social et communautaire*, Québec, gouvernement du Québec [PDF].

QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (2023). *Dénombrement des personnes en situation d'itinérance au Québec : rapport de l'exercice du 11 octobre 2022*, Québec, gouvernement du Québec [PDF].

QUÉBEC. OPHQ [OFFICE DES PERSONNES HANDICAPÉES DU QUÉBEC] (n.d.). "Statistiques sur le revenu des personnes handicapées au Québec", *Office des personnes handicapées du Québec*. [https://ophq.gouv.qc.ca/publications/statistiques/personnes-handicapees-au-quebec-en-chiffres/statistiques-sur-le-revenu.html] (Accessed May 7, 2024).

QUÉBEC. OPHQ [OFFICE DES PERSONNES HANDICAPÉES DU QUÉBEC] (2022). "Les personnes avec incapacité au Québec : un portrait à partir des données de l'Enquête canadienne sur l'incapacité de 2017", *Habitation et besoins en aménagement spéciaux du logement*, 5 [PDF].

RAPSIM [RÉSEAU D'AIDE AUX PERSONNES SEULES ET ITINÉRANTES DE MONTRÉAL] (2023). *L'itinérance à Montréal : au-delà des chiffres*, Montréal: RAPSIM [PDF].

RCLALQ [REGROUPEMENT DES COMITÉS LOGEMENTS ET ASSOCIATIONS DE LOCATAIRES DU QUÉBEC] (2023). *Évictions forcées : 2023 année record*, Montréal: RCLALQ [PDF].

RÉFIPS [RÉSEAU FRANCOPHONE INTERNATIONAL POUR LA SANTÉ] et CCNDS [CENTRE DE COLLABORATION NATIONALE DES DÉTERMINANTS DE LA SANTÉ] (2022). *Glossaire des principaux concepts liés à l'équité en santé*. RÉFIPS; Antigonish (NS): CCNDS, Université St. Francis Xavier. [https://nccdh.ca/fr/learn/glossary/] (Accessed May 15, 2024).

RÉGNIER, Michel (1972). "Rénovation urbaine", *Urba 2000*, Office national du film. [https://www.onf.ca/film/renovation-urbaine/]. 26 min.

RÉGNIER, Michel (1974). "Montréal : retour aux quartiers", *Urba 2000*, Office national du film. [https://www.onf.ca/film/montreal-retour-aux-quartiers/]. 56 min.

RENDEZ-VOUS TÉLÉ (2020). "La carrière Miron", *Avant après* [Savoir Média], 10 min.

RÉSEAU DE TRANSPORT DE LONGUEUIL (n.d.). "Accessibilité - RTL universel", *RTL* [https://www.rtl-longueuil.qc.ca/fr-CA/services/accessibilite-rtl-universel/] (Accessed August 27, 2024).

RÉSEAU POUR LA STRATÉGIE URBAINE DE LA COMMUNAUTÉ AUTOCHTONE DE MONTRÉAL (2019). *Trousse d'outils pour les alliés aux luttes autochtones*, Montréal: Réseau pour la stratégie urbaine de la communauté autochtone de Montréal [PDF].

RIDEOUT, Karen, Catherine L. MAH, and Leia MINAKER (2015). *Environnements alimentaires : introduction pour professionnels de la santé publique*, Vancouver: CCNSE [PDF].

ROSE, Damaris, and Amy TWIGGE-MOLECEY (2013). *Une métropole à trois vitesses? Bilan sur les écarts de revenu dans le Grand Montréal, 1970-2005*, Toronto: University of Toronto [PDF].

SANTÉ CANADA (2021). *Les impacts sur la santé de la pollution de l'air au Canada : estimation des décès prématurés et des effets non mortels - rapport 2021*, Ottawa: Government of Canada [PDF].

SAULNIER, Marianne-Sarah (2024). "L'intersectionnalité et l'analyse différenciée selon les sexes plus (ADS+) : comprendre les complexités des inégalités", *Observatoire québécois des inégalités*. [https://observatoiredesinegalites.com/intersectionnalite-ads/] (Accessed May 24, 2024).

SCHNITTER, Rebekka, Ericha MOORES, Peter BERRY, Marielle VERRET, Chris BUSE, Catherine MACDONALD, Melissa PERRI, and Daniel JUBAS-MALZ (2022). "Changements climatiques et équité en santé", In P. Berry et R. Schnitter (eds.), *La santé des Canadiens et des Canadiennes dans un climat en changement : faire progresser nos connaissances pour agir*. Ottawa: Government of Canada, 700-759, [PDF].

SÉGUIN, Anne-Marie, and Annick GERMAIN (2000). "The social sustainability of Montréal : A local or a state affair?", In M. Polèse, and R. Stren (eds.), *The Social Sustainability of Cities: Diversity and the Management of Change*, Toronto: University of Toronto Press. 39-67.

SÉGUIN, François (2016). *D'obscurantisme et de lumières : la bibliothèque publique au Québec, des origines au 21<sup>e</sup> siècle*, Collection Cahiers du Québec, Hurtubise.

SÉNÉCAL, Gilles, Julie ARCHAMBAULT, and Pierre J. HAMEL (2000). "L'autoroute urbaine à Montréal : la cicatrice et la réparation", In G. Sénécal et D. Saint-Laurent (eds.), *Les espaces dégradés : contraintes et conquêtes*, Québec: Presses de l'Université du Québec, 123-145.

SÉNÉCAL, Paul, Carole TREMBLAY, and Dominique TEUFEL (1990). *Gentrification ou étalement urbain? Le cas du centre de Montréal et de sa périphérie*, Montréal: Société d'habitation du Québec [PDF].

SEYEDREZAEI, Mirmahdi, Burcin BECERIK-GERBER, Mohamad AWADA, Santana CONTRERAS, and Geoff BOEING (2023). "Equity in the built environment: A systematic review", *Building and Environment*, 245. [DOI: 10.1016/j.buildenv.2023.110827].

SOCIÉTÉ DE TRANSPORT DE LAVAL (n.d.). "Réseau accessible". *STL*. [https://stlaval.ca/reseau/lignes-accessibles] (Accessed August 27, 2024).

SOCIÉTÉ DE TRANSPORT DE MONTRÉAL (n.d.). "Accessibilité universelle". *STM*. [https://www.stm.info/fr/a-propos/grands-projets/grands-projets-metro/accessibilite-universelle] (Accessed August 27, 2024).

SOLIDARITÉ AHUNTSIC (n.d.). "Le Bureau de Projet Partagé (BPP)", *Solidarité Ahuntsic*. [https://solidariteahuntsic.org/louvain-est/bureau-de-projet-partage/]. (Accessed July 11, 2024).

ST-HILAIRE, Cloé, Mikael BRUNILA, and David WACHSMUTH (2024). "High Rises and Housing Stress", *Journal of the American Planning Association*, 90(1), 129-143. [DOI: 10.1080/01944363.2022.2126382].

