EQUITABLE ACCESS TO **HEALTHY FOOD RETAIL**

FINAL REPORT PREPARED FOR

City of Vancouver & Vancouver Coastal Health

CITY OF VANCOUVER | Vancouver CoastalHealth | Partnership *for* Healthy Cities

2025

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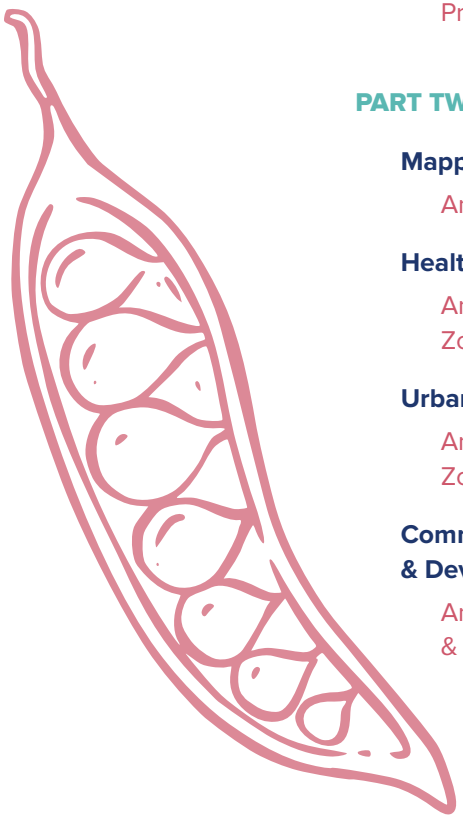


FOREWORD

This project is made possible thanks to the support of the Partnership for Healthy Cities (PHC). Since 2019, Vancouver has been part of this global network of cities committed to preventing noncommunicable diseases (NCDs) and injuries. PHC is supported by Bloomberg Philanthropies in partnership with the World Health Organization and the global health organization Vital Strategies.

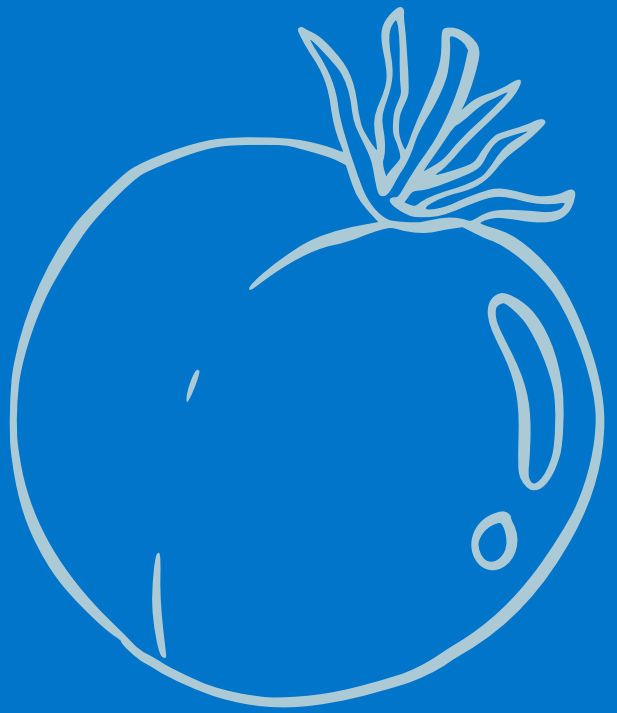
In 2024, the City of Vancouver's involvement in the Partnership for Healthy Cities turned to food, and how the geographic distribution of food retail influences health inequities and diet-related diseases in Vancouver. Building on a long- standing partnership through the Healthy City Strategy, the City of Vancouver (CoV) collaborated with Vancouver Coastal Health (VCH) to examine the food retail environment with a shared goal to identify pathways towards a healthier and more equitable food environment for Vancouver residents. The findings from this project will help both agencies chart a path towards a coordinated response through policy and/or programming.

For more information, about the Partnership for Healthy Cities, visit https://cities4health.org.

CITY OF VANCOUVER | Vancouver CoastalHealth

PART ONE

PROJECT INTRODUCTION



PART ONE: **PROJECT INTRODUCTION**

INTRODUCTION

This project was initiated as a policy-oriented research and mapping study on equitable access to healthy food retail in Vancouver. Through the process, areas were identified that were at higher risk for diet-related disease and with limited walking-distance access to food retail. This information can help inform how the City of Vancouver, and its partner Vancouver Coastal Health, can address inequities through policy and programming.

Report Structure

This report is organized into three sections:

PART ONE

Part One provides an overview of the project, with key terms, context, and purpose.

PART TWO

Part Two focuses on the mapping results, presenting key findings related to priority areas for new food retail and how these relate to areas of potential redevelopment, zoning, and community-based food programs.

PART THREE

Part Three introduces potential policy options to support healthy food retail, showcasing some precedents from North American cities.

Terminology and Key Concepts

The following terms and concepts are used throughout this report, and are described below in the context of this project.

Equity - the condition whereby fair and just treatment of people creates fair and just outcomes for people. As a process, this means dismantling unfair and unjust policies, practices, attitudes, and cultural messages that negatively impact certain communities or groups. As an outcome, this means a society in which anyone's identities no longer unfairly and unjustly pre-determine their life outcomes. (Adapted from City of Vancouver Equity Framework)

Equity-denied populations - populations who are being denied access and opportunities by existing systems or structures of power and are therefore marginalized. Equity-denied peoples may experience different forms of exclusion: social, cultural, economic, political, and ecological. Examples of equity-denied populations include, but are not limited to, racialized populations, people with disabilities, 2SLGBTQIA-identified individuals, and people living on low incomes.

Food retail - for the purposes of this project, food retail refers to grocery stores. However more broadly, other types of food retail could include convenience stores, specialty food stores (e.g. bakeries, candy shops). Furthermore, this project considers food retailers as having a physical location and therefore excludes grocery delivery services, online food retailers, and mobile vendors.

Food retail access - a person's access to healthy food is informed by many factors, including income, geography, and factors like food affordability and availability of culturally or diet-appropriate foods. While this is acknowledged, the scope of this project was limited to focusing on geographic and proximity access gaps. As a result, when the term 'access' is used in this report, it refers specifically to geographic access. Policy and programmatic tools at all levels of government should be considered to address broader inequities related to food access.

Food retail access gaps - areas with an absence of grocery stores. Note that historically, such gaps have been referred to as "food deserts" however this metaphor of a barren food landscape negates the reality that communities living in these areas, who are often low-income and racialized, have stepped up in various ways to address these gaps: through gardens, informal street food vendors, community support, and other methods. It also obscures the structural causes behind food inaccessibility, implying these areas naturally lack resources rather than being shaped by harmful policies.

Food environment - refers to aspects of the social and physical environment that affect the types of food available, the accessibility of food, and the nutrition information that people are exposed to, including food marketing. All these aspects of the food environment can influence food choices.

Food security - the state in which a population has equitable access to food that is affordable, culturally preferable, nutritious and safe; and where everyone has the agency to participate in, and influence food systems; and that food systems are resilient, ecologically sustainable, socially just, and honour Indigenous food sovereignty. (Adapted from BC Centre for Disease Control)

Healthy eating - refers to a pattern of eating that contributes to the best possible health. This includes positive relationships with food and diverse, balanced food choices that meet individual needs for nutrients and energy. Healthy eating looks different for everyone and depends on many factors including family context, traditions, culture, access, availability, personal preference and specific dietary needs.

Healthy food retail - food retail of any size that offers nutritious food options including but not limited to fresh produce, whole grains, and lean proteins. While in the case of this report, this term is synonymous with "grocery store," it should be noted that one type of retail outlet is not considered "healthier" than another but rather they differ in their provision of foods based on variety, types, and amounts that can support an overall pattern of eating. It is the pattern of eating that can contribute to either positive or negative health outcomes.

Living Wage - the hourly amount that someone needs to earn to meet their basic expenses (including rent, food, and transportation) once government taxes, credits, deductions and subsidies are taken into account. It does not include debt repayment or savings for future plans. The Living Wage is calculated using a 35 hour working week. In Metro Vancouver, the Living Wage in 2024 was $27.05/hour. (Adapted from Living Wage BC)

Racialized people(s) - those whose race and/or ethnicity are made "other" to whiteness by white supremacy culture, practices, and actions. Also refers to "non-white people."

Approach to discussing food and health

Food is often described in a binary of “healthy” or “unhealthy.” Labelling foods in this binary way promotes “all or none” thinking without considering the many factors that influence eating patterns including personal preference, food availability, socioeconomic and family situation, pleasure, convenience, culture, and food skills. Health is different for everyone.

Regular intake of foods that make up patterns of eating associated with positive health outcomes include vegetables, fruits, whole grain, and protein foods—including plant-based protein (fibre).[1]

Foods associated with greater negative health outcomes when consumed on a regular basis can include processed or prepared foods and beverages that contribute to excess sodium, free (added) sugars, or saturated fat.[2]

Research in the food retail environment frequently observes food choices purchased at one point in time as an indicator of an individual's pattern of eating, deeming these food items as “unhealthy” or “healthy.” The research refers to these categories in relation to risk of chronic disease. However, it is important to note that an individual food consumed at one point in time does not make someone “unhealthy” or “healthy,” but it is the frequency of intake within broader eating patterns that can impact health outcomes.

REGULAR INTAKE OF FOODS THAT MAKE UP PATTERNS OF EATING ASSOCIATED WITH POSITIVE HEALTH OUTCOMES INCLUDE VEGETABLES, FRUITS, WHOLE GRAIN, AND PROTEIN FOODS

[1] Government of Canada. (2023). Health Canada. SECTION 1 Foundation for healthy eating - Canada’s Food Guide.
[2] Government of Canada. (2022). Health Canada. SECTION 2 Foods and beverages that undermine healthy eating - Canada’s Food Guide.

PROJECT CONTEXT

Partner Roles

This project is rooted in a vision for a healthy and equitable food system in Vancouver. It is a vision that is shared between the City of Vancouver and Vancouver Coastal Health. At the City of Vancouver, this vision is reflected in the various policies, strategies, and action plans that speak to food, health, and equity such as; Vibrant Vancouver: **City Council's Strategic Priorities** (2023-2026), the **Healthy City Strategy** (refreshed 2024-2025), the **Vancouver Plan** (2022), the **Local Food System Action Plan** (2021), and the **Vancouver Food Strategy** (2013).

Approved in 2022, the Vancouver Plan is the city-wide master plan. More than just high-level support for a healthy and equitable food system, the Vancouver Plan specifically references policy to "improve food access across the city by supporting food-related retail and services (e.g. grocery stores, food banks, farmers markets, restaurants) and by expanding commercial-retail opportunities in more neighbourhoods. [This should] include consideration for culturally appropriate options where possible." (Policy 11.1.1, **Vancouver Plan**)

Vancouver Coastal Health is a regional health authority, with responsibility for delivering both healthcare services and public health services to the population. Core public health functions include: health promotion, health protection, and disease and injury prevention. Public health priorities and actions are informed by population health assessments and public health surveillance. Utilizing this public health intelligence, VCH public health is uniquely positioned to work collaboratively with partners like the City of Vancouver to improve the health of the population by fostering a more equitable food system.

Linkages between Health, Diet, and Social Determinants of Health

Research has demonstrated that a healthy diet helps prevent numerous non-communicable diseases including diabetes, cardiovascular disease, certain cancers, osteoporosis, and dental disease.[3] In fact, poor diet is one of the leading all-cause, all-age attributable risk factors for deaths and years lived with disability in Canada.[4]

Furthermore, healthy eating is an equity issue: the inability to consistently obtain a sufficient quality of food—due to inadequate income or geographic accessibility barriers (e.g., a lack of nearby grocery stores)—increases the risk of the aforementioned health outcomes. Across Canada, food insecurity disproportionately impacts people on low incomes, Black and Indigenous people, children (<18 years old), single mother-led households, renters, and people with disabilities.[5] (See **Appendix A** for additional Vancouver-level data on fruit and vegetable consumption and access; see **Appendix B** for additional disaggregated data on food insecurity in Vancouver.)

Across Canada, food insecurity disproportionately impacts:

Low income earners

Black & Indigenous people

Children (<18 years old)

Single mother-led households

Renters

People with disabilities

[3] World Health Organization. (2002). Diet, nutrition and the prevention of chronic diseases: Report of a joint WHO/FAO expert consultation
[4] Alam S, Lang JJ, Drucker AM, Gotay C, Kozloff N, Mate K, et al. (2019). Assessment of the burden of diseases and injuries attributable to risk factors in Canada from 1990 to 2016: An analysis of the Global Burden of Disease Study. Canadian Medical Association Open Access Journal. 2019 Jan 1;7(1):140–8.
[5] PROOF. (2024). New data on household food insecurity in 2023
[4] Vancouver Coastal Health. (2014). My Health My Community – Vancouver Profile.
[5] Ibid.

A correlation between lower income and poorer health outcomes plays out across Vancouver. In lower income neighbourhoods like Sunset, 43% of respondents self-reported being food insecure, while in Kitsilano, one of the city's wealthiest neighbourhoods, only 10% of respondents felt this way.[6] Meanwhile, the prevalence of diabetes was 2.8X higher in Sunset than in Kitsilano.[7] While diseases like cancer, diabetes, and heart disease are usually the result of numerous factors, diet remains an important one.

In addition to inadequate income, the physical inaccessibility of food also prevents people from maintaining healthy diets. Food retailers tend to locate themselves wherever they will be most profitable, not necessarily where they are most needed. For example, if this happens to be in a more car-centric part of the city, those who rely on public transit, cycling, or walking to get groceries are at a disadvantage. Those with mobility challenges such as seniors and people with disabilities are therefore also disproportionately affected by access gaps in food retail. More broadly, studies have shown that barriers to accessing grocery stores often correlates with less healthy eating habits and increases the risk of non-communicable diseases—though health outcomes are influenced by many variables.[8,9]

Such health inequities are the outcome of policies at multiple levels of government and across multiple sectors that extend far beyond the jurisdiction of city governments in Canada. For instance, income—a key determinant of food insecurity—is not municipally governed. Senior levels of government (provincial and federal) oversee minimum wage levels and income support programs.

That said, there is more work that can be done at the local level to address health inequities related to diet. Programs and services can be strategically delivered or funded to reach at-risk populations; city policy can, to a degree, address housing affordability and thus reduce cost-of-living pressures; and municipalities can address the built environment through land use planning tools such as zoning to enable healthy food retail—which is essential at a time of rapid urban redevelopment. Meanwhile, public health teams within regional health authorities also play a role in supporting healthy eating in our communities. These teams contribute via health promotion and disease prevention activities, as well as legislated health protection activities.

Project Limitations

This project focuses on mapping geographic access to food retail, with the intention of exploring planning tools and other programs within local jurisdiction to address these inequities. While mapping access to healthy food retail can help develop a better understanding of how the geographic distribution of food retail influences health inequities and diet-related diseases in Vancouver, there are limitations.

There is much that maps, and data, cannot tell us. The data sources used for this project related to income and health, while being the best available, aggregate and average information to protect individual privacy. Notably, health data is only available at a highly generalized scale due to its sensitive nature, making it difficult to discern localized patterns. Thus the data (and mapping) illustrates what is typical, but not the full range of all resident experiences. Furthermore, we know that many of those who are most vulnerable to food insecurity, such as unhoused individuals, are not captured by data collection techniques employed by the census and health surveys utilized in this project (due to not having a fixed address).

Additionally, focusing solely on food retail location oversimplifies its relationship to health. Factors like food quality, cultural relevance, mobility, and lived experiences shaped by race, class, age, and gender influence eating behaviours as much as proximity, if not more so. Relying only on mapping can ignore taste, travel patterns, and social norms, potentially misrepresenting food access and consumption. More details gathered from community engagement can add important nuance to what maps reveal.

Finally, food affordability is an important factor in determining food access. Eating well rests on a certain degree of privilege and assumes that an individual is food secure. If basic needs are not met such as having enough food or adequate housing, it is a huge challenge to prioritize making food choices to support health. This relationship is acknowledged, but food affordability could not be analyzed in this project due to methodological challenges.

[6] British Columbia Centre for Disease Control. (2023). BC SPEAK Round 3 Survey.
[7] Ibid.
[8] My Health My Community. (2019). "Healthy Eating and the Neighbourhood Food Environment in Richmond"
[9] Mozaffarian, Dariush, et al. (2012). "Population Approaches to Improve Diet, Physical Activity, and Smoking Habits"

PART TWO

MAPPING HEALTHY FOOD RETAIL ACCESS

To better understand Vancouver's food retail landscape and identify priorities for improving food retail equity, a research and mapping analysis was conducted. The first step in this process involved a literature review to examine methodologies used by cities/regions across North America to map inequities in the food environment through different lenses including access to food retail, socio-economic demographics, and diet-related health indicators.

The literature review helped the team to define "healthy food retail" as grocers that sell fresh produce, given the role fruit and vegetable consumption plays in preventing diet-related diseases. Existing literature also highlights that, when considering risk factors for diet-related disease, it is important to look at factors that may prevent someone from consuming sufficient quantities of fresh fruits and vegetables, such as inadequate income, long distances to supermarkets, food unaffordability, and limited access to transportation. Given that many factors play a role in shaping dietary patterns and health outcomes, the literature review indicated that mapping and overlaying multiple indicators could help identify areas at high risk for food insecurity and diet-related diseases. The areas where multiple risk factors are present can therefore be interpreted as priority zones for policy or program intervention.

The following section details the mapping analysis used to assess food retail inequity in Vancouver, focusing on two primary indicators:

- Geographic inequities in access to healthy food retail
- Socio-economic inequities

Food Retail Priority Zones (Priority Zones) are identified and then analyzed in the context of diet/diet-related health outcomes; the City's future development plans; and community food programs to highlight opportunities and risks for evolving food retail landscapes.

A brief summary of methodology is included for each set of maps.

MAPPING FOOD RETAIL ACCESS

The spatial analysis revealed several areas of overlapping concern, presenting opportunities to improve food retail accessibility.

Context

Research shows that socio-economically vulnerable communities face greater barriers—be it financially or geographically—to accessing healthy food.[10,11] Consequently, the relationship between physical access to healthy food and neighbourhood socio-economic status is important to study when applying an equity lens to food environments.

To understand how inequities in the food environment play out in Vancouver, this project focused on two main risk factors:

Geographic access to healthy food retail (to identify geographies that are poorly serviced by grocery stores); and

Median income (to identify geographies where the median individual income[12] falls below the Living Wage and therefore may see higher rates of food insecurity)

By layering these two key factors, Priority Zones were then created to help inform targeted policy and program initiatives.

[10] Larson, N. I., et. al. (2009). Neighborhood environments: disparities in access to healthy foods in the US. American journal of preventive medicine, 36(1), 74-81.
[11] Costa, B.V.D.L., et al. (2019). Does access to healthy food vary according to socioeconomic status and to food store type? An ecologic study. BMC Public Health, 19, 1-7.
[12] Individuals aged 15 and over in private households
[13] Kesarovski, T., & Hernández-Palacio, F. (2022). Time, the other dimension of urban form: Measuring the relationship between urban density and accessibility to grocery shops in the 10-minute city. Environment and Planning B, 50(1), 44-59.
[14] Vancouver Park Board. (October 2019). VanPlay Strategic Bold Moves (see Equity Initiative Zones).
[15] Giles-Corti, B., & Donovan, R. J. (2002). The relative influence of individual, social and physical environment determinants of physical activity. Social science & medicine, 54(12), 1793-1812.

Methodology

Geographic Access to Healthy Food Retail

Food retail access measures the time it takes to reach a food retailer, originating from each city block. Travel time via different modes of transportation (walking, cycling, transit) is a common measure to understand the daily lived experience of a specific place. Mapping geographical access to food retailers helps to understand which areas of the city are disadvantaged by requiring longer travel times to reach food retailers and which areas are well serviced by such stores.

To enhance granularity, food retail access was assessed at the census dissemination block level. Two different walking thresholds were used: grocery access within a 10-minute walk (~600 m) and grocery access within a 15-minute walk (~950m). Research shows that an acceptable walking distance depends on factors like how often such a trip is taken, urban density, an area's attractiveness, and whether or not carrying things is required.[13] The shorter 10-minute walking threshold was used as the Priority Zone criteria as it aligns with other local walkability measures[14] and is more reasonable considering the effort involved in carrying groceries or the needs of people with mobility challenges.[15] While cycling and frequent public transit are valuable for expanding access, walking remains the most affordable and universally applicable measure for determining whether a location is truly accessible.

