Walking the Talk!

Re-Invigorating Accessible Healthy Food Retail as an Anchor of Urban Livelihood: A Shopping List for Planners

by

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Abstract

Between the 1970s and 2014, Winnipeg experienced dramatic change in the distribution of healthy food retailers in inner-city neighbourhoods. Winnipeg's "active core" neighbourhoods identified through Dr. David Gordon's research on Canadian suburbs (Gordon & Jean 2011), have undergone a decline in accessible healthy food options and a rise in food deserts.

This practicum identifies the causes of food retail decline and possible strategies for improving accessible healthy food retail options within Winnipeg's active core. The changes in the distribution of food retail over time in Winnipeg are displayed through a series of maps: one for 1971 and every five years thereafter until 2011, and the year 2014, using data collected through telephone directories. Spatial data of Winnipeg's active core is compared with population density data, informational maps, and other statistical data. Finally, various stakeholders, including planners, current and former business owners and other experts are interviewed to discuss these trends, lessons learned, and possible solutions.

Chapter I: Introduction

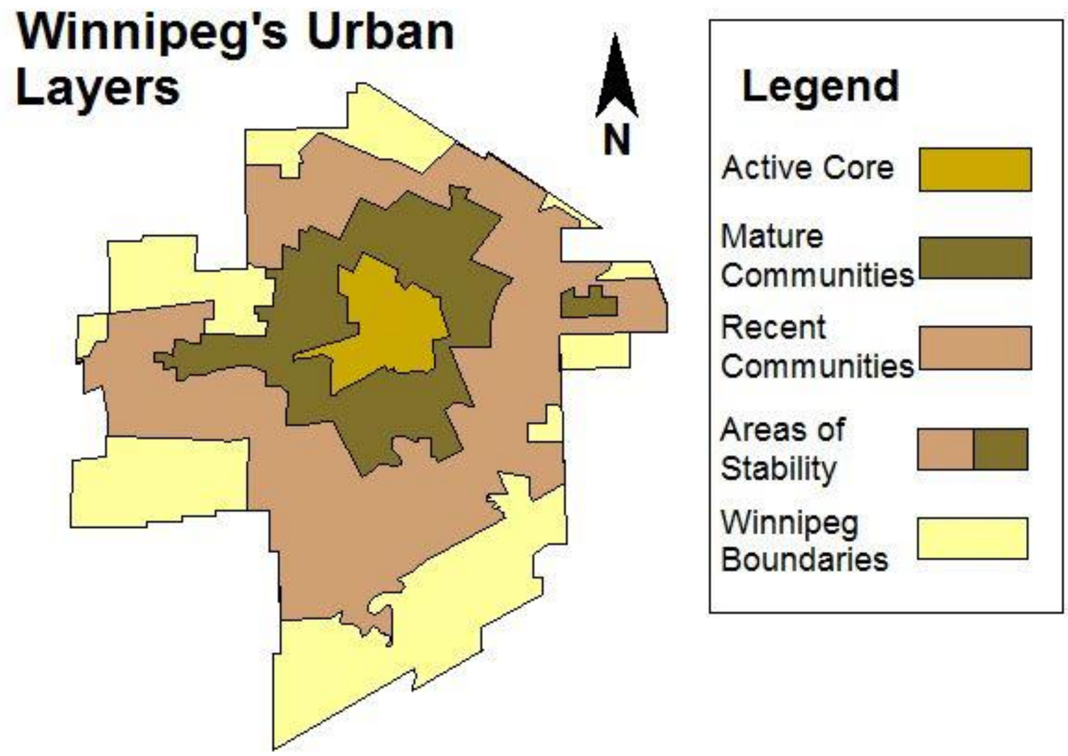
Winnipeg, along with many other cities across North America, has undergone a measurable decline in food retail since the 1970s. While the number of smaller, often independently-owned, neighbourhood stores has decreased, the size of larger chain stores has increased. These larger stores generally offer a wide variety of food products at perceived lower prices, effectively drawing customers to where they are located away from the urban core. As the large format retailers favour greenfield sites on the city's suburban edges, residents of Winnipeg have increasingly had to rely on automobiles to purchase foodstuffs. With fewer local stores in inner-city neighbourhoods, Winnipeg and other cities are exhibiting a more pronounced *food-desert* effect. While the reasons for these changes – and the problems that arise – are many, solutions involving accessible food-retail appear to be few. The purpose of this practicum is to identify the extent that Winnipeg's food retail environment has changed over the years, explore reasons for these changes, and explore what planners can do to re-introduce and/or re-invigorate food-retail into Winnipeg's inner-city neighbourhoods – where it no longer exists, or where it is struggling to exist – by identifying strategies that can assist in reversing the trend.

The area considered in this study is Winnipeg's inner-city, which includes the relatively grid-like urban neighbourhoods in the core of the city. A defined set of urban core neighbourhoods are used in order to identify clear boundaries, described as the "active core" in David Gordon's (2001) research. These boundaries fall completely within Winnipeg's *Mature Communities* – a set of central and older neighbourhoods with a consistently grid-like street pattern adopted by the City of Winnipeg in its *OurWinnipeg*

Development Plan Complete Communities Direction Strategy (see Maps 1 and 2). In this strategic document, one key objective for *Areas of Stability*, which include the Mature Communities, is to "support a mix of commercial services and employment uses that serve the local community" (City of Winnipeg, 2010, p. 80). Because all neighbourhoods explored fall within Winnipeg's defined Mature Communities, the data and results of this practicum ideally will be readily usable for City of Winnipeg planners. The OurWinnipeg Development Plan also includes the objectives to "collaborate on local food opportunities that are part of community development initiatives" and to "include food in planning for neighbourhood revitalization strategies" (City of Winnipeg, 2010, p. 82).

This practicum will focus on the recent Winnipeg experience of healthy food retail decline, with consideration for its wider applicability in cities across North America facing similar problems.

Map 1 - Winnipeg's Urban Layers



Mike Lennon 2013, derived from 'Complete Communities' OurWinnipeg, City of Winnipeg 2011, and 'Winnipeg Active Core', Jean 2011.

Map 2 - Winnipeg's Urban Structure

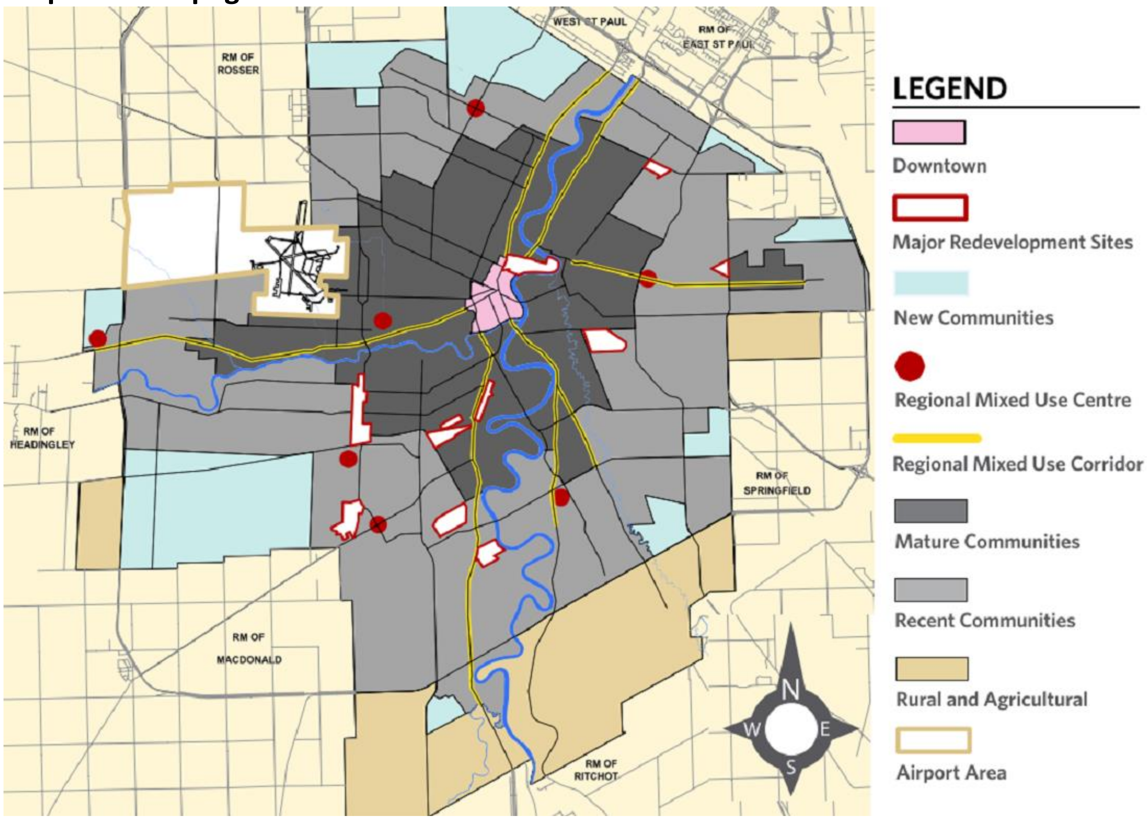


Image from 'Complete Communities' OurWinnipeg, City of Winnipeg 2011

1.1 Definitions

Discussion on Food Retail Definitions

The intent of this research is to determine changes in access to healthy food retail. Because healthy food products may be purchased in a variety of retailer types, the definition of food retail should be broad enough to include retailers that do not sell food as the primary purpose of business. Not all healthy food products may be purchased at retailers. Costco Wholesale, while classified as a wholesaler, competes as a food retailer as one of its functions. While a person may purchase healthy food at various restaurants, restaurants do not present a practical option for long term dietary needs because they are generally more costly, they are limited to a restaurant's menu items as prepared by the restaurant, and they only provide food only operating hours, subject to seating availability. Because of this for the purposes of this practicum the definition of food retail includes retailers that sell staple foods for preparation at home.

The 2012 North American Industry Classification (NAICS) defines both supermarkets and grocery stores together as establishments “primarily engaged in retailing a general line of food, such as canned, dry and frozen foods; fresh fruits and vegetables; fresh and prepared meats; fish, poultry, dairy products, baked products and snack foods. These establishments also typically retail a range of non-food household products, such as household paper products, toiletries and non-prescription drugs” (Statistics Canada 2012, p. 282).

While supermarkets and grocery stores are defined as the same by NAICS, for the purposes of this practicum, grocery and supermarkets are differentiated because of the important effect that store size will have on product selection, competition, shopping behaviours, land-use, and the corresponding side effects such as traffic, parking, food desertification, ‘a sense of community’, and the local economy.

The City of Winnipeg Zoning Bylaw defines a supermarket as:

> a retail store with a floor area of more than 40,000 square feet that sells primarily groceries, produce, and packaged food products, but in which up to 40 percent of the gross floor area may be used for the sale of non-food related products, including convenience products (Winnipeg Zoning By-law No. 200/2006, p. 39-40)

The Food Marketing Institute (FMI), based in Canada, indicates that while the medium supermarket was 46,000 square feet in 2010, it was only 35,100 in 1994 (FMI 2011). FMI defines a supermarket as:

> Offering a full line of groceries, meat, and produce with at least $2 million in annual sales and up to 15% of their sales in GM/HBC (General Merchandise/Health and Beauty Care). These stores typically carry anywhere from 15,000 to 60,000 SKUs (Stock Keeping Units), depending on the size of the store, and may offer a service deli, a service bakery, and/or a pharmacy (FMI 2010, Supermarket Facts)

Given that typical supermarket sizes have changed over the years and so has the definition, it is important to select a consistent definition that can be used over the years in order to properly compare changes. While a large number of supermarkets are currently above 40,000 feet, full-scale supermarkets in past decades were considerably smaller. Various full-scale supermarkets of smaller sizes appear to otherwise follow the definitions of a supermarket, including Young's Market on William at 397 William Ave (approx. 10,000 sq. ft.) and the Safeway at Main St. & Luxton Ave (approx. 13,000 sq. ft.).

Another consideration in choosing a definition of supermarkets is that a number of large department stores contain a large variety of food retail, providing the same food services to the surrounding neighbourhoods as that of a large supermarket. For instance The Hudson's Bay Company in downtown Winnipeg had a full service grocery store for decades, although this store space was a small proportion of the multi-floored department store. Larger-sized Walmart Supercentres have large grocery areas where shoppers can purchase most, if not all, of their grocery needs. These stores serve grocery needs similarly to larger supermarkets and would likely compete similarly with smaller grocers.

Since this research consists of a measurement of food retail changes over time, a consistent definition was developed. For the purposes of this research, the definition of a supermarket is a retail outlet offering a full line of groceries, meats, and produce, with a minimum size of 10,000 square feet. This definition includes supermarkets found within department stores.

FMI defines a grocery store as “a retail store that sells a variety of food products, including some perishable items and general merchandise” and a convenience store as “a small, easy-access food store with a limited assortment. Many convenience stores also sell fast food and gasoline” (FMI 2013, Food Industry Glossary). Since the FMI definition of a grocery store could be used to describe most 24 hours convenience stores in Winnipeg, the more descriptive NAICS definition of a grocery store will be used to define grocery stores for the purposes of this research.

NAICS describes a convenience store as a store “engaged in retailing a limited line of convenience items that generally includes milk, bread, soft drinks, snacks, tobacco products, newspapers and magazines. These establishments may retail a limited line of canned goods, dairy products, household paper and cleaning products, as well as alcoholic beverages, and provide related services, such as lottery ticket sales and video rental" (Statistics Canada 2012, p. 282). This definition is more descriptive than that of FMI and will be used to define convenience stores for the purposes of this practicum.

NAICS defines Specialty Food Stores as stores retailing "specialized lines of food products" such as Meat Markets, Fish and Seafood Markets, Fruit and Vegetable Markets, and Other Specialty Food Stores, including Baked Goods, Confectionary and Nut Stores, and Other (Statistics Canada 2012, p. 283-284). This definition will be used excluding the Confectionary and Nut Stores because these tend to be for snacking, rather than for meal preparation.

The term 'food desert' is commonly used to describe a shortage of accessible healthy foods (Martin 2012, Harms 2014). The United States Department of Agriculture (USDA) defines a food desert as "parts of the country vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas… largely due to a lack of grocery stores, farmers' markets, and healthy food providers" (American Nutrition Association 2011). Since the intent of this research is not to identify specific food deserts, a definition on the size of a food desert will not be used. Also, the distance to a food retailer does not impact each neighbourhood equally, since some neighbourhoods have more residents who drive than others. Further, a high price for healthy food options will have a greater impact on residents of a low-income neighbourhood than residents of a more affluent neighbourhood. Both distance and price relate to a person's ability to access. For the purposes of this practicum, a food desert refers to a geographic area where residents have relatively limited access to healthy food retail options. Food

Desertification refers to a decreasing access to healthy food retail options within a geographic area.

Definitions

Food Retail, for the purposes of this practicum, includes outlets that sell staple foods for preparation at home. This includes primarily small grocers, large supermarkets, and specialized food retailers, such as delicatessens, bakeries, meat shops, and fruit and vegetable markets. Although convenience stores are included, they are intentionally distinguished from other food retailers because of the limited array of healthy foods and focus on processed foodstuffs. This definition also includes retailers that do not sell staple food items as the core business activity, such as pharmacies, general merchandise stores, gas stations, and discount stores.

Grocery Store, for the purposes of this practicum is defined as a food retailer under 10,000 square feet "primarily engaged in retailing a general line of food, such as canned, dry and frozen foods; fresh fruits and vegetables; fresh and prepared meats; fish, poultry, dairy products, baked products and snack foods. These establishments also typically retail a range of non-food household products, such as household paper products, toiletries and non-prescription drugs" (Statistics Canada 2012, p. 282).

Supermarket, for the purposes of this practicum, is defined as a food retailer offering a full line of groceries, meats, and produce, with a minimum size of 10,000 square feet. This definition includes supermarkets found within department stores.

Convenience Store, for the purposes of this practicum is defined as a food retailer under 10,000 square feet “engaged in retailing a limited line of convenience items that generally includes milk, bread, soft drinks, snacks, tobacco products, newspapers and magazines. These establishments may retail a limited line of canned goods, dairy products, household paper and cleaning products, as well as alcoholic beverages, and provide related services, such as lottery ticket sales and video rental” (Statistics Canada 2012, p. 282).

Specialized Food Retail, for the purposes of this practicum is defined as a food retailer less than 10,000 square feet, selling specialized lines of staple food products for preparation at home. These include Meat Markets, Fish and Seafood Markets, Fruit and Vegetable Markets, Bakeries, and others (Statistics Canada 2012, p. 283-284).

Food Desert, for the purposes of this practicum, refers to a geographic area where residents have relatively limited access to healthy food retail options.

Food Desertification, for the purposes of this practicum, refers to a decreasing access to healthy food retail options within a geographic area.

Active Core is defined to include areas that have “an average rate of active transportation, walking and cycling, 1.5 times higher than the overall average for the census metropolitan area” (Density Method, Gordon 2011).

1.2 Problem Statement

Winnipeg has undergone substantial changes in food retail distribution over the last few decades, resulting in a reduction in local access to healthy grocery foods in many inner-city neighbourhoods. Access to local food provisioning may have several important effects: it may reduce the need for automobiles and the many associated problems; it may reduce the food desert effect (when associated with available healthy food options); it may help support the local economy by providing jobs, and property taxes, by keeping more money in the flow of local spending; and it may build an improved sense of community by encouraging walking and biking over automobile use, the interactions of community members at these establishments, and more community focal points.

1.2.1 Automobile Reliance

An important part of reducing the need for personal automobile travel includes having access to basic needs in one's home neighbourhood. While it may be impractical for many residents to do the majority of their shopping without a motor vehicle, having access to local food retail may reduce the need for cars, even if just for smaller shopping trips. An increased reliance on automobiles may have a large number of societal costs, including reduced travel choices, higher road infrastructure costs, congestion, and more accidents (Litman 2002). Harmful emissions may impact human and environmental health through various toxic gases (Litman 2002) and contribute to greenhouse gas emissions.

1.2.2 Food Deserts

A decrease in accessible healthy food retail options in Winnipeg's mature neighbourhoods may reduce the opportunity to purchase affordable and healthy local foods, contributing to a food desert effect. Some portions of Winnipeg may be undergoing a food desert effect (Martin 2012, Harms 2014).

1.2.3 The Local Economy

Increasing automobile use and fewer local businesses may have impacts on the economy and quality of life. For instance, as automobile use increases, businesses oriented to automobiles may out-compete local neighbourhood-oriented outlets, resulting in larger-scale businesses with fewer employees per sale dollar, and fewer locally-owned businesses. A change in the grocery retail landscape may also have an impact on the proportion of locally-owned businesses, which can impact the amount of money staying within the local economy.

1.2.4 Sense of Community

A decrease in pedestrian activity and fewer neighbourhood-oriented retail destinations could have an impact on neighbourhood walkability, which may decrease the "sense of community" with fewer people on the street. There may also be fewer social gathering spaces or "third places" (Oldenburg 1989), and fewer neighbourhood-scale businesses to take part in building communities.