STATISTIQUE CANADA (n.d.). "Dictionnaire, Recensement de la population, 2021", *Statistique Canada*. [https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/az/index-fra.cfm] (Accessed July 15, 2024).

STATISTIQUE CANADA (2017). *Recensement de 2016*, Statistics Canada Catalogue number 98-316-X201600. [https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=F] (Accessed May 8, 2024).

STATISTIQUE CANADA (2021). *Recensement de la population 2021*.

STATISTIQUE CANADA (2023). "L'histoire de deux locataires : l'abordabilité du logement chez les locataires récents et les locataires existants, au Canada.", *Statistique Canada*. [https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021016/98-200-X2021016-fra.cfm] (Accessed July 12, 2024).

STATISTIQUE CANADA (2024). "Les établissements d'hébergement canadiens pour les victimes de violence, 2022-2023", *Juristat*, 2024001 [PDF].

SWOPE, Carolyn B., and Diana HERNÁNDEZ (2019). "Housing as a determinant of health equity: A conceptual model", *Social Science & Medicine*, 243. [DOI: 10.1016/j.socscimed.2019.112571].

TRUDELLE, Catherine, Juan-Luis KLEIN, Jean-Marc FONTAN, and Diane-Gabrielle TREMBLAY (2011). *Conflits urbains et cohésion socioterritoriale : concertation et compromis dans le quartier Saint-Michel à Montréal*, Collection Mouvements sociaux, CRISES [UQÀM] [PDF].

TUEY, Catherine, and Nicolas BASTIEN (2023). "Résidents non permanents au Canada : un portrait d'une population croissante à partir du Recensement de 2021", *Regards sur la société canadienne*, Statistics Canada Catalogue number 75-006-X.

VILLE DE LAVAL (2020). *Plan directeur des bibliothèques de Laval 2020-2036*, Laval: Ville de Laval [PDF].

VILLE DE MONTRÉAL (2005a). *Politique de l'arbre de Montréal*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2005b). *Montréal, métropole culturelle, Politique de développement culturel 2005-2015*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2012). *Plan d'action canopée 2012-2021*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2016). *Portrait des logements accessibles et adaptés : parc des logements sociaux et communautaires de l'agglomération de Montréal*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2020). *Profil des ménages et des logements : agglomération de Montréal*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2023a). *Répartition des logements sociaux et communautaires sur l'île de Montréal : faits saillants et tableaux*, Montréal: Ville de Montréal [PDF].

VILLE DE MONTRÉAL (2023b). "Montréal dévoile sa nouvelle approche pour réduire les iniquités entre ses quartiers", Press release, *Cision*. [https://www.newswire.ca/fr/news-releases/montreal-devoile-sa-nouvelle-approche-pour-reduire-les-iniquites-entre-ses-quartiers-835056028.html] (Accessed May 25, 2024).

VILLE DE MONTRÉAL (2024a). "Montréal franchit un pas important vers sa toute première bibliothèque inter-arrondissement", Press release, *Cision*. [https://www.newswire.ca/fr/news-releases/montreal-franchit-un-pas-important-vers-sa-toute-premiere-bibliotheque-inter-arrondissement-866889073.html] (Accessed May 22, 2024).

VILLE DE MONTRÉAL (2024b). "Le REV : un réseau express vélo", *Ville de Montréal*. [https://montreal.ca/articles/le-rev-un-reseau-express-velo-4666] (Accessed June 5, 2024).

VILLE DE MONTRÉAL (2024c). *Bilan environnemental 2023. Qualité de l'air à Montréal*, Montréal: Service de l'environnement, Ville de Montréal [PDF].

VINACOUSTIK INC. (2023). *Étude d'impact sonore du bruit ferroviaire sur la qualité de vie des riverains d'infrastructures ferroviaires*, Report presented to Corporation de développement communautaire Action-Gardien [PDF].

VIVRE EN VILLE (2014). *Retisser la ville : [Ré]articuler urbanisation, densification et transport en commun*, 2nd édition, collection Outils de la Ville, Vivre en Ville.

VIVRE EN VILLE (2019a). *Des milieux de vie pour toute la vie : outils pour guider les municipalités dans l'aménagement d'environnements bâtis favorables à un vieillissement actif*, collection Vers des collectivités viables, Vivre en Ville.

VIVRE EN VILLE (2019b). *La réduction du bilan carbone par le transport en commun : études de cas sur l'augmentation du niveau de service*, Vivre en Ville [PDF].

VIVRE EN VILLE (2022a). *Collectivités en santé : guider les municipalités dans l'aménagement de milieux de vie favorables à la santé, au bien-être et à la qualité de vie*, collection Vers des collectivités viables, Vivre en Ville.

VIVRE EN VILLE (2022b). *Nourrir tous les milieux : trousse d'accompagnement pour la réalisation d'un portrait-diagnostic de l'accès à une saine alimentation*, collection Vers des collectivités viables, Vivre en Ville.

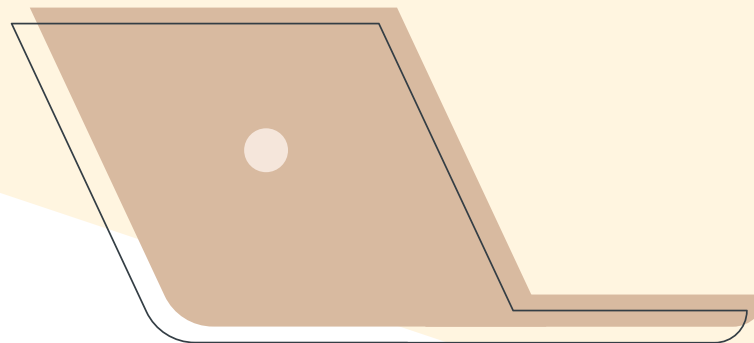
VIVRE EN VILLE (2022c). *Portes ouvertes : pour une sortie de crise durable en habitation*, collection L'Index, Vivre en Ville.

VIVRE EN VILLE (2024). *Ouvrir le dialogue : démarche de participation publique à l'intention des municipalités qui se densifient*, collection Vers des collectivités viables, Vivre en Ville.

VIVRE SAINT-MICHEL EN SANTÉ (2020). *Francon notre quartier : un projet citoyen pour repenser l'ancienne carrière Francon*, Montréal: Vivre Saint-Michel en santé [PDF].