Additional maps depicting 15 minute walk, 10 minute cycling, and 10 and 15 minute public transit access can be found in **Appendix C**.

Food Retail Typology

Food retail comes in many forms and scales—ranging from wholesale buying clubs and supermarkets to small independent grocers and convenience stores. Farmers' markets or mobile food markets are yet another form of food retail. Simply mapping the locations of food retail only tells a partial story. In order to produce more meaningful analysis, applying a typology to the food retail environment is needed. Through the literature review at the project onset, it was identified that fresh fruit and vegetable availability at food retailers was a key feature of healthy food retail and therefore this analysis focuses on stores that offer fresh produce.[16]

Grocery-related food retail locations were compiled from City of Vancouver datasets.[17] Food retail locations meeting the project's inclusion criteria of selling fresh produce were then categorised into three types based on the following criteria.

1

Small Grocer with Produce

Grocery stores between 1,500-10,000 ft² that also have a produce section

2

Supermarket

Grocery stores over 10,000 ft²

3

Market Outlet

Large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco

Food retailers outside of Vancouver were also accounted for in the classification schema, recognising that people don't stay within Vancouver boundaries to buy groceries.

While other types of food retail such as butchers, bulk food stores, cheese shops, corner stores, and specialty food stores are an important part of a vibrant and diverse food retail landscape, these types of stores were not included in the mapping analysis because they did not sell produce and/or fell below the 1,500 ft² threshold. However the City of Vancouver maps and analyzes such retailers for other neighbourhood planning purposes.

Of importance to this project is the role that small grocers play when clustered. In these instances, they are more likely to meet a fuller suite of a household's food needs. There is also often overlap between this type of food retail and cultural food retailers, which serve key demographics in several Vancouver neighbourhoods.

Scoring Grocery Store Access

Once access to food retail was calculated, it was determined that visualising accessible food retail stores within a 10-minute walk would be more impactful if the map recognised the value in choice and qualitative difference between food retail typologies (e.g. market outlet, supermarket vs. small grocer). Thus, a scoring system was created.

Since supermarkets and market outlets have more retail floor space and offer a wider variety of food, they were given a multiplier score of 2. Small grocers with a produce section were given a score of 1. For each census dissemination block, the number of food retailers within a 10-minute walk was counted. Then, each store's count was multiplied by its score (either 1 or 2). Finally, all the scores were added up to get a total food access score for each dissemination block. The resulting map is shown in Map 1, including text bubbles for examples of how different areas of the city were scored.

[16] Factors like cost of food and food affordability also determine food access, but were ultimately not included in this study because food costs at the neighbourhood level was lacking and affordability is difficult to measure.
[17] Food retail locations were compiled from the City of Vancouver's Storefront Inventory dataset (2024) and its Business License database (2024).

Grocery Access Score (< 10 minute walk)

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Areas in blue have various grocery retail options within a 10 minute walk, while dark pink and red areas indicate poor access and no food retail access, respectively.

Grocery Access Score (within a 10 minute walk)

- **4+ (ample access)**
- **3 (moderate access)**
- **2 (limited access)**
- **1 (poor access)**
- **0 (no access)**

- **Market Outlet**
- **Supermarket**
- **Small Grocer**
- **Parks & Other Non-Residential**

- Market Outlet - (large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco)
- Supermarket - (grocery stores over 10,000ft^2)
- Small Grocer - (1,500-10,000ft^2, must sell produce)

For each Census Dissemination Block, the number of grocery stores in each category is multiplied by its assigned weight, then all accessible stores within a 10-minute walk are summed together. This 10-minute threshold is based on a typical pedestrian walking pace of 3.87km/h along sanctioned walking routes, and accounts for delays due to slope, traffic lights, and crosswalks.

Scoring
Small Grocer = 1
Supermarket = 2
Market Outlet = 2

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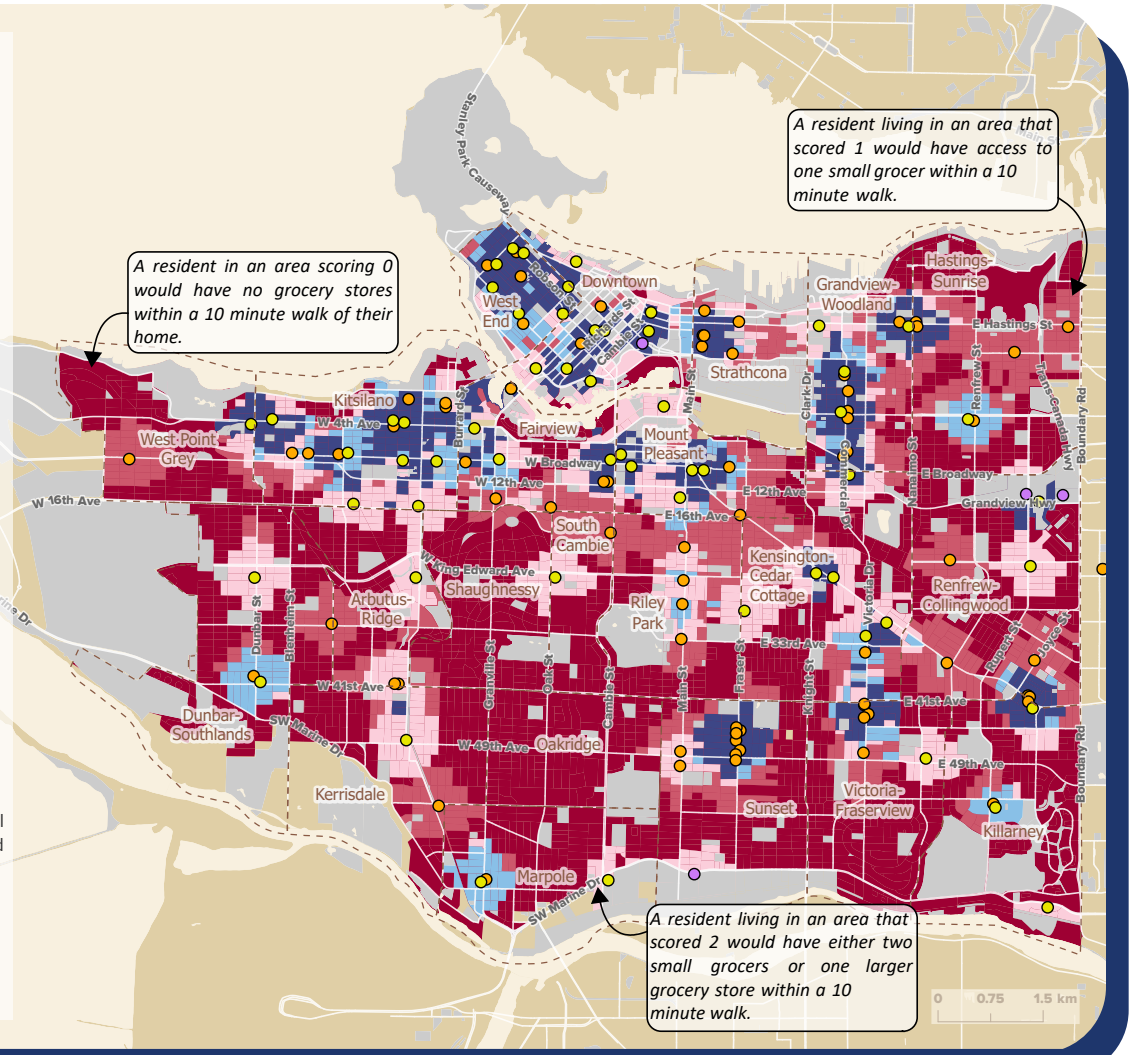

Map 1. Grocery Access within a 10 minute walk.

Note: While the intersection at W 41st and Cambie currently shows no grocery options, a major redevelopment is underway here and a large supermarket is slated to return upon completion.

Median income

Median individual income (before taxes and government transfers)[18] was selected for mapping due to its availability in 2019 from the Canadian Census (2021). This was important as 2020 income data was likely heavily impacted by COVID-19 related income supports, such as the Canada Emergency Response Benefit (CERB).[19] This variable is also readily available at the census dissemination area level—i.e. the smallest unit of geography available from the Canadian census.[20] The 2019 Vancouver Living Wage of $35,490 CAD was used as a threshold to depict areas with greatest equity concern (see Map 2).

Mapping median income isn't about any one individual experience. It focuses on areas where more than half of the population earns less than the cost of living compared to those where it is less than half of the population. The characteristics of an area (i.e. the median) don't take away from people's individual experiences of low income regardless of the income of those around them.

Food Retail Priority Zones

After mapping both median income and access to food retail, these mapping layers were overlaid to establish Food Retail Priority Zones (Priority Zones). Using the threshold of Vancouver's Living Wage (2019), areas with a median income below $35,000 CAD were overlaid with areas that either had "poor access" or "no access," based on the 10-minute food retail access score map. This spatial overlay highlights areas with low income and poor or no access to food retail within a 10-minute walk (see Map 3) which can contribute to food insecurity. Priority Zones represent areas that can be targeted for policy and program initiatives - see **Part Three** for a description of some potential interventions.

[18] Median income (before taxes and government transfers) is also referred to as Median Market Income (Statistics Canada, 2021).
[19] Approximately one quarter (25.1%) of Canadians (aged 15+) received income from the Canada Emergency Response Benefit (CERB) in 2020. 68.4% received income from one or more pandemic relief programs, including federal, provincial or territorial government programs. (Statistics Canada, 2022.)
[20] Each dissemination area is composed of one or more neighbouring dissemination blocks, incorporating 400 to 700 persons per dissemination area.

Median Income before transfers & taxes (2019)

City of Vancouver - Equitable Access to Healthy Food Retail Study

At the census dissemination area level, the dark pink areas highlight where the median income (before taxes & transfers) is below a living wage of $35,000 CDN in Vancouver BC (in 2019).

- **$35,000 and under (below the living wage)**
- **Greater than $35,000**
- **No Data**
- **Parks & Other Non-Residential**
- **NeighbourhoodAreaBounds**

Median income (before taxes & transfers) includes employment income (wages, salaries and commissions, net self-employment income from farm or non-farm unincorporated business and/or professional practice), investment income, private retirement income and other money income from market sources during 2019. It is equivalent to total income minus government transfers for an individual. It is also referred to as median market income. Data source: Statistics Canada, 2021

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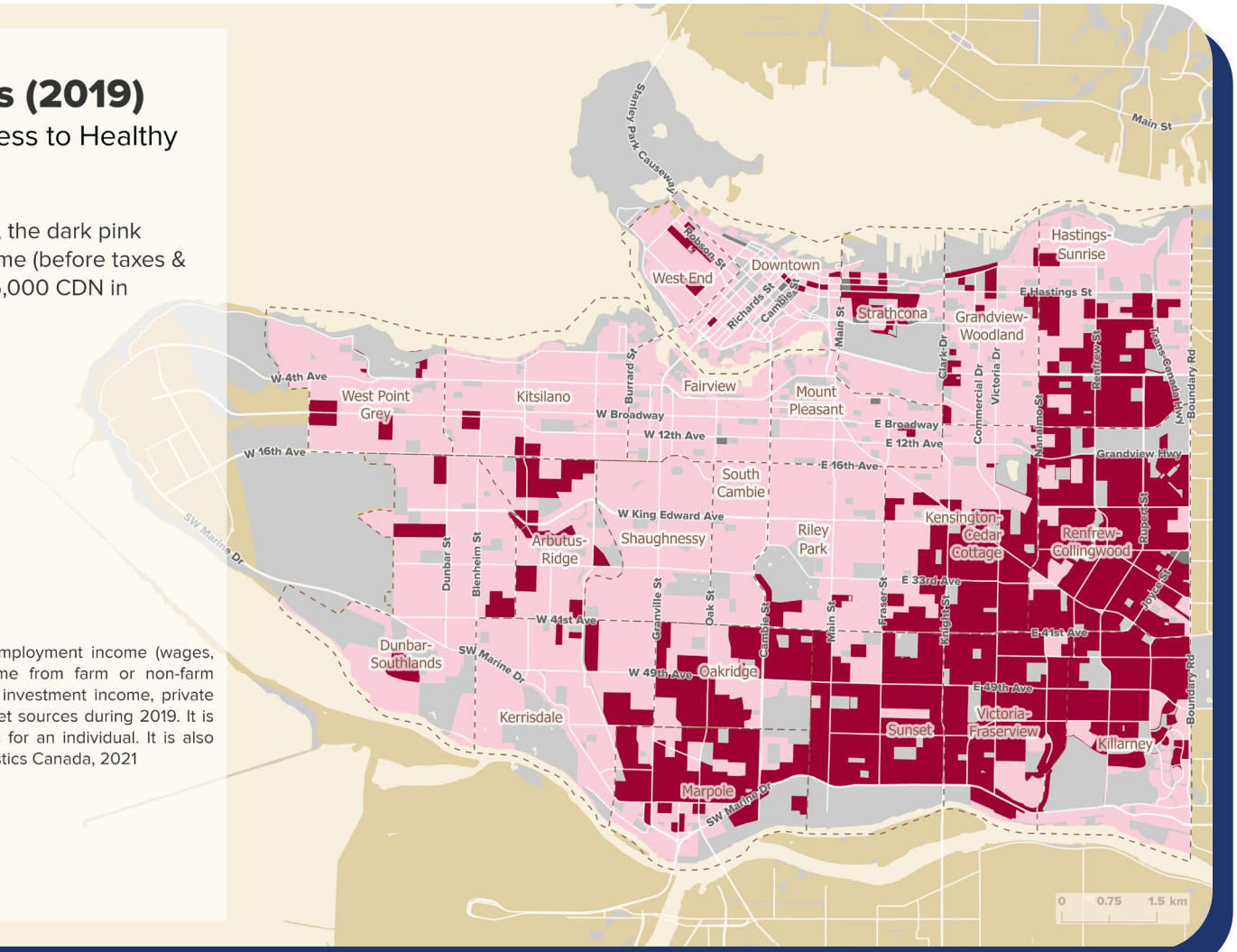

Map 2. Median Market Income.

Food Retail Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

Food Retail Priority Zones are depicted in dark pink and show where lower income areas overlap with poor access to food retail

- **Food Retail Priority Zones: low income + access score of 0 or 1**
- **Parks & Other Non-Residential**
- **Neighbourhood Boundary**

Food Retail Priority Zones are areas considered to be both low income and having poor access to grocery stores. Low income is defined as an area in which the median market income was below the living wage in 2019 ($35,000). Poor access is defined as an area where the grocery access score is 0 or 1 (i.e. either no grocery stores or only one small grocer is within a 10-minute walk). This 10 minute threshold is based on a typical pedestrian walking pace of 3.87km/h along sanctioned walking routes, and accounts for delays due to slope, traffic lights, and crosswalks.

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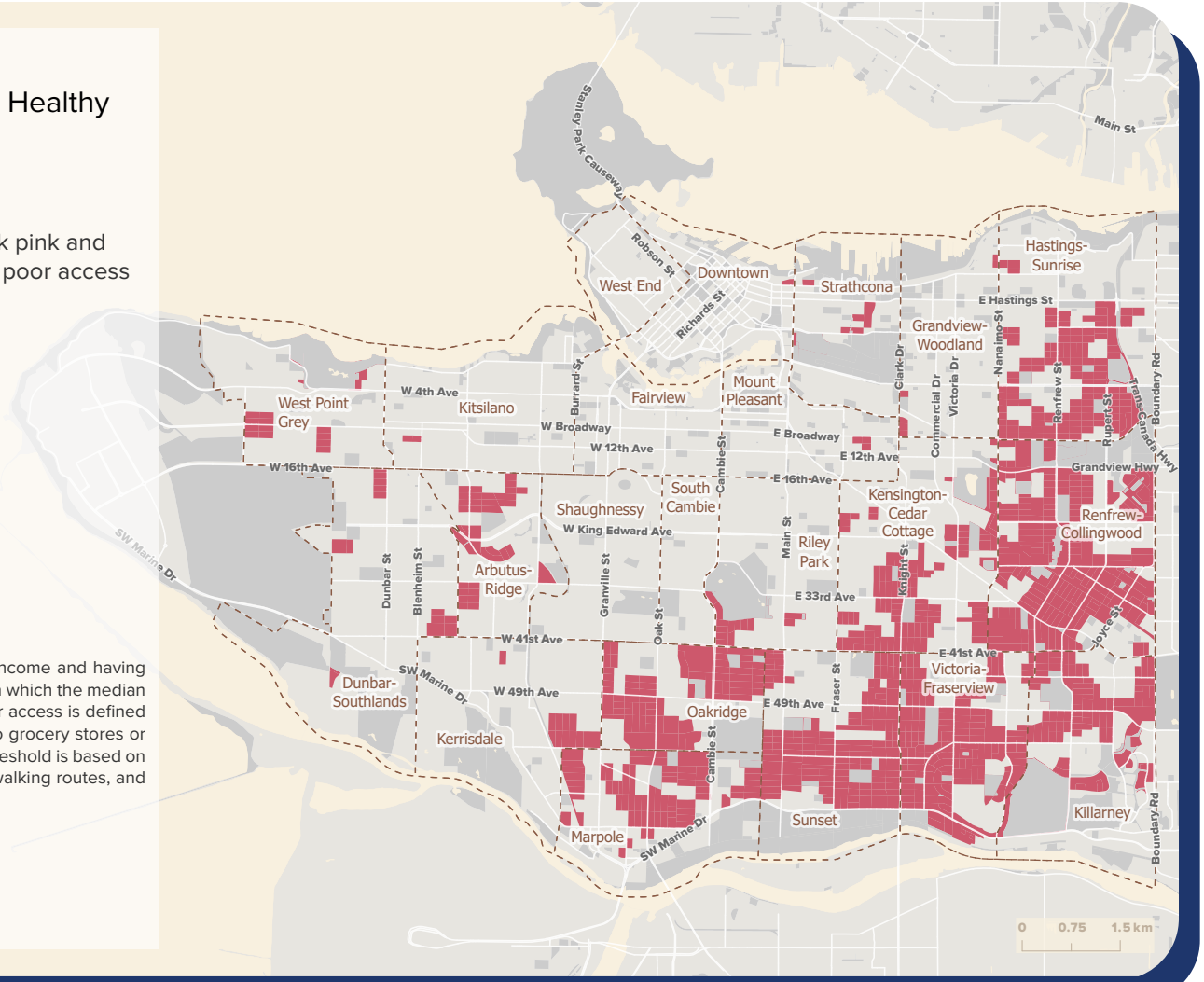
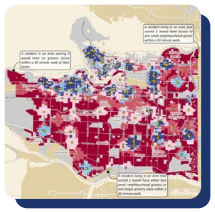


Map 3. Food Retail Priority Zones.

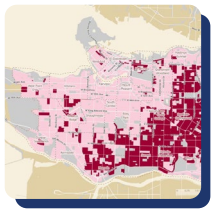
Note: While the intersection at W 41st and Cambie currently lacks grocery and displays as a Food Retail Priority Zone, a major redevelopment is underway here and a large supermarket is slated to return upon completion.

Analysis of Food Retail Access Risk Maps



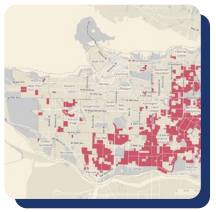
Map 1: Grocery access within a 10-minute walk map

When analysing the Grocery Access Score map in Map 1, the areas with the highest access scores (score = 4+) are found in Kitsilano, the West End, Downtown, and on Commercial Drive. These areas—located along commercial stretches and usually in more densely populated neighbourhoods—reflect a very accessible food retail experience where residents have a variety of supermarkets and small grocers or market outlets within a 10-minute walk. Meanwhile, areas with a poor access score (score = 1) are predominantly found in West Point Grey, Kerrisdale, Renfrew-Collingwood, Hastings-Sunrise, and between Granville Street and Clark Drive just south of 16th Ave. Areas with no access to a grocery store within a 10-minute walk (score = 0) are found in large portions of West Point Grey, Oakridge, Shaughnessy, Riley Park, Sunset, Victoria-Fraserview, Hastings-Sunrise, and Killarney. These areas are also generally less densely populated and tend to have smaller commercial centres.



Map 2: Median Market Income map

Areas with a median income below the Living Wage threshold are predominantly clustered in the southern and eastern neighbourhoods of Vancouver including Marpole, Sunset, Victoria-Fraserview, Killarney, Renfrew-Collingwood, Kensington-Cedar Cottage, Killarney, and Hastings-Sunrise. These have tended to be areas with more modest housing stock and were historically more working-class and immigrant neighbourhoods made up of people with less access to wealth and privilege.