In Winnipeg's case, many of the inner-city neighbourhoods have had limited success in satisfying the OurWinnipeg Development Plan objective to "include food in planning for neighbourhood revitalization strategies" (City of Winnipeg, 2010, p. 82) or the Complete Communities direction to "support a mix of commercial services and employment uses that serve the local community" (City of Winnipeg, 2010, p. 80). The trend has been moving towards the opposite direction, creating a challenge for planners to meet this objective. This practicum explores whether there has been a change access to health-food retail over the years. It will also explore strategies for addressing any discovered gaps in access to healthy food retail.

1.3 Background and Need

Winnipeg has undergone a measurable decline in the number of small grocers and specialized food retailers in its inner-city neighbourhoods between the 1970s and the present. A review of archived news articles collected from the Winnipeg Millennium Library on "supermarkets" and "grocers" reveals continued public concern about a perceived decrease in the number of grocery stores in Winnipeg since the early 1970s (Pona 1976, Lakey 1986, Flood 1993, Haines 1994, Cash 1996, Martin 2012, Sanders 2012, Redekop & Crosier 2013, Turner 2013). This perception is verified through the quantified decrease in the number of grocers in the Yellow Pages directory (MTS 1971, YellowPages.ca 2014). This decline has been a topic of academic study for over a decade (Donohue 1997, Wrigley 2001, Dunkley et al 2004, Larson & Gilliland 2008).

A review of the Winnipeg Yellow Pages directories shows that there are fewer small grocery stores, more convenience stores, and more large supermarkets than there were in 1971 (MTS 1971, YellowPages.ca 2011). These trends paint a clear picture of the consolidation of the industry in Winnipeg. There are fewer outlets, with a larger average square footage per outlet.

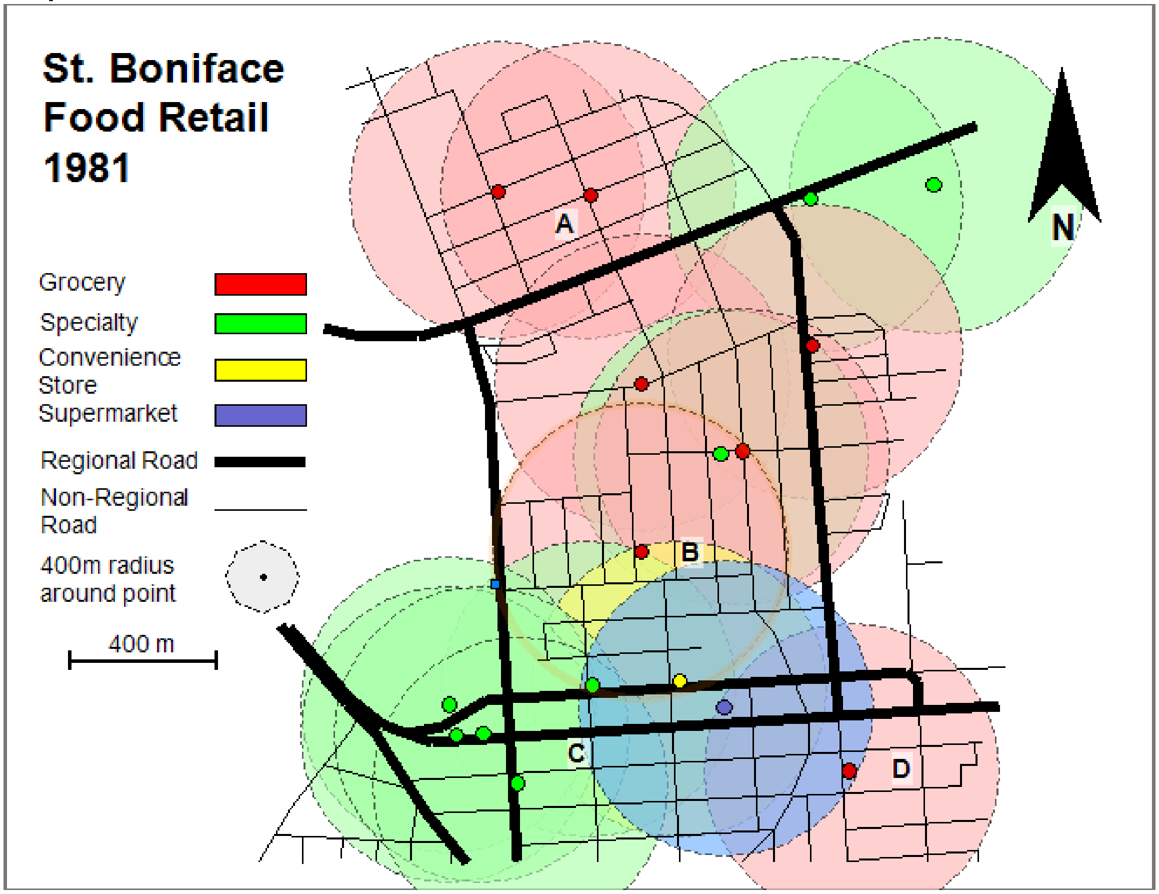
While the size and type of stores have changed, the ownership structure has also changed. Between 1999 and 2011, the number of Manitoba supermarket and grocery chain stores increased by 21% – up from 80 to 97, and non-chain stores decreased by 29% – down from 412 to 293 (CANSIM 2011, 2013). Chain stores have also had an increasing proportion of total sales dollars. Between 1999 and 2011, Manitoba supermarket and grocery chain store market share (in sales dollars) increased from 62% to 77%, leaving only 23% of the market for non-chain-store grocers/supermarkets. This contrasts sharply from the market share (in sales dollars) of supermarket and grocery chain stores held in the 1970s, which fluctuated between 35% and 40% from 1972 to 1983 (CANSIM 2010). Although the above statistics relate to all of Manitoba, the statistics for Winnipeg's retail changes would likely show similar trends because the vast majority of the Manitoba food retail industry is in Winnipeg.

This trend was not experienced only in Manitoba. Wrigley (2001) demonstrates that in the US, between 1992 and 2000, the top five food retailers increased market share from 26.9% to 50.4%, meaning that all other food retailers combined had a decrease in sales by almost one-third. Dunkley et al (2004) found that mergers and acquisitions were abundant in the mid-to-late 1990s, with median supermarket size increasing from just over 30,000 square feet (2,787 square metres) to 40,000 square feet (3,716 square metres). They also found that grocery shopping in the United States at food stores (grocers, supermarkets, convenience stores, etc.) decreased from 84.5% in 1990 to 73.9% in 2001. The dramatic decrease in shopping at food stores could mean people are increasingly shopping at multi-purpose big box stores, such as Walmart Supercentres, or that people may be frequenting restaurants for a higher proportion of their meals.

While the grocery landscape has changed in Winnipeg over the decades, 2012 and 2013 contained significant changes in the supermarket industry. Between late 2012 and early 2013, three large supermarkets servicing inner-city neighbourhoods closed down, leaving several neighbourhoods without a nearby supermarket (Sanders 2012, McNeill 2013). In mid-2013, Sobeys, one of Canada's largest grocery chains, bought the Safeway chain of stores. Safeway was another one of Canada's largest grocery chains. As a condition in approving the sale, the federal Competition Bureau required that Sobeys sell 23 stores in Western Canada (Winnipeg Free Press 2013). Sobeys selected five Winnipeg locations to close and put up for sale, at least one of which had left residents concerned about local food options (Kirbyson 2013, Story 2013).

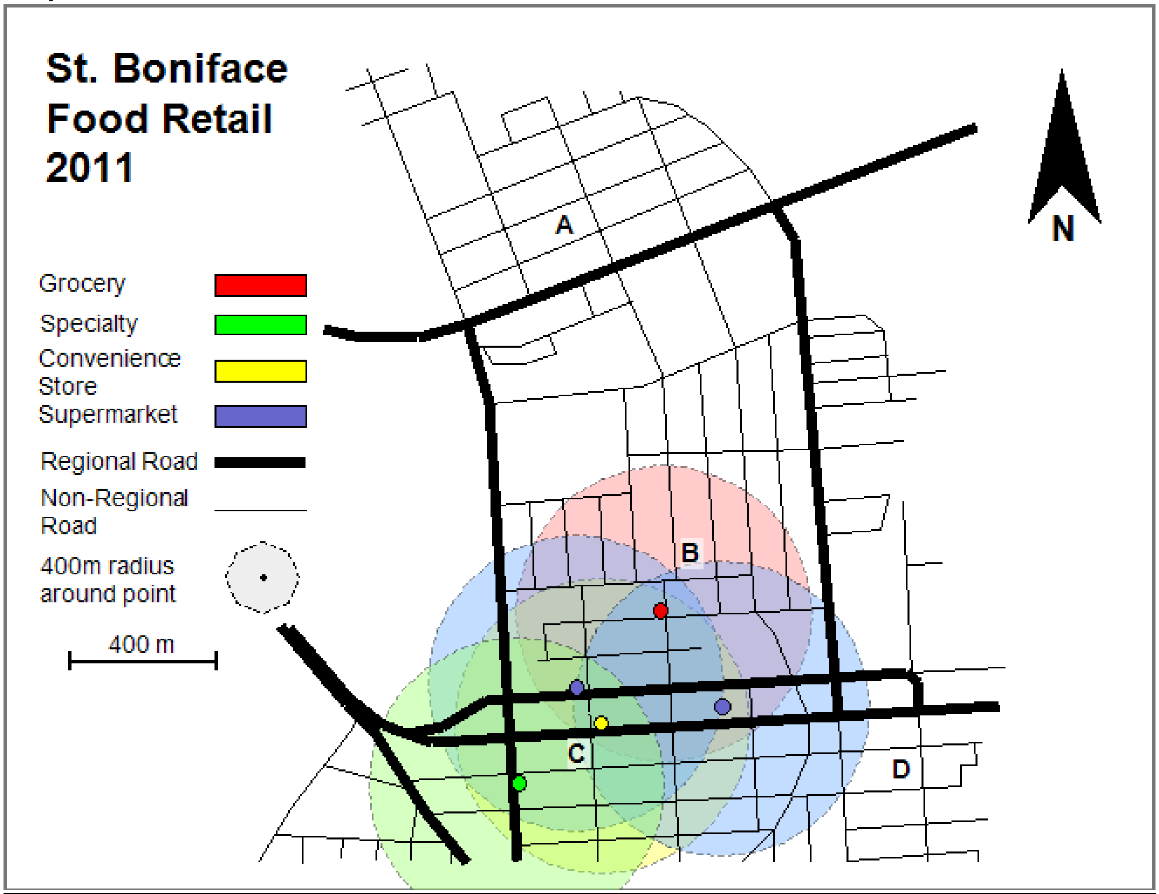
Because large supermarkets are larger-scale retailers that tend to service multiple neighbourhoods, and convenience stores tend to carry a limited selection of healthy food staples, it is likely that fewer healthy food options are available within close proximity of the average Winnipegger. Fewer local food retail options results in an increased dependence on automobiles, taxis, or transit for shopping trips to healthy food options. Maps 3 and 4 show how this trend can affect access to food retail within a geographic area. The example used shows the difference in access to food retail in St. Boniface between 1981 and 2011.

Map 3 - St. Boniface Food Retail 1981



Map 3 shows four different living spaces within the St. Boniface area in 1981. Location 'A' has two food retail options within 400 metres (a five minute walk). Location 'B' has six options, location 'C' has nine options, and location 'D' has one option within the 400 metre distance. Most locations have reasonable choice in food retail options within a five-minute walking distance and in some cases much greater choice just outside of the walking range.

Map 4 - St. Boniface Food Retail 2011



Map 4 shows the same four locations in 2011 with fewer options for each location. In this scenario, location 'A' has zero options, location 'B' has two options, location 'C' has four options, and location 'D' has zero options within 400 metres. In 2011 the overall choice in food retail has decreased and the average distance one must travel for food retail has increased.

The decreasing access to healthy food retail in Winnipeg inner-city neighbourhoods limits fresh and healthy food options for local residents, increases auto-dependency, and may impact neighbourhood social activity and the local economy.

1.3.1 Auto Dependency

The growing access to and ownership of automobiles over the last century has afforded many people the flexibility to shop at a variety of locations in ways that might have otherwise been impractical. Larson and Gilliland (2008) outline the opportunity automobiles afford to many residents. Those who chose to live further away from the inner-city in sprawling neighbourhoods avoid what some perceived to be "unhealthy places to live, with poor sanitary conditions, high pollution, unsafe and cramped living spaces" (Larson & Gilliland 2008, p. 2). Unfortunately, the high usage of automobiles has resulted in numerous costs to society and to local businesses. Many larger supermarkets and established chains have taken advantage of this trend, situating themselves on regional roads and in shopping districts catering to multiple neighbourhoods – often in predominantly more affluent suburban neighbourhoods (Larson & Gilliland 2008). Entire store formats have been developed around the convenience of automobile usage. For instance, wholesale grocery stores such as Costco sell bulk and large sized items, which are quite difficult to transport by transit, walking, or by bicycle.

Donohue (1997) found that during the 1990s in Canadian and American cities, retail investment correlated highly with suburban sprawl. The author outlines several contributing factors: increased buyer power and greater access to cars in sprawling communities; the comparative ease of green-field development; depopulating urban core neighbourhoods with perceived higher crime and overall urban decline; and lower suburban retail operating costs (rent, labour, insurance, etc. per customer served). Given the high automobile usage, many retailers have begun catering more to motorists than to pedestrians. Auto-oriented big box stores with large parking lots and fast-food drive-throughs cater to residents that own cars – higher proportions of whom are in the suburbs (Peg 2015). The motorist-oriented retailers constrain the shopping options of those without access to an automobile. Further, the increase in suburban sprawl increases the demand for auto-oriented development, which limits the options of pedestrians – due to heavier traffic, greater difficulty and danger in crossing roads, more parking lots, and arguably a greater proportion of public investment in infrastructure geared towards motorists rather than to pedestrians. Winnipeg's Capital Budget for 2001 had total investments towards roads of $38.1 million (Winnipeg 2001). Fourteen years later, the 2015 Capital Budget for total investment towards roads was at $128.7 million – an increase of 338% (Winnipeg 2015). While capital budgets by their nature fluctuate from year to year as capital projects change, the trend has been towards a significant increase in roadway investments, even when accounting for inflation (see Table 1, Chart 1).

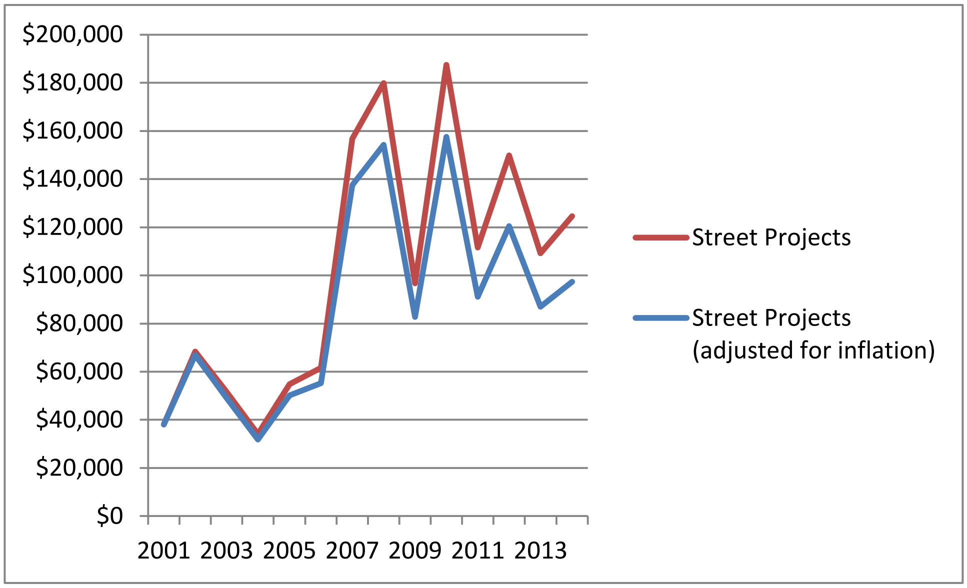
Table 1 - City of Winnipeg Capital Budget Street Project Expenses

	Street Projects	Total Capital Budget	Street Projects % of Total Budget
2001	$38,135	$157,879	24.2%
2002	$68,403	$207,176	33.0%
2003	$51,578	$173,022	29.8%
2004	$34,025	$209,546	16.2%
2005	$54,863	$298,468	18.4%
2006	$61,599	$307,583	20.0%
2007	$156,693	$427,323	36.7%
2008	$179,833	$421,099	42.7%
2009	$96,690	$476,489	20.3%
2010	$187,465	$439,430	42.7%
2011	$111,546	$370,114	30.1%
2012	$149,827	$393,199	38.1%
2013	$109,135	$374,622	29.1%

2014	$124,588	$379,475	32.8%
2015	$128,697	$560,500	23.0%

Source: City of Winnipeg Capital Budgets 2001 – 2015

Chart 1 – City of Winnipeg Capital Street Project Expenses



Source: City of Winnipeg Capital Budgets 2001 - 2014; Statistics Canada Consumer Price Index, historical summary (1995 to 2014)

Greater auto-dependency generates significant expenses for cities because of the high cost of road expansions and repairs, maintenance, traffic control, and road-widening. Heavy auto-usage also contributes to congestion, more motor vehicle accidents (Litman 2002) and environmental problems such as greenhouse gases, smog, and – more indirectly – peak oil challenges and demand for mined metals.

1.3.2 Food Desert Effect

The American Nutrition Association notes that the United States Department of Agriculture (USDA) defines food deserts as "parts of the country vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas…

largely due to a lack of grocery stores, farmers' markets, and healthy food providers" (American Nutrition Association 2011). A Winnipeg Free Press reporter Melissa Martin, in 2012 suggested that the trend of supermarket closures began in Winnipeg's urban core in the 1960s – when suburban sprawl took off (Martin 2012). Peters and McCreary (2008) argue there has also been a decline in commercial and industrial institutions in Canadian inner-city cores - with an increase in cheque-cashing establishments and pawn shops, but fewer banks. They add that:

> "Lower accessibility to supermarkets in low income areas means that residents are more dependent on smaller food and convenience stores which are more expensive and are less likely to offer a range of healthy foods" (80).

It could be argued that the reduction of grocers and the increase of supermarkets in Winnipeg may have contributed to an overall greater choice, because corner grocers tend to have limited healthy food options. However, specialty food retailers have decreased as well, many of which complement grocers. For instance it is possible that many residents would make purchases at multiple outlets in previous decades, such as at a grocer, a fruit or vegetable market, and a deli or bakery. The reduction in specialty food outlets limits the option of purchasing food staples from complementing retailers.

The overall effect is clear – fewer options for those within Winnipeg's inner city without access to a motor vehicle. Alwitt and Donley (1997), while studying food deserts in Chicago, found that inner-city residents have to travel further than residents of comparable wealthier neighbourhoods for simple healthy foods, banking, drug stores, and other providers of basic needs. Sadler et al (2013) note that residents living in food deserts pay a considerable premium of up to 76% for healthy foods, often at convenience stores, and have higher rates of obesity and related illnesses. In addition, Rhodes et al (2007) suggest the food desert effect can reduce pedestrian activity. The lack of local resources and commercial destinations may in turn affect a neighbourhood's sense of community.