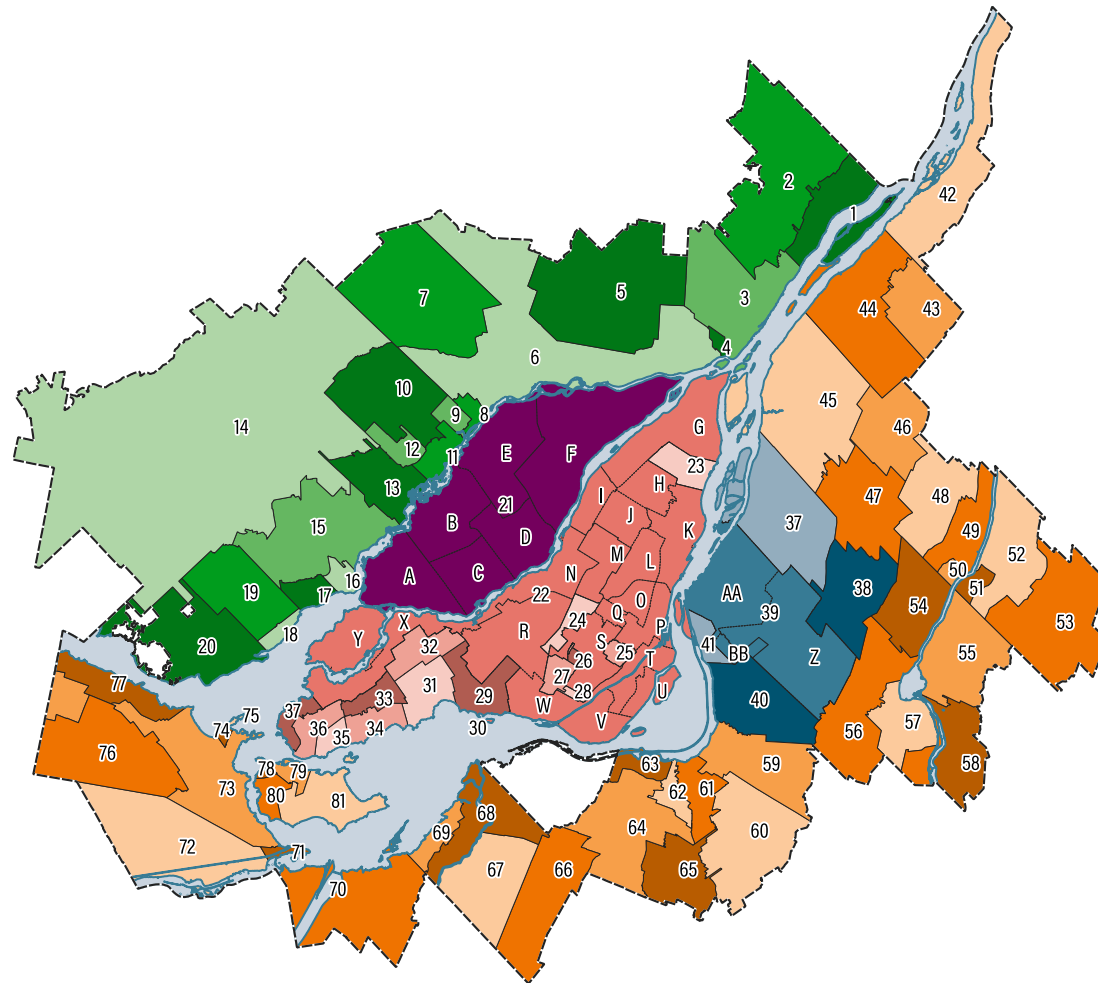


# APPENDICES



# APPENDIX 1

## Municipalities, boroughs, and subregions of Greater Montreal



### North Shore

- 1 Saint-Sulpice
- 2 L'Assomption
- 3 Repentigny
- 4 Charlemagne
- 5 Mascouche
- 6 Terrebonne
- 7 Sainte-Anne-des-Plaines
- 8 Bois-des-Filion
- 9 Lorraine
- 10 Blainville
- 11 Rosemère
- 12 Sainte-Thérèse
- 13 Boisbriand
- 14 Mirabel
- 15 Saint-Eustache
- 16 Deux-Montagnes
- 17 Sainte-Marthe-sur-le-Lac
- 18 Pointe-Calumet
- 19 Saint-Joseph-du-Lac
- 20 Oka

### 21 Laval

- A Laval-Ouest, Sainte-Dorothée, Laval-sur-le-Lac
- B Sainte-Rose, Fabreville
- C Chomedey
- D Laval-des-Rapides, Pont-Viau
- E Vimont, Auteuil
- F Duvernay, Saint-Vincent-de-Paul, Saint-François

### Urban agglomeration of Montreal

- 22 Montréal
- G Rivière-des-Prairies-Pointe-aux-Trembles
- H Anjou
- I Montréal-Nord
- J Saint-Léonard

- K Mercier-Hochelaga-Maisonneuve
- L Rosemont-La Petite-Patrie
- M Villeray-Saint-Michel-Parc-Extension
- N Ahuntsic-Cartierville
- O Le Plateau-Mont-Royal
- P Ville-Marie
- Q Outremont
- R Saint-Laurent
- S Côte-des-Neiges-Notre-Dame-de-Grâce
- T Le Sud-Ouest
- U Verdun
- V LaSalle
- W Lachine
- X Pierrefonds-Roxboro
- Y L'Île-Bizard-Sainte-Geneviève

- 23 Montréal-Est
- 24 Mont-Royal
- 25 Westmount
- 26 Hampstead
- 27 Côte-Saint-Luc
- 28 Montréal-Ouest
- 29 Dorval
- 30 L'Île-Dorval
- 31 Pointe-Claire
- 32 Dollard-des-Ormeaux
- 33 Kirkland
- 34 Beaconsfield
- 35 Baie-d'Urfé
- 36 Sainte-Anne-de-Bellevue
- 37 Senneville

### Urban agglomeration of Longueuil

- 37 Boucherville
- 38 Saint-Bruno-de-Montarville
- 39 Longueuil
- Z Saint-Hubert
- AA Le Vieux-Longueuil

### South Shore

- 42 Contrecoeur
- 43 Calixa-Lavallée
- 44 Verchères
- 45 Varennes
- 46 Saint-Amable
- 47 Sainte-Julie
- 48 Saint-Mathieu-de-Beloeil
- 49 Beloeil
- 50 McMasterville
- 51 Otterburn Park
- 52 Mont-Saint-Hilaire
- 53 Saint-Jean-Baptiste
- 54 Saint-Basile-le-Grand
- 55 Saint-Mathias-sur-Richelieu
- 56 Carignan
- 57 Chambly
- 58 Richelieu
- 59 La Prairie
- 60 Saint-Philippe
- 61 Candiac
- 62 Delson
- 63 Sainte-Catherine
- 64 Saint-Constant
- 65 Saint-Mathieu
- 66 Saint-Isidore
- 67 Mercier
- 68 Châteauguay
- 69 Léry
- 70 Beauharnois
- 71 Pointe-des-Cascades
- 72 Les Cèdres
- 73 Vaudreuil-Dorion
- 74 Vaudreuil-sur-le-Lac
- 75 L'Île-Cadieux
- 76 Saint-Lazare
- 77 Hudson
- 78 Terrasse-Vaudreuil
- 79 L'Île-Perrot
- 80 Pincourt
- 81 Notre-Dame-de-l'Île-Perrot