Map 3: Food Retail Priority Zones map

Overlaying median income and areas of low food retail access provides insight on where multiple overlapping inequities exist across Vancouver. While higher income areas may have low food retail access, these households are less likely to be reliant on walking or public transit to access food, and—due to the social determinants of health—they are at lower risk for diet-related disease. Therefore, areas that are mapped as both low food retail access and as having a median income less than the Living Wage are presented as Priority Zones—primarily emerging in Vancouver's southeast and east neighbourhoods, including large portions of Marpole, Oakridge, Sunset, Victoria-Fraserview, Killarney, Renfrew-Collingwood, and Hastings-Sunrise.

In addition to the predominant trend of Priority Zones clustering in southeast Vancouver, there are pockets of low income and low food retail access on Vancouver's west side within West Point Grey, Dunbar-Southlands, and Arbutus-Ridge. While areas between Granville Street and Clark Drive just south of 16th Ave have poor access to food retail, these areas had a median income above the Living Wage of ~$35,000 CAD, which ultimately excludes them from classifying as a Priority Zone under this methodology.

Health Outcomes and Priority Zones

Context

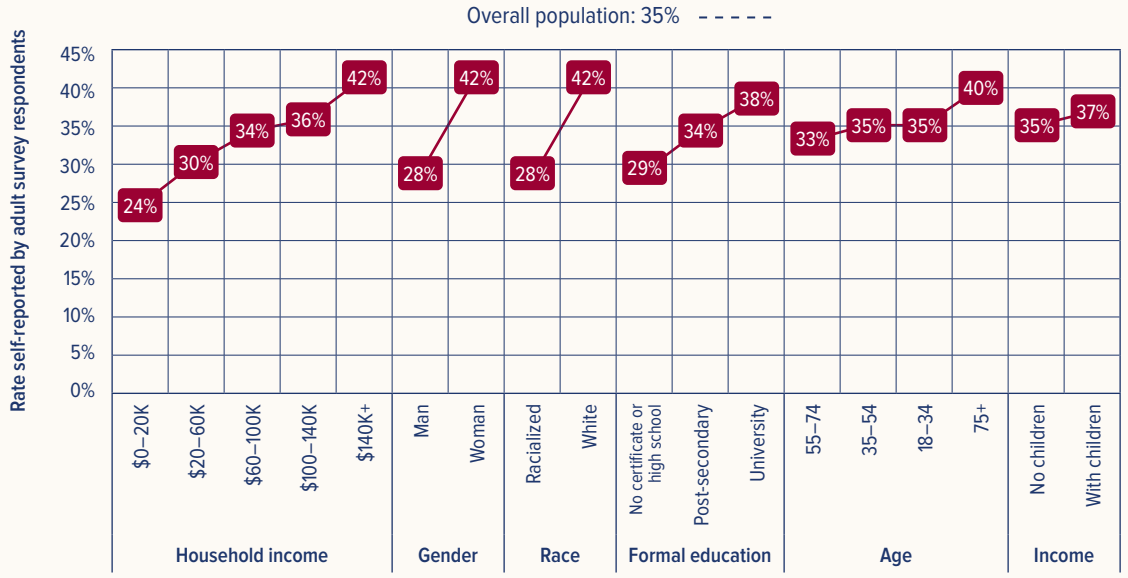
Eating patterns, such as fruit and vegetable intake and sugar-sweetened beverage consumption, represent individual behaviours partially determined by one's food environment. Over time, consumption of fruit and vegetables and low consumption of sugar-sweetened beverages can lower the risk of chronic disease such as heart disease and diabetes. As such, prevalence of heart disease and diabetes were two diet-related health outcomes selected for mapping (see Map 4 and 5), as were sugar-sweetened beverage consumption and fruit and vegetable consumption. (see Map 6 and 7).

The development of a chronic disease, such as diabetes or heart disease, is a multifactorial process. This means that a combination of factors, like genetics, culture, eating habits, and diet, can all contribute to the development of a chronic disease. Eating patterns are determined by more than one's access to food retail, and food retail mapping represents a point-in-time assessment that may not reflect a community's long-term food access. As a result of these practical considerations, diet and diet-related disease data was not incorporated into the creation of Priority Zones, but rather mapped separately for added context.

Dietary patterns, diet-related disease, and food security are all influenced by social determinants of health like income, gender, and race. As one example, higher income households, white-identifying individuals, women, and individuals with some form of post-secondary education are each more likely to eat five or more servings of fruits and vegetables per day (Figure 1).

A set of additional charts disaggregating eating habits and food insecurity by various socio-demographic factors and Vancouver geographies is included in **Appendix A** and **Appendix B**.

Vancouver residents who eat 5+ servings of fruit and vegetables each day, 2023



Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

Figure 1. Fruit and vegetable consumption and various social determinants of health

Methodology

VCH obtained health indicator data from two main sources. Diabetes[21] and heart disease prevalence data was obtained from the BC Chronic Disease Registry. Self-reported fruit and vegetable intake, sugar sweetened beverage intake, and concern for food security was obtained from the BC Centre for Disease Control 2023 SPEAK survey.

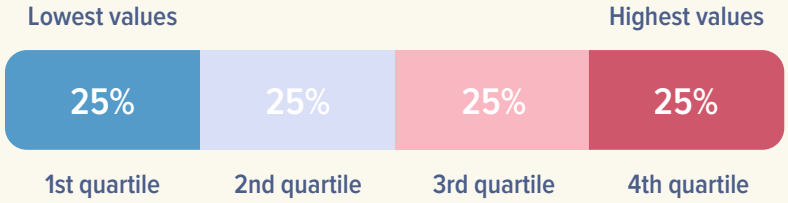
Each of the five health indicator maps include an overlay of Priority Zones to illustrate spatial patterns between health outcomes and food access inequities within Vancouver.

Fruit and vegetable consumption is depicted based on the percentage of the population consuming five or more fruits and vegetables daily—equivalent to the World Health Organization's recommended intake.[22] Sugar-sweetened beverage consumption is depicted based on the percentage of the population consuming three or more sugar-sweetened beverages weekly.[23] The data is depicted at the Community Health Service Area (CHSAs)[24] level, which is similar to neighbourhood level granularity.

The health factor data is visualized using four groups, or quartiles, with each quartile containing 25% of the data. This method helps distribute values more evenly, making it easier to compare areas without one extreme value distorting the scale. Each quartile contains the same number of CHSAs but the value ranges within each group may differ depending on how the data is distributed.

What are Quartiles?

Quartiles group data points based on their relative standing within the dataset. The points in a dataset are divided evenly across four groups (quartiles) no matter what their values are. Using quartiles reduces the effect of outliers on a dataset.



The public health data used in the maps that follow has 19 data points representing each of Vancouver's Community Health Service Areas (CHSA). Each CHSA's data point was then assigned to one of the four quartiles. The range of the data points contained within each quartile is listed in the map's legend.

[21] The BC Chronic Disease Registry team uses specific diagnostic codes and prescriptions to identify cases from the health administrative database. Although the development of type 2 diabetes is more closely associated with lifestyle factors like diet, distinguishing type 2 diabetes from type 1 diabetes is challenging due to the presence of unspecified diabetes codes and overlapping treatments. Therefore, the reported diabetes prevalence includes both Type 1 and Type 2 diabetes.
[22] World Health Organization. (2023). Increasing fruit and vegetable consumption to reduce the risk of noncommunicable diseases.
[23] The average weekly intake of sugar sweetened beverages in Vancouver is three. Areas showing more than this are above the Vancouver average.
[24] CHSAs generally equate to neighbourhood level polygons

Prevalence of Heart Disease & Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

At the neighbourhood level, the dark pink Community Health Service Areas highlight where there is a higher prevalence of Heart Disease.

Ischemic Heart Disease - Prevalence (percent of population)

- **6.0% - 6.2%** (lowest prevalence of Heart Disease)
- **6.3% - 6.6%**
- **6.7% - 7.0%**
- **7.1% - 8.4%** (highest prevalence of Heart Disease)
- **Food Retail Priority Zones: low income + access score of 0 or 1**
- **Parks & Other Non-Residential**
- **Neighbourhood Boundary**

Food Retail Priority Zones are areas considered to be both low income and having poor access to grocery stores. Ischemic Heart Disease prevalence is expressed as a percentage of the population diagnosed, including existing and new cases. Prevalence rates are age-standardized and depicted by Community Health Service Area polygons. Data source: Data is from the Canadian BC Chronic Disease Registry (2022-2023).

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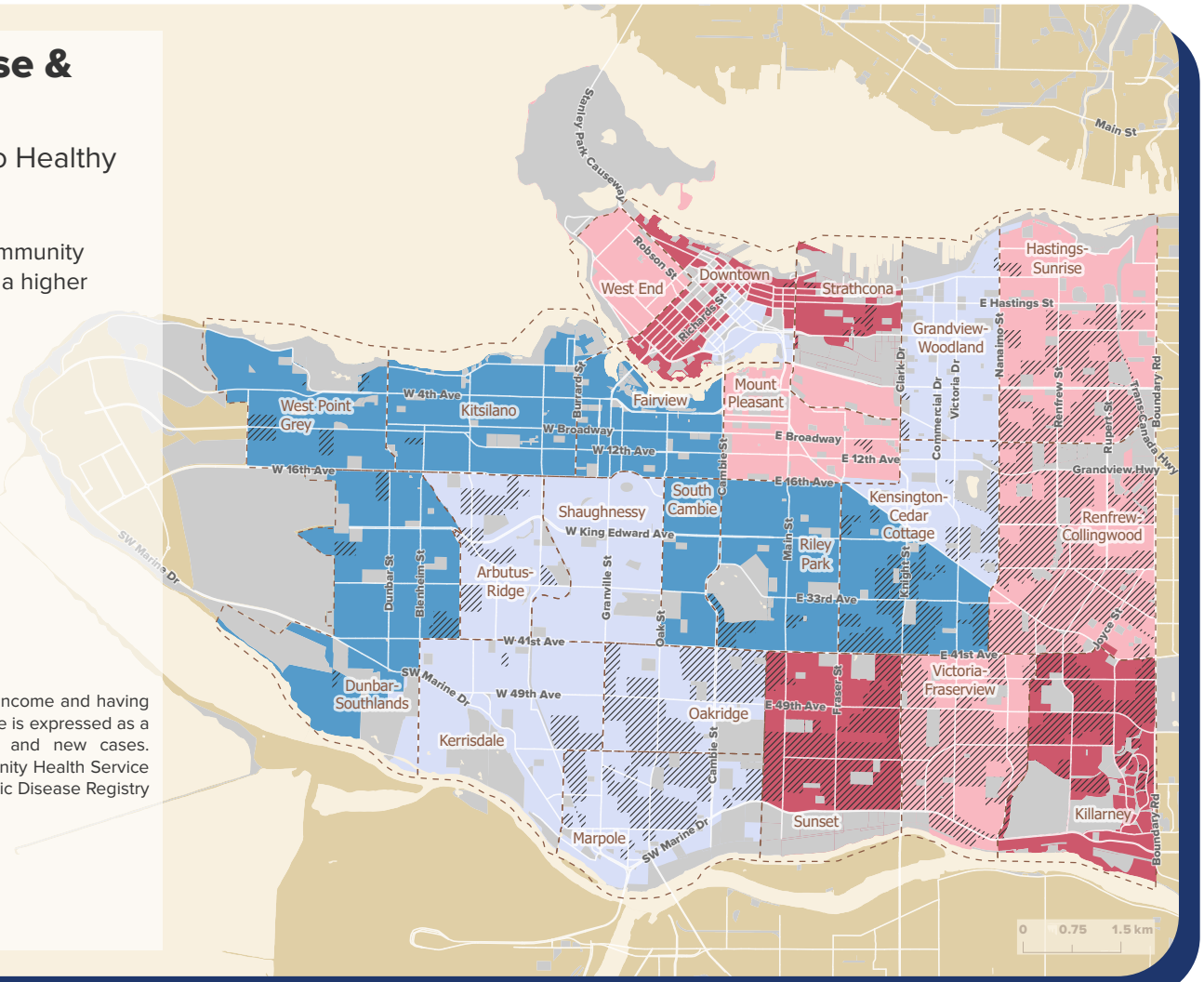

Map 4. Prevalence of Heart Disease.

Prevalence of Diabetes & Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

At the neighbourhood level, the dark pink Community Health Service Areas highlight where there is a higher prevalence of Diabetes.

Diabetes Mellitus (Type 1 and II) - Prevalence (proportion of population)

- **4.9% - 6.6%** (lowest prevalence of Diabetes)
- **6.7% - 8.1%**
- **8.2% - 10.8%**
- **10.9% - 13.7%** (highest prevalence of Heart Disease)
- **Food Retail Priority Zones: low income + access score of 0 or 1**
- **Parks & Other Non-Residential**
- **Neighbourhood Boundary**

Food Retail Priority Zones are areas considered to be both low income and having poor access to grocery stores. Diabetes Mellitus (Type 1 and II) prevalence is expressed as a percentage of the population diagnosed, including existing and new cases. Prevalence rates are age-standardized and depicted by Community Health Service Area polygons. Data source: Data is from the Canadian BC Chronic Disease Registry (2022-2023).

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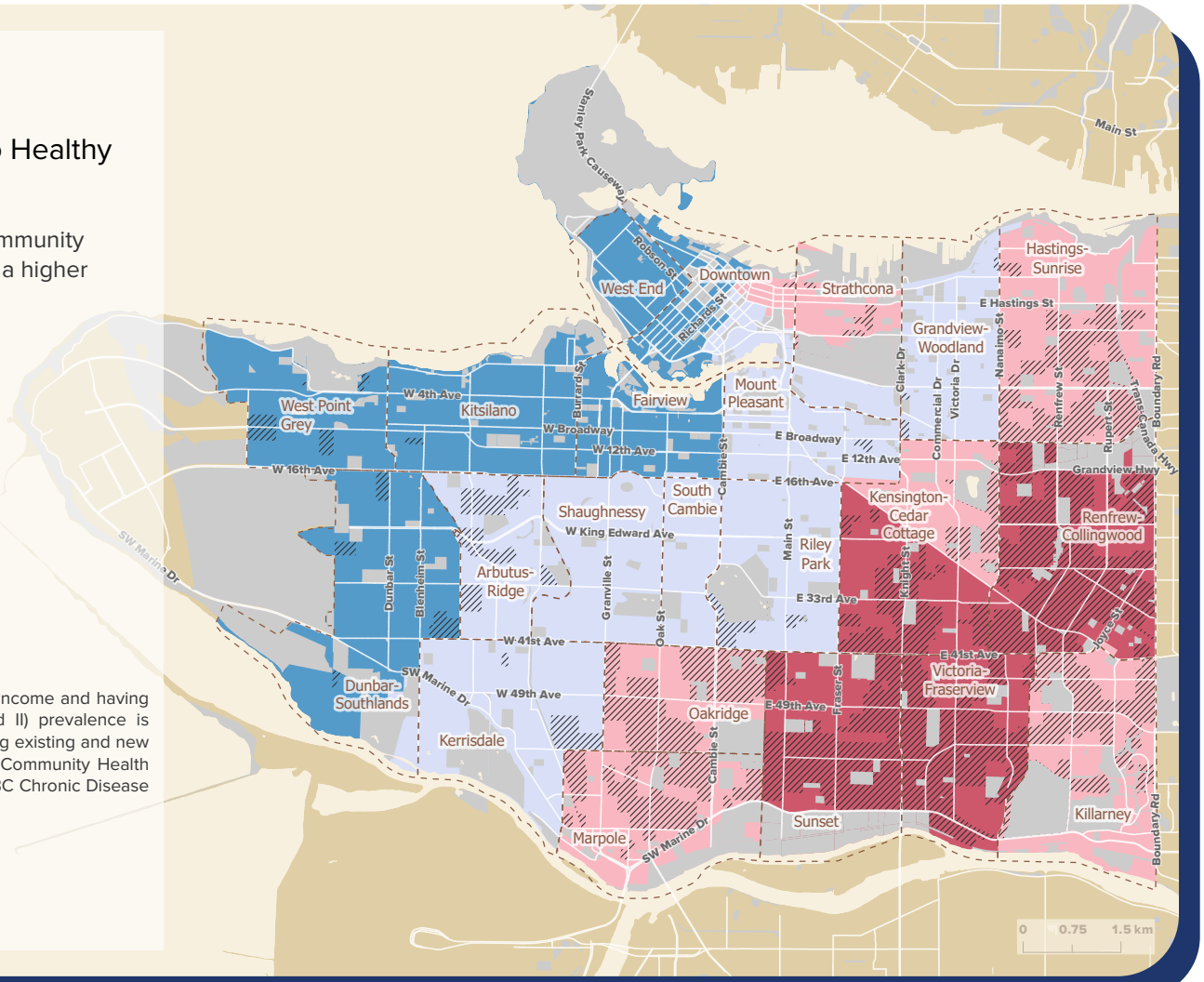
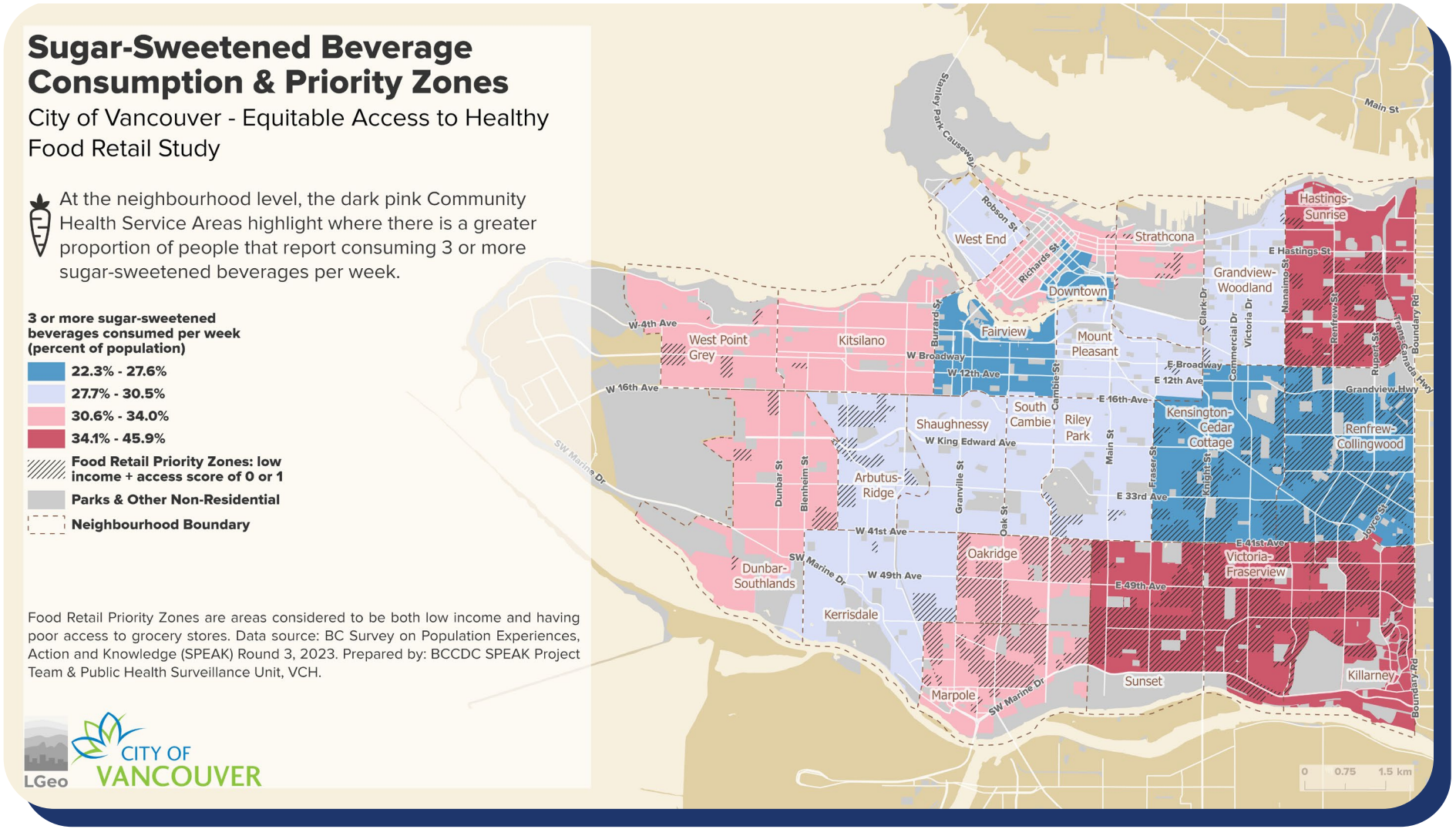
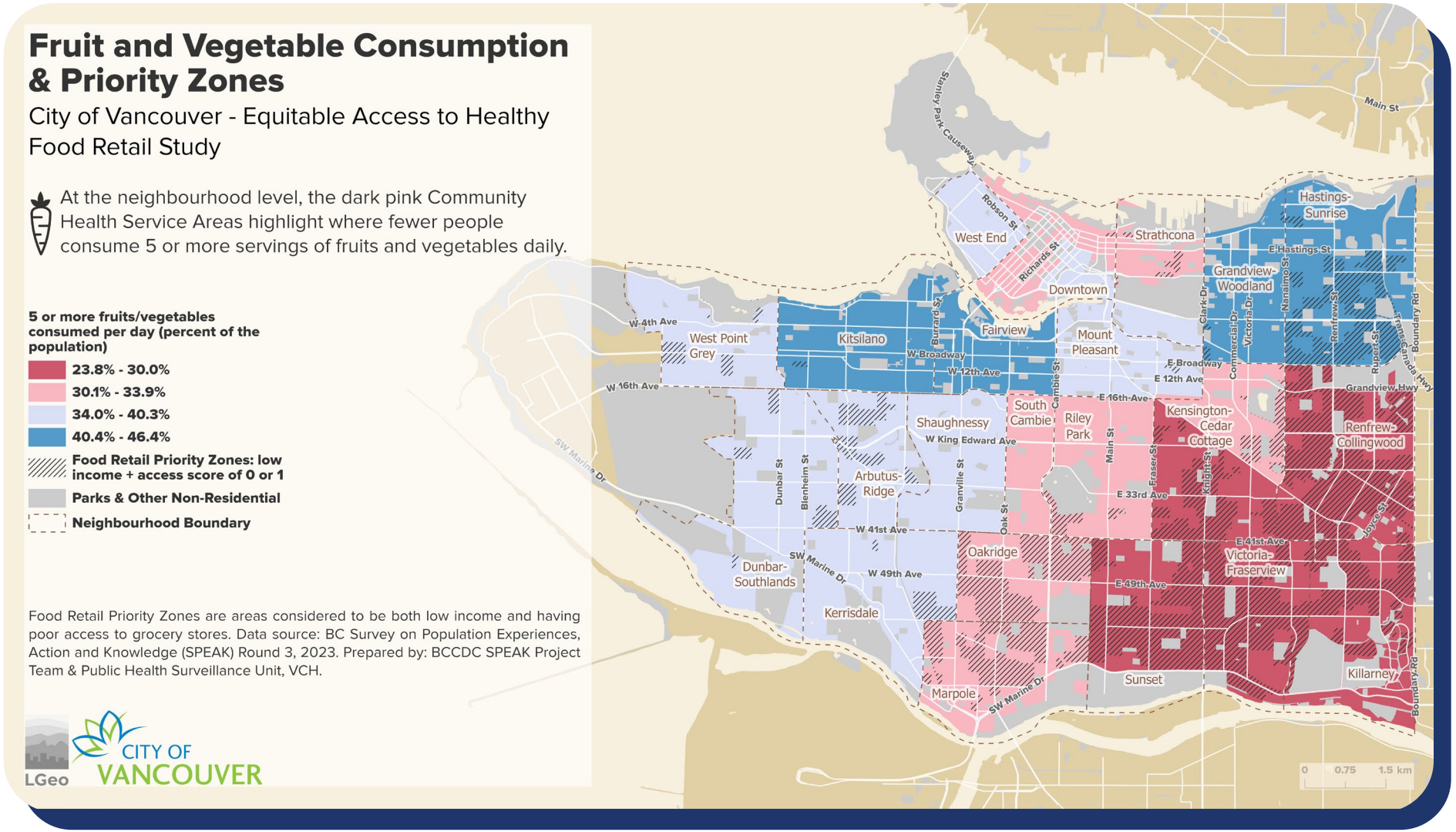