1.3.3 Sense of Community

Grocers provide a local public space where people can meet, socialize, and interact within their communities. Cameron et al (2010) note that local grocers and supermarkets can draw people into the area on a weekly basis and provide neighbourhood meeting spaces – providing regular opportunities to casually meet other residents.

Local food retailers can also be involved in community activities. A 2010 Australian study of 18 small retail and services businesses showed that the vast majority of small business owners interviewed would regularly engage in socially-responsible activities – such as supporting community organizations, donating goods, or cleaning up around the outlet (Sawyer & Evans 2010).

While it is difficult to determine the extent to which Winnipeg grocers have been a part of the community, some individual grocers have offered much more to the community than simple groceries. The owner of Russell's Grocery Bar offered credit to regular customers, claiming he got to know the people in the area so well that "it's sort of like a family" (Haines 1994). Hardy and Buchanan's would regularly take telephone orders for seniors who had difficulty shopping (Lakey 1986).

Alexander and Shaw (2012) discuss the connectivity people tend to enjoy with their community, which can mean building relationships with local businesses, or being able to order "the usual" from your local restaurant. Larger businesses or chains that do not have this sort of relationship with the community often create a false sense of relationship or acquaintance in order to fill this need. For instance, one of Winnipeg's major grocery chains has employees thank customers by their last names, printed on the bottom of the receipt for the employee to read. While larger chains often do offer services for the community, such as donations to local initiatives, local sponsorships, delivery services for seniors, they are less likely to be deeply rooted in the community. For instance, by the nature of a chain store, the owners usually are not local and the store is more likely to fit a standardized model that works in multiple locations, rather than one that may be aware of and cater to the needs of a specific neighbourhood.

Replacing local food retail options with larger more distant supermarket chains reduces the opportunity for people who do not drive to engage in an assortment of shopping activities. Seniors, children, or anybody else who is unable to drive may have to rely on others, or on inconvenient transit or taxi trips. Children, if living in the wrong neighbourhood, may lose out on the opportunity to have the community experience of making a regular trip to the corner store to pick up milk/bread, or to buy some candy.

Seniors may lose out on a regular social opportunity in an environment where making small but frequent shopping trips is convenient.

1.3.4 The Local Economy

Others argue that locally-owned businesses tend to generate more money for the local economy. Patel and Martin (2011), while analyzing economic impacts of consumer spending at locally-owned businesses in Maine, found that for every $100 spent at locally-owned businesses, an additional $58 was generated for the local economy because small businesses tend to purchase more local supplies, services, and other expenses in running their business. However, a similar $100 spent at a national chain store only generates $33 for the local economy. Alexander and Shaw (2012) explain that a dollar spent in a locally-owned business has significantly greater local economic impact than a dollar spent in a chain or franchise, and that chains and franchises are more likely to offer less attractive compensation to employees through “minimal benefits, anti-union tactics, and full time defined as 32 hours per week” (Alexander and Shaw 2012, p. 29).

Although local grocers can contribute positively to the local economy, their existence is fragile due to the increasing competition from new larger format retail. The increasing size of major retail player outlets confers a competitive advantage over smaller independently-owned grocers. This advantage is obtained through large-scale advertising campaigns, deeper pockets to offer promotions or strategic price-cutting, and through economies of scale, i.e. the ability to save on costs per unit sold, due to the size and breadth of the company’s facilities. Price wars between major national supermarkets in

Winnipeg during the 1990s were said to have caused a number of local supermarkets to go under (Flood 1993). Some even sought legal help from the federal Competition Bureau, claiming these price wars to be unfair to small businesses that could not hold out (Cash 1996).

Wrigley (2001) describes the 1990s as a time during which a wave of mergers and acquisitions consolidated the retail industry, with market power shifting from the manufacturers to the retailers. Massive department stores, such as Walmart, have significant control over manufacturers due to their large sales volumes (having great ability to affect a manufacturer's sales), in addition to access to extensive marketing strategies and logistics technologies such as just-in-time inventory control systems. While a local retailer may have been more likely to make purchases from a local manufacturer in previous decades, international supermarkets and department stores are more likely to purchase from larger scale manufacturers due to their inventory needs. This can cause difficulty for local producers, wholesalers, and grocers who are unable to compete with such advantages.

1.3.5 Addressing the Problem

Over the years the City of Winnipeg appears to have not been proactive in supporting or promoting healthy and accessible food retail. In some cases the City has granted highly controversial supermarket expansions in the face of significant opposition from surrounding residents due to large impacts on the community (Verhaeghe 1992, Wild

1994, Pollett 1995, Kirbyson 2004, Cash 2005). For the most part, the City of Winnipeg has had no overall strategy for maintaining neighbourhood-oriented healthy food options.

In a step towards supporting local businesses, the City created a by-law enabling Business Improvement Zones (BIZs) in 1987 (City of Winnipeg 2015). This gave business associations in specified geographic areas special privileges aimed at improving conditions affecting business in the area. As of 2015, the City of Winnipeg had 16 active BIZ associations, indicating some level of success with this strategy.

The City's 2001 comprehensive development plan, *Plan Winnipeg*, went further by including a goal of "implementing a support system which acknowledges the special needs of new, small, existing, and growing businesses". However, it went no further in identifying the need or specific supports for local food retailers (Plan Winnipeg 2001, p. 24).

The City's latest comprehensive development plan, OurWinnipeg, was adopted by City Council in 2011. This plan includes a number of supporting 'direction strategy' documents, which work as more detailed extensions of the development plan. OurWinnipeg's Complete Communities direction strategy has the objective to "Support a mix of commercial services and employment uses that serve the local community" in its areas of stability, including 'Mature Communities' (Map 2) (City of Winnipeg, 2010, p. 80). While commercial services could include an assortment of services and amenities, basic food staples are arguably among the most important commercial services serving a local community. The OurWinnipeg Development Plan also includes a section on Vitality, with a direction strategy to "(work) through community partnerships, respond to food needs as identified by communities." Under this direction are several points related to food planning:

- Collaborate on local food opportunities that are part of community development initiatives.
- Include food in planning for neighbourhood revitalization strategies
- Within the City's mandate, pursue opportunities to support local food production (City of Winnipeg, 2011 p. 82).

The development plan takes a significant step in acknowledging the need for supporting commercial services and food planning – something that Plan Winnipeg 2001 did not do. Coupled with BIZ Associations, Planned Development Overlays, and other planning tools and support structures, the City could be moving in a direction towards supporting a reasonable level of accessible food retail in the inner-city. But more needs to be done to plot such a course. Determining how Winnipeg has experienced its decline in food retail may help identify what specifically went wrong in the past, where the challenges persist, and what can be done to improve this situation.

In late 2012 and 2013, a number of key organizations began working on a market analysis for a downtown grocer, after a number of key supermarkets had left the downtown and surrounding areas (Kauffman 2013). CentreVenture, Winnipeg's arm's length downtown development authority, played a key role in requesting this report; however the City of Winnipeg has had no direct role in addressing the growing need for healthy food retail options in Winnipeg's inner-city.

Although the City of Winnipeg and the Province of Manitoba have not taken any direct actions to improve access to healthy foods in Winnipeg's inner city, some other organizations have. Winnipeg's North End Community Renewal Corporation (NECRC) began offering a Grocery Shuttle, stopping in five locations to transport North End residents to and from nearby supermarkets. The organization also runs a local farmers' market during summer months (Story 2013). Various community organizations and BIZ zones also run farmers' markets, which offer a variety of healthy foods during summer months in several Winnipeg neighbourhoods (Farmers' Market Association of Manitoba 2013). A local charity called Food Matters Manitoba has also been active in researching and exploring solutions to healthy and accessible food options. Food Matters Manitoba has recently organized four Community Food Assessments in various parts of Winnipeg, drawing on knowledge from local residents to identify challenges and propose solutions (Food Matters Manitoba, 2015).

A clear set of planning strategies is needed to address this issue, acknowledging not only the geographic distribution of food retail, but also the implications of auto-dependency, the incidence of food deserts, the state of the local/community economies, and the significance of a sense of community. This practicum seeks to help fill the gaps in needed knowledge and understanding for Winnipeg, and similar North American cities; the intention is to provide a shopping list for planners hoping to strengthen healthy and accessible food retail.

1.4 Intended Audience

The intended readership for this practicum includes planners and policy-makers who focus on food security, urban revitalization, and community economic development (CED). It is intended that the information and knowledge gathered will be used to better support and encourage healthy and accessible food retail, where economically sustainable, in inner-city neighbourhoods –particularly in the Winnipeg context. The resulting research is intended to be usable by any jurisdiction/planning authority with a similar infrastructure and retail environment.

1.5 Importance to Planning

When planning for neighbourhood-scale retail, planners often use zoning, design guidelines, and other tools in guiding how and where a retailer might or should locate. But without having a better understanding of how to make neighbourhoods attractive to not only the residents but to small businesses, planners may miss the opportunity to help create an environment that provides a better fit for accessible food retail outlets / establishments. A strategy that may have worked in the past may need to be reviewed and updated since the retail sector has undergone dramatic changes in recent decades. A better understanding of current food-retail market conditions may cause planners to explore more fitting approaches to re-introducing accessible food retail to inner-city neighbourhoods.

This practicum is important to planners because the reduction of healthy food retail relates to a number of important areas of planning, including urban revitalization, food deserts, age-friendly cities, suburbanization, and inner-city poverty. It should also be important to City of Winnipeg planners for a number of reasons. First, Winnipeg's OurWinnipeg Development Plan and the Complete Communities direction strategy have objectives that relate to food planning and services for the local community. Access to healthy and affordable food retail is an issue that affects quality of life, poverty, and urban regeneration, all of which are very important for a healthy city. Further, the indirect costs of a lack of healthy food retail options to both the City of Winnipeg and Province of Manitoba are likely substantial, which may include increasing costs in roadway maintenance, widening, and traffic control and enforcement due to the increasing reliance on automobiles, in addition to increasing health costs as a result of poor nutrition. Winnipeg already gets directly involved in offering resources and support to initiatives related to sports and entertainment, and an assortment of private developments. In this context, the argument that applying city resources towards addressing food deserts should not be a responsibility of the city has little merit. It is well within the city's ability and interests to strive for solutions to the healthy and accessible food retail decline in Winnipeg's inner city.

The findings of this research will be helpful in providing a clear picture of what has happened to Winnipeg's food retail landscape and identify policy solutions for future planning by the City of Winnipeg, Province of Manitoba, and various stakeholder organizations.

Chapter II: Guiding Questions

The overall goal is to examine and assess what planning strategies and tools (tactics) can be used in order to encourage accessible food retail where a gap exists, and to maintain accessible food retail where it is needed – in order to prevent food desertification. The following questions are primarily organized into the main guiding questions along with more specific/substantive sub-questions.

Question #1 is intended to generate / elicit a general overview of the importance of healthy and accessible food retail and the impacts resulting from food deserts, applicable to Winnipeg or other cities. This first question provides a framework for the following questions.

1. How is healthy and accessible food retail important for inner-city neighbourhoods?
    a. How do food deserts impact inner-city neighbourhoods?
    b. Why should planners be involved in finding solutions to this issue?

Question #2 is intended to identify the nature and extent of the changes in food retail across Winnipeg. Answering this question is necessary in answering the third question, related to exploring solutions. The choice of the year 1971 is intended to capture Winnipeg's food retail landscape before significant changes in the distribution of food retail outlets began to occur.

2. How has Winnipeg's food-retail environment changed since 1971?
    a. What specific factors have affected changes in food retail size, distribution (location), and product offering in Winnipeg since 1971, and by how much?
    b. Where have these changes been most significant within Winnipeg's Active Core, and by how much?
    c. What are some of the more prominent trends in the distribution of food retail since 1971?
    d. How has the quality of food changed in urban grocers during this time?

Question #3 is intended to explore various options for addressing the needs identified in question #2.

3. What practices can be used in order to limit healthy food retail decline, maintain it where it exists, and introduce it where there is a gap in accessibility within Winnipeg's inner-city?
    a. What practices are directly or indirectly under current government control, what practices fall under the private business control, and what practices are mostly under the influence of third sector parties?
    b. How can the built form and land-use geography be better shaped/influenced to support healthy food retail within a given neighbourhood?

c. How can broader district/precinct or city-region planning affect the accessibility of healthy food retail?
d. What other organizations, tools, policies, or initiatives can affect the accessibility of healthy food retail?
e. What are some practices that have worked elsewhere?

Chapter III: Research Methods

Two methods were used to measure changes in Winnipeg's food landscape and assess possible solutions to the decline of active-core healthy food retail, which include food retail distribution mapping and data analysis, and semi-structured key-informant interviews.

Geographic data was collected from food retail categories of Winnipeg yellow page directories for each census year between 1971 and 2011, and for 2014. The data was plotted on a city map by year, using Google Fusion tables, which is a WebGIS client. Finally, interviews were conducted with planners, a former supermarket owner, and other stakeholders to gather input and expert opinions on these trends.

3.1 Geographic Data

A review of all food retailers that sell staple food for preparation at home within City of Winnipeg boundaries was retrieved for each census year between 1971 and 2011, and for 2014. Census years were initially chosen to assess possible correlations with demographic data. Although the scope was subsequently reduced to not include this analysis, the potential remains for further research using these data sets. The year 2014 was added due to the significant recent changes in inner-city healthy food retail access due to a relatively large number of supermarket closings. A similar method of plotting phone book directory listings was used by Peters & McCreary (2008) to identify food retail changes in Saskatoon, Saskatchewan.

The geographic distribution of Winnipeg food retailers was then mapped using Google Fusion data mapping tables, which allowed for reviewing the distribution by category and through heat maps.

3.2 Categorizing Store Types

This research focuses on food retail outlets which sell food staples that can be purchased for meal preparation at home. This excludes outlets that sell exclusively ready-to-eat pre-made meals (including restaurants), pastries, and junk food (such as soft drinks, high salt / sugar snacks, or confectionery).

The type of food retailers has been distinguished (through different colour indicators) in the Google Fusion maps of the City of Winnipeg. The categories consist of grocers, large supermarkets (10,000 square feet or more), convenience stores, and specialized food retail, such as delicatessens, meat shops, fruit & vegetable markets, and bakeries. Other store types that contain food retail, such as gas stations, pharmacies, department stores, and various other indirect food retail categories were reviewed, with any resulting food retailers plotted into one of the four general food retail categories. Wholesalers (such as Costco Wholesale) were only included if the location is used by shoppers as a retailer – to purchase food for preparation at home. Store types were defined with consideration of existing definitions used in industry classifications and local bylaws. Specific store categories are defined in the *Definitions* section.

3.3 Plotting the Data

The food retail maps illustrate seven data collection and plotting actions: identifying food retail categories, finding yellow page listings, entering data and reviewing outlets, summarizing and categorizing, plotting data in maps, reviewing for errors, and producing charts.

3.3.1 Identifying Food Retail Categories

The 2014 YellowPages.ca directory index was reviewed in order to identify all possible categories of listing that may contain retailers that carry staple food products for preparation at home. Twenty three categories were identified: Bakeries, Convenience Stores, Delicatessens, Department Stores, Fish & Seafood, Frozen Foods, Fruit Markets, Grocery, Meat Markets, Pharmacies, Service (Gas) Stations, Organic Food Products, Environmental Products & Services, Health Food Products, Discount Stores, Food - Bulk, Food Products, General Stores, Pasta, Poultry, Sausage, Specialty Foods, and Spices & Sauces.

Although for some categories all of the retailers would fall into the definition of food retailer for the purposes of this research, other categories had few listings that would fall into this definition. Several categories were removed from the list after reviewing them revealed that either no store in that category was a food retailer, sold staple foods, or that the few listed food retailers were already listed in another category such as ‘Grocery’, ‘Meat Market’, or ‘Delicatessen’. The categories that were removed include Food Products, General Stores, Pasta, Poultry, Sausage, and Spices & Sauces.

More details on filtering the results are available under the '*Entering Data and Reviewing Outlets*' heading.

3.3.2 Finding Listings

The Yellow Page directories were available at the Winnipeg Public Library. The 1971 and 1976 yellow pages directories were available at the back of the Winnipeg Telephone Directory for each corresponding year. All remaining yellow pages directories were available in the Winnipeg Yellow Pages Directory for each corresponding year. As changes in retail have been fairly significant over the decades, some categories were in existence or had different titles in previous years. For instance 'Organic Products' is only available in recent years, while former categories such as 'vegetable markets' are now part of 'fruit and vegetable markets'. Pages from each category for each year were photocopied for data entry.

3.3.3 Entering Data and Reviewing Outlets

The name, address, food retail category and detailed store type were recorded for each food retailer identified. The food retail category was identified as either 'grocery', 'convenience store', 'specialized food retail', or 'large supermarket'. Many retailers listed in the yellow pages directories, however, did/do not include 'staple foods for preparation at home'. For instance, many listed under Delicatessen are restaurants and many listed under Bakery sell pastries rather than staple foods. In order to record only those retailers selling staple foods a detailed filtration process was followed. One or more of the following methods were used in order to determine whether it could be considered a food retailer for the purposes of this practicum.

3.3.4 Filtering Processes

The detailed store type that the business was listed under was the most useful piece of information in determining the category of food retailer. The detailed store type helped to determine whether the listing was likely a retailer selling staple foods. For instance every entry under ‘Grocery’, ‘Convenience Store’, and ‘Meat Market’ were plotted because each listing proved to be a food retailer. Other detailed store type listings underwent a stricter filtration process because many businesses either did not sell staple foods or were not retailers. A brief summary of the various filtering methods and their purposes is available in ‘Appendix A – Yellow Pages Category Filtering Methods Summary’.

1. **Company Name Content** – In some categories not all businesses are necessarily retailers, and not all the food retailers necessarily sell staples foods. For example, most frozen foods listings include names that indicate they’re likely not a retailer, such as “AAA Frozen Food Storage”. Some bakeries sell only pastries and some Health Food Products retailers only sell dietary supplements. When the store name indicates the intent of the store was not staple foods (Ex. ‘Jenny’s Pastries’, or ‘A1 Dietary Supplements’), it was assumed the store does not sell staple foods. For some categories it was assumed that the retailer does / did not sell staple foods unless otherwise indicated in the outlet name, such as pharmacies and gas stations.

2. **Yellow Pages Advertisements** – When it was not clear whether a company was a retailer and whether it sold staple foods, a search through the Yellow Pages Directory advertisements would frequently reveal the intent of the company. This was particularly useful for Bakeries, Delicatessens, and Healthy Food Products retailers.

3. **Comparison with Other Years Listed** – Many retailers had limited information about whether the location sold staple foods in Yellow Pages Directory listings. Also, chain store location listings were inconsistent from year to year. For these retailers a comparison was made to other directory years. If an advertisement in one year revealed that a retailer sold staple foods, it was assumed the retailer sold staple foods in all listed years, whether that particular year listing contained an advertisement or not. If it was determined a business was a manufacturer in 2014, then it is assumed it was a manufacturer in all the previous listings. If a chain store location was removed for a period and then re-listed again at the same location, it was assumed that the operations at that location continued throughout the 'in-between' years. This was particularly relevant for several 7-Eleven locations that were listed in 1990s directories and not again until the 2014 directory. In some cases, personal observations verified that the outlet was in operation during the years it was not listed, such as the 7-Eleven located at McPhillips St. and Mountain Ave. This method was most often used after the categories were recorded in the spreadsheet, which made comparing listings between years easier.