# APPENDIX 2

## Maps: Methodology and data sources

Section	Map	Methodology	Sources
<b>Socioeconomic profile of Greater Montreal</b>	Disadvantaged census tracts	Disadvantaged census tracts according to the LIM-AT  <i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i>  <i>Other areas: prevalence of low-income households below 15.2%</i>	<b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.). "Explorer la région de Montréal," <i>montreal.curbcut.ca/</i> , Curbcut. (accessed May 7, 2024), based on data from STATISTIQUE CANADA (2021). <i>Recensement de la population 2021</i> .
<b>Dimensions of the built environment and public space - Housing</b>	Rental housing concentration by subregion	Census tracts with a rate of tenant households higher than the average for the subregion, superimposed on census tract type according to the LIM-AT for 2021  <i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i>  <i>Other areas: prevalence of low-income households below 15.2 %</i>	<b>Average tenant household rate per CMM subregion:</b> CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (n.d.). "Montréal en statistiques," <i>observatoire.cmm.qc.ca/</i> , CMM. [https://observatoire.cmm.qc.ca/grand-montreal-en-statistiques/] (accessed May 14, 2024).  <b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i>  <b>Rate of tenant households by census tract:</b> CURBCUT MONTREAL (n.d.) <i>Ibid.</i>
	Proportion of social and community housing by municipality	Proportion of social and community housing, including beneficiaries of the Rent Supplement Program, relative to all housing, by municipality for 2020	<b>Proportion of social and community housing:</b> CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (n.d.) <i>op. cit.</i>
	Ratio of low-rental housing units to number of households	Number of public low-rental housing units (2023 [Montreal]; 2017 [Laval]; 2021 [other municipalities]) per 100 households (2021), by Montreal borough, municipality, and Laval sector	<b>Public low-rental housing (other municipalities):</b> CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (n.d.) <i>op. cit.</i>  <b>Public low-rental housing (Laval):</b> QUÉBEC. DIRECTION DE SANTÉ PUBLIQUE DE LAVAL (2023). <i>Liste des HLM publics</i> , data shared by Laval's public health department, May 2024.  <b>Public low-rental housing (Montreal):</b> VILLE DE MONTRÉAL (2023). <i>Répartition des logements sociaux et communautaires sur l'île de Montréal : faits saillants et tableaux</i> , Montréal, Ville de Montréal [PDF]. 10 p.  <b>Number of households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i>

Section	Map	Methodology	Sources
<b>Dimensions of the built environment and public space – Local resources</b>	Pedestrian access to shops and services	<p>Pedestrian friendliness index for shops and services by dissemination area, superimposed on the type of dissemination area according to the LIM-AT, for 2021</p> <p><i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other dissemination areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Pedestrian friendliness index (access to shops and services):</b> LOCAL LOGIC (2020), retrieved from CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (n.d.). <i>op. cit.</i></p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	The food environment of eastern Montréal-Nord (Montreal)	-	<p><b>Food stores:</b> VILLE DE MONTRÉAL (2023). "Locaux commerciaux et statuts d'occupation," <i>donnees.montreal.ca</i>, Ville de Montréal. [https://donnees.montreal.ca/dataset/locaux-commerciaux].</p> <p><b>Road network:</b> QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). "AQRéseau," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/adresses-quebec/ressource/a23ac6ee-2912-47ba-bec5-23fb9ddc3c7d] (accessed August 1, 2024).</p>
	Local community services centres (CLSCs)	<p>CLSCs superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>CLSCs:</b> QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (2024). "Fichiers cartographiques M02 des installations et établissements," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/fichiers-cartographiques-m02-des-installations-et-etablissements].</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Canopy cover	<p>Canopy cover superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Canopy cover:</b> QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2022). "Cartographie de la canopée de la RMR de Montréal en format vectoriel," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/canopee-des-six-rmr-du-quebec/ressource/95bc3a15-bad9-46b4-b4f2-8000a391d770].</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Parks, cities of Montreal and Longueuil	<p>Areas within 300 m (as the crow flies) of parks with a total area of one hectare or more</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Longueuil parks:</b> VILLE DE LONGUEUIL (2024). "Parcs," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/parcs/ressource/265d2acb-f1b6-4c44-b5cb-751eb46f53a4]</p> <p><b>Montreal parks:</b> VILLE DE MONTRÉAL (2024). "Grands parcs, parcs d'arrondissements et espaces publics - format SHP," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/vmtl-grands-parcs-parcs-d-arrondissements-et-espaces-publics/ressource/c57baaf4-0fa8-4aa4-9358-61eb7457b650]</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Local public cultural facilities	<p>Libraries and cultural centres superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Cultural facilities:</b> CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL] (2024). Data sharing agreement with MMC in April 2024.</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>

Section	Map	Methodology	Sources
Dimensions of the built environment and public space - Mobility	Estimated risk of collision for pedestrians and cyclists in the urban agglomeration of Montreal	<p>Number of collisions causing injury or death to pedestrians or cyclists between 2014 and 2019, per number of non-motorized trips (over 24 hours, for any reason except going home) in each municipal sector (whether the destination or the origin for the trip) in 2018, superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Road collisions:</b> VILLE DE MONTRÉAL (2022). "Collisions routières," <i>donnees.montreal.ca</i>, Ville de Montréal. [<a href="https://donnees.montreal.ca/dataset/collisions-routieres">https://donnees.montreal.ca/dataset/collisions-routieres</a>]</p> <p><b>Trips:</b> ARTM [AUTORITÉ RÉGIONALE DE TRANSPORT MÉTROPOLITAIN] (2020). <i>Enquête origine-destination 2018 : La mobilité des personnes dans la région métropolitaine de Montréal - Tableaux des résultats par secteurs municipaux</i>. ARTM [PDF].</p> <p><b>Municipal sectors:</b> ARTM [AUTORITÉ RÉGIONALE DE TRANSPORT MÉTROPOLITAIN] (2013). "Secteurs municipaux de l'Enquête OD 2013," <i>donneesquebec.ca</i>, Données Québec. [<a href="https://www.donneesquebec.ca/recherche/dataset/artm-secteurs-municipaux-od13/resource/95ab084b-727e-4322-9433-0fed7baa690d">https://www.donneesquebec.ca/recherche/dataset/artm-secteurs-municipaux-od13/resource/95ab084b-727e-4322-9433-0fed7baa690d</a>].</p>
	Road environment around École La Visitation elementary school (Ahuntsic-Cartierville borough, Montreal)	-	<p><b>Road network:</b> QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). <i>op cit.</i></p> <p>École La Visitation <b>school zone:</b> CSSDM [CENTRE DE SERVICES SCOLAIRE DE MONTRÉAL] (2020). "Version bêta - Recherchez une école primaire." [<a href="https://www.arcgis.com/apps/webappviewer/index.html?id=36e856feafc344db93eec9d060324b11">https://www.arcgis.com/apps/webappviewer/index.html?id=36e856feafc344db93eec9d060324b11</a>]</p>
	Road environment around public elementary schools	<p>Length of dangerous roads (arterial roads, provincial highways, regional roads, collector roads) within 1,200 m along the road network connecting to public elementary schools by deprivation index for the school</p> <p><i>Schools in disadvantaged areas: SEI* = 8 to 10</i></p> <p><i>Other schools: SEI* = 1 to 7</i></p> <p><i>*SEI: socioeconomic environment index</i></p>	<p><b>SEI:</b> QUÉBEC. MEQ [MINISTÈRE DE L'ÉDUCATION] (2024). "Défavorisation - Écoles primaires 2022-2023," <i>donneesquebec.ca</i>, Données Québec. [<a href="https://www.donneesquebec.ca/recherche/dataset/indices-de-defavorisation/resource/f9ac688c-4575-42a9-983a-cd7f3f52094a">https://www.donneesquebec.ca/recherche/dataset/indices-de-defavorisation/resource/f9ac688c-4575-42a9-983a-cd7f3f52094a</a>].</p> <p><b>Road network:</b> QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). <i>op. cit.</i></p>