Map 5. Prevalence of Diabetes.

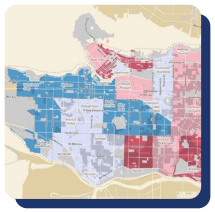


Map 6. Sugar-sweetened Beverage Consumption.



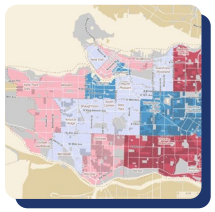
Map 7. Fruit and Vegetable Consumption.

Analysis of Health Outcomes and Priority Zones Maps



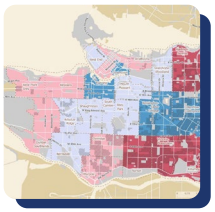
Map 4: Prevalence of heart disease

Prevalence of heart disease is highest within the neighbourhoods of Sunset, Killarney and Strathcona and Downtown, where the disease affects 7.1-8.4% of the population. However, it is important to note that while Sunset, Killarney, and Strathcona are depicted in dark pink as the most prevalent areas of heart disease, the range of heart disease prevalence is relatively narrow (6% [areas in dark blue] to 8.4%).



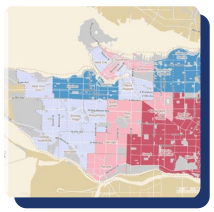
Map 5: Prevalence of diabetes

Diabetes (Type I and II) is more prevalent in Vancouver's southeast neighbourhoods, with the highest rates in Sunset, Victoria-Fraserview, and Strathcona (dark pink). The second-highest rates are in Hastings-Sunrise, Renfrew-Collingwood, Kensington-Cedar Cottage, and West End (light pink). While heart disease rates are roughly aligned with Priority Zones, the prevalence of diabetes in Vancouver neighbourhoods more closely aligns with identified Priority Zones than the prevalence of heart disease.



Map 6: Sugar-sweetened beverage consumption

In the context of sugar-sweetened beverage consumption, the neighbourhoods with the largest proportions of people consuming three or more sugar-sweetened beverages per week are located in Sunset, Victoria-Fraserview, Killarney, and Hastings-Sunrise. While these four neighbourhoods are also areas identified as Priority Zones, other Priority Zones like Kensington-Cedar Cottage and Renfrew-Collingwood have the lowest proportion of their populations consuming sugar-sweetened beverages (i.e. within the lowest quartile, depicted in dark blue).



Map 7: Fruit and vegetable consumption

The lowest proportion of the population consuming five or more fruits and vegetables per day reside in the southeast neighbourhoods of Vancouver (Sunset, Victoria-Fraserview, Killarney, Kensington-Cedar Cottage and Renfrew-Collingwood). These neighbourhoods largely align with the Priority Zones identified in Figure 3. However, the Hastings-Sunrise Priority Zone was one area where fruit and vegetable consumption was in the highest quartile at 40.7% of the population reporting to consume five or more fruits/vegetables per day. Across the city, less than half the respondents report consuming the recommended daily intake of fruits and vegetables, signalling that Vancouver as a whole is not meeting serving recommendations.

URBAN DEVELOPMENT AND PRIORITY ZONES

Context

Vancouver is in a state of rapid change, with evolving zoning and development policy influencing a range of neighbourhoods and building typologies. Zoning was considered to be an important spatial element to analyse, to paint a picture of "current state." Residential zones are regulated to have houses, apartments or condominiums, while commercial zones are regulated for stores, offices and restaurants. Vancouver also has a unique "Comprehensive Development" (CD) zone used for custom or complex developments which could be mixed-use or residential-only in nature. The project team was curious whether there was any correlation between zoning category and food retail type. Does the type of zoning create any patterns in clustering of similar scale food retail? If so, this information could be used to recommend zoning changes where necessary in order to increase food retail within Priority Zones.

While a certain level of tenant turnover is to be expected across the city due to business closure/relocation or building redevelopment, area plans (including official development plans) highlight where the pace of change could intensify. This project therefore explored how such plans present opportunities and risks for the food retail landscape - especially when they overlap with Food Retail Priority Zones (Figure 11). Neighbourhoods that are dependent on one or two small grocers for healthy food access, while also being under new area plans, present many policy questions. Would the densification of this neighbourhood put significant pressure on the limited food retail environment? How often are existing food retailers located in areas likely to be redeveloped and therefore at risk of displacement? What opportunities exist to protect such retailers, especially within Priority Zones, and to encourage additional grocery retail in these areas through policy or other planning programs?

VANCOUVER IS IN A STATE OF RAPID CHANGE, WITH EVOLVING ZONING AND DEVELOPMENT POLICY INFLUENCING A RANGE OF NEIGHBOURHOODS AND BUILDING TYPOLOGIES.

Methodology

Zoning

To understand the relationship between zoning and the location of each food retailer typology, food retailers were overlaid with Vancouver's zoning layer. Food retailer typologies include the three main types used for the access analysis and Priority Zone creation (Supermarket, Market Outlet, and Small Grocer). The intersection between zoning and food retailers was then used to summarise and quantify the proportion of each food retailer type per zoning category. A description of the zoning types and commonly found food retailers in each zone are provided in Table 1.

Area Plans and Policies

Food Retail Priority Zones were overlaid with area plan and policy boundaries and summarised to denote the proportion of Priority Zone area located within and outside of them. While the Vancouver Plan provides a unified land use framework for the entire city, the following plans were focused on in this analysis because they will enable more concentrated change: Broadway Plan, Rupert & Renfrew Station Area Plan, False Creek Flats Plan, Downtown Eastside Plan, Transit Oriented Areas (TOAs), and (pending Council approval) 17 Villages. While each type of plan has different details related to zoning and density, they all represent areas where redevelopment is more likely to occur.

ZONING	DESCRIPTION	MOST COMMONLY FOUND FOOD RETAIL LOCATED HERE
Commercial	Areas designated for shops, services, offices. Often mixed-use, with residential located above the ground floor.	Supermarkets, small grocers, specialty food retail, corner stores.
Comprehensive Development (CD)	CD zoning is used when a proposed development is unique or complex, requiring a custom set of land use regulations. These zones are tailored to the specific site and project. Each CD zone has its own bylaw, passed by City Council, detailing all regulations for that development.	Market outlets and supermarkets are most common, but all food retail types are found in CD zones.
Historic Area	Areas designated as "historic" to ensure retention of historical character. e.g. Chinatown and Gastown.	Small grocers and specialty retailers. No market outlets or supermarkets are found in these zones due to their scale and potential impact on the historic area.
Residential	Areas designated primarily for housing. Types of homes range from single-family houses and duplexes to townhomes, multiplexes, low-rise & mid-rise apartments.	Small food retailers such as specialty or corner stores.

Table 1: Zoning and types of food retail

Zoning, Food Retail & Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

Food retail is predominantly found within commercially zoned areas, while priority zones are predominantly found in Residential zoning.

- Food Retail
- Food Retail Priority Zones: low income + access score of 0 or 1
- Neighbourhood Boundary
- Parks

Zoning Classification

- Commercial
- Comprehensive Development
- Historical Area
- Industrial
- Limited Agriculture
- Residential

Data source: Zoning data is derived from the City of Vancouver's VanMap Open Data portal, March, 2025. Food retail and priority zones mapping layers are derived through City of Vancouver - Equitable Access to Healthy Food Retail Study (2025). Zoning categories "Residential", "Residential Inclusive", and "Residential Rental" are combined and symbolised as "Residential" for simplification. Food retail typologies include "Market Outlet, "Supermarket", & "Small Grocer".

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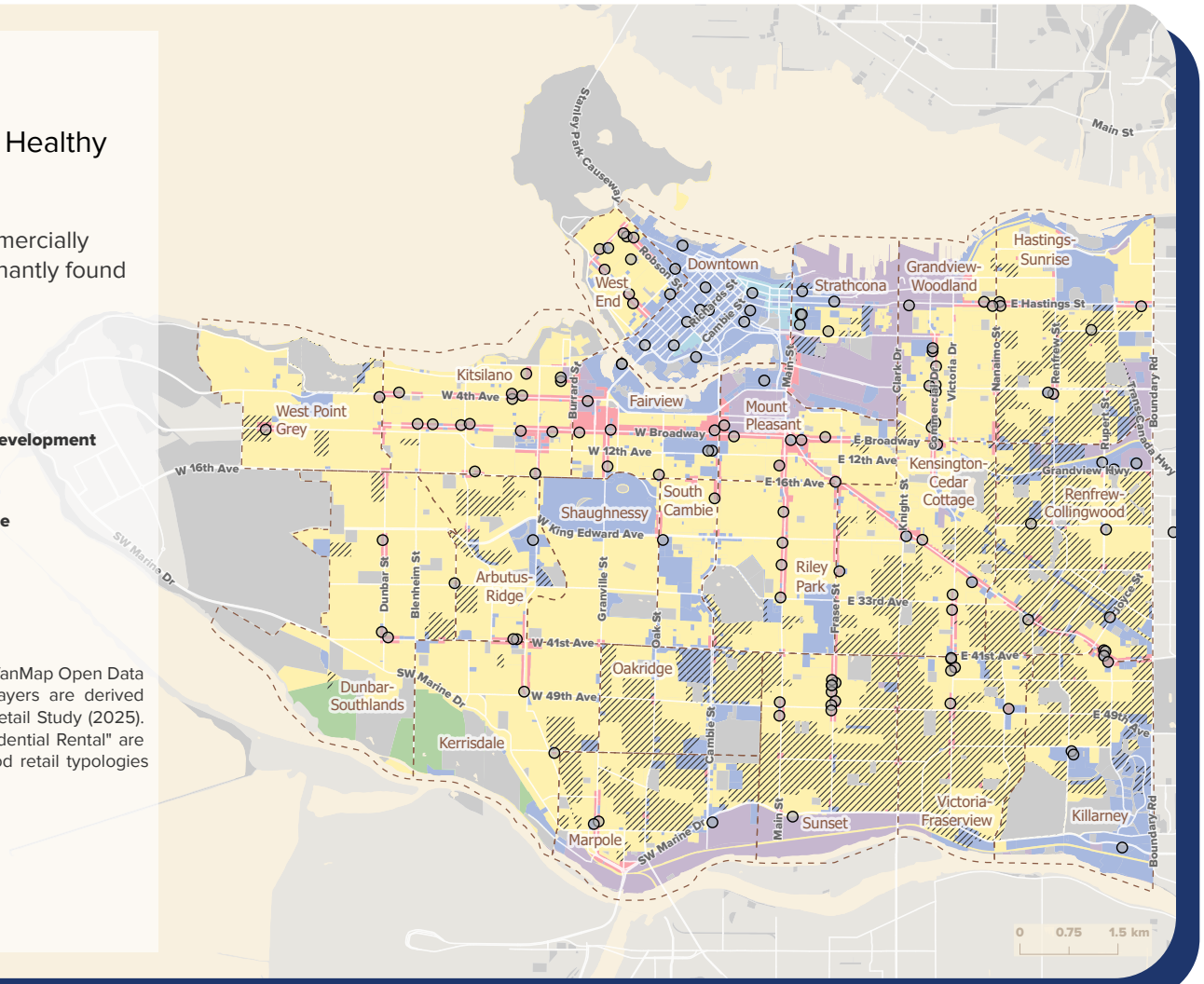

Map 8. City zoning overlaid with Food Retail Priority Zones and food retail locations

Area Plans & Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

Depiction of where Priority Retail Zones (dark pink) are located in relation to area plans and policies (black polygon outlines)

- **Food Retail Priority Zones: low income + access score of 0 or 1**
- **Area Plans and Policies**
- **Parks & Other Non-Residential**
- **Neighbourhood Boundary**

Food Retail Priority Zones are areas considered to be both low income and having poor access to grocery stores. Low income is defined as an area in which the median market income was below the living wage in 2019 ($35,000). Poor access is defined as an area where the grocery access score is 0 or 1 (i.e. either no grocery stores or only one small grocer is within a 10-minute walk). This 10 minute threshold is based on a typical able-bodied pedestrian walking pace of 3.87km/h along sanctioned walking routes, and accounts for delays due to slope, traffic lights, and crosswalks. Area pl ans and policies symbolised with a black outline include: Broadway Area Plan, Rupert & Renfrew Station Area Plan, False Creek Flats Plan, Downtown Eastside Plan, draft areas for Villages (subject to change and pending Council approval), and Transit Oriented Areas (TOAs). Note that this map is for illustrative purposes only.

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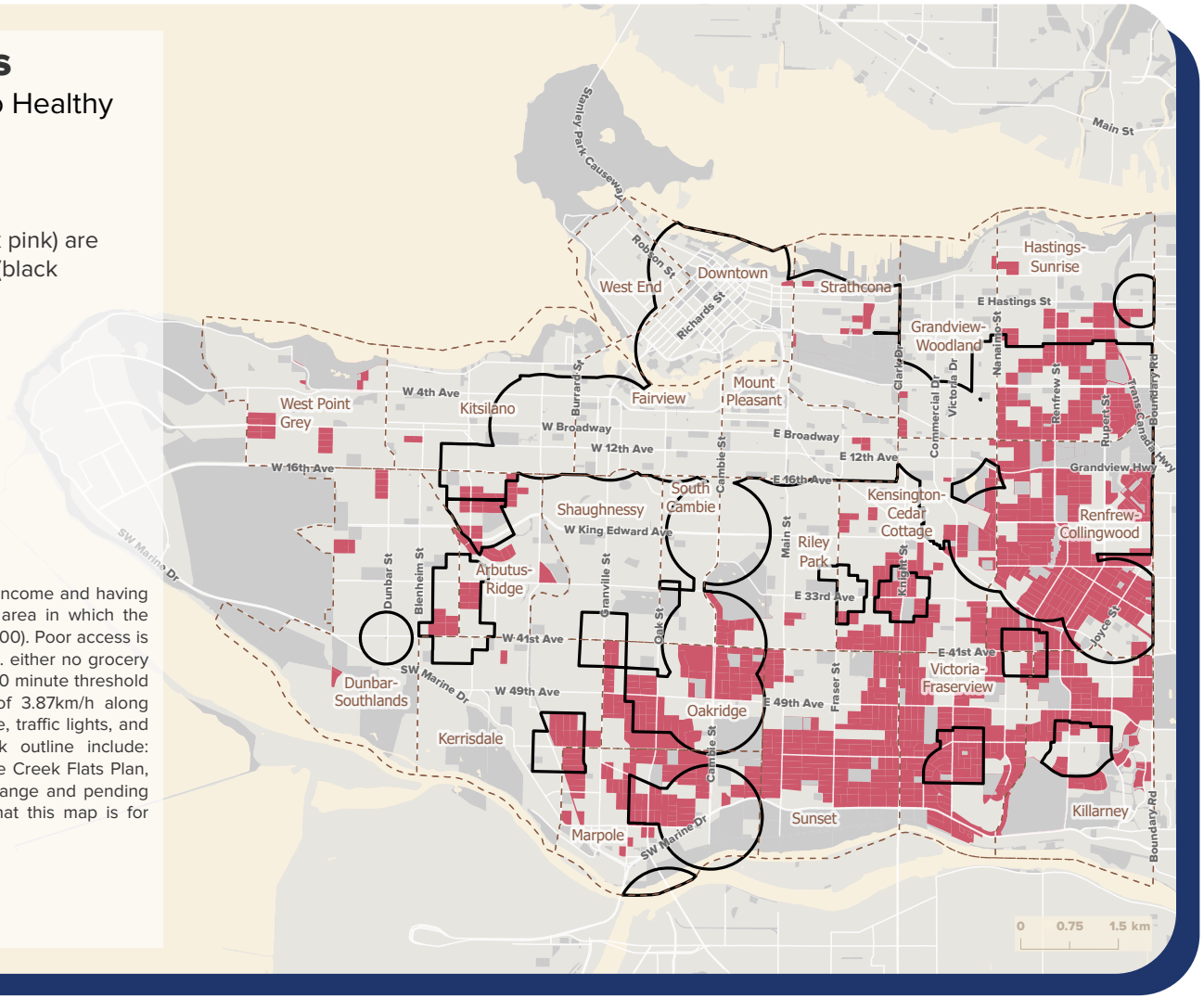
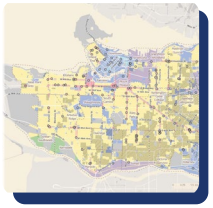


Map 9. Area Plans and Priority Zones

Analysis of Urban Development and Priority Zones Maps



Map 8: Zoning, Retail, and Priority Zones

Approximately 89% of Priority Zone area is currently within residentially zoned areas (Map 8 and Figure 2). This highlights the need for more commercial zoning nodes along main streets running through residential areas. This is already underway in some areas of the city through the Villages planning program which will deliver increased commercial hubs in residential areas, enabling opportunities for healthy food retail.