4. **Website Review** – A review of the company website was used to determine 1) if a company is a retailer, 2) when the company began carrying staple foods, 3) which locations of a chain store sell staple foods, 4) and / or what year that retail location began

selling staple foods. Websites were particularly useful for larger companies or chain stores as many independent businesses did not have websites.

5. **Google Search** – A search was done through the Google search engine with the search criteria being the name of the store in quotations followed by the address of the store in quotations. The first three pages of Google were searched. This was used to find out 1) if a particular store was a retailer, wholesaler, or manufacture (ex. frozen foods), 2) if a store sold staple foods, or 3) when a particular store not listed in the Yellow Page Directories was in operation. This was generally done for historic businesses. If the initial Google search did not produce the intended results, a second Google search would be done using just the name of the business in quotations followed by the phone number in quotations, then the name of the business in quotations follow by the word Winnipeg, then using just the name of the business in quotations. In all searches, the first three pages in Google, if available, were reviewed.

6. **Wikipedia Search** – Wikipedia searches were used as one of several methods to determine what year a particular retailer began carrying staples foods. The company name was entered into the search field to see what information was available about historic operations related to expansions in food retail. This method was used for pharmacies and department stores.

7. **Google Earth Search** – A review of a grocery store building dimensions was used to determine if the building, or the portion that is a grocer, is 10,000 square feet or more.

The calculation was done by measuring the sides of the retailer to determine building area. Also, when a supermarket existed in a location and no longer exists in that location, and when an assessment search determines the same building of the former supermarket is still standing (based on year built), then the building was measured to determine whether the former supermarket was 10,000 square feet or more.

8. **Assessment Search** – A building assessment search was done using the City of Winnipeg *Property Assessment Details* tool to determine the year the building was built. This method was for all large supermarket locations. If the supermarket was listed in the Yellow Page Directories at the same address for years before the current building was constructed, then it follows that the supermarket was located within a former building before this point. Historic maps were used to determine whether the former structure was over 10,000 square feet.

9. **Google Street View Search** –Store front were reviewed to see if there were any signs that the location was a food retailer, rather than a food wholesaler or manufacturer. Also, in cases where a supermarket had stayed in the same location for more than one of the reviewed directories, where two supermarkets had been located at the same location, or when a former retailer was at a location where the building may still be standing, a Google Street View was used in order to determine if the current building is likely the same building that was used when the location was first listed as a supermarket. For instance if a current location has had a ‘Safeway’ supermarket since 1991, before which it had a ‘Food Barn’ supermarket since 1981, and the current location appears to have the

construction, material use, and design that indicates the building is decades old, then it is assumed that the former ‘Food Barn’ supermarket was the same size as the current Safeway location.

10. **Zoning Search** – A zoning search was done through the City of Winnipeg Planning, Property and Development Aerial Photography maps (http://winnipeg.ca/ppd/maps_aerial.stm) to determine the zoning of a particular building. This was done to determine whether a company building was within an industrial-zoned area. The method was used when it was unclear whether a building was a retailer, wholesaler, or manufacturer. If the building is or was in an industrial area it is assumed that it is or was not a retailer. Nearly all companies listed under Frozen Foods were either manufacturers or wholesalers.

11. **Historic Newspaper Article Search** – As part of the Literature Review, historic Winnipeg newspaper articles under the categories of “Supermarkets” and “Grocery Stores” were photocopied and reviewed at the City of Winnipeg Millennium Library. Through this review, one historic grocery chain was identified, ‘Food Barn’ (owned by Safeway Canada), which was not listed in the Yellow Pages Directories.

12. **Search in Newspaperarchive.com** – A search through the Newspaperarchive.com listings was conducted in order to identify what years historic retailers not listed in the Yellow Pages Directories were in operation. This was done through a search in newspaper articles and/or newspaper advertisements.

13. **Historic Land Use Map Search** – Certain historic built-form City of Winnipeg maps retrieved through the 'Manitoba Historical Maps' Flickr website page were used to help determine 1) when a supermarket was renovated to its larger size, 2) an estimate of the approximate size of the former supermarket. These maps include the following:

   - 'Pathfinder Map and Street Guide - Metropolitan Winnipeg (1965)', retrievable at https://www.flickr.com/photos/manitobamaps/sets/72157604052609937/
   - Winnipeg 1987 built form map (no title available) retrievable at https://www.flickr.com/photos/manitobamaps/sets/72157603566077774

   Historic land use maps were used to determine which corner of an intersection a former food retailer was located in cases where the address is listed as an intersection, rather than an exact address. For instance if a retailer address is listed at "McPhillips and Mountain" a land use map was used to see which corner had a commercial land use. These maps include the following:

   - 'Winnipeg Land Use Types 1971', retrievable at https://www.flickr.com/photos/manitobamaps/2243429512/in/photolist-6K3ZP6-6K86GA-4qfarb-aeb3H1-6Kx7JB-4zwcKh
   - 'Winnipeg Industrial Development Map (1981)', retrievable at https://www.flickr.com/photos/manitobamaps/2231151457/in/photolist-6K3ZP6-6K86GA-8Y1T5g-6KBeVE-7CyBz7-4paeAz-7iLwrd

   The Winnipeg Industrial Development Map (1981) was only helpful in cases that the food retailer was a supermarket, as the map does not indicate the locations of small retailers.

14. **Yellow Pages Gas Station Feature Tables** – All of the major gas station chains began listing tables for each outlet, which indicated key features such as ‘Convenience Store’. These tables made it easy to identify which locations had an attached convenience store.

15. **Phone Call** – The Yellow Pages Directories did not list some individual chain stores outlets for certain years, such as Giant Tiger, Dollarama, Econo-Mart, and Food Barn. The years these stores were in operation were determined through other methods for all chains except for Dollarama. In the case of Dollarama, employees at each outlet were contacted by telephone to determine the year the location was built. Since a Google search revealed the first outlet was opened in Winnipeg in 2003, the only information needed was whether it was opened before 2006, 2011, or 2014, as these were the years plotted.

16. **Duplication Review** – After all the food retailers were plotted into Microsoft Excel spreadsheets. The data was sorted by address to determine whether there were duplicates in any year. In many cases a business was listed under multiple categories, such as ‘Grocery’ and ‘Meat Market’ or ‘Meat Market’ and ‘Delicatessen’. Each retailer was recorded only once based on a hierarchy of category types. If it was listed under Grocery and another category it would be recorded as ‘Grocery’ (or ‘Large Supermarket’ depending on the size). If it was between two other categories, it would be listed as the category that tends to include a higher number of food retailers. For instance if listed between ‘Organic Food Products’ and ‘Delicatessen’ it would be listed as ‘Delicatessen’. Duplicate entries were most common between ‘Meat Markets’ and ‘Delicatessens’, ‘Meat

Markets' and 'Grocery', 'Convenience Store' and 'Grocery', and 'Convenience Store' and 'Gas Station' (both of which would have been recorded as 'Convenience Store').

3.3.5 Food Retail Yellow Page Detailed Store Type Listings

Depending on the detailed store type listing, different processes were used based on the nature of the listings in that category. Once a business was determined to be a food retailer, no other filtration process was used. After recording all categories an additional Duplication Review process was done to ensure there were no duplicate listings for the same retailer. Each Yellow Page Listing Category reviewed is identified below, along with the name of the filtration process used, except for Duplication Review, which was used for all retailers. A table identifying which filtration process was used for which Yellow Pages Directory category is available in 'Appendix B - Yellow Pages Categories & Filtration Method Table'.

Bakeries – Some bakeries listed sold pastries and no staple foods. The following methods were used in order to determine whether the bakery should be plotted: Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, and Google Search. All recorded bakeries were plotted in the broader 'Specialized Food Retail' category.

Convenience Stores – In some cases companies listed under 'Grocery' or 'Service/Gas Station' had 'Convenience Store' in the name title. Between the years of 1971 and 1976 the Yellow Pages had no category for convenience stores, all of which were listed under

‘Grocery’. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, and Website Review. All recorded convenience stores were plotted in the broader ‘Convenience Store’ category.

Delicatessens – In some cases delicatessens were sit-in restaurants. In many cases delicatessen food retailers were also listed under Meat Markets. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, and Google Search. All recorded delicatessens were plotted in the broader ‘Specialized Food Retail’ category.

Department Stores – Most department stores didn’t begin carrying foods until the 1990s or early 2000s, except for Eaton’s and Hudson’s Bay (downtown location). In some cases the department store began carrying a limited selection of dry foods, others, such as Zellers began carrying the equivalent of a small grocery store, and more recently some outlets (Walmart Supercenters) have expanded to include a full-scale of foods, including multiple departments of food selection. While it is difficult to measure the exact size of the food retail section of the Walmart Supercenters, they have been plotted under Large Supermarket as their selection is comparable to that of other large supermarkets. Methods used included Yellow Pages Advertisements, Comparisons with Other Years Listed, Website Review, Google Searches, Wikipedia Searches, and a Search in Newspaperarchive.com. Recorded department stores were plotted in either the ‘Convenience Store’, ‘Grocery’, or ‘Large Supermarket’ categories, depending in the breadth of staple foods sold.

Fish & Seafood – Some Fish & Seafood businesses were manufacturers or wholesalers. In all other cases they were plotted as a food retailer. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Google Searches, Google Street View Search, and Zoning Search. All recorded fish & seafood stores were plotted in the broader ‘Specialized Food Retail’ category.

Frozen Foods – Most Frozen Foods companies listed were wholesalers. Methods used included Company Name Content, Yellow Pages Advertisements, Comparisons with Other Years Listed, Google Searches, Google Street View Search, and Zoning Search. All recorded frozen foods stores were plotted in the broader ‘Specialized Food Retail’ category.

Fruit Markets – The Fruit Markets category included vegetables, except in 1971 and 1976 when both Fruit Markets and Vegetable Markets were listed. In this year the Vegetable Market listings were plotted under Fruit Markets. In many cases the fruit market business was a fruit beverage sales kiosk, which did not sell staple foods for preparation at home. Methods used included Company Name Content, Yellow Pages Advertisements, Comparisons with Other Years Listed and Google Searches. All recorded fruit markets were plotted in the broader ‘Specialized Food Retail’ category.

Grocery – All food retailers listed under Grocery were plotted under Grocery or Large Supermarket, depending on the size. Between the years 1971 and 1976 convenience stores were listed under ‘Grocery Stores’. For these years, any store with ‘convenience store’ in its name, along with well-known convenience store chains were plotted as convenience stores. If a grocery store had supermarket in its name it was recorded as a subcategory titled ‘supermarket’ and fell into the broader ‘Grocery’ category unless it met the size criteria for ‘Large Supermarket’. Methods used in order to determine if it is/was a large supermarket included Company Name Content, Comparison with Other Years Listed, Google Earth Search, Assessment Search, Google Street View Search, and Historic Land Use Map Search. All recorded grocery stores were plotted in the broader ‘Convenience Store’, ‘Grocery’ or ‘Large Supermarket’ categories, based on its current/historic size and store name (for 1971 and 1976).

Meat Markets – Meat Markets were listed unless it was also listed under ‘Grocery’ or it was a meat manufacturer. Methods used included Company Name Content and Yellow Pages Advertisements. All recorded meat markets were plotted in the broader ‘Specialized Food Retail’ category.

Pharmacies – Very few pharmacies before the 1990s sold staple foods, after which a few chains expanded operations. As a result, more extensive processes were used for the larger pharmacy chain stores. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, and for the chain stores additional methods were used, including Website Review, Google Search, and Wikipedia Search. All recorded pharmacies were plotted in the broader ‘Convenience Store’ or ‘Grocery’ categories, based on the breadth of the staple food offerings.

Service (Gas) Stations – Similar to pharmacies, very few gas stations prior to the 1990s included convenience stores. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Yellow Pages Gas Station Feature Tables, and Website Review. The 2011 gas Yellow Pages directory no longer included the 'gas station feature tables'. The initial search through the 2011 Yellow Pages Directory and website review was in late 2012. The gas station websites were used to determine which locations had convenience stores and which ones did not. It is possible that between 2011 and late 2012 some convenience stores were added, which would result in incorrectly plotting some convenience stores for 2011 where there was in fact no convenience store. All recorded service (gas) station convenience stores were plotted in the broader 'Convenience Store' category.

Organic Food Products – Most Organic Food Products listings were groceries that specialized in organic foods. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, and Google Searches. All recorded organic food products listings were plotted in the broader 'Grocery' category, based on the breadth of product offerings revealed through the website review.

Environmental Products & Services – The vast majority of Environmental Products & Services listings included retailers that did not sell staple foods. The only locations that qualified appear to be general merchandise & grocery stores that specialize(d) in ecologically sensitive product offerings. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, and Google Searches. All recorded health food products listings were plotted in the broader ‘Grocery’ category.

Health Food Products – The vast majority of the Health Food Products listings focused sales on vitamins and food/nutrition supplements. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, and Google Searches. All recorded health food products listings were plotted in the broader ‘Specialized Food Retail’ category.

Discount Stores – Most discount stores sold/sell general merchandise although a few include a selection of dry goods / canned foods. Although Dollarama has a dry goods / canned food aisle, nearly all locations are not listed in the Yellow Pages Directories. Similarly, although Giant Tiger is listed under Discount Stores in the online Yellowpages.ca, none of its locations are listed in the Yellow Pages Directories. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, Google Searches, and a Phone Call (for Dollarama locations). All recorded discount stores listings were plotted in the broader ‘Convenience Store’ category due to their limited food selection.

Food-Bulk – This category was fairly small with some businesses switching periodically between Health Food Products and Food-Bulk. Any store that sold bulk food was reviewed to ensure these foods included staple foods. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review and Google Searches. All recorded food-bulk listings were plotted in the broader ‘Specialized Food Retail’ category.

Specialty Foods – Most Specialty Foods stores were also listed under Delicatessen. Methods used included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, Website Review, and Google Searches. All recorded Specialty Foods listings were plotted in the broader ‘Specialized Food Retail’ category.

Food Products, General Stores, Pasta, Poultry, Sausage, and Spices & Sauces No retailers from these categories were recorded because they did not include food retailers, did not sell staple foods, or the few food retailers were already listed in another category. Methods used for these sections included Company Name Content, Yellow Pages Advertisements, Comparison with Other Years Listed, and Google Searches.

Unlisted Retailers – Some retailers were not listed in any category, such as Econo-Mart and Food Barn. These were revealed through the Historic Newspaper Article Search. Methods used to identify these food retailers included Google Searches, Wikipedia Search, Historic Newspaper Article Search, and Search in Newspaperarchive.com. After the buildings were identified, the size of the historic buildings were determined through a Google Street View Search and Assessment Search to determine if the original building is still standing, and a Google Earth and Historic Land Use Map Search to determine the building size. All of these listings were plotted in the broader ‘Large Supermarket’ category.

3.3.6 Summarizing and categorizing

After recording all the food retailers by year in Winnipeg a colour was assigned to each of the four broad categories for the purposes of plotting on maps: red for grocery, yellow for convenience store, green for specialized food retail, and blue for large supermarkets. The data was summarized and totals were calculated by category in a summary table (See Appendix C – Food Category Totals by Year).

3.3.7 Reviewing for errors

Data was reviewed to ensure there were no duplicates, spelling errors, misspelled addresses, or incorrect categorization.

3.3.8 Plotting data in maps

Once all the food retail data tables were complete the information was uploaded into Google Fusion data mapping tables by year. Each map was set up to have two features: the colour map shows the geographic location of food retailers by colour – red, yellow, green, and blue; the heat map shows the density of food retailers throughout the city. While comparing the years in the colour map reveals the changes in distribution by type of food retail over the years, its limitation is that when multiple retailers are plotted at a single address (such as at a strip-mall) or are in close proximity to one another, they appear as one retailer. The heat map on the other hand shows the density by changes in colour, which shows the changes in overall option of food retail throughout the city.

3.4 Potential errors

Once all the food retailers were plotted, the maps were reviewed to ensure all retailers were correctly plotted in Winnipeg. Any retailers that were plotted outside the City of Winnipeg boundaries were removed from the maps and from the original data tables. A couple dozen random locations in random years were tested to double check that the plotting was correct. All entries were sorted to check for duplicates to make sure that each store is recoded only once; however, inaccuracies were possible and potential errors include the following:

Not recording a retailer that existed – The first filtration process used was Company Name Content. If a company name was fairly misleading about the product offerings, there could be cases where a store sells staple foods but was not recorded. If a historic retailer was located in the middle of an industrial zone and the retailer name didn't make it clear, the retailer has been mistaken as a manufacturer or a wholesaler. One section that may have had some errors is the bakery category. Any retailers that had 'Pastry Shop' in the company name description was not recorded as selling staple foods, unless a Yellow Pages advertisement in that year or other year listings revealed otherwise. For instance 'Jenny's Pastries' may sell loaves of bread. Another issue is that any store that was never listed in the Yellow Pages may not be plotted. Although it was initially assumed that all food retailers have had listings in the Yellow Pages directories, the methods used revealed that large supermarkets and chain store locations are occasionally not listed in these directories. While the Comparison with Other Years Listed and Historic Newspaper Article Review revealed several of these locations, it is possible there are others that were never found.

Recording a retailer that did not exist – Since the 2011 Yellow Pages Directory did not show individual Service (Gas) Station convenience store listings, and the initial website search was done in late 2012, it is possible that some new convenience stores between 2011 and late 2012 were incorrectly plotted as having existed in 2011.