Section	Map	Methodology	Sources
Dimensions of the built environment and public space - Mobility	Structuring public transit system coverage	<p>800 m radius around a metro station or a bus stop with high-frequency, all-day service with direct access to the city centre</p> <p>800 m radius around a metro station or bus rapid transit (BRT) without direct access to the city centre (only stops directly on a BRT line were included; stops on lines connecting to the BRT were not included)</p> <p>600 m radius around a bus stop with high-frequency, all-day service without direct access to the city centre</p> <p>Radii superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p> <p><b>REM:</b> REM [RÉSEAU EXPRESS MÉTROPOLITAIN] (2024). "Stations du réseau," <i>rem.info</i>, REM [https://rem.info/fr/se-deplacer/stations-du-reseau]</p> <p><b>STM network:</b> STM [SOCIÉTÉ DE TRANSPORT DE MONTRÉAL] (2024). "Tracés des lignes de bus et de métro," <i>donnees.montreal.ca</i>, Ville de Montréal. [https://donnees.montreal.ca/dataset/stm-traces-des-lignes-de-bus-et-de-metro].</p> <p><b>BRT:</b> STM [SOCIÉTÉ DE TRANSPORT DE MONTRÉAL] (2024). "Le SRB Pie-IX," <i>stm.info</i>, STM. [https://www.stm.info/fr/a-propos/grands-projets/grands-projets-bus/le-srb-pie-ix]</p> <p><b>Sources consulted for our analysis but that do not figure on the map:</b></p> <p>STL [SOCIÉTÉ DE TRANSPORT DE LAVAL] (2024). "GTFS - STL," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/https-www-stlaval-ca-datas-opendata-gtf-stl-zip/resource/3ac7bab9-c1c5-46f6-b84d-fa39411b0840].</p> <p>EXO (2024). "Données ouvertes," <i>exo.quebec</i>, EXO. [https://exo.quebec/fr/a-propos/donnees-ouvertes].</p> <p>RTL [RÉSEAU DE TRANSPORT DE LONGUEUIL] (2024). "DONNÉES GTFS DU RTL," <i>rtl-longueuil.qc.ca</i>, RTL. [https://m.rtl-longueuil.qc.ca/fr-CA/donnees-ouvertes/].</p>
	Major cycling infrastructure	<p>Bike paths or multi-use paths</p> <p>Presence of one or more BIXI bike stations, superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p> <p><b>Cycling network:</b> VÉLO QUÉBEC. (2023). Data sharing agreement with Vélo Québec, spring 2024.</p> <p><b>BIXI stations:</b> BIXI MONTRÉAL (2024). "État des stations," <i>donnees.montreal.ca</i>, Ville de Montréal. [https://donnees.montreal.ca/dataset/bixi-etat-des-stations]</p>

Section	Map	Methodology	Sources
<b>Dimensions of the built environment and public space - Environmental risks</b>	Heat islands and cooling islands	<p>Temperature variations categorized into three groups (classes 1, 2, and 3 = cooling island; classes 4, 5, 6, and 7 = neither heat island nor cooling island; classes 8 and 9 = heat island), superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Temperature variations:</b> QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC]. (2023). "Îlots de chaleur et de fraîcheur urbains 2020-2022 (Classes d'écart de températures)," <i>donneesquebec.ca</i>, Données Québec. [<a href="https://www.donneesquebec.ca/recherche/dataset/ilots-de-chaleur-fraicheur-urbains-et-ecarts-de-temperature-relatifs-2020-2022/resource/59764569-0a58-4a66-9106-514493711e35">https://www.donneesquebec.ca/recherche/dataset/ilots-de-chaleur-fraicheur-urbains-et-ecarts-de-temperature-relatifs-2020-2022/resource/59764569-0a58-4a66-9106-514493711e35</a>].</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Temperature variations in Saint-Lambert and Longueuil (urban agglomeration of Longueuil)	<p>Temperature variations categorized into three groups (classes 1, 2 and 3 = cooling island; classes 4, 5, 6 and 7 = neither heat island nor cooling island; classes 8 and 9 = heat island), superimposed on dissemination area according to the LIM-AT for 2021</p> <p><i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other dissemination areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Temperature variations:</b> QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC]. (2023). <i>op. cit.</i></p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Areas flooded in the Pierrefonds-Roxboro and L'Île-Bizard-Sainte-Geneviève boroughs (Montreal)	<p>Areas flooded during the extreme spring floods in 2017 and 2019, superimposed on census tract type according to the LIM-AT for 2021.</p> <p><i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other dissemination areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p> <p><b>Areas flooded during the 2017 and 2019 extreme spring floods:</b> MELCCFP [MINISTÈRE DE L'ENVIRONNEMENT, DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES, DE LA FAUNE ET DES PARCS] (2022). "Territoire inondé en 2017 et 2019," <i>donneesquebec.ca</i>, Données Québec. [<a href="https://www.donneesquebec.ca/recherche/dataset/territoire-inonde-en-2017-et-2019/resource/b2b5b6d4-2544-4555-94cc-8fcaa0e0f185">https://www.donneesquebec.ca/recherche/dataset/territoire-inonde-en-2017-et-2019/resource/b2b5b6d4-2544-4555-94cc-8fcaa0e0f185</a>].</p>
	Low-lying, water-retaining areas in the urban agglomeration of Montreal	<p>Low-lying topography that can retain over 300 mm of water, superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Low-lying water-retaining areas:</b> VILLE DE MONTRÉAL (2021). "Cuvettes de rétention d'eau de ruissellement," <i>donnees.montreal.ca</i>, Ville de Montréal. [<a href="https://donnees.montreal.ca/dataset/cuvettes-retention-eau-ruissellement">https://donnees.montreal.ca/dataset/cuvettes-retention-eau-ruissellement</a>]</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p>
	Areas exposed to traffic-related air pollution	<p>Areas within 150 m of a major thoroughfare (limited access highways, arterial roads, provincial highways, and regional roads), superimposed on census tract type according to the LIM-AT for 2021</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2 %</i></p>	<p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i></p> <p><b>Road network:</b> MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). <i>op. cit.</i></p>