Since 2021, the City has permitted "small neighbourhood grocery stores" (up to 1,200 ft²) across all residentially zoned areas. However, developer uptake to this policy has been limited, and given the small allowable square footage, such sites are more conducive to convenience/corner stores than a grocery store or produce market.

The types of healthy food retail included in this study are predominantly found in areas zoned for commercial use, which tends to be located along arterial streets (e.g. commercial, comprehensive development, historical areas). Only 10.5% of Priority Zones are zoned commercial or comprehensive development.

Proportion of Priority Zone Area By Zoning Classification

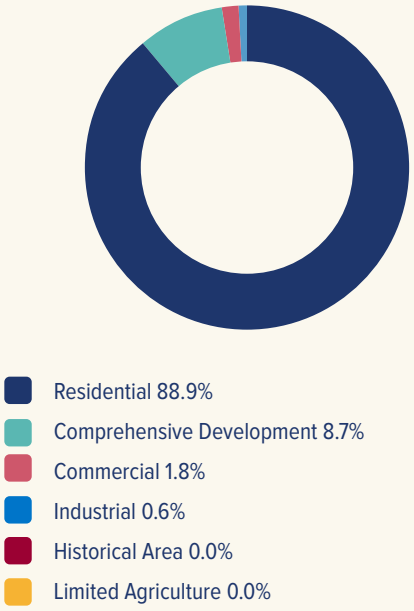
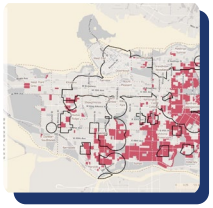


Figure 2. Priority Zone area by zoning classification, depicting that the majority (~89%) are within residentially zoned areas.



Map 9: Area Plans and Priority Zones

Through analysing the intersection between Priority Zones and area plans and policies, various geographies emerged as having a larger proportion of overlap of these two factors, namely, Hastings-Sunrise, Renfrew-Collingwood, Victoria-Fraserview, Oakridge, and Marpole. This overlay also highlights that, city-wide, 48% of all Priority Zone areas fall within the selected area plans and policies, signaling that existing retail based here are at a higher risk of being impacted by redevelopment. Simultaneously, there is potential to attract new retail to these communities through incoming policy.

APPROXIMATELY 89% OF PRIORITY ZONE AREA IS CURRENTLY WITHIN RESIDENTIALLY ZONED AREAS

COMMUNITY FOOD PROGRAMS, PRIORITY ZONES & AREA PLANS

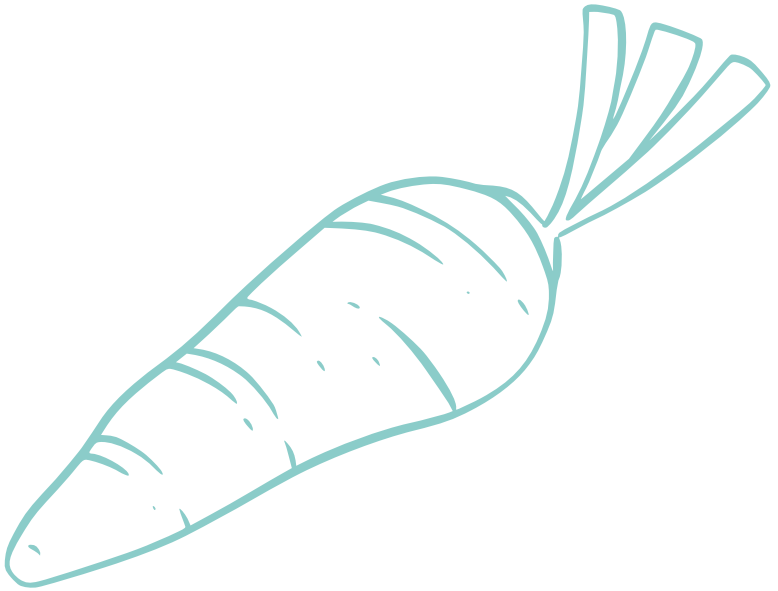
Context

While the long-term goal of improving equitable access to food retail in Vancouver is related to systemic, upstream change, the reality is that many residents need improved food access now. Mapping food programs provides helpful insights on how access to healthy food through community-run initiatives are distributed across the city. Community-based food programs delivered by the City, Park Board, Vancouver School Board, and non-profit organizations (NPOs) can support people's more immediate food access needs. Areas experiencing gaps in both community food programs and food retail locations can inform the potential location of future food programs.

Methodology

The locations of certain food programs were provided by the City of Vancouver and include community gardens, urban farms, as well as free or low-cost food programs (run by the City or not-for-profit organizations). Free or low-cost food programs are depicted in Map 10 in yellow while community gardens are depicted in green. These food programs were then overlaid with Priority Zones as well as the area plans described in the previous section because as these areas develop, opportunities to establish new food assets may arise.

WHILE THE LONG-TERM GOAL OF IMPROVING EQUITABLE ACCESS TO FOOD RETAIL IN THE CITY IS RELATED TO SYSTEMIC, UPSTREAM CHANGE, THE REALITY IS THAT MANY RESIDENTS NEED IMPROVED FOOD ACCESS NOW.



Food Programs, Area Plans & Priority Zones

City of Vancouver - Equitable Access to Healthy Food Retail Study

Depiction of where community food programs & Food Retail Priority Zones are located in relation to area plans and policies

- **Free or Low Cost Food Program**
- **City of Vancouver Community Garden**
- **Area Plans and Policies**
- **Neighbourhood Boundary**
- **Parks & Other Non-Residential**

Food Retail Priority Zones are areas considered to be both low income and having poor access to grocery stores. See part two of Vancouver's Equitable Access to Healthy Food Retail Report, 2025 for more detail on priority zone delineation. Community gardens include those managed by the Vancouver Parks Board and the COV Engineering Department. Free and Low Cost Food Programs are community run meal programs, usually non-profit operated. Area plans and policies symbolised with a black outline include: Broadway Area Plan, Rupert & Renfrew Station Area Plan, False Creek Flats Plan, Downtown Eastside Plan, draft areas for Villages (subject to change and pending Council approval), and Transit Oriented Areas (TOAs).

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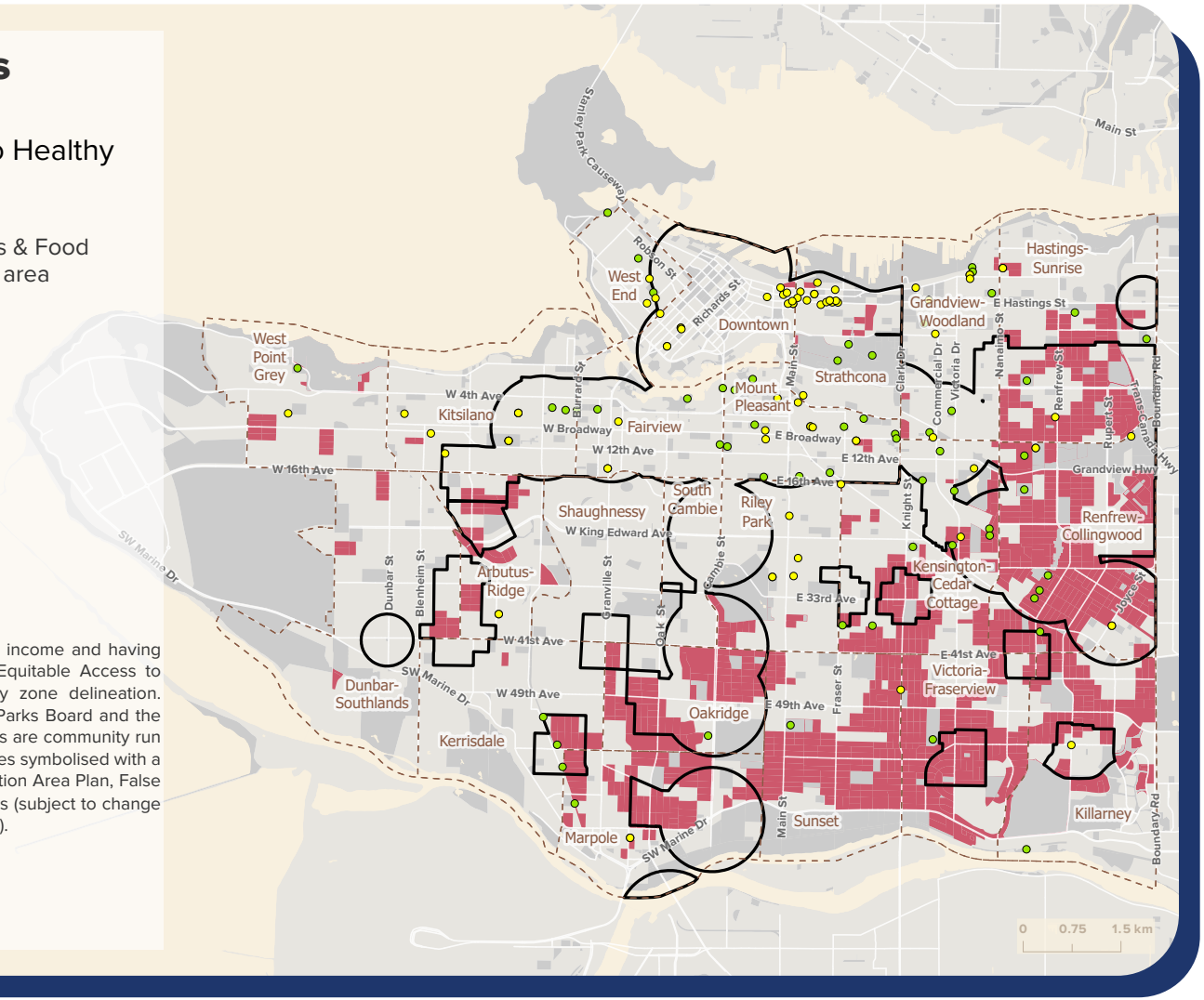
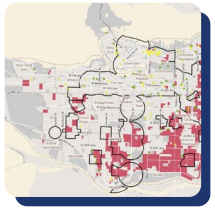


Map 10. Food Programs, Area Plans and Priority Zones

Analysis of Food Programs, Area Plans, and Priority Zones Map



Map 10: Food Programs, Area Plans and Priority Zones

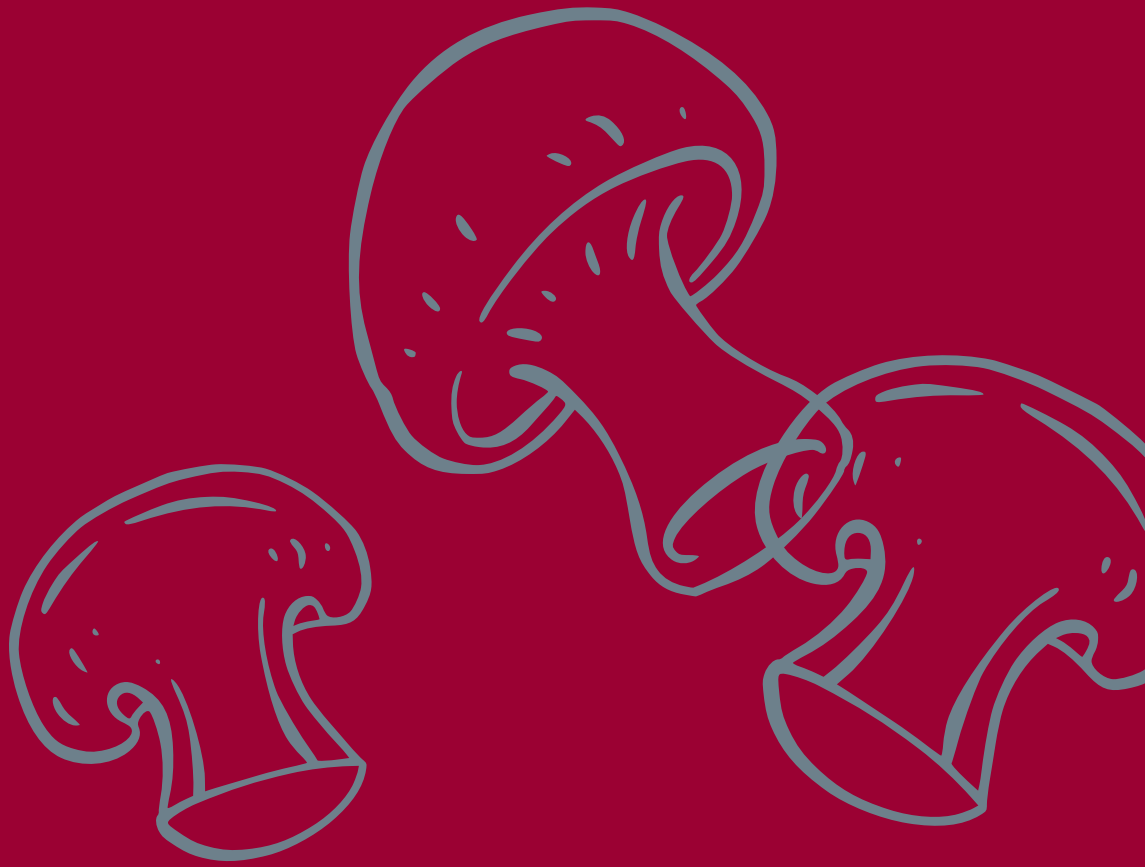
Community food programs like drop-in meals and community gardens help boost access to healthy food and foster community food security more broadly. Given that securing more food retail is a longer-term policy effort, community-based initiatives are well-positioned to address immediate food access gaps—especially for the most marginalized populations.

Broadly, food programs tend to be clustered in higher density, lower income neighbourhoods like the Downtown Eastside. Meanwhile, the Priority Zones identified in lower density areas in south and southeast Vancouver have lower access to these important food programs. For example, the majority of Sunset is covered by a Priority Zone but is home to only one free or low cost food program and one community garden, highlighting the need for increased food programs within this neighbourhood. Arbutus-Ridge, Dunbar-Southlands, and Victoria-Fraserview have some Priority Zone areas but no community gardens within these neighbourhoods, highlighting a gap in community garden distribution.

Depicting area plans and policies can help both the City and community organizations plan for new food assets as such development unfolds.

PART THREE

POLICY FOR HEALTHY FOOD RETAIL ACCESS



POLICY OPPORTUNITIES TO SUPPORT EQUITABLE ACCESS TO HEALTHY FOOD RETAIL

Many factors determine an individual's eating patterns. These factors can include income and cost of food, availability of desired foods, physical accessibility, and individual food literacy and cooking skills. Improving individual and population-level eating patterns requires interventions from all levels of government. In this section, a suite of potential policy opportunities relevant to/applicable at the local government level are presented for consideration.

Methodology

An outward scan was conducted of local government policies and programs already in place in other jurisdictions—mainly in the USA and Canada—that address inequitable access to healthy food retail. Many of the initial examples were provided from background research conducted by staff at the City of Vancouver and Vancouver Coastal Health. These were used as a starting point, and additional ideas and case studies emerged as these were examined.

In general, policy tools are not easily targeted to specific kinds of food retail; and in fact, most zoning and planning tools do not privilege food retail over other commercial uses in any way. The policy options outlined below act as broader interventions that can positively influence food retail of any kind, primarily through attracting new food retailers.

While retaining existing food retailers is critically important, at present there are limited policy options to do so in the face of redevelopment pressure. The clearest opportunities for these are connected to ethnocultural and/or historical preservation which City staff are actively exploring.[25]

[25] Recent Council motions directing staff to investigate this topic include: Placekeeping: Protecting and Supporting Cultural Food Assets and Other Forms of Intangible Cultural Heritage in Vancouver (2022), Urgent Measures to Uplift Vancouver's Chinatown (2022), A People-Focused Gastown (2023), Unlocking the Creative and Economic Potential of Vancouver's Railtown District (2025).

Healthy Food Retail Policy Options

Below are eight types of interventions that cities can draw from to influence equitable food retail access. They are presented as potential opportunities, not as specific recommendations:

Ensure new retail space meets the needs of food businesses.

Offer density bonuses to encourage inclusion of food retail in new developments.

Provide technical assistance and information to support small food retail businesses.

Support non-profit organizations to operate food retail.

Offer grants for physical improvements to encourage renovations of existing vacant retail into food retail.

Require food retailers to stock staple foods.

Encourage corner stores to merchandise healthier foods.

Support mobile grocers.

These categories are outlined in the descriptions below, along with examples of relevant precedents that were identified during the external scan. Note that options can be layered, depending on location and need.

Ensure new retail space meets the needs of food businesses.

Description

This option focuses on removing pain points for food retail in terms of building layout, to make new commercial sites as friendly to grocery stores as possible. Rather than requiring food retail as a specific zoning use, it creates an environment easier for food retailers to move into.

Precedent: Toronto — Retail design guidelines

The City of Toronto has a Retail Design Manual that provides guidance for developing retail storefronts. It includes directions such as: "Provide approximately 6 m (20 ft.) ceiling height from slab to slab for retail spaces larger than 200 sq. m (2,150 sq. ft.). This allows for any particular mechanical requirements to be properly integrated into the ceiling space. The storefront and window design should also be proportionally taller to highlight the larger store volume."[26]

Key Learnings

- Appropriate loading facilities vary, depending on the size of the commercial retail unit. For instance, a small store might not need a loading area, as produce and other food products could be delivered by a regular vehicle. Larger retail units might require access by a lane, in order to accommodate larger delivery vehicles. These would have to be considered in terms of the flexibility of dividing up larger format retail into smaller multi-tenant spaces in the future.
- While changing between retail uses is generally supported within the same zoning category, switching to food retail may be particularly difficult if the site isn't conducive to it. This is especially the case if the grocery store plans to sell prepared foods which may necessitate specific types of venting and duct work.
- While naming food retail as the outright use for a site may not be possible, design guidelines can at least provide developers with the specifications needed to create commercial units that are food retail-friendly.

Image of Loblaws, 585 Queen St W, Toronto, illustrating retail street corners.

Pros: Creates widespread physical environment of potential commercial rental units that are suitable and appealing for food retail to move into.

Cons: Challenging to enforce to ensure food retailers and not other forms of retail move into new commercial rental units; leaves it up to market to supply food retail, which may or may not align with priority areas.

[26] City of Toronto. (2019). Retail Design Manual

Offer density bonuses to encourage inclusion of food retail in new developments.

Description

Food retail spaces often require particular setbacks, façade, and loading considerations to function effectively. Offering a small density bonus[27] can help offset development costs, help developers secure financing for the project, and encourage the integration of retail spaces in new developments. In Vancouver, density bonuses tend to be more viable in large sites and towers.

Precedent: New York City — Density bonus and reduced parking for ground floor food retail

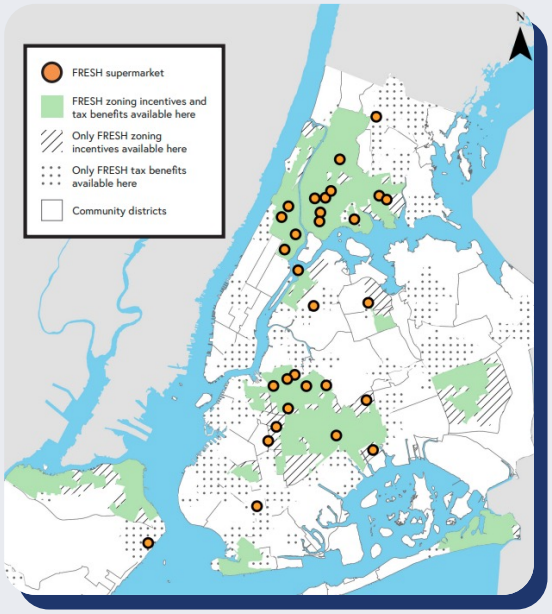
In 2009, the NYC Department of City Planning (NYCDCP) created FRESH (Food Retail Expansion to Support Health) in response to a study that found a lack of neighbourhood grocery stores with fresh food options in several NYC communities. This program seeks to provide incentives for full-service food markets to locate in underserved communities.

A Supermarket Needs Index was created to identify underserved areas. Need was defined by a lack of adequate grocery store square footage for the population, or no grocery options within a comfortable walking distance.