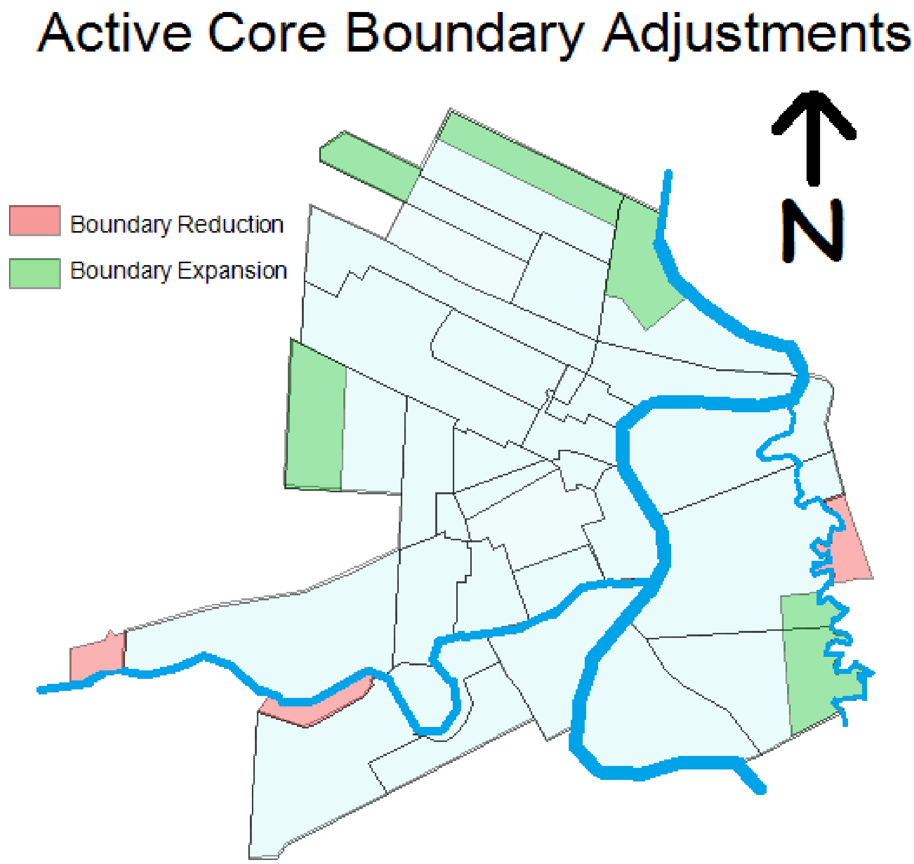
Incorrect Broader Category – Some retailers have been listed back and forth between different Yellow Pages categories over the years, including convenience stores and grocery. Also, determining the equivalent category the food offerings in pharmacies and department stores based on the breadth of food offerings can be difficult. The line between a convenience store and a grocery store isn't always clear, and the line between a department store that carries the equivalent of a grocer or a large supermarket is also difficult. While there was rationale behind every decision, due to the limited information available it is possible that some retailers would better fit into another category.

While there are several potential errors in the plotting, overall these errors should be minimal due to the multiple steps used to ensure the accuracy of this data. Minor errors in plotting should have minimal impact on assessing the overall trends in healthy food retail over the decades.

3.5 Identifying Active Core Food Retailers

A separate table was produced by counting the number of food retailers by category, by neighbourhood, and by year within Winnipeg's active core neighbourhoods. Dr. David Gordon defines the "active core" as areas that have "an average rate of active transportation, walking and cycling, 1.5 times higher than the overall average for the census metropolitan area" (Density Method, Gordon 2011). The boundaries of the active core identified through David Gordon's research were determined through census tract boundaries, rather than City of Winnipeg neighbourhood boundaries. Because City of Winnipeg neighbourhood boundaries are used by the City of Winnipeg and Province of Manitoba in planning and service delivery (including reinvestment area funding), it was decided to redefine the active core using City of Winnipeg neighbourhood boundaries rather than the census tract boundaries that Gordon had used. Most of the census tract boundaries follow neighbourhood boundaries although there are a few exceptions. The adjusted active core boundaries are displayed in Map 5. The grey lines identify neighbourhood boundaries. Expansions to Gordon's active core boundaries are highlighted in green. Reductions from the active core area are highlighted in red. Because the boundary adjustments are minimal, the changes in the average rate of active transportation, walking and cycling should be minimal.

Map 5 – Winnipeg Active Core Boundary Adjustments



After all food retailers were plotted using Google Fusion Tables WebGIS client, retailer numbers were recorded in each of these neighbourhoods by category by year. The table summarizes the total number of food retailers within Winnipeg's adjusted active core boundaries. The food retail totals by year within the active core were deducted from the food retail totals by year of the entire city. The resulting amount reveals the food retail totals for the remaining city by year. This allows for a comparison between the active core and the remaining city.

Producing charts

The summary table was used to produce charts to display the changes in food retail by category over the years. The separate active core table allowed for the production of charts comparing the active core food retailers by year with the remaining city.

Comparison Factors

The geographic data was qualitatively compared to population, density, and traffic volume data. While statistical correlations are possible for future research, they are beyond the scope of this project.

3.6 Interviews

Two types of interviewees were identified and sought out for interviews: food retailers and food planners. Food retailers were identified as retailers in select active core neighbourhoods that had a significant decline in access to food retail options, or as former food retailers through newspaper articles. Food planners were identified through contacting City of Winnipeg district planners for inner-city neighbourhoods, Province of Manitoba planners working on City of Winnipeg revitalization initiatives, and other experts on policy, research, and analysis in the field.

Semi-structured interviews were held with key stakeholders, including several City of Winnipeg planners, provincial research policy analysts, a member of Food Matters Manitoba, and a former owner of an independent supermarket in Winnipeg's active-core. Respondents were asked a series of questions relating to their understanding of food retail changes in Winnipeg's active core and possible solutions they have been working on or are aware other cities have been working on.

The questions were created by identifying the information that would be helpful in answering the guiding questions of this project. Findings from the literature review, including identified practices used in other jurisdictions, were incorporated into the questions.

After the interviews were conducted, the responses were categorized by subject and compiled into one document under a coded letter/number combination for each participant statement. The responses were then summarized and described together in separate document in a paragraph format by topic and sub-topic, with any individual interviewee information removed. This document is available in (Appendix D - Interview Response Summary).

Although the initial intent was to complement the geographic findings regarding the changing food retail environment with a comprehensive and in-depth discussion on potential solutions, securing a high number of interviews was more difficult than anticipated. As it cannot be said that the interview subjects are a representative sample or that their comments should be considered comprehensive, the interview findings are best used to explore possible causes and the context of healthy food-retail decline and to provide considerations for future research.

Chapter IV: Literature Review

The trend towards larger supermarkets and fewer small grocers in Winnipeg has and will continue to have impacts on active-core neighbourhoods. In order to provide solutions, it is important to better understand some of the reasons this trend has been happening, what some of the challenges are for healthy and accessible food retail in and around Winnipeg's active core, and what has been tried elsewhere.

4.1 Large Supermarket Advantage

Large supermarkets, by their sheer size, can offer a variety of products from multiple departments, and provide ample parking, well-lit stores with wide aisles, generously-sized shopping carts, new technologies, and better security through the large number of people (eyes in the mall) and / or security guards. This is in addition to the ability of large supermarkets to offer lower prices due to their deeper pockets, economies of scale, more buying power, and more comprehensive marketing strategies.

Alexander and Shaw (2012) outline several possible factors that have caused a general decline in small businesses. Firstly, the ability to compete in terms of product line and/or price is limited in smaller businesses as compared to larger businesses. Secondly, legal and regulatory requirements can be challenging, which may require "a working knowledge of the labour code, tax laws, import duties, employee benefits, and local zoning regulations" (p. 30). Further, they note that "retailers must also grapple with changes in provincial legislation, local government by-laws, parking, signage, street furniture, landscaping, building finishes, and mixed use concerns" (p. 30). The third factor is the breadth in advertising of larger businesses targeted towards consumers in their everyday activities (Alexander & Shaw 2012).

The reasons are varied, but the result is clear. Over a few decades the number of grocery stores decreased by hundreds as smaller grocers shut down and the industry has increasingly shifted towards fewer neighbourhood-scale grocers and more large-scale regional supermarkets.

4.2 Challenges in Providing Healthy Foods in Grocers

Song et al (2012) explored why urban grocers often have little healthy food to offer. They interviewed 13 grocery store managers and 4 supermarket managers in Baltimore, USA, and found that some of the most prominent reasons for limited healthy options were a result of limited shelf space and limited wholesale offerings. Another study (Song et al 2009) found that intervention can be an effective tool. When retailers agreed to carry more healthy options of selected types that were consistent with offerings of the grocery store category, sales tended to increase – showing that an urban grocer may be able to offer healthier food options, while still remaining profitable (Song et al 2009).

While certain healthy foods may bring in more sales at an urban grocer, food retailers are limited by wholesale offerings, and some wholesalers may be owned by larger competitors. For instance, Western Foods and Wholesale Club wholesalers are both owned by Loblaw Company, which owns the supermarket chains Superstore and Extra Foods (Loblaw Companies Limited 2013). Wholesalers may also treat larger supermarkets differently. The Sydney (Australia) Daily Telegraph reported that wholesalers often give a discount to bulk buyers, giving an advantage to higher volume stores. It reports that sometimes the bulk buyers take a loss to put the independent grocers out of business through engaging in predatory pricing (Daily Telegraph 2007).

Another challenge that may affect adequate healthy and affordable food availability is restrictive covenants. Cameron et al (2010) describe supermarket restrictive covenants as "private legal agreements normally between a supermarket chain and the purchaser of the former supermarket site", which "limits the rights of the binding party" (p. 905). This would restrict a new store's capacity to compete. In investigating Edmonton supermarket closures, the researchers found that 18 of the 60 closed stores between 1971 and 2006 had restrictive covenants, limiting the amount of food that could be sold at each site, including requirements that new operators had to purchase foods from the former supermarket-owned wholesaler arm. Most of these sites (78%) were in mature neighbourhoods and six of them had no alternative supermarket within a ten minute (800 m) walk. Cameron et al (2010) argue that in the case of mature communities, it can be difficult for a retailer to get enough land and obtain zoning and parking space for a new supermarket, meaning there may be few alternatives to these restricted sites. While these covenants are highly restrictive, the study did not find document covenants in Canadian cities outside of Edmonton and Vancouver, but noted the topic has not been well-studied to date. The City of Chicago restricted these covenants to last three years under a City ordinance. It is unclear whether any Winnipeg retailers have been affected by restrictive covenants.

In some cases, choice in healthy food retail may be limited simply by the reduction in multiple food retailers that together offer different parts of a healthy diet. For instance, having reasonable access to a fruit market, a meat market, a baker, and a small grocer may provide a similar choice as that of a larger supermarket.

Haines (1994), in a Winnipeg Real Estate News article, identified the significant loss of local grocers and delis in urban Winnipeg – outlets with all sorts of unique attributes in every corner store. With less food variety on offer in a neighbourhood, there can be pressure on an individual store to offer more than simply the dry goods. For instance, a deli and a small grocer may complement each other in product offerings, allowing customers to purchase all or the majority of their grocery needs. If the deli closes down, many of these customers may instead go to a larger supermarket because they can no longer purchase all their preferred grocery items within the local neighbourhood. With this loss, it is possible some of the remaining small grocers will be less likely to attract customers, except for supplemental shopping trips such as the occasional staples (eggs, bread, milk, etc.). Cameron et al (2010) make a similar point about the effect of the loss of a supermarket on adjacent businesses – business at nearby retailers often decline after the commercial anchor (supermarket) is gone.

4.3 Environmental Characteristics

Literature on consumer shopping behaviour suggests that while residents tend to mostly travel by car to do shopping, they tend to prefer stores that are more pedestrian-oriented, and will support smaller stores when motor vehicle transportation is not an option or a preference (Handy & Clifton 2001, Dunkley et al 2004).

In exploring how planners can reduce auto-dependency, Handy and Clifton (2001) explored why consumers choose local retailers when they do, and how often they choose to walk rather than drive. They measured shopping patterns of residents within six neighbourhoods in Austin, Texas, paired up by age of neighbourhood and distance to the central business district, through household surveys and focus groups. They found that urban residents tended to have more shopping trips, but would walk more often – the difficulty of carrying large amounts of groceries while walking was determined to be a likely cause of more frequent trips. Although they did not necessarily shop at the closest grocer, urban residents were not traveling as far to shop for groceries. Interestingly, distance was rated the same among participants as selection, prices, atmosphere, product quality, and line-ups across all neighbourhoods, although 'convenience' in shopping was mentioned as being very important. Built form appeared to be a factor among those who chose to walk. They found that they were less likely to walk to stores where they needed to cross or walk along busy arterials or through large parking lots. Unfortunately, the study reviewed few neighbourhoods and had little discussion on the effect of built form, perception of safety, or the appeal of multiple stores clustered together on walking behaviour. It also did not measure the proportion of residents that traveled to a close-by store (say within one kilometer) that was not the closest store. This might shed more light on how far a resident is likely to travel for convenient grocery shopping.

One trend discovered was that residents tend to shop at the nearest grocer/supermarket when there are no others within close proximity; a large regional supermarket can have a large geographic market if there is no direct competition nearby. Dunkley et al (2004), in a study on supermarket size in Atlanta, Georgia found that larger supermarkets tend to have higher prices when these circumstances arise, and have lower prices when in close proximity to competitors. This is consistent with claims that Winnipeg's large emerging supermarkets, during the 1990s, would lower prices to undercut other retailers until the latter were out of business (Flood 1993).

Dunkley et al (2004) found that store size correlated with motor vehicle usage of shoppers, which is consistent with the Handy and Clifton (2001) findings. Residents who walk are less likely to walk to a larger regional store because it is further away. They concluded that small grocery stores would be most successful in neighbourhoods where lower income or limited transportation choice inhibits motor-vehicle usage, suggesting that these neighbourhoods may benefit most from grocery size restriction policies. Size restrictions and other policies are discussed further in the following section of this paper: *Planning Policy on Retail Development*.

Bartlett (2003) measured the level of density a neighbourhood needs for stores to be able to survive without shoppers coming in from outside the community. He found that the vast majority of store categories were unable to be profitable within a US square kilometer which has an average (median) residential density of 1,237 people per km^2, assuming the average person will walk up to five minutes. According to Bartlett's analysis, convenience stores and small grocers are the only food retailers that could reasonably be expected to be sustainable, given a customer base of an average square kilometre population density. And even then, they would likely have a relatively small selection – resulting in shoppers having to frequently travel to more distant stores that offer greater variety. The median grocery store (based on sales volume) would require a population of 1,710 residents, if all the residents purchased their groceries at this store. Winnipeg's average (mean) population density, for comparison, is 1,333 residents per km^2 and 3,554 residents per km^2 within the active core, based on the 2006 Census (City of Winnipeg 2006).

One shortfall of Bartlett's analysis is that his findings, describing the required density to support a given store type, do not account for demographics or travel preferences. A neighbourhood where residents who chose to walk more – for whatever reason – may be able to support a larger grocer, because there may be more who would shop within the neighbourhood. The problem is that most of Winnipeg's inner-city neighbourhoods, according to Census data, have a relatively high amount of automobile usage – possibly as a result of the difficulty conducting one's daily business without an automobile. If urban neighbourhoods become more attractive for walking, perhaps fewer residents would shop elsewhere, thus reducing the density needed to maintain a given store type. The other issue is that inner-city neighbourhoods, such as that of Winnipeg, are likely have a higher average density than the average US residential density of 1,237 people per square kilometer, meaning that slightly larger businesses than those he suggests may be financially sustainable. Regardless, these findings can be helpful as a general guideline as to how much neighbourhood population density can support a local grocer.

Several studies appear to find that neighbourhoods with more walking tend to be able to support smaller-scale and more accessible food retail (Dunkley et al 2004, Handy & Clifton 2001). It follows that a neighbourhood that is more attractive to walkers, i.e. with 'walkability', may improve the profitability of local food retail options.

Rhodes et al (2007) attempted to answer this question – at least in part. In attempting to find how various factors affect walkability they surveyed 203 Canadian residents on walking patterns, measuring an array of attributes including the respondent's perceived environment (attitude towards its aesthetic appeal, amenities, etc.), respondent personality, walking behaviour, intention to "take a walk", and attitude towards leisure-time walking. The study found that nearly half of walking behaviour was a result of the respondent intending to walk as a part of regular activities. They also found that environmental factors, such as a retail, walking infrastructure, and neighbourhood aesthetics contributed to walking behaviour, and that survey participants who lived "closer to retail may end up walking more than originally intended," independent to one's personality type (Rhodes et al 2007, p.8). The authors suggest that when there is no local retail, pedestrian activity tends to be reduced.

Wood et al (2010) examined factors that affect residents' sense of community in the US through a telephone survey of 609 randomly chosen participants in Atlanta. They found that pedestrians have a better sense of community in neighbourhoods that have high commercial floor space to land area ratios (FAR); street fronting stores, little/limited setback, and no surface parking. Sense of community was also higher with: more leisurely walking, not too much activity, and not too high a variety of land uses oriented to motor vehicles.

4.4 Planning Policy on Retail Development

Various city governments have enacted macro level city-wide policies such as incentives to attract retail through taxation strategies (Lewis 2001), limitations on chain-store, franchise, and ‘big box’ retailers (Dunkley et al 2004; Denning & Lary 2005; Field 2007; Kingston & Kohler 2008), and a variety of other initiatives backed by political will and community and organizational partnerships (Pothukuchi 2005).

While there is some evidence showing that larger regional retail shopping centres can have a negative impact on smaller more locally-oriented retailers, designing policies to regulate the larger centres can be quite controversial. Guy (2007) examined UK policies requiring that large suburban retailer developers demonstrate a ‘need’ for new developments, rather than simply expand based on the claim that there is consumer demand. This need was often specified as both quantitative – such as supply and demand within a geographic area, level of competition – and qualitative (i.e. as a gap to be filled in providing retail products). Guy argues that while qualitative need appears to make sense, the requirement to demonstrate quantitative need makes extra unnecessary work for planners and potential developers, and is redundant because the market will show, over time, whether there was such a need. What Guy does not address in his critique, however, is the potential for retailers to build in areas with little existing demand, thereby providing an incentive for developers to build more homes in places with little existing development, such as land on the outskirts of the city. This could result in added infrastructure costs to the city, in addition to the economic impact to inner-city retailers from competitors that could easily offer large scale stores benefiting from economies-of-scale, with extensive free parking and on more affordable land. Cameron et al (2010) discuss this as a common trend of mega food stores, growing since the 1980s. Winnipeg's Kenaston and McGillivray area in Fort Garry is an area around which entire neighbourhoods, such as Linden Ridge, and expansions to existing neighbourhoods, such as Linden Woods and Whyte Ridge, were developed after regional power centres were built. An assessment of supply and demand by planners and or developers in such a case would clearly be beneficial, rather than unnecessary, in anticipating the existing need. What appears to be lacking in Guy's argument is the idea that supply may shape or direct demand. While access to food retail may or may not affect the total demand for homeownership, it is possible that the placement of food retailers may have an impact on where people choose to purchase or rent a home, resulting in an increasing local market and increasing demand.

While suburban supermarkets may take a toll on inner-city food retailers, one important consideration is the effect that a new food retailer may have within an area described as a food desert. Sadler et al (2013) investigate whether new food retailers in a food desert will improve food accessibility and prices. Using GIS mapping and nutritious food 'basket' price comparisons in identified food deserts in Flint, Michigan, the researchers analyzed the impact of two new food retailers. Both had significantly decreased the food desert and provided more affordable and accessible healthy foods. The difference in grocery costs for local residents was substantial, for some residents amounting to the equivalent of two to three months' rent in annual savings. One of the stores, Weatherbee's, was developed as a result of a community-led initiative, backed through public and private financing. The authors suggest this could be a model for helping improve food deserts in other cities.

A similar initiative came together in New Haven, Connecticut, where the Elm City Market co-operative was created through a community-led initiative to address the lack of a full-service grocery store (Elm City Market 2012). Being member-led, the co-operative operates under the direction of its customers. This relationship between a food retailer and its members may prove to be beneficial in an industry where location can have such a significant impact on neighbourhoods. Winnipeg has two food co-operatives, both of which are worker-owned, rather than customer-owned: Neechi-Commons and Organic Planet Workers' Co-op. Both are located in inner-city neighbourhoods, and Neechi-Commons has recently expanded in Winnipeg's North End – an area of the city where other supermarkets have recently been leaving (Neechi Commons 2013).