Section	Map	Methodology	Sources
Dimensions of the built environment and public space - Environmental risks	Exposure to environmental noise in the urban agglomeration of Montreal	Dissemination areas in which 30% of dwellings or more are exposed to noise levels of 60 dBA or more over 24 hours, superimposed on census tract type according to the LIM-AT for 2021  <i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i>  <i>Other dissemination areas: prevalence of low-income households below 15.2%</i>	<b>Number of dwellings exposed to more than 60 dBA over 24 hours:</b> RAGETTLI, Martina S., Sophie GOUDREAU, Céline PLANTE, Michel FOURNIER, Marianne HATZOPOULOU, Stéphane PERRON and Audrey SMARGIASSI (2016). "Statistical modeling of the spatial variability of environmental noise levels in Montreal, Canada, using noise measurements and land use characteristics," <i>Journal of Exposure Science &amp; Environmental Epidemiology</i> , vol. 26, no. 6: 597-605 [DOI: 10.1038/ jes.2015.82].  <b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i>
	Exposure to various sources of environmental noise in a section of the Mercier-Hochelaga-Maisonneuve borough (Montreal)	Dissemination areas in which 30% of dwellings or more are exposed to noise levels of 60 dBA or more over 24 hours, superimposed on census tract type according to the LIM-AT for 2021  <i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i>  <i>Other dissemination areas: prevalence of low-income households below 15.2%</i>	<b>Industrial port areas:</b> QUÉBEC. MEIE [Ministère de l'Économie, de l'Innovation et de l'Énergie] (2022). "Délimitation des zones industrielo-portuaires," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/delimitation-des-zones-ip-industrialo-portuaires].  <b>Number of dwellings exposed to more than 60 dBA over 24 hours:</b> RAGETTLI, Martina S., Sophie GOUDREAU, Céline PLANTE, Michel FOURNIER, Marianne HATZOPOULOU, Stéphane PERRON and Audrey SMARGIASSI (2016). <i>op. cit.</i>  <b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i>
	Road and rail infrastructure in the neighbourhood of Pointe-Saint-Charles (Montreal)	Road and railroad networks superimposed on dissemination area type according to the LIM-AT for 2021  <i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i>  <i>Other dissemination areas: prevalence of low-income households below 15.2%</i>	<b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) <i>op. cit.</i>

Base map data	
Data	Sources
Boundaries of census tracts and dissemination areas, 2021	STATISTIQUE CANADA (2021). "Recensement de 2021 - Fichiers des limites," <i>Recensement de la population 2021</i> . Statistique Canada. [https://www12.statcan.gc.ca/census-recensement/2021/geo/sip-pis/boundary-limites/index2021-fra.cfm?year=21].
Boundaries of dissemination areas, 2016	STATISTIQUE CANADA (2016). "Recensement de 2016 - Fichiers des limites," <i>Recensement de la population 2016</i> . Statistique Canada. [https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-fra.cfm].
Boundaries of study area, CMM subregions, municipalities, and Montreal and Longueuil boroughs	CMM [COMMUNAUTÉ MÉTROPOLITAINE DE MONTRÉAL.] (n.d.). "Données géoréférencées," <i>observatoire.cmm.qc.ca/</i> . CMM. [https://observatoire.cmm.qc.ca/produits/donnees-georeferencees/#pmad].
Boundaries of Laval sectors	VILLE DE LAVAL (2017). "Limites des secteurs d'aménagement," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/limites-des-secteurs-d-amenagement/resource/0508da81-5bb1-426c-87b3-42789807f85a].
Building footprints	QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). "Référentiel québécois sur les bâtiments," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/referentiel_bati].
Road network	QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). "AQRéseau," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/adresses-quebec/resource/a23ac6ee-2912-47ba-bec5-23fb9ddc3c7d].
Railroad network	QUÉBEC. MTMD [MINISTÈRE DES TRANSPORTS ET DE LA MOBILITÉ DURABLE] (2024). "Réseau ferroviaire," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/reseau-ferroviaire/resource/bdf44b86-acdb-4e81-b4aa-0b0232e0a47f].
Hydrographical network	QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS]. (2024). "Géobase du réseau hydrographique du Québec (GRHQ)," <i>donneesquebec.ca</i> , Données Québec. [https://www.donneesquebec.ca/recherche/dataset/grhq].