Within the Zoning bylaw, a FRESH food store is defined as one where at least 6,000 sq ft of floor area or cellar space used for retailing is allocated to the sale of a general line of food and non-food grocery products, such as dairy, canned and frozen foods, fresh fruits and vegetables, fresh and prepared meats, and fish and poultry. At least 25% of the retail space is allocated to the sale of perishable goods, of which at least 500 sq ft is designated for the sale of fresh produce. At least 35% of the retail space is allocated to the sale of non-perishable food, and at least 6,000 sq ft of the retail space is located on one story.

Through the FRESH program, property owners are able to access density bonuses with reduced parking requirements in mixed residential and commercial districts if they include a ground-floor FRESH supermarket. This includes one additional square foot of residential floor area for each square foot provided in a FRESH food store, up to a max of 20,000 zoning square feet. At the discretion of the City Planning Commission, the building height may also be permitted an increase of up to 15 ft.

Philadelphia, Pennsylvania and Birmingham, Alabama also use zoning incentives to support healthy food retailers. In Philadelphia, a law relaxes zoning height, floor area, density, and parking requirements for new fresh food markets that meet certain accessibility and siting requirements. In Birmingham, the City created a Healthy Food Overlay District, wherein grocery stores within a half mile of the district are eligible for reduced parking requirements and larger floor areas.



Map of New York City, showing FRESH stores and incentive zones. (FRESH by the Numbers report, Feb. 2023.)

[27] In Vancouver, a density bonus is a planning tool that allows developers to build additional floor area, in exchange for amenities desired by the city such as community centres, libraries, parks, childcare centres, affordable housing, and more.

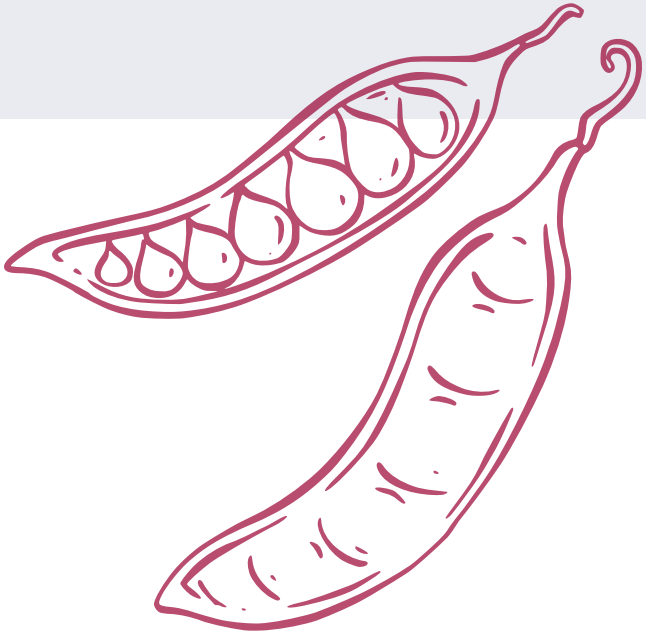
Offer density bonuses to encourage inclusion of food retail in new developments.

Key Learnings

- Some eligible communities have experienced clustering of FRESH supermarket applications in areas with strong housing markets. This may result in oversaturation of the market, with the potential to drive existing supermarkets out of business. A 2021 policy update added specific criteria that an applicant must follow to create a new FRESH store near an existing location. This includes a limit on the amount of additional residential floor area allowed within any given area. (These limitations can be found on page 6 of this report.)
- To support existing small grocery operators, suggestions were made to give existing stores the right to reoccupy a supermarket space if it is redeveloped through the FRESH program.
- To ensure that FRESH projects are actually built rather than stockpiled as speculative projects, a program amendment introduced an expiration date for FRESH certifications that allow an increase in residential floor area. FRESH certification will lapse if building foundations are not completed within four years after issuance.

Pros: Zoning controls such as density and parking requirements are within municipal jurisdiction; channels high real estate values into opportunities to increase food retail space.

Cons: Challenging to enforce once a retailer occupies a storefront; limited utility for small/medium food retailers.



Provide technical assistance and information to support small food retail businesses.

Description

When attempting to invest in building/space improvements, small grocers and first time food retail tenants often don't have the same technical expertise as larger chains. It is generally the tenant's responsibility to take care of design and building code mechanical requirements (e.g. refrigeration, ventilation), which can be difficult to understand and navigate. Layered onto this are expectations to understand marketing and supply chain options for sourcing groceries. It can leave small grocery businesses feeling overwhelmed.

Precedent: Atlanta, GA — Technical assistance for food retailers

Invest Atlanta partnered with Independent Grocers Alliance to provide technical assistance to grocery retail operations who are looking to grow and expand their established grocery businesses in Atlanta. This can include assistance with grocery marketing and merchandising; supply chain and logistics; knowledge and management training; and networking and collaboration techniques.

Key Learnings

- A barrier identified by the retail market is not knowing what information is out there or how to find that information. And if there are support programs, there is uncertainty on how that information gets shared (especially if the business isn't in an area with a business improvement association (BIA)).
- Without the expertise of a contractor or architect, business owners aren't versed in design requirements/building code.
- The process can be so daunting that owners sometimes just avoid the process for tenant improvements altogether because they've had such bad experiences with government processes in the past.

Pros: Can create a more even playing field for potential food retailers, especially small businesses.

Cons: High staff time requirements to administer a large program.

Support non-profit organizations to operate food retail.

Description

To address the need for affordable healthy food retail, as well as to target specific geographic locations with low access to food retail, involving a non-profit organization (NPO) to act as a food retail operator allows for food to be sold or distributed at a lower cost. Municipal government's role can range from offering subsidized retail space, capital/operating funding, and support with partnership development.

Precedent: Atlanta, GA — Municipally-funded grocery store

Invest Atlanta issued a Request for Qualified Contractors in 2024 to develop and operate a large market-style municipal grocery store, with a focus on communities with food accessibility challenges. The municipally-funded store is envisioned to be a full-sized grocery store that offers a combination of healthy food, retail services, and/or multiple food shops/restaurants. The term of the contract is for 2 years, with the contractor operating the stores under a sublease agreement with Invest Atlanta. The selected contractor, Savi Provisions, will receive $8.1 million in funding for two stores in Atlanta. The funds will be used to help build out both locations, supply inventory, purchase equipment, and cover operating costs. The markets will also offer cooking demonstrations, nutrition workshops, and resources for families to learn about healthy eating habits. They will accept SNAP benefits, offer discounts, and partner with local businesses and online grocery delivery and pickup services.

Key Learnings

- One of the main challenges experienced by small grocery retailers is related to sourcing affordable produce in the quantities needed for small stores. Local produce suppliers are generally structured to sell wholesale to full-service grocery stores, and so they sell produce in pallets, not in small amounts. As a result, small store owners typically have to buy produce from other retail stores, paying retail prices, and then marking these up for sale to their customers. Produce is thus not affordable and ends up sitting on the shelf unsold.
- Providing wrap-around support in terms of both start-up and operating assistance acknowledges that the challenge of food retail doesn't stop at the grand opening sale.

Pros: Partnerships can draw on strengths and assets of the various participants, reducing risk and burden on any one organization. Potential to build upon the distribution network already in place via local food rescue operations.

Cons: City funds are limited, and monetary supports may be seen as outside municipal government mandate - retail is usually left to the free market, rather than have direct government involvement.

Offer grants for physical improvements to encourage renovations of existing vacant retail into food retail.

Description

Grants can be offered to businesses (through a NPO administrator) and/or directly to NPOs to undertake renovations of an existing vacant retail space within priority areas to make it suitable for food retail. While restaurant-to-retail conversions are more difficult, for the majority of other commercial rental unit types, the permitting process and alignment of building requirements is more straightforward. Priority could be given to align with other policy objectives, such as to support retention of cultural food retail.

Precedent: Atlanta, GA — Grants for small food business owners and operators

The Commercial Property Improvement Grant Fresh Food Access Program supports Atlanta grocery businesses selling fresh foods. These grants are up to $50,000 and can be used for both internal and external capital improvements to commercial property. Small businesses (both for-profit and non-profit) that operate a grocery retail in commercial properties smaller than 15,000 sq ft are eligible to apply. Grants can be used for facade improvements, interior renovations, energy-efficiency upgrades, and other modifications that create a more inviting and functional shopping environment. Small businesses who lease their commercial space need to have at least 1 year left on their lease and approval from the property owner. Properties constructed in the last 10 years are not eligible for the grant. Priority is given to grocery businesses located in food deserts in the city. Awardees must provide matching funding equal to at least 10% of the grant award.

Precedent: Vancouver, BC — Special Enterprise Program to prevent displacement and activate vacant storefronts

The Special Enterprise Program (SEP) is a 5-year pilot (2021-2026) undertaken by the City of Vancouver in the Downtown Eastside including Chinatown that provides funding to community partners implementing a suite of tactics aimed at (1) preventing the displacement of heritage and community-serving businesses, social enterprises, and non-profit organizations, and (2) supporting the activation of vacant storefronts. COV provides grants to a non-profit community partner, and they can then distribute this out to eligible organizations including for-profit businesses aligned with the program criteria.

One of the first grants through this program was done in partnership with Community Impact Real Estate Society (CIRES). CIRES acts as administrator, keeping the grant money in trust, and engages property owners of existing vacant storefronts. Grants are provided to approved organizations (tenants) for property improvements in exchange for the owner matching this amount with capital improvements. CIRES negotiates lease agreement on behalf of the tenant. In some cases, the owner doesn't have funds to do upgrades, but can offer reduced rent for the next 2-3+ years for an equivalent cost.

Offer grants for physical improvements to encourage renovations of existing vacant retail into food retail.

Key Learnings

- One challenge with this approach is that property improvement grants don't address barriers that may cause a retailer to close—such as operating costs and food profit margins.
- Grocery stores typically operate with very narrow profit margins (1-2%). As a result, having a financially sustainable grocery store isn't just about finding a space to locate in a particular area. To succeed over the long term, the grocery store must also have offerings that fit the price point and desire of the surrounding community.

Pros: Can be structured to prioritize policy goals (e.g. retain cultural food retail; support small business; target priority areas); can help retailers make use of an existing retail space, rather than having to develop a new space; results in property owners having a newly renovated and tenanted commercial rental unit and the City having such a space that is now up to code.

Cons: Requires a substantial revenue stream.

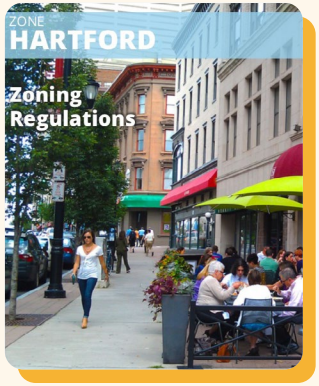
Require food retailers to stock staple food.

Description

This option uses zoning ordinances (laws) to create specific use conditions for food retailers wishing to locate in certain areas. Within certain business license types (e.g. grocery stores, corner stores), retailers are required to stock minimum amounts of basic food items, including dairy and dairy alternatives, animal and vegetable proteins, fruits and vegetables, juice, whole grains, and legumes. This approach helps foster a healthy food environment and is especially helpful where full service grocery stores are otherwise scarce.

Precedent: Hartford, CT — Required minimum stocking of healthy food staples

Hartford, Connecticut has zoning laws that support healthy corner stores. The City prohibits convenience stores and discount variety stores in many of its zoning districts, and requires specific use conditions in all districts where they are allowed. These conditions include requiring convenience stores to dedicate at least 5% of their net floor area to each of five food categories, including fresh fruits and vegetables; whole grains; dairy products (excluding ice



cream) and eggs; and canned or dried goods, without added fats, oils, meats, or seasoning (such as dried and canned beans, peas, and legumes). There are limits to floor size (no store over 3,500 sq ft of floor area), and no convenience store is permitted within 1,500 ft of another convenience or grocery store (this doesn't apply in the downtown).

In a similar precedent from Minneapolis, City staff recognized that many of the small stores that would be most affected by the regulations were racialized store owners. In response, staff looked for ways to provide technical assistance. Health Department staff worked with store owners to connect them to opportunities for low-interest loans, free merchandising supplies, refrigeration equipment, and other resources.

Key Learnings

- An evaluation of the Minneapolis licensing law found that there were low levels of compliance among retailers. There may also be negative and potentially inequitable impacts of strictly enforcing laws that set required standards.
- When buying in small volumes (produce especially), small storeowners struggle to tap into wholesale supply chains for certain food items, forcing them to buy at retail prices.
- May require storeowners to purchase and maintain new equipment, such as refrigeration.

Pros: Improves healthy choices available within pre-existing stores.

Cons: Requires business to stock items that their business plan and past experience might not have prepared them for; challenging to enforce.

Encourage corner stores to merchandise healthier foods.

Description

Corner stores traditionally sell soft drinks, cigarettes, lottery tickets, and shelf-stable processed foods, which earn high profit margins. Many corner store operators view fresh fruits and vegetables and other perishable foods as financially risky and less profitable. In recognition of the ubiquitousness of corner stores, a number of cities have provided technical assistance and financial support to help operators sell healthier food.

Precedent: New York City — Healthy Bodegas/ Shop Healthy

New York City Department of Health and Mental Hygiene (DOHMH) launched the Healthy Bodegas program in 2006, encouraging corner stores (called bodegas, locally) to stock and promote the sale of fruits and vegetables and low-fat milk. In 2012, the Healthy Bodegas program was expanded into Shop Healthy, which helps bodegas and local supermarkets increase the visibility and availability of healthy foods. This includes posting advertisements for healthier food and beverages and deli options and featuring produce at the front of the store or near the cash register, and displaying low-calorie drinks and water at eye level within refrigerators. The program also collaborates with wholesalers to facilitate shop owners' purchase of healthier foods.

Key Learnings

- Healthy Corner Store models aim to transform an existing business model into a health-promoting one. There are generally three elements to this approach:
  1. *Business fundamentals (can include capacity building for store owners on business operations, etc.)*
  2. *Merchandising (to increase availability and visibility of healthier food and beverage)*
  3. *Promoting consumer demand (including public engagement and nutrition promotion)*
- Funding models range from purely publicly-funded to social enterprise models. In most cases though, there is a blend of in-kind investments by a NPO into a for-profit business, to support the conversion of an existing store into a more health-promoting one.
- Public health evidence suggests that corner store interventions can improve food availability.
- Additional precedents exist in a variety of Canadian and US cities, including cities in Manitoba, Ontario, Newfoundland and Labrador, as well as Minneapolis, Washington DC, and Philadelphia.

Pros: Improves healthy choices available within pre-existing stores.

Cons: High staff time requirements to administer a large program; may encounter similar problems as requiring stores to stock staple foods, in terms of accessing small amounts of produce at affordable wholesale prices.

Support mobile grocers.

Description

Mobile grocers can provide low-barrier opportunities for small-scale, mobile food vendors in priority areas. Mobile carts could be considered for a joint venture with non-profit organizations if they were hosted in or near community centres or other public amenity.

Precedent: New York City — Green Carts

A network of mobile fruit and vegetable vendors was launched in 2008, through a partnership with the City of New York and the Laurie M. Tisch Illumination Fund. The vendors—mostly immigrant men with limited knowledge of English—operated in neighbourhoods with insufficient healthy food retail. Green carts can offer whole, uncut raw fruits and vegetables; drinking water; plain nuts; and sliced or cut fruits and vegetables.

The Illumination Fund provided support to train vendors how to purchase, sell, and market fresh produce. It also provided assistance in navigating the permit process. The New York City Department of Health and Mental Hygiene (DOHMH) authorized 1,000 additional mobile vending licenses for specially designated Green Carts, which were restricted to selling fresh fruits and vegetables in designated neighbourhoods. After one year, the City had issued 248 Green Cart permits citywide. By 2015, this had expanded to 329 permits issued.

Precedent: Toronto — Mobile Good Food Markets

FoodShare Toronto, a non-profit organization, and the City of Toronto Public Health partnered to operate the Mobile Good Food Market program. This not-for-profit program converted an old, unused paratransit bus into a mobile grocery store that traveled weekly to 10 stops in various under-served low-income neighbourhoods around Toronto. The program began in 2012, expanded to six mobile markets by 2013, and by 2017 they were supporting 45 markets. The Mobile Good Food Market program bought the majority of its fresh produce from the Ontario Food Terminal, a wholesale fruit and produce location. Foodshare also offers its wholesale produce distribution service to non-profits, who can vend that food at- or below-cost. The Mobile Good Food Market program was funded by produce sales, grants, and donations.

Key Learnings

- Most mobile vending programs track permits, not the actual number and location of mobile vendors, and so it is not clear how many vendors actually use the permits that are purchased. Some surveys found that Green Carts were locating near existing fruit and vegetable retailers rather than in areas lacking fresh produce. Retailers often claim that vendors create unfair competition. However, some research suggests that food carts can help make a neighbourhood more vibrant, and that vendors attract different customers than brick and mortar grocers.
- Street vending has become more attractive for independent workers because of the business model structure—street vendors are not burdened by excessive bureaucracy or adherence to rules and formalities and business start-up costs are much lower compared to those of brick and mortar businesses.
- Providing technical assistance to vendors is important support. This can include a plain language list of vending rules and other static resources.

Pros: Lower cost of entry for new food retailers to get started; potential to get food access exactly where it is needed relatively quickly and without the need for construction/redevelopment.

Cons: Limited support for vendors, beyond issuing a license (NYC). FoodShare Toronto's non-profit model was costly and relied on ongoing grant funding, which dried up.

PUBLIC HEALTH PARTNERSHIP ROLE TO SUPPORT FOOD RETAIL ACCESS

Vancouver Coastal Health conducted an internal opportunity scan to explore the role of public health in improving the food retail environment in partnership with the City of Vancouver. This process also included examining policies in comparable Canadian and U.S. jurisdictions that primarily aimed to increase access to fruits and vegetables, with demonstrated public health engagement and evaluation.

Many examples of retail-level interventions focused on in-store marketing—branding, merchandising, product placement, and product availability—while broader strategies included zoning, financial incentives, and alternative food retail models. These “healthy” retail initiatives are examples of more downstream interventions, requiring significant financial and human resources to effectively plan, implement, and sustain.

In some other cities, public health departments are integrated into municipal governments, which facilitates unique policy opportunities. However, in Vancouver, the health authority is distinct from city government but works collaboratively on areas of shared interest, such as the food environment. Additionally, public health typically focuses on ‘upstream’ interventions to improve population health.

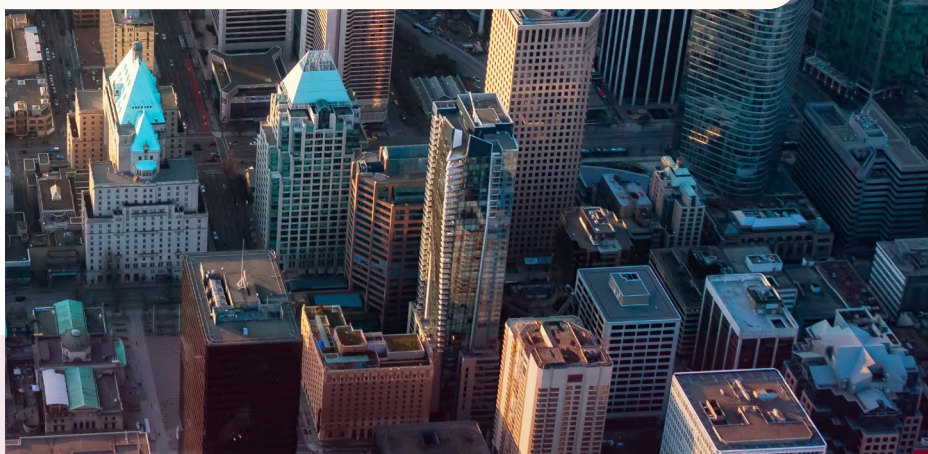
The VCH opportunity scan identified potential roles for VCH public health that reflected the local context and aligned with its general approach and mandate. By focusing on more upstream interventions, public health can support a more equitable and accessible food system to reduce health and food inequities in the long-term.

The following outlines some of the potential roles for VCH public health in improving the local food retail environment:

Provide a public health lens in food policy analysis: Public health can inform local food policy and its connections to broader City policies—such as housing, transportation, and poverty reduction—to help address food insecurity and reduce health inequity. This includes supporting local forums such as the Vancouver Food Policy Council where issues across the food system can be addressed collaboratively and ensure marginalized populations are included in policy-making.

Fostering community engagement: Public health can partner with CoV to convene local community partners and residents, helping to identify local needs and ensuring solutions are culturally relevant and responsive to the community.

Supporting data-driven interventions: Public health can support with evidence reviews and providing and analysing health data to inform decision-making. This can include local-level data on food-related indicators, including food affordability and access disparities across different communities. This data can inform policy development and targeted interventions to reduce inequities.