Jackson and Watkins (2005) explored how planning policies impacted the retail market in England. They interviewed retail planners, surveyed planning authorities, categorized municipal planning policies, and correlated this with retail property rental data. The categories of retail planning policies analyzed included "multi-use land policies, regional constraints in built environment, local planning strategies and policy, and that of property market and economic indicators." Results showed that policies related to property market and physical built-form constraints can improve retail performance, and that these policies tend to have greater effect where there is a strong market.

Alexander & Shaw (2012) outline an assortment of other planning policies and initiatives are available "to protect the small retail sector", including the following:

> grants, subsidies, and low-interest loans; preferential treatment in development applications or procurement decisions; amenity improvements to attract shoppers; 'Shop Local' and business certification programs, and creative planning and zoning measures (p. 31).

The authors go further in identifying various cities in the US, France, and Italy that have different initiatives supporting small retailers, including different types of design standards that limit big box stores and provide a more pedestrian-scale and interesting environment.

While a variety of bylaws have been enacted at the municipal level, the issue of healthy food accessibility has received much attention and corresponding legislation at a state and provincial level as well. Kim and Black (2011) conducted a systematic review and categorization of state legislation in the United States between 2001 and 2009 focused on improving access to fresh produce. They found that legislation tends to fall into one the following categories (each is followed by a description):

Healthier food retail: Increase the number of, access to, or quantity and quality of fruits and vegetables provided at food retail venues. Includes providing incentives for locating supermarkets in underserved areas, improving existing supermarkets and small stores, and supporting farmers markets.

Local - procurement / marketing: Connect community organizations and individuals to local fruits and vegetables. Includes farm-to-institution programs, Buy-Local campaigns, and formation of agricultural cooperatives.

General access: Increase availability and affordability of fruits and vegetables, but local or state-grown was not specifically stated. Includes pricing incentives for low-income individuals and community gardens.

Food system support: Address upstream issues related to the food system, including efforts to dedicate land to production of fruits and vegetables, research of land potential, processing of fruits and vegetables, and teaching or improving farming practices related to the production of fruits and vegetables.

Food policy council: Create or support food policy councils or related coalitions that bring together stakeholders to examine and make policy recommendations about the food system (Kim & Black 2011 pp. 103).

Kim and Black (2011) discuss specific pieces of legislation in greater detail, including a program in Los Angeles, which provides grants and loans to retailers that increase affordable healthy food access in 'food deserts', and a California program that provides resources for existing grocers to purchase, market, and sell fresh produce.

4.5 Community Tools

Community Food Assessments (CFAs) appear to be a helpful tool that can be used in assessing food security. A CFA is defined as "a participatory and collaborative process that examines a broad range of food-related issues and resources in order to inform actions to improve community food security" (Community Food Security Coalition, p. 3). Pothukuchi (2004) attempted to measure how well CFAs can be used as a planning tool for assessing food needs. She conducted nine CFAs in urban neighbourhoods around the

US and found that these can be helpful tools for planners to learn and help communities become self-empowered in their abilities to assess food security.

Chapter V: Findings

Plotting the food retailers in Winnipeg was an extensive process that revealed a wealth of information about Winnipeg's changing food retail landscape. While a large number of interviewees were contacted, a limited number of contacts agreed to an interview. While the numbers were fairly low, the breadth of knowledge was fairly comprehensive.

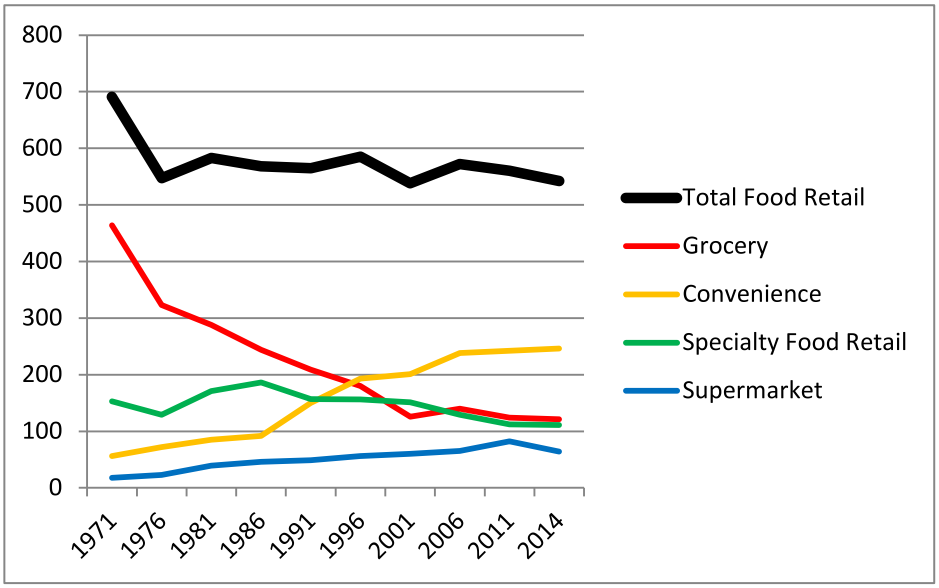
5.1 Distribution of Food Retail

Between 1971 and 2014 total food retail across the city declined by 21.6% (see Table 2, Chart 2). During this time, small grocers declined by 73.9% and specialty food retailers declined by 27.5%. This was partially offset by an increase of convenience stores by 339.3% and of large supermarkets by 255.6%. While the number of grocery stores decreased by nearly three quarters, the convenience stores increased three times over.

Table 2 – Food Retail Change by Category between 1971 and 2014

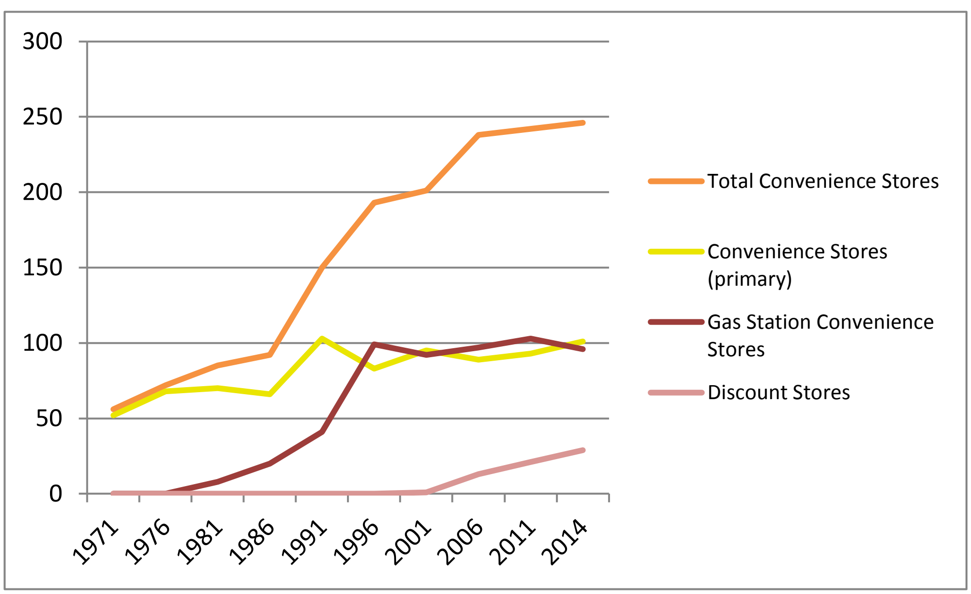
	1971	2014	# Change	% Change
Grocery	464	121	-343	(73.9)%
Convenience	56	246	190	339.3%
Specialty	153	111	-42	(27.5)%
Large Supermarket	18	64	46	255.6%
Total	**691**	**542**	**-149**	**(21.6)%**

Chart 2 – Number of Winnipeg Food Retailers by Category (1971-2014)



Grocery store and supermarket numbers, when graphed, followed a pattern of exponential decay, with the most dramatic decline occurring in the early 1970s and reducing over the years. Over the past fifteen years, the total number of grocery stores remained relatively stable at just over 120 grocers.

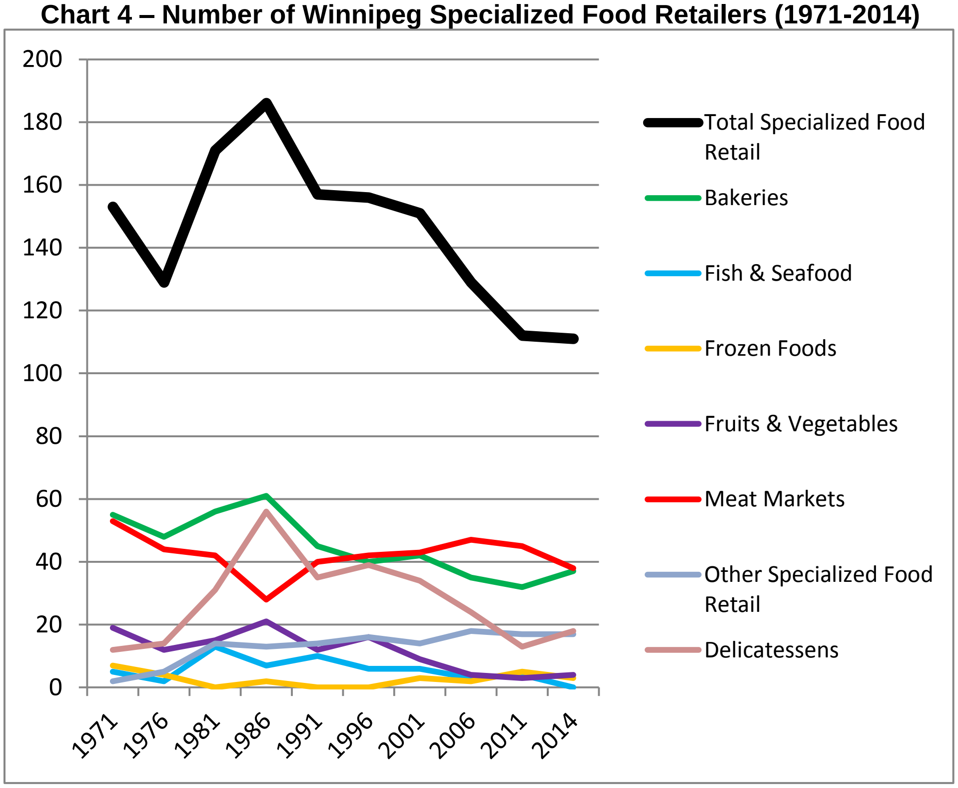
Chart 3 – Number of Winnipeg Convenience Stores (1971-2014)



Convenience stores followed a fairly consistent growth pattern, with a sharp increase between the mid-1980s and mid-1990s. When separating out the different types of convenience stores by primary-use convenience stores, gas station convenience stores, and discount stores (that sell limited staple foods), it appeared that the large spike in the total number of convenience stores was due to the growing number of gas station convenience stores (see Chart 3).

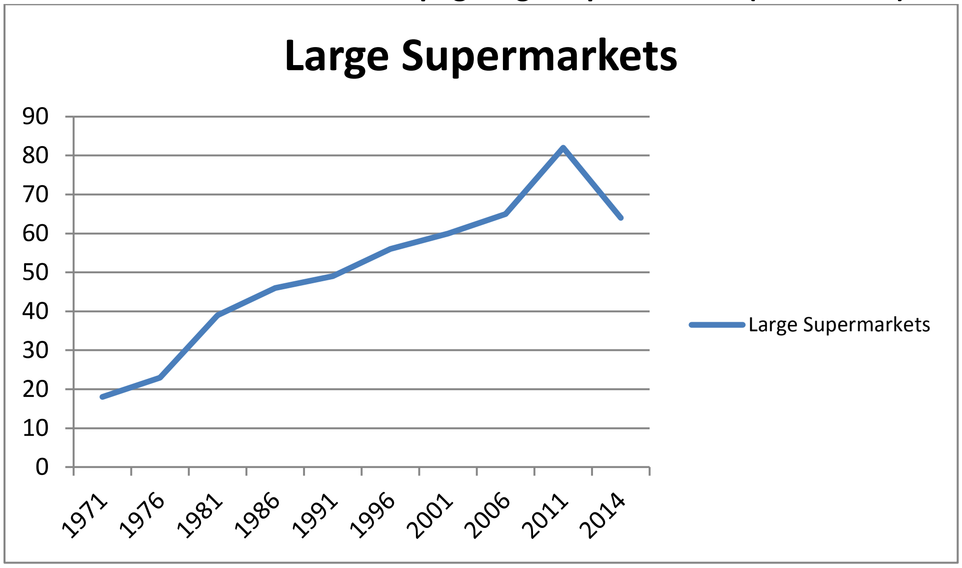
Specialized food retailers illustrate a variable trend, with a sharp decline between 1971 and 1976, than a greater increase between 1976 and 1986, followed by a steady decline. The increases and decreases appear to be reflective of changes in the numbers of bakeries and fruit and vegetable markets (see Chart 4).

Chart 4 – Number of Winnipeg Specialized Food Retailers (1971-2014)



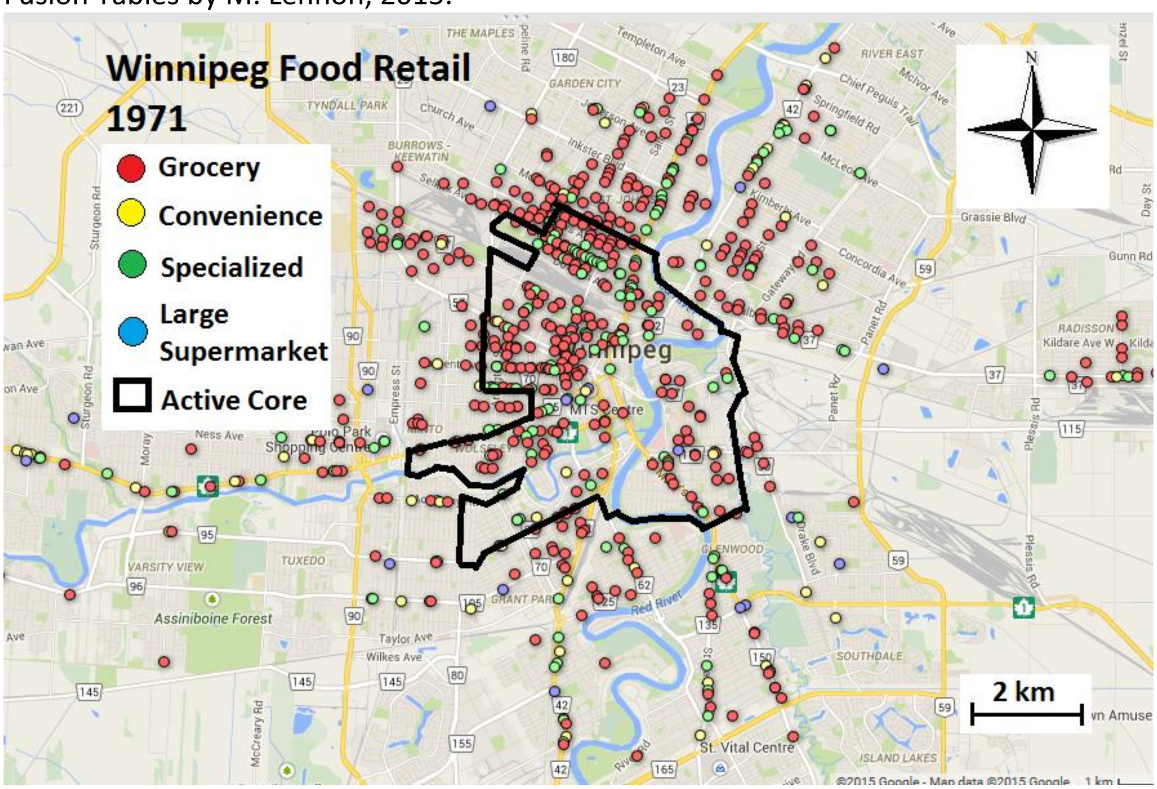
Large supermarkets had a slow but steady increase across Winnipeg through the years and then a sharp drop after 2011 (see Chart 5).

Chart 5 – Number of Winnipeg Large Supermarkets (1971-2014)

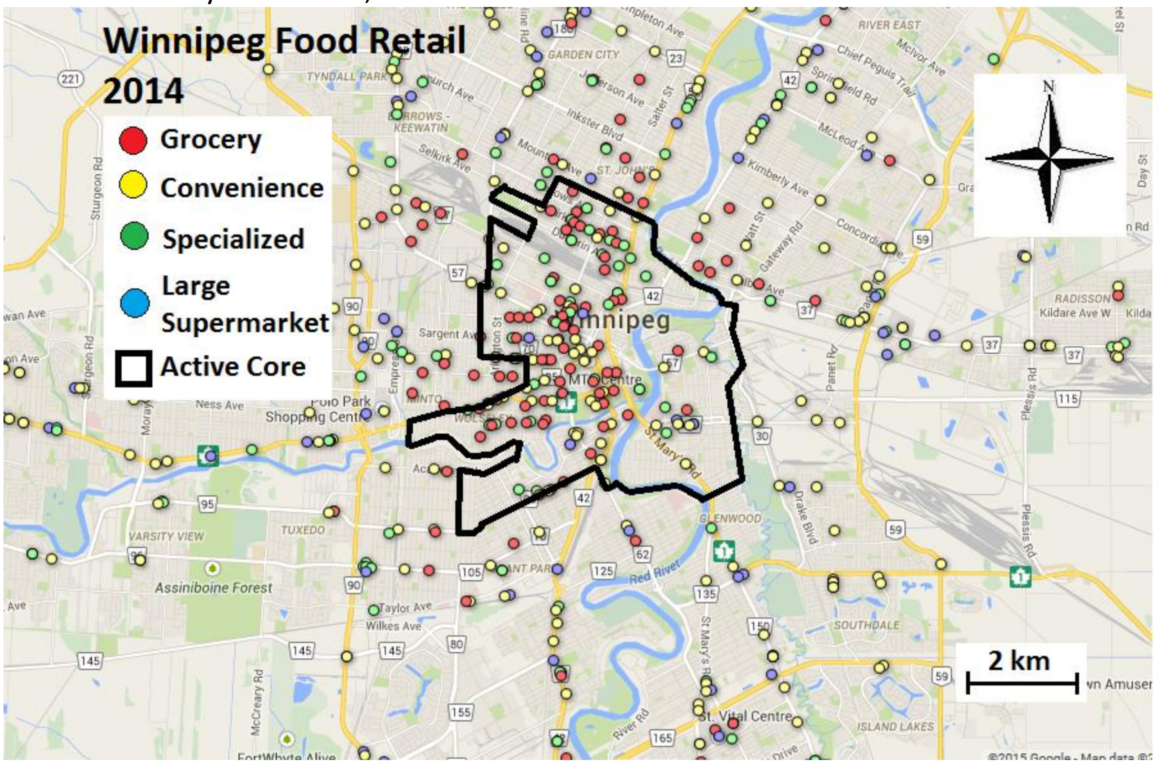


The maps of plotted food retail by category offer additional insights (see Maps 6 and 7).