# APPENDIX 3

## Tables: Methodology and data sources

Section	Table	Methodology	Data sources
<b>Socioeconomic profile of Greater Montreal</b>	Distribution of households between disadvantaged areas and other areas	Proportion of household type by census tract type according to the LIM-AT <i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i> <i>Other areas: prevalence of low-income households below 15.2%</i>	<b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.) "Explorer la région de Montréal," <i>montreal.curbcut.ca</i> , Curbcut. (accessed May 7, 2024), based on data from STATISTIQUE CANADA (2021). <i>Recensement de la population 2021</i> .
<b>Dimensions of the built environment and public space - Housing</b>	Proportion of tenant households by household type and subregion	Proportion of tenants across all types of housing tenure	<b>Tenants:</b> STATISTICS CANADA (2021). <i>Recensement de la population 2021</i> , based on data obtained by the CMM.
	Proportion of social and community housing in Montreal boroughs	Social and community housing as a percentage of total units, by borough  Unlike the map of the proportion of social and community housing presented in the same section, this table does not include beneficiaries of the Rent Supplement Program	<b>All housing units:</b> VILLE DE MONTRÉAL (n.d.). <i>Quartiers de référence en habitation</i> , Données Québec, 2013, updated July 3, 2024. [ <a href="https://www.donneesquebec.ca/recherche/dataset/vmtl-quartiers">https://www.donneesquebec.ca/recherche/dataset/vmtl-quartiers</a> ] (accessed July 4, 2024).  <b>Social and community housing:</b> VILLE DE MONTRÉAL (2023). <i>Répartition des logements sociaux et communautaires sur l'île de Montréal : faits saillants et tableaux</i> , Montréal, Ville de Montréal [PDF]. 10 p.
	Supply and demand for low-rental housing (families and individuals under 60 living alone, urban agglomeration of Montreal)	Number of applicant households (families and individuals living alone) per existing low-rental housing units for families and people living alone, by borough or reconstituted city	<b>Public low-rental housing:</b> VILLE DE MONTRÉAL (2023). <i>op. cit.</i>  <b>Applicant households:</b> OMHM [OFFICE MUNICIPAL D'HABITATION DE MONTRÉAL] (2023). <i>Demandeurs par territoire de résidence, octobre 2023</i> , Montreal, OMHM [PDF]. 2 p.
	Supply and demand for low-rental housing (individuals 60 and over, urban agglomeration of Montreal)	Number of applicant households (households aged 60 and over) per existing low-rental housing unit for households aged 60 and over, by borough or reconstituted city	<b>Public low-rental housing:</b> VILLE DE MONTRÉAL (2023). <i>op. cit.</i>  <b>Applicant households:</b> OMHM [OFFICE MUNICIPAL D'HABITATION DE MONTRÉAL] (2023). <i>op. cit.</i>
	Change in the number of people experiencing visible homelessness between 2018 and 2022	Percent increase in the number of people experiencing visible homelessness from 2018 to 2022 for the administrative regions of Greater Montreal	<b>People experiencing visible homelessness:</b> QUÉBEC. MSSS [MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX] (2023). <i>Dénombrement des personnes en situation d'itinérance au Québec : rapport de l'exercice du 11 octobre 2022</i> , Québec, gouvernement du Québec [PDF]. 353 p.
<b>Dimensions of the built environment and public space - Local resources</b>	Canopy cover in disadvantaged areas and other areas	Proportion of land area with canopy cover, superimposed on prevalence of low-income households according to the LIM-AT, by census tract, for 2021 <i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i> <i>Other areas: prevalence of low-income households below 15.2%</i>	<b>Canopy cover:</b> QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2022). "Cartographie de la canopée de la RMR de Montréal en format vectoriel," <i>donneesquebec.ca</i> , Données Québec. [ <a href="https://www.donneesquebec.ca/recherche/dataset/canopee-des-six-rmr-du-quebec/resource/95bc3a15-bad9-46b4-b4f2-8000a391d770">https://www.donneesquebec.ca/recherche/dataset/canopee-des-six-rmr-du-quebec/resource/95bc3a15-bad9-46b4-b4f2-8000a391d770</a> ].  <b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.). <i>op. cit.</i>

Section	Table	Methodology	Data sources
Dimensions of the built environment and public space - Mobility	Road environment around public elementary schools	<p>Length of dangerous roads (arterial roads, provincial highways, regional roads, collector roads) within 1,200 m along the road network connecting to public elementary schools differentiated according to their deprivation index</p> <p><i>Schools in disadvantaged areas: SEI* = 8 to 10</i></p> <p><i>Other schools: SEI = 1 to 7</i></p> <p><i>*SEI: socioeconomic environment index</i></p>	<p><b>SEI:</b> QUÉBEC. MÉQ [MINISTÈRE DE L'ÉDUCATION] (2024). "Défavorisation - Écoles primaires 2022-2023," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/indices-de-defavorisation/resource/f9ac688c-4575-42a9-983a-cd7f3f52094a]</p> <p><b>Road network:</b> QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). "AQRéseau," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/adresses-quebec/resource/a23ac6ee-2912-47ba-bec5-23fb9ddc3c7d].</p>
Dimensions of the built environment and public space - Environmental risks	Proportion of the region covered by heat islands and cooling islands	<p>Land surface of census tract type (according to LIM-AT) by temperature variation data:</p> <ul style="list-style-type: none"> <li>- Heat islands (classes 8 and 9)</li> <li>- Neither heat islands nor cooling islands (classes 4, 5, 6, and 7)</li> <li>- Cooling islands (classes 1, 2, and 3)</li> </ul> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Temperature variations:</b> QUÉBEC. INSPQ [INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC] (2023). "Îlots de chaleur et de fraîcheur urbains 2020-2022 (Classes d'écart de températures)," <i>donneesquebec.ca</i>, Données Québec. [https://www.donneesquebec.ca/recherche/dataset/ilots-de-chaleur-fraicheur-urbains-et-ecarts-de-temperature-relatifs-2020-2022/resource/59764569-0a58-4a66-9106-514493711e35].</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.). <i>op. cit.</i></p>
	Proportion of the region near a major thoroughfare	<p>Percentage of census tract type (according to the LIM-AT) that falls within 150 m of a major thoroughfare (limited-access highways, arterial roads, national highways, and regional roads)</p> <p><i>Disadvantaged areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.). <i>op. cit.</i></p> <p><b>Road network:</b> QUÉBEC. MRNF [MINISTÈRE DES RESSOURCES NATURELLES ET DES FORÊTS] (2024). <i>op. cit.</i></p>
	Exposure to environmental noise in the urban agglomeration of Montreal	<p>Dissemination areas, by type (according to the LIM-AT), for which 30% or more of dwellings are exposed to 60 dBA or higher (LAeq24h)</p> <p><i>Disadvantaged dissemination areas: prevalence of low-income households of 15.2% or higher</i></p> <p><i>Other dissemination areas: prevalence of low-income households below 15.2%</i></p>	<p><b>Number of dwellings exposed to more than 60 dBA over 24 hours:</b> RAGETTLI, Martina S., Sophie GOUDREAU, Céline PLANTE, Michel FOURNIER, Marianne HATZOPOULOU, Stéphane PERRON and Audrey SMARGIASSI (2016). "Statistical modeling of the spatial variability of environmental noise levels in Montreal, Canada, using noise measurements and land use characteristics," <i>Journal of Exposure Science &amp; Environmental Epidemiology</i>, vol. 26, n° 6, 597-605 [DOI: 10.1038/jes.2015.82].</p> <p><b>Prevalence of low-income households:</b> CURBCUT MONTRÉAL (n.d.). <i>op. cit.</i></p>

# APPENDIX 4

## Adapted transport services in Greater Montreal

Adapted transport is offered in conjunction with regular public transit to people who have limited ability to perform everyday activities, mobility limitations, or a significant and persistent disability. This service must be reserved in advance and does not allow luggage.