CONCLUSION

Navigating and responding to gaps in food access is a challenging issue. It incorporates individual behaviours and preferences, policy issues related to transportation, land use and zoning, affordability concerns, and business priorities. Every city is different, from its internal structure, policies, and programs in place, to its relationship with public health, and how the context of land economics and retail environments interact with all of this. In light of this complexity, it is important that a fulsome suite of interventions across jurisdictions is considered when attempting to address health inequities in the food system—geographic access to food retail is only one part of the puzzle. The policy options presented in this report are shared as potential opportunities, not as specific recommendations.

However, while policy directions to help reduce existing gaps in food access will be context-specific, preventing food access gaps from growing should be a priority shared across all jurisdictions. While addressing this went beyond the scope of this project, it should be noted that retaining existing food retail in the face of high land values and redevelopment pressure is a pressing challenge.

This project exists within a broader context of public health approaches that incorporate upstream and downstream health interventions. Upstream approaches use policy to focus more on interventions that target systemic issues related to social determinants of health. For example, efforts to reduce poverty and improve housing affordability can help address food insecurity.

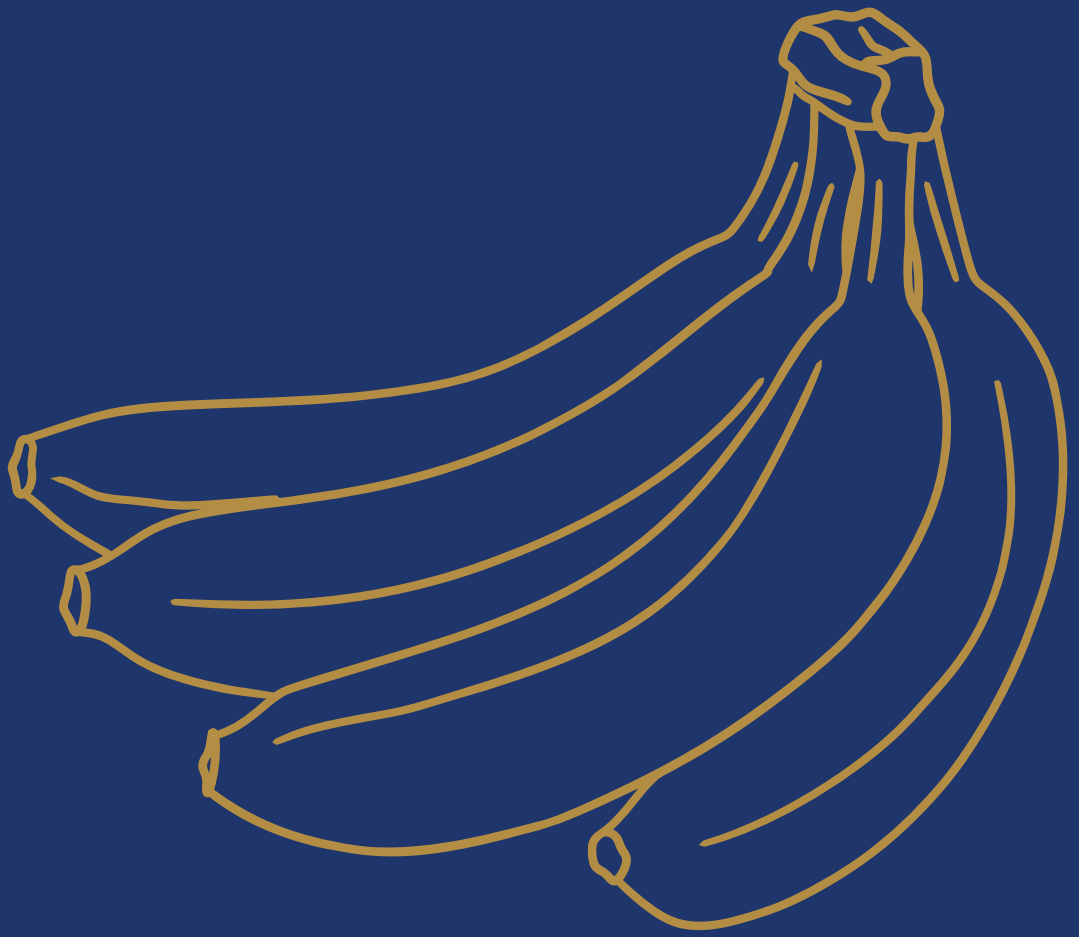
Downstream approaches focus more on targeting individual decision-making, such as marketing programs that increase education and awareness of consumers around “healthy” foods. Downstream interventions can show benefits for specific populations but their impacts may be limited in scale, scope, and duration compared to policies that address broader social issues. Their effectiveness can be strengthened when combined with policies that influence upstream social determinants of health.

From a population health perspective, a focus on upstream approaches has a greater capacity to change the health and well-being of a larger number of people. However, downstream approaches are often quicker and easier to implement, and can be helpful to address urgent health needs.

While local governments have fewer tools within their jurisdictional toolbox to address upstream factors such as income and cost-of-living, they can work to ensure that equity-denied communities aren’t further marginalized by a lack of access to healthy food.

PREVENTING FOOD ACCESS GAPS FROM GROWING SHOULD BE A PRIORITY SHARED ACROSS ALL JURISDICTIONS.

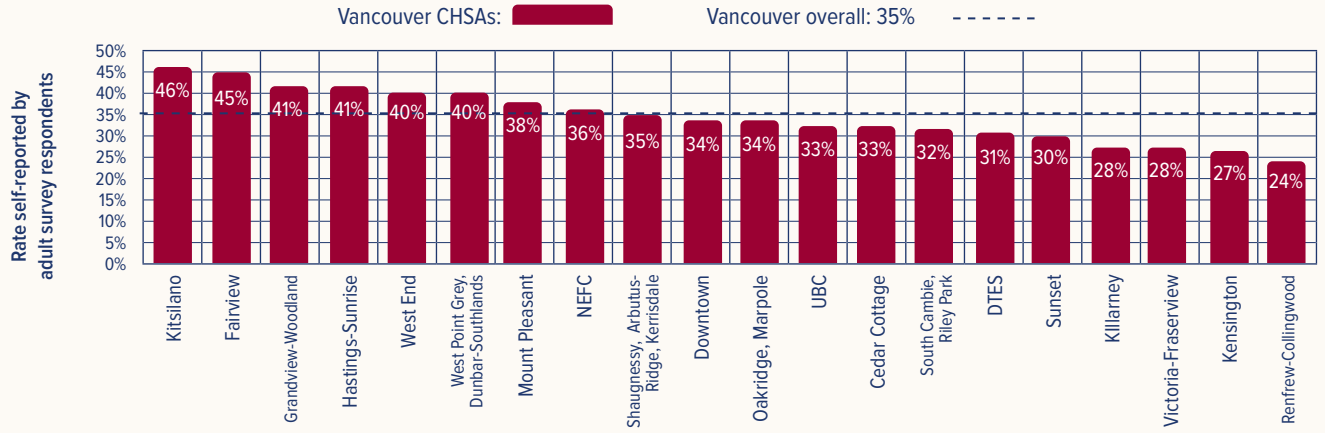
APPENDICES



A: Fruit and Vegetable Consumption and Access Charts - Disaggregated

The chart on the top-right shows what percent of survey respondents in each Community Health Service Area reported eating 5 or more servings of fruits and vegetables each day. The city-wide average of 35% is shown for comparison.

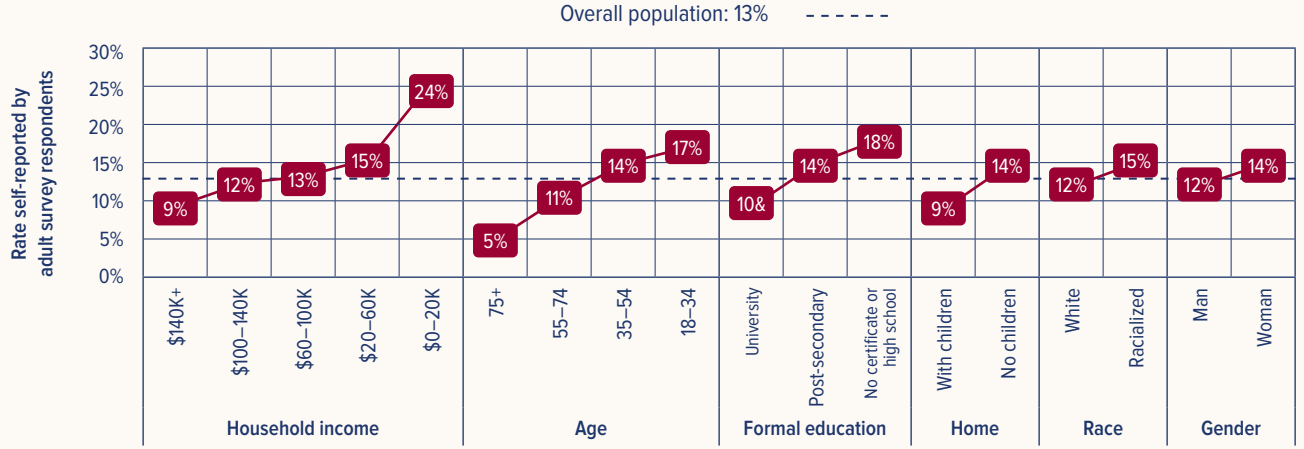
People who eat 5+ servings of fruit and vegetables each day, 2023 by Community Health Service Area



Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

The chart on the bottom-right shows what percent of survey respondents reported eating less fruit and vegetables in the past year, disaggregated by different demographic factors and in comparison to the city-wide average of 13%. Those in lower income brackets, younger adults etc.

Vancouver residents eating less fruit and vegetables, 2023

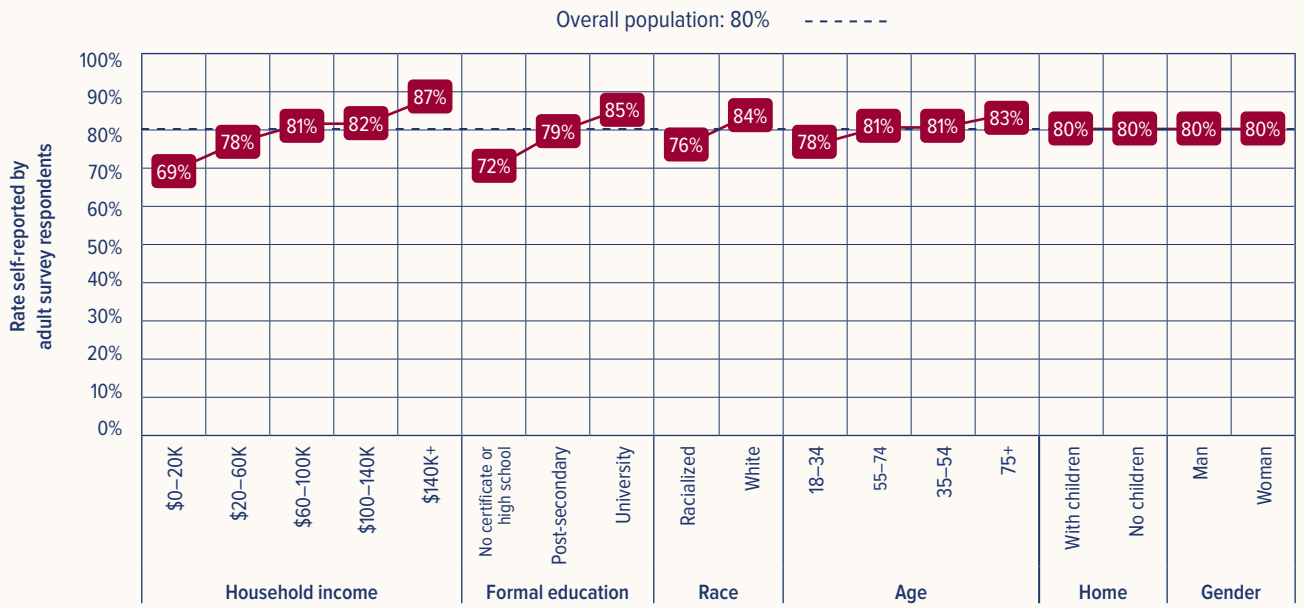


Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

A: Fruit and Vegetable Consumption and Access Charts - Disaggregated

The chart on the right shows that survey respondents with higher household incomes, those holding higher degrees of formal education, and white respondents were more likely to report having a "large selection of fruits and vegetables available in their neighbourhood" compared to the city-wide average. Meanwhile there was no difference based on gender or whether or not the respondents had children.

Vancouver residents with a large selection of fruits and vegetables available in their neighbourhood, 2023



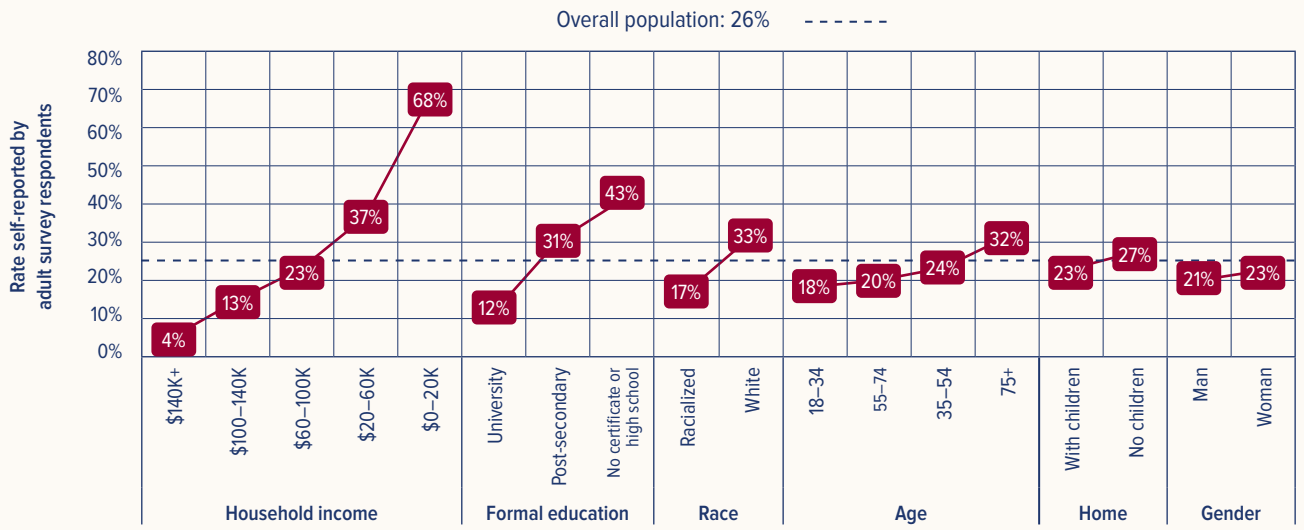
Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

B: Food Insecurity Charts - Disaggregated

The top-right chart highlights how concern for food security is tied to income, education, racial identity, age, and gender. Here, the 2023 SPEAK survey asked participants to respond to the statement “You worry that food will run out before you get money to buy more." This methodology differs from other surveys on food insecurity (e.g. the Canadian Community Health Survey (CCHS) and the Canadian Income Survey (CIS)) and should not be directly compared. The SPEAK 2023 data was charted here because it offers data at the neighbourhood level, while the CCHS and CIS only report down to the city level.

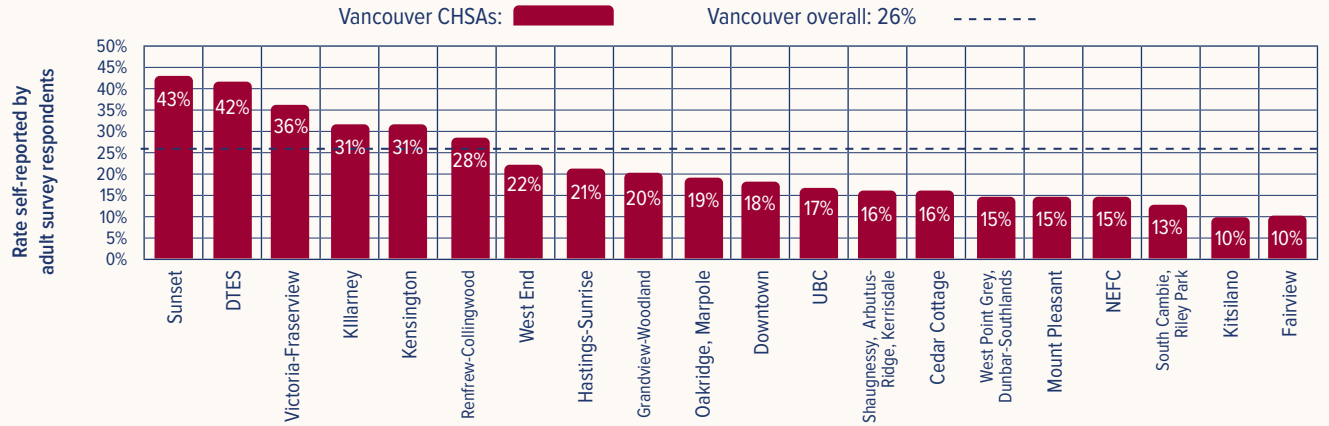
The chart on the bottom-right shows the percent of survey respondents who reported being concerned about household food insecurity in the past year, by Community Health Service Area, with the city-wide average of 26% for comparison.

Vancouver residents concerned for food security in the past year. 2023



Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

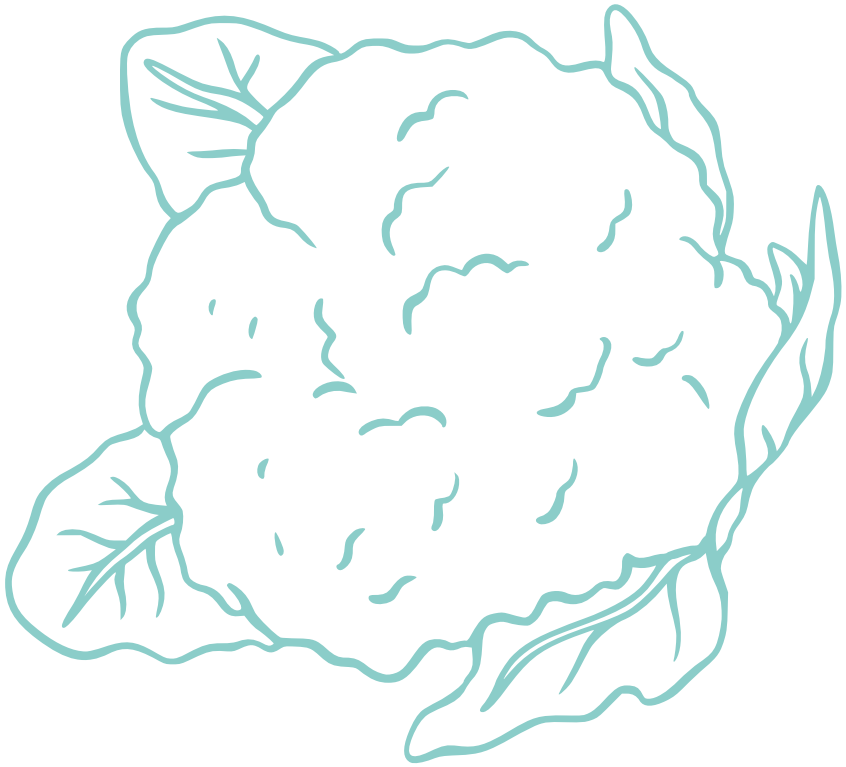
People concerned for food security in the past year, 2023 by Community Health Service Area



Data Source: BC Centre for Disease Control SPEAK (Survey on Population Experiences, Actions and Knowledge), third round April–July 2023
Population categories ordered by the amount of variation shown. Not all categories have been made available.

C: Grocery Access by Cycling, Public Transit, and 15 min Walk

The maps on the following pages show additional information related to geographic access to food retail by different modes of transportation (cycling and public transit), as well as for a longer (15 minute) walking distance threshold. Food access via cycling and public transit were mapped to determine whether changes to such infrastructure or scheduling (in the case of transit) would meaningfully improve access scores. Of note in the maps below is how much more accessible food retail is within 10 minutes cycling distance, compared to what can be accessed within a 10 minute trip by public transit. Since public transit trips are calculated to include typical waiting times at a stop, the findings suggest that more frequent service may significantly improve access scores across the city.



Grocery Access Score (< 10 minute cycle)

City of Vancouver - Equitable Access to Healthy Food Retail Study

Areas in blue have various grocery retail options within a 10 minute bicycle ride, while dark pink and red areas indicate poor access and no food retail access, respectively.