Map 6 – Winnipeg Distribution of Food Retail by Type (1971). Adapted from Google Fusion Tables by M. Lennon, 2015.



Map 7 – Winnipeg Distribution of Food Retail by Type (2014). Adapted from Google Fusion Tables by M. Lennon, 2015.



The 1971 map shows a large number of grocery stores and specialized food retailers throughout the city, particularly in the inner-city. The 2014 map shows that these grocery stores and specialized food retailers have thinned out, with a large number of convenience stores and large supermarkets appearing across the city.

5.2 Separating out the Active Core

Total food retail options within the active core declined dramatically, with a drop of 44.6% of retailers, relative to the remaining city which decreased the number of retailers by only 6.7%. This does not necessarily mean that the access to healthy food retail outside the active core was relatively stable. Over the decades there have been a large number of new neighbourhoods outside the active core, meaning the number of grocery stores per capita may provide more meaningful information than just the number of grocery stores.

When separating out the different types of food retail, it is apparent that similar trends affected both the active core and remaining city; however the decline in grocery stores in the remaining city appears to have been offset by the increase in convenience stores and larger supermarkets. Tables 3 and 4 and Charts 6 and 7 show the changes in both the active core and remaining city between 1971 and 2014.

Table 3 – Number of Winnipeg Active Core Food Retailers by Category (1971 & 2014)

	1971	2014	# Change	% Change
Grocery	185	64	-121	(65.4)%
Convenience	9	44	35	388.9%
Specialty	72	37	-35	(48.6)%
Large Supermarket	5	5	0	0.0%
Total	**271**	**150**	**-121**	**(44.6)%**

Chart 6 – Number of Winnipeg Active Core Food Retailers by Category (1971-2014)

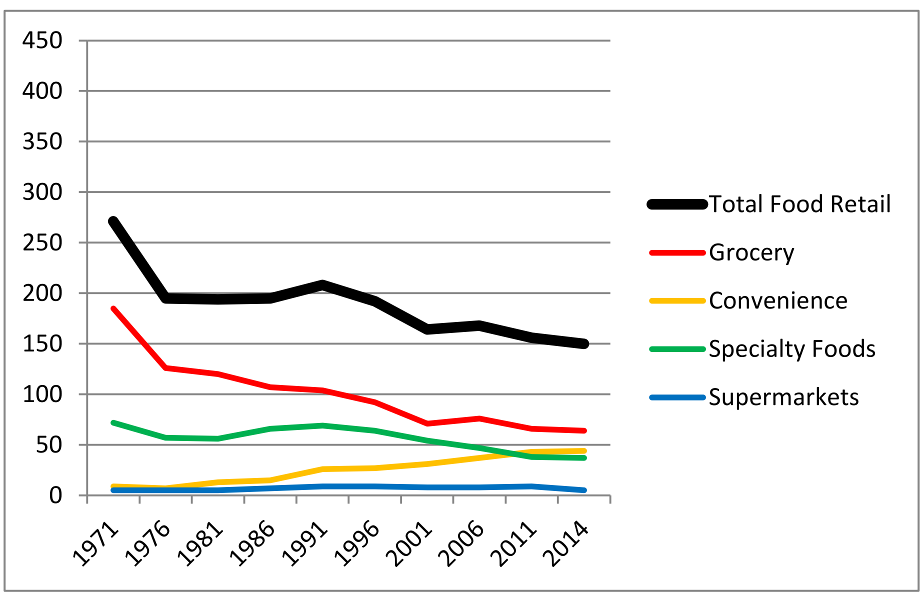
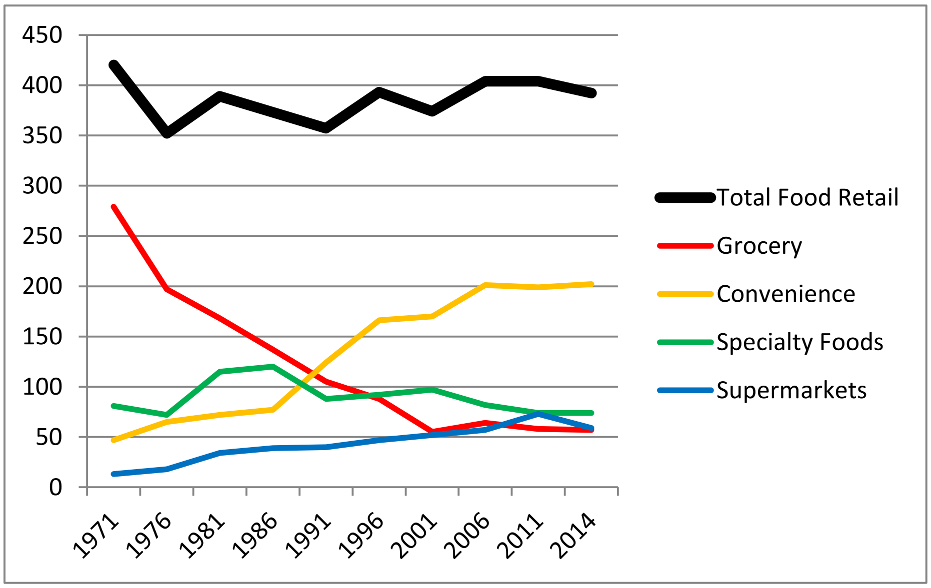


Table 4 - Number of Winnipeg Food Retailers Outside Active Core by Category between 1971 and 2014

	1971	2014	# Change	% Change
Grocery	279	57	-222	(79.6)%
Convenience	47	202	155	329.8%
Specialty	81	74	-7	(8.6)%
Large Supermarket	13	59	46	353.8%
Total	**420**	**392**	**-28**	**(6.7)%**

Chart 7 – Number of Winnipeg Food Retailers Outside Active Core by Category (1971-2014)



Active core grocers were somewhat more resilient to the overall decline in food retail, with a total decrease of 65.4% (185 to 64), much less than the decline in the remaining city of 79.6% (279 to 57). Convenience stores increased by 388.9% (9 to 44) in the active core and by 329.8% (47 to 202) in the remaining city. Specialized food retailers had a dramatic decrease of 48.6% (72 to 37) in the active core with only a slight decrease of 8.6% (81 to 74) in the remaining city. Large supermarkets in the active core increased slightly above five and then decreased just before 2014 back down to five. The number of large supermarkets in the remaining city increased by from 13 to 46 (233%) during this period.

5.3 Interviews

Interviews were more difficult to secure than anticipated. While approximately 30 potential interviewees were contacted for an interview, only seven were interviewed due to the difficulty of getting potential respondents to commit. Several key informants were not initially anticipated but were referred to by others. It was particularly difficult to secure interviews with current business owners due to a lack of interest or busy schedules. Of the interviews conducted, five were government officials (municipal and provincial) involved in community planning or government policy development related to healthy food retail. One respondent was a healthy food program coordinator with a non-profit organization and one was with a former supermarket owner. While respondents provided a breadth of knowledge, more insight from non-governmental organizations and from current or former business owners would have been helpful.

Much of the information provided by interviewees was consistent with the literature and many respondents provided key insights into issues that have led to healthy food retail decline and possible opportunities for consideration. The general topics discussed were about how the respondents' organizations have been involved in the issue of food security, what changes have occurred in the food retail environment, likely reasons for these changes, possible solutions to the problem of reduced access to healthy food retail, and helpful tools for consideration. The findings from each topic area are summarized in the following sections.

5.3.1 Changes that have occurred in the food retail environment since 1971

When asked how respondents saw changes in the food environment, respondents reported similar trends within Winnipeg's active core – namely that there are fewer food retailers and that people have to travel further in order to get a healthy diet. One respondent mentioned that there has been less political attention to these changes over the years than there should be. Another said one reason large supermarkets are less frequent in the inner city is because of the difficulty getting appropriately-sized land. A few respondents discussed a general decrease in healthy food options in active core neighbourhoods.

> Around Selkirk (Avenue), there are a ton of convenience stores. They were traditionally small grocers but most of them are now acting as a convenience store. So they're not providing a lot of staples anymore. With the closure of Extra Foods and some other supermarkets they now seem to offer a little more in staples (healthy food program coordinator).

She further noted the remaining grocers in Winnipeg's North End offer mostly dry goods for supplemental shopping and have signs of having offered a greater variety of foods in the past – such as markings of an old produce or meat cooler.

> There is old infrastructure and stores where you would see where there used to be fresh produce, meat, etc. People are using it now more as a convenience store, using it only for supplemental groceries (healthy food program coordinator).

She also noted cheaper prices for unhealthy products like soft drinks, than those of healthier products like milk. Another respondent mentioned that fresh produce is quite difficult for low volume retailers to offer because it suffers rapid decline in quality. He said there is a critical mass needed to make it viable. A respondent who works in provincial health policy claimed that a high proportion of health-related costs are related to nutrition, which means limited access to healthy food retail an issue is a health care issue as well.

> Some 70% of our health related costs are nutrition related, while we're letting the market run amuck. If we wanted to deal with this we'd have to address this upstream (provincial epidemiologist).

Other points that came up were about the distance people travel to get food. One respondent said that people do not necessarily shop where they live anymore. He said that some cities have done mapping of food journeys, finding that people travel to various parts of the city and that shopping patterns are differentiated by the mode of transportation and demographics, and that this is key to understanding the impacts of reduced local access to healthy foods. A small number of food retail options in a low-income neighbourhood with limited transportation will have a greater impact than a similar number of options in an affluent suburb.

5.3.2 Likely reasons for these changes

Respondents had a variety of responses as to the reasons for a decline in food retail. The most commonly stated reason mentioned by all respondents is competition from larger supermarket chains.

Large Supermarket Chains

Respondents suggested a number of competitive advantages held by large supermarkets, including a greater variety of services offered 'under one roof', the perception of lower prices, and a greater ability to advertise. Two planners mentioned that when larger stores go in they tend to see a decline in competing retail development over the years. Several respondents felt that large supermarkets do not generally move into the inner city because newer neighbourhoods have the undeveloped greenfield space available, allowing retailers to build large venues and adjacent parking areas.

The former small supermarket owner felt that competition from large chains is what put him out of business. He said that sales gradually declined for quite some time and regular customers would begin shopping at larger chains due to more advertising, lower prices and ability to address multiple shopping needs, which in some cases could include getting a phone, getting insurance, or going to the gym. He said his business experienced a more significant impact when a larger chain moved in not too far away.

> There was slow erosion with the big stores coming in. It was quite gradual. Every year it would be less. Regulars would come but you couldn't get the next generation of those kids to come. The kids would move away. It was hard to get new customers (former supermarket owner).

Increasing costs of doing business

The former supermarket owner mentioned that over the years there have been increasing regulatory fees, licensing fees, taxes, and an increasingly competitive advertising environment. Limited sales made it difficult to continue doing necessary upgrades in order to remain competitive. Two other respondents felt that rising food costs are taking a toll on small businesses.

Perception of higher prices

Several respondents felt that high prices or the perception of high prices at smaller retailers has contributed to fewer people shopping at these retailers.

Criminal activity

Three respondents mentioned crime may impact business operations in some parts of the city. Several planners identified shoplifting as a high cost to many inner-city food retailers. The former supermarket owner added that robberies would occasionally disrupt operations where he had worked.

Wholesaler Consolidation

The former supermarket owner reported that there used to be a greater connection between manufacturers / producers and retailers in past years. Many manufacturers had representatives that would regularly visit the supermarkets and build relationships over time. As wholesalers became fewer and larger they took over that role. While there were still some good deals passed on through wholesalers, there were fewer wholesalers to choose from.

> Back in the day there was a rep who came in for everything – Heinz, Campbells, etc. They might give you discounts. Then the companies got rid of the reps and they went straight through the warehouse. You could still get good deals. It's pretty competitive for the wholesalers. Now there are only the big wholesalers (former supermarket owner).

Car dependency

Several respondents said that people tend to walk less and drive more than in past decades, possibly due to a more car-dependent environment. While the former supermarket owner noticed more customers driving from further distances to the supermarket, there were fewer local residents that would walk to the store.

Changing demographics

The former supermarket owner mentioned that many German new immigrants would shop at the supermarket several decades ago, and that the supermarket was a social place where many customers would know each other.

> Back in the day every customer had a packer and every order had a carrier. We knew so many customers. When it started there were a lot of German immigrants. They could bring eggs from the farm. They would see people that they knew. Everybody lived closer together. It was a place to go where people felt at home (former supermarket owner).

While there were lots of loyal customers over the decades their children tended to have different shopping habits or would move away, making it difficult to get new generations of regular customers. He also mentioned that several decades ago people would buy more groceries due to larger families, and that people in the neighbourhood appeared to "make a decent living". As poverty increased in the area and family sizes decreased, so did sales. Another respondent noted increasing poverty and reflections in the food retail environment.

> The North End used to have a working poor neighbourhood but now poverty is more widespread and family structures are different. The Safeway always has Pepsi on sale, but the other Safeways don't (healthy food program coordinator).

Time for food-related activities

Most respondents mentioned that people spend less time on food, either at food preparation or through less time shopping. Two respondents engaged in analyzing health-related impacts of limited food retail access mentioned changing food consumption patterns. They both said that the population appears to have a decreasing understanding of food preparation activities, which may be changing buying patterns, resulting in people purchasing more prepared foods.

> Time poverty is an issue and people's lack of knowledge of how to cook healthy foods. Deskilling and time poverty components may have more of an impact than the access component (provincial epidemiologist).

Several respondents mentioned other changes in buying patterns – that people appear to be less likely to go to multiple stores for different products and may prefer having everything under one roof.

5.3.3 Solutions to addressing limited access to healthy food retail

Interviewees were asked several questions about their thoughts on tools that have been used elsewhere in attempting to improve access to healthy food retail. A variety of responses were recorded and categorized to fall under one of seven headings: changes in the local environment, food security programs and tools, government organizations and programs, business support and incentives, education and knowledge sharing, alternative food retail models, and government regulations.

<u>Changes in the Local Environment</u>

Respondents revealed several observations and potential solutions to local food retail decline. One respondent mentioned that when a variety of shops complement one another, people may come to the area as a shopping destination. Several respondents suggested walkability improvements such as more amenities, aesthetic improvements, better sidewalk snow clearing, and improved pedestrian crossing at busy streets could improve pedestrian traffic.

> Crossing a regional street is a big disincentive to visiting (a store). Main Street was seen as a scary street for pedestrians according to some City of Winnipeg research. There were recommendations for pedestrian improvements including street trees and medians to get more walkability and more (population) density (city planner).

Two of the city planners pointed out that the density within some of Winnipeg's mature neighbourhoods had decreased as much as 25% over a fifty year period. They mentioned that increasing neighbourhood density to levels similar to that in the past may increase local markets to levels that could help sustain local food retail. While building large multi-family buildings in mature residential areas may not always be popular amongst local residents, secondary suites and strategically-placed end caps on collector streets may increase 'hidden density' and be less controversial to neighbouring residents. Hidden density refers to an increase in population without significantly increasing the number of multi-family buildings. End caps can include multi-family properties at the end of the block along a busier collector or regional streets.

Food Security Programs and Tools

Multiple respondents expressed the importance of getting a better picture of what is happening in the food environment and how people interact with it. It was pointed out that access to food retail would have to be clearly defined. As one respondent pointed out, access may be affected by transportation options and a person's income level. Costly or distant healthy foods may not be accessible to some.

Several respondents described the importance of Community Food Assessments (CFAs) and their recent use in Winnipeg. CFAs were promoted as helpful community tools by the majority of interviewees. One stakeholder found that CFAs provide a greater understanding of how people interact with their food retail environment and how improvements can be made. The former grocery store owner revealed that he had participated in one and thought the discussion was good, but he didn't see any direct benefits that came as a result of the CSA. Two respondents cautioned that a poor methodology design can result in limited use of CSAs. One said it would be helpful to have greater emphasis on what exactly is being measured, what the results mean, and what to do with the results to change the foodscape. The other respondent said the lack of a rigorous process can lead to questionable reliability.

> CSAs are good, having two purposes: (1) evidence for persuading policy makers and retailers for the need for change, (2) for galvanizing action. But they need fairly rigorous methodology to have enough reliability, so that it's helpful in the long run (provincial nutrition analyst)

<u>Government Organizations or Programs</u>

Some respondents suggested the province may create food policy program through a provincial department such as Food and Rural Initiatives, or as a program similar to the Northern Healthy Food Initiative, which is run out of five provincial departments working together.

One interviewee mentioned that a municipal food policy council is something that the City of Winnipeg could take on, and that some other Canadian cities have successfully put one together.

Business Support / Incentives

All of the respondents mentioned business support or incentives in some form or another might be helpful, but most of them cautioned on the difficulty in creating a fair process for accessing resources. Most suggested this would likely come from government, although one suggested a BIZ zone, or a business association. The former supermarket owner said that a business owner would need to be made aware of these resources and may not have the time or ability to fully take advantage of them.

Several respondents mentioned targeted tax incentives, grants, or low-interest loans as options that may encourage food retailers to start up in certain areas, or help existing food retailers offer healthier merchandise. One respondent said that similar incentives are available in New York City and a growing number of other cities.

> New York City is using a whole bunch of incentives for grocers to go into food desert areas. Lots of cities are following this example. It just seems to not be on the radar for Winnipeg (city planner).

Most respondents expressed the difficulty in creating a financial incentive system that would be fair and wouldn't be abused by those that don't need it. Nearly all respondents mentioned that a rigorous process backed by research would be needed in order to do this effectively. If a case could be made that these incentives would generate more tax dollars then this may be easier to do. One respondent mentioned there are financial incentives already for housing development, so why not for food retail development. Another respondent provided further justification for financial incentives, mentioning that small retailers sometimes get turned down by the banks for issues such as a lack of parking. This provides a disadvantage in opening up in certain mature areas due to the limited space. He said there is a need for improved financing options.

Another respondent suggested low-interest loan programs for capital expenditures, such as freezers, may be helpful. The former supermarket owner mentioned that the costs of starting a food retailer can be high – as much as $5 or $10 million. Refrigeration and proper equipment, while expensive, can increase a business's capacity to carry perishable products. In 2014, various retailers in Winnipeg's North End were given financial contributions towards select healthy products in order to add these products to their sales items. Other incentives for this program included advertising and customer recipe handout cards, educating shoppers how to cook with these foods. The intent of the program was to see if the businesses would continue to carry these products after the program ended.

One of the city planners mentioned design and regulatory support may bring larger supermarkets into urban areas that have limited space and parking. In some cases, more extensive support has been given to government-supported community-oriented retailers in various US cities, including Detroit, Chicago, and Connecticut, such as customer focused co-operatives or social enterprises. While some of these community cooperatives were said to be successful, a couple respondents cautioned that investment could be risky if the business is not viable in the long run.

Education and Knowledge Sharing

Several respondents mentioned that people appear to have less knowledge on how to cook healthy food than in past decades. One respondent said cooking education can be a difficult task since education is more than advertising – it is about building skills. He said providing recipes may be helpful, but many people simply do not know how to cook or do not have an interest in recipes, and that food literacy is a topic gaining increasing attention.