Transport company	Operating hours	Parameters
<b>Exo</b>	Sunday to Thursday: 6:30 a.m. to 11:00 p.m. Friday and Saturday: 6:30 a.m. to 12:00 a.m.	Regions served: North and South Shores of Montreal Tuesday to Saturday: Reservations by 4:00 p.m. the day before Sunday and Monday: Reservations by 4:00 p.m. Friday
<b>Réseau de transport de Longueuil (RTL)</b>	Monday to Thursday: 6:30 a.m. to 12:00 a.m. Friday and Saturday: 6:30 a.m. to 1:00 a.m. Sunday: 6:30 a.m. to 11:00 p.m.	Region served: Urban agglomeration of Longueuil Reservations by 7:00 p.m. the evening before
<b>Société de transport de Laval (STL)</b>	Monday to Thursday: 6:30 a.m. to 11:00 p.m. Friday: 6:30 a.m. to 12:00 a.m. Saturday: 8:00 a.m. to 12:00 a.m. Sunday: 8:00 a.m. to 11:00 p.m.	Region served: Laval Reservations by 5:00 p.m. the day before
<b>Société de transport de Montréal (STM)</b>	Sunday to Thursday: 6:00 a.m. to 12:30 a.m. Friday and Saturday: 6:00 a.m. to 1:30 a.m.	Region served: Agglomeration of Montreal Reservations by 9:00 p.m. the night before
<b>Metropolitan journeys</b>	With EXO, trips outside the North Shore or South Shore must be booked two days in advance.  The RTL services central areas of Montreal (between Autoroute-15 and Boulevard Pie-IX). Transport within this area must be booked by 7:00 p.m. the day before. For trips to other areas in the ARTM territory, bookings must be made two to five days in advance for a one-off trip, and at least seven days in advance for a regular trip.  The STL serves central areas of Montreal. Transport within this area can be booked until 5:00 p.m. the day before. Transport to other areas of the ARTM territory must be booked three days in advance.  The STM serves the urban agglomeration of Montreal, the urban agglomeration of Longueuil, Laval, and the North and South Shores. Transport must be booked by noon the day before.	

Certain areas present constraints to loading and unloading adapted transport vehicles. In Montreal, applications for drop-off zones (i.e., a safe space for a passenger to board a vehicle close to their home or workplace) are managed by the boroughs. For example, L'Île-Bizard-Sainte-Geneviève and Pierrefonds-Roxboro boroughs do not offer this service, and Montréal-Nord will refuse such applications if a drop-off zone already exists within 12 metres of the building's main entrance.

# ACKNOWLEDGEMENTS

The Foundation of Greater Montréal and Vivre en Ville sincerely thank the following advocacy organizations, public interest organizations, and members of the research community for their insightful feedback on this report:

## **Centre d'écologie urbaine**

Vincent Ouellet Jobin, Acting Coordinator, Aménagement et environnement urbain

Julien Voyer, Project and Development Manager

## **Coalition montréalaise des Tables de quartier**

Julien Caffin, Coordinator, Concertation en développement social de Verdun

Marc-André Fortin, Coordinator, Table de concertation du faubourg Saint-Laurent

Joakim Lemieux, Activities Coordinator

## **Institut national de la recherche scientifique**

Xavier Leloup, Full Research Professor, Urbanisation Culture Société Research Centre

Sophie Van Neste, Associate Research Professor, Canada Research Chair in Urban Climate Action, Urbanisation Culture Société Research Centre

## **Institut national de santé publique du Québec**

Patrick Morency, Medical Specialist

## **Ministère de l'Emploi et de la Solidarité sociale**

Marie-Ève Desrosiers, Advisor, Research and Evaluation, Direction des politiques de lutte contre la pauvreté et l'action communautaire

## **Ministère des Affaires municipales et de l'Habitation – Secrétariat à la région métropolitaine**

## **Observatoire québécois des inégalités**

Marianne-Sarah Saulnier, Researcher

## **Transition en Commun**

Marlies Trujillo Torres, Coordinator, Espace Quartiers and Groupe de travail Logement en Transition

## **Université du Québec à Montréal**

Thi-Thanh-Hiên Pham, Associate Professor, Canada Research Chair in Small- and Medium-Sized Cities in Transformation, Department of Urban Studies and Tourism

---

The reviewers were asked to provide comments on the pre-final version of this document and have therefore neither reviewed nor endorsed the final content.

---

The Foundation of Greater Montréal and Vivre en Ville also warmly thank the following Greater Montreal organizations for their time and valuable insights, which contributed to the analysis and interpretation of the information presented in these *Vital Signs*:

- **The borough of Mercier-Hochelaga-Maisonneuve – Section de la transition écologique et de la résilience**
- **Conseil régional de l’environnement de Montréal (CRE Montréal)**
- **Corporation de développement communautaire Action-Gardien de Pointe-Saint-Charles**
- **Corporation de développement communautaire Centre-Sud**
- **Corporation de développement communautaire de l’agglomération de Longueuil**
- **Culture Montréal**
- **Direction régionale de santé publique – Laval**
- **Direction régionale de santé publique – Montérégie**
- **Regroupement des usagers du transport adapté et accessible de l’île de Montréal (RUTA Montréal)**
- **Table de concertation du faubourg Saint-Laurent**
- **Table de quartier de Montréal-Nord**
- **Table de quartier du Nord de l’Ouest-de-l’île de Montréal**
- **Table de quartier Hochelaga-Maisonneuve**
- **Trajectoire Québec**
- **Ville de Laval – Service de la culture, des loisirs, du sport et du développement social**
- **Ville de Montréal – Service de la culture**
- **Vivre Saint-Michel en santé**





Foundation of Greater Montréal

## The Foundation of Greater Montreal, a community foundation

Community foundations are charitable organizations that devote themselves to improving living conditions in communities in specified geographic areas by attracting and investing charitable gifts from donors to create endowment funds, then redistributing the income produced by these investments in the form of grants to community organizations. Community foundations also play a key social role: they monitor the quality of life in their area, and they match people with resources and ideas so as to build stronger and more resilient communities.

### Our mission

The Foundation of Greater Montréal is committed to serving and listening to its community. In collaboration with its partners, it mobilizes philanthropic resources, disseminates knowledge, sparks initiatives, and supports the community, all with a view to advancing the Sustainable Development Goals (SDGs) in Greater Montreal.

### Our vision

The Foundation of Greater Montréal has a vision of a community that is free of poverty and discrimination, where all can realize their potential and live in a healthy environment, now and in the future.

### Our values

- **JUSTICE, EQUITY, DIVERSITY, INCLUSION:** Work to eliminate all forms of discrimination. Amplify the voices of underrepresented groups and ensure that every individual feels included, valued, and respected.
- **COLLABORATION:** Facilitate the sharing of skills and ideas and pool the community's strengths.
- **LISTENING:** Be attentive to the needs and solutions identified by the community, and nurture relationships based on trust.
- **CREATION AND INNOVATION:** Experiment with and adopt innovative approaches so as to increase our agility as well as our impact in the community.
- **INTEGRITY:** Demonstrate honesty, transparency, high ethical standards, humility, accountability, and professionalism.



Foundation of Greater Montréal

**Foundation of Greater Montréal**

606, Cathcart Street  
Suite 1030  
Montreal, Quebec H3B 1K9

☎ 514 866-0808  
✉ [info@fgmtl.org](mailto:info@fgmtl.org)

[www.fgmtl.org](http://www.fgmtl.org)



**SUSTAINABLE DEVELOPMENT GOALS**

The Foundation of Greater Montréal is a charitable organization duly registered with the Canada Revenue Agency.  
Registration number: 88197 9124 RR 0001