Grocery Access Score (within a 10 minute cycle)

- **4+ (ample access)**
- **3 (moderate access)**
- **2 (limited access)**
- **1 (poor access)**
- **0 (no access)**

- **Market Outlet**
- **Supermarket**
- **Small Grocer**
- **Parks & Other Non-Residential**

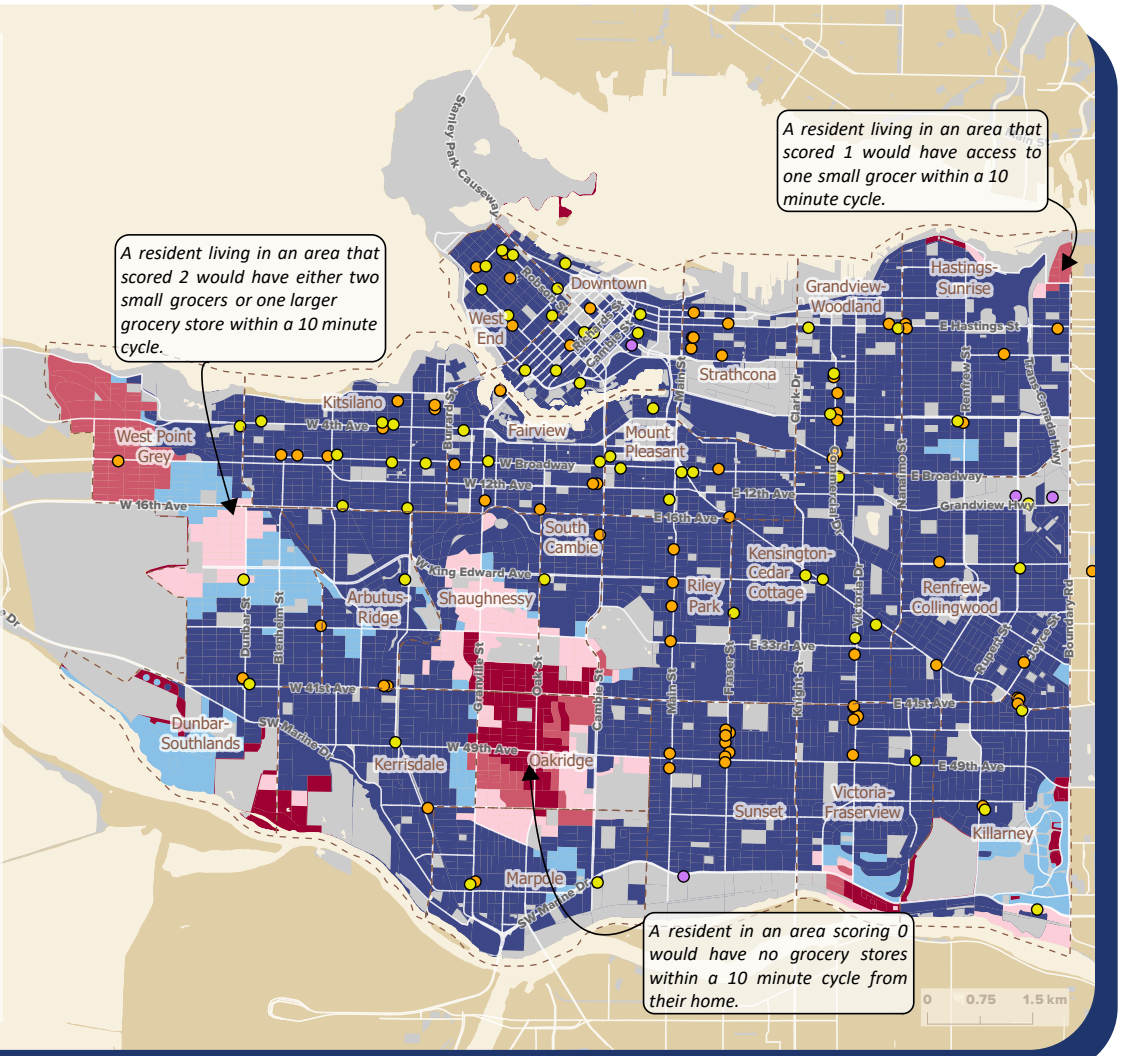
- Market Outlet - (large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco)
- Supermarket - (grocery stores over 10,000ft²)
- Small Grocer - (1,500-10,000ft², must sell produce)

For each Census Dissemination Block, the number of grocery stores in each category is multiplied by its assigned weight, then all accessible stores within a 10-minute cycle are summed together. This 10-minute threshold is based on a typical urban cycling pace of 15.5 km/hour along sanctioned cycling routes, and accounts for delays due to slope and traffic lights.

Scoring

Small Grocer = 1
Supermarket = 2
Market Outlet = 2

LGeo CITY OF VANCOUVER



Grocery Access Score within a 10 minute cycle.

Note: While the intersection at W 41st and Cambie currently shows no grocery options, a major redevelopment is underway here and a large supermarket is slated to return upon completion.

Grocery Access Score (< 10 minute Public Transit)

City of Vancouver - Equitable Access to Healthy Food Retail Study

Areas in blue have various grocery retail options within a 10 minute transit journey, while dark pink and red areas indicate poor access and no food retail access, respectively.

Grocery Access Score (within a 10 minute transit)

- **4+ (ample access)**
- **3 (moderate access)**
- **2 (limited access)**
- **3 (moderate access)**
- **0 (no access)**

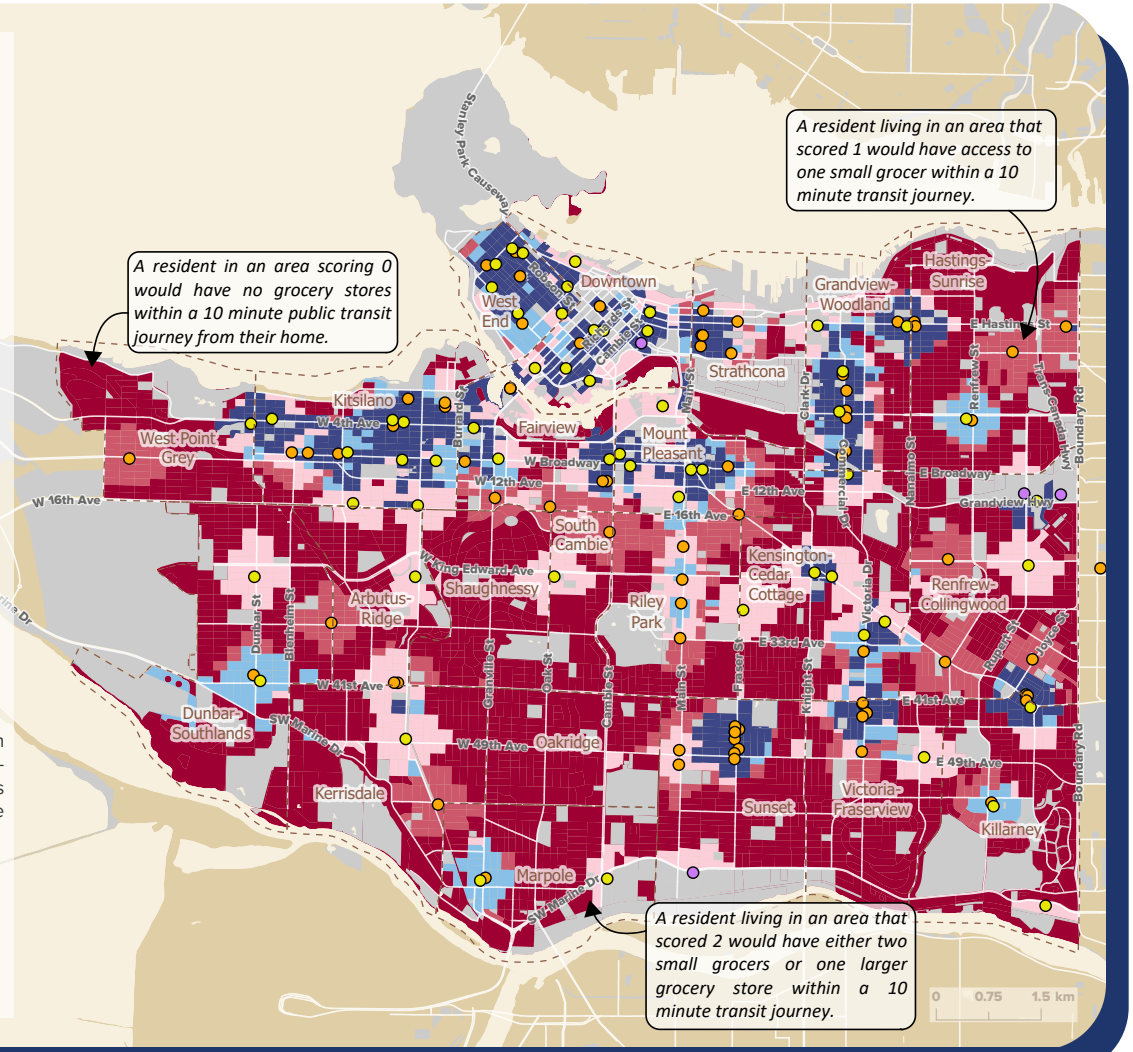
- **Market Outlet**
- **Supermarket**
- **Small Grocer**
- **Parks & Other Non-Residential**

- Market Outlet - (large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco)
- Supermarket - (grocery stores over 10,000ft^2)
- Small Grocer - (1,500-10,000ft^2, must sell produce)

For each Census Dissemination Block, the number of grocery stores in each category is multiplied by its assigned score, then all accessible stores within a 15-minute public transit journey are summed together. The transit network used is based on Translink's GTFS files from September 2024. The transit times were calculated between 12:00 PM and 1:00 PM on a weekday, in 5-minute increments. Transit times include bus stop wait time. Mean transit times were used to simulate realistic conditions.

Scoring
Small Grocer = 1
Supermarket = 2
Market Outlet = 2

LGeo CITY OF VANCOUVER



Grocery Access Score within 10 minutes of public transit.

Note: While the intersection at W 41st and Cambie currently shows no grocery options, a major redevelopment is underway here and a large supermarket is slated to return upon completion.

Grocery Access Score (< 15 minute Public Transit)

City of Vancouver - Equitable Access to Healthy Food Retail Study

Areas in blue have various grocery retail options within a 15 minute transit journey, while dark pink and red areas indicate poor access and no food retail access, respectively.

Grocery Access Score (within a 15 minute transit)

- **4+ (ample access)**
- **3 (moderate access)**
- **2 (limited access)**
- **1 (poor access)**
- **0 (no access)**

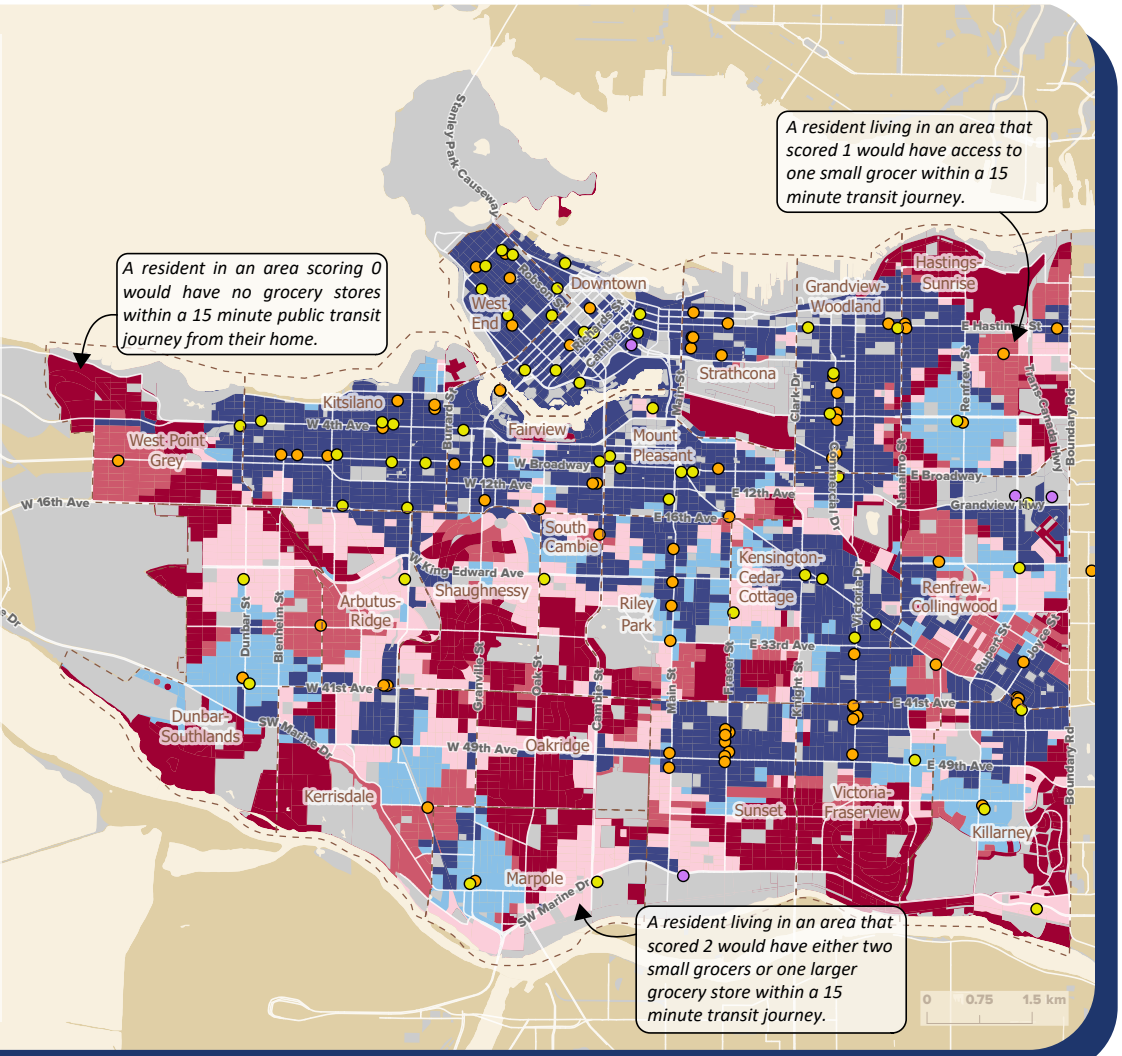
- **Market Outlet**
- **Supermarket**
- **Small Grocer**
- **Parks & Other Non-Residential**

- Market Outlet - (large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco)
- Supermarket - (grocery stores over 10,000ft^2)
- Small Grocer - (1,500-10,000ft^2, must sell produce)

For each Census Dissemination Block, the number of grocery stores in each category is multiplied by its assigned weight, then all accessible stores within a 15-minute public transit journey are summed together. The transit network used is based on Translink's GTFS files from September 2024. The transit times were calculated between 12:00 PM and 1:00 PM on a weekday, in 5-minute increments. Transit times include bus stop wait time. Mean transit times were used to simulate realistic conditions.

Scoring
Small Grocer = 1
Supermarket = 2
Market Outlet = 2

LGeo CITY OF VANCOUVER



Grocery Access Score within 15 minutes of public transit.

Note: While the intersection at W 41st and Cambie currently shows no grocery options, a major redevelopment is underway here and a large supermarket is slated to return upon completion.

Grocery Access Score (< 15 minute walk)

City of Vancouver - Equitable Access to Healthy Food Retail Study

Areas in blue have various grocery retails options within a 15 minute walk, while dark pink and red areas indicate poor access and no food retail access, respectively.

Grocery Access Score (within a 15 minute walk)

- **4+ (ample access)**
- **3 (moderate access)**
- **2 (limited access)**
- **1 (poor access)**
- **0 (no access)**

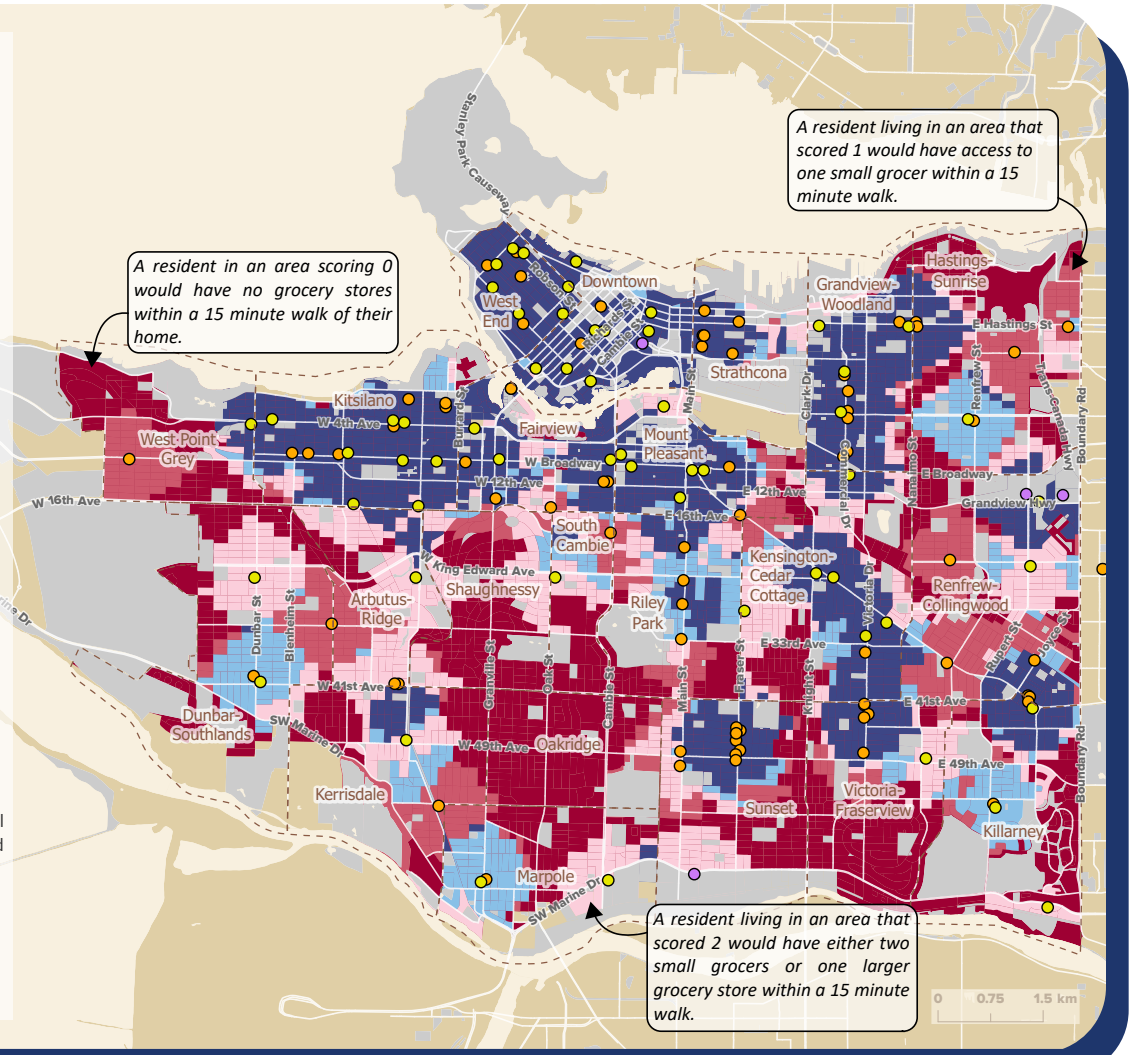
- **Market Outlet**
- **Supermarket**
- **Small Grocer**
- **Parks & Other Non-Residential**

- Market Outlet - (large retailers with full-service grocery as well as other household items. e.g. Superstore, Wal-Mart, Costco)
- Supermarket - (grocery stores over 10,000ft^2)
- Small Grocer - (1,500-10,000ft^2, must sell produce)

For each Census Dissemination Block, the number of grocery stores in each category is multiplied by its assigned weight, then all accessible stores within a 15-minute walk are summed together. This 15-minute threshold is based on a typical pedestrian walking pace of 3.87km/h along sanctioned walking routes, and accounts for delays due to slope, traffic lights, and crosswalks.

Scoring
Small Grocer = 1
Supermarket = 2
Market Outlet = 2

LGeo CITY OF VANCOUVER



Grocery Access Score within a 15 minute walk.

Note: While the intersection at W 41st and Cambie currently shows no grocery options, a major redevelopment is underway here and a large supermarket is slated to return upon completion.