One respondent said that a healthy eating guide is offered to local North End residents in Winnipeg, showing them where they can find local healthy foods. The guide includes bus routes, and explains how to cook with some of these foods. Brochures are also being distributed, which promote 30 local stores that passed the community renewal organization's healthy food criteria.

One respondent suggested that advertising a local shopping circuit could promote the purchasing of food items from a variety of local grocery and specialized food retail outlets. Another respondent mentioned there are some apps at Western University in London, which include having people choose foods and then showing local options where these foods can be purchased, along with the distance and local recipes. This option, however, would require access to a handheld device.

Government branches, agencies, and other organizations can also share best practices and knowledge on the foodscape, and share what is being done elsewhere. One respondent mentioned they are producing a tool-kit for local health authorities and neighbourhoods providing information about providing food options. He said that many governments are working on the same thing. The prime audience would likely be local health providers.

Alternative Food Retail Models

Several interviewees mentioned that small retailers are often dependent on the limitations of a wholesaler, and that local producers could use greater support in accessing the local retail market. One respondent mentioned that the organization she works with is attempting to create a better connection between producers to retailers.

> We're looking at a food hub where local farmers could drop their stuff off and then retailers could come get it delivered or pick it up. This is producer focused, which makes it easier for them to sell their goods (healthy food program coordinator).

She mentioned that some of the challenges in putting this together include finding funding, space, and a truck. Some government funding may be helpful in ensuring this system takes off. She also said that sharing orders among several organizations could save money as a result of bulk-buying discounts.

Another respondent said that although there are currently some 'buy-local' campaigns in Manitoba, the province has more work to do on improving policies so that they better enable local producers to sell to local retailers.

Other methods of getting food to the end buyer were also noted. One respondent said that New York had experimented with city-sponsored vendors to bring mobile shops in vans or small trucks that provide a full range of fresh food products. These vehicles would come to neighbourhoods facing healthy food shortages on a schedule, ensuring a reliable source for purchasing local healthy food.

> New York has experimented with a number of models. The city sponsored vendors to have vegetable carts in lower income neighbourhoods. Mobile shops can be vans or small trucks that provide what you want. It's been used in some other places. This could make it very accessible right where it's needed with a full range of products. This was used in some places in England in the 1960s. People were home during the day – maybe it's a little different here now to sustain that but maybe not (provincial nutrition analyst).

Another respondent mentioned the growing interest in organizations that deliver fresh produce to peoples' doors, which could address issues of accessibility and assist in ensuring the goods are locally grown.

> Fresh Option would bring food to your door. It's not local (retailer) but it meets the need of accessibility. It's locally grown and fits all those criteria but doesn't need to be bricks and mortar (city planner).

Government Regulations

Respondents were mixed on regulations that may overly restrict business locations or operations, or attempt to restrict competition. Two city planners said that the City of Winnipeg Main Street Planned Development Overlays already provide design guidelines in areas where they are applied. These tools would restrict 'big box' supermarkets. Another respondent pointed out that a large supermarket would be welcome in neighbourhoods facing a healthy food shortage, regardless of their competitive advantage.

The former business owner found that restrictions on overly cutting prices during price wars could be helpful for business operations, but he felt that any restrictions may prove difficult to do.

Chapter VI: Analysis

The changes in food retail revealed through the historic retail data and maps appear to match trends identified through interviews, the literature review, and in the historic newspaper article review. The data retrieved and maps reveal various patterns that may help explain these changes and provide insight into possible solutions.

<u>6.1 Possible Causes for Grocery Store Decline</u>

When comparing the various components of the trend in food retail distribution with other trends in Winnipeg, some possible causes for decline in grocers and specialized food retail become apparent. For instance the sharp decline in grocery stores in Winnipeg’s active core during the early 1970s appears to correspond closely with the sharp decline in population density (residents per kilometre) within this area. The active core population density decreased by 12.4% between 1971 and 1976 alone, the same period of the most dramatic grocery store decline. This was during the time of Winnipeg’s amalgamation, which may have led to Winnipeg residents increasingly moving to various newly-added suburbs of the city. In the later 1970s and through the 1980s, the active core had a continuous decline in grocery stores, although less dramatic than that of the early 1970s. Between 1971 and 2006 the total decline in population density of Winnipeg’s active core was 13.9% (City of Winnipeg 2006). More recent City of Winnipeg neighbourhood level census data was not yet available (as of April 2015). Chart 8 shows the population decline in Winnipeg’s active core and in the remaining city.

Chart 8 – Winnipeg Population Density – Average number of residents within populated neighbourhoods by year (1971-2006)

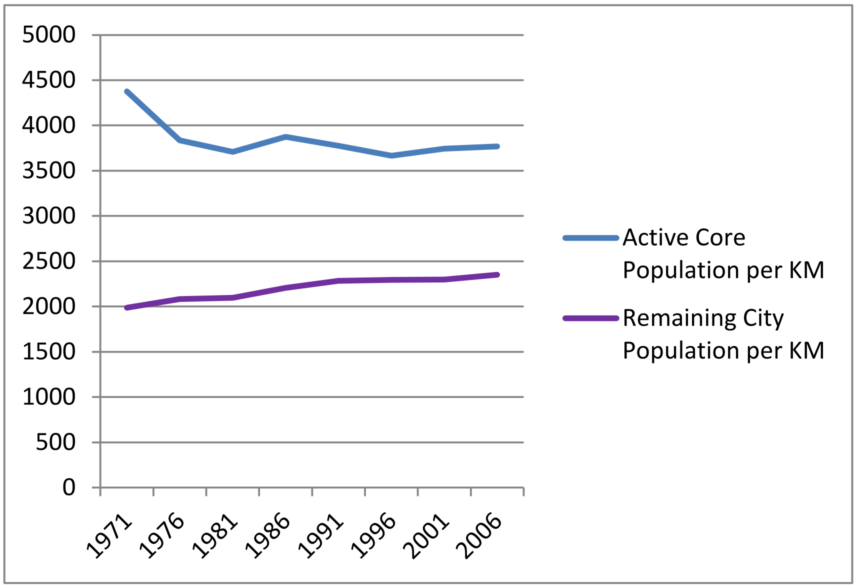
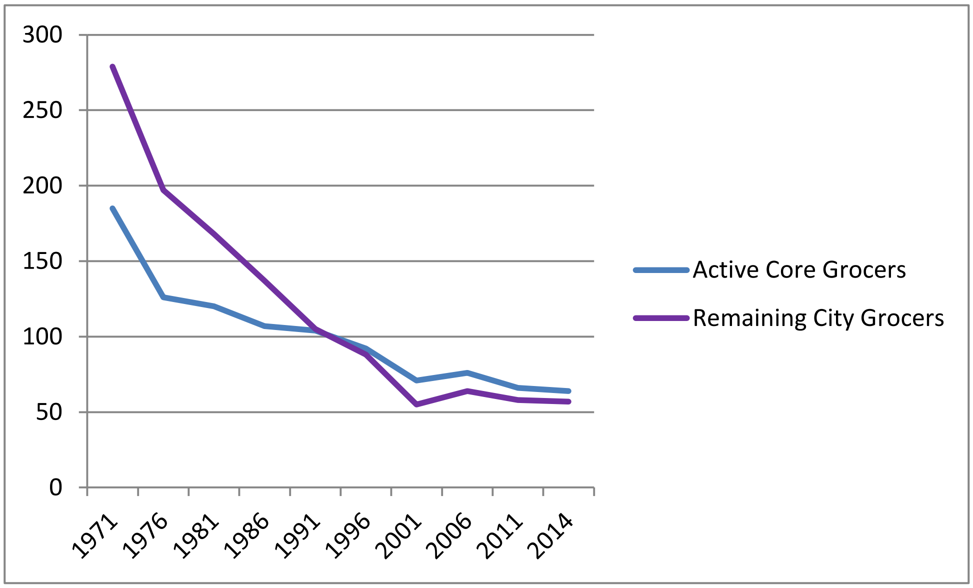


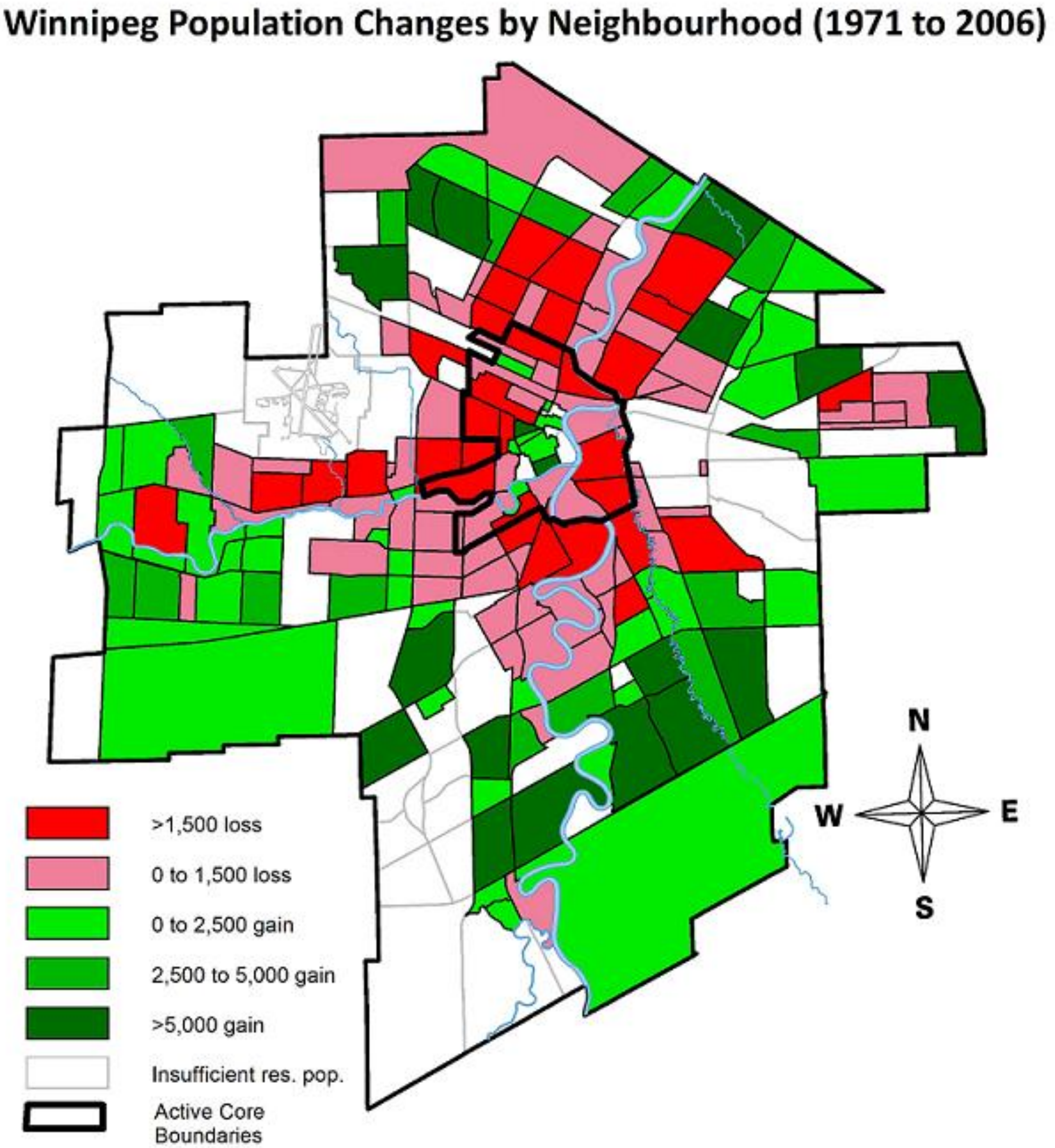
Chart 9 compares the number of grocery stores by year in the active core and remaining city. While the decline was greater outside the active core (decline of 79.6%), the decline was significant within the active core as well (decline of 65.4%). There was a drastic decline in the number of small grocery stores throughout the city during the early 1970s, followed by a more gradual decline. In the late 1990s there was a significant drop again, followed by a slight increase between 2001 and 2006 and then relative stability between 2006 and 2014.

Chart 9 – Number of Winnipeg Grocery Stores in Active Core and Remaining City (1971-2014)



While the average population density for the remaining city outside the active core did not have such a sharp decline, there may have been a fairly significant decline in Winnipeg's 'Mature Communities', relative to the remaining city due to suburban sprawl – people moving out of the inner-city into the suburbs. 'Mature Communities' comprise of the central and grid-like portion of Winnipeg identified in the OurWinnipeg Development Plan (City of Winnipeg 2011). Map 8 shows that the vast majority of the city has had a significant population decline between 1971 and 2006, while the peripheral neighbourhoods have increased in population. Quite a few new neighbourhoods were developed in the years after Winnipeg's amalgamation. Census data shows that 16 new neighbourhoods became populated between 1971 and 1986, which is during the time of the most significant decline in grocery stores.

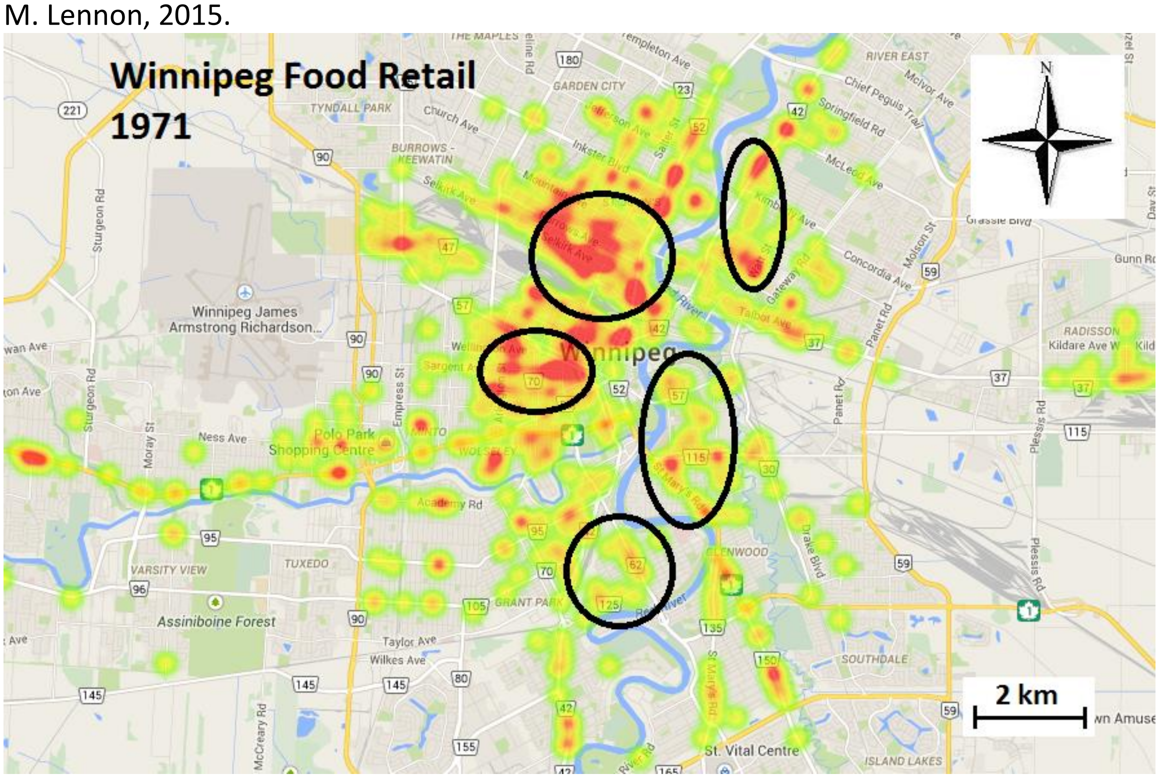
Map 8 – Winnipeg Population Changes by Neighbourhood (1971-2006)



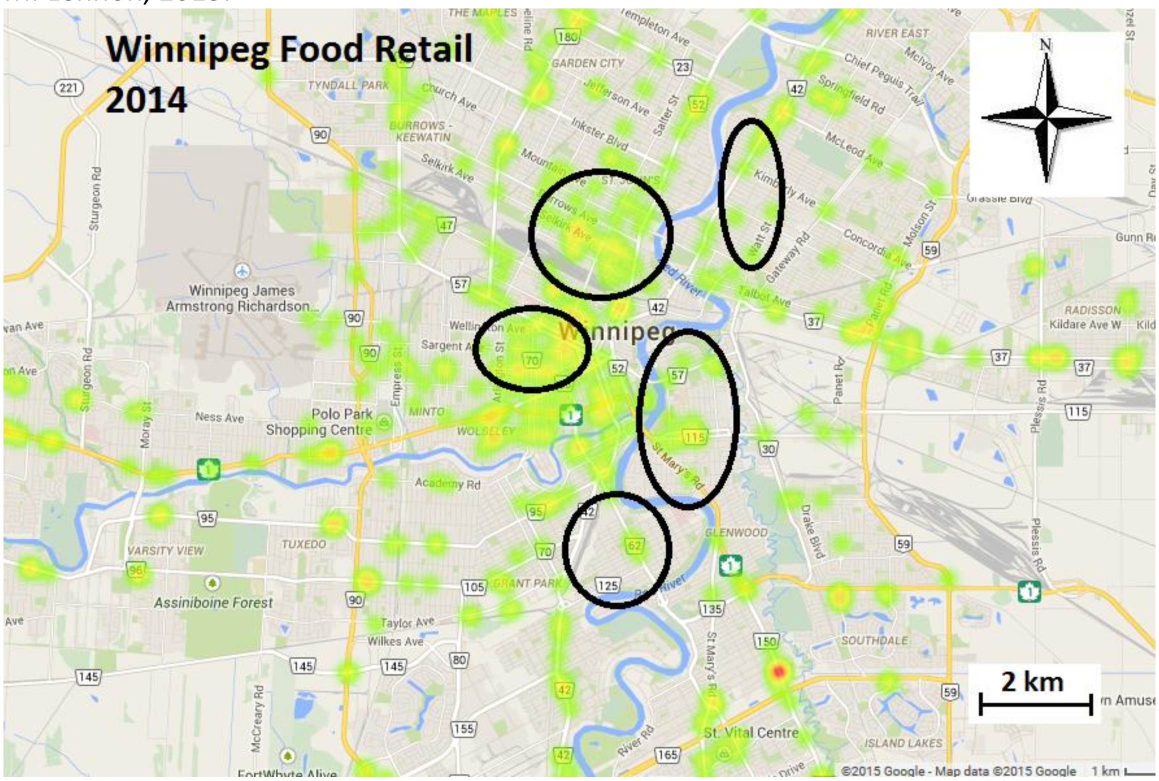
If population density has a significant effect on the success of a smaller food retailer, then it would follow that neighbourhoods that underwent a significant decline in population, even outside the active core, would undergo significant changes in the number of food retailers. Bartlett (2003) pointed out that most retailers may not be supported by the surrounding neighbourhood(s) without a relatively high population density. It follows that a decline in local residents may cause a decline in local neighbourhood-oriented food retailers.

Heat maps were created using the plotted food retail data in order to see where the changes were most significant (Maps 9 and 10). The heat maps show trends in food retail decline that loosely match those of the population density changes. The most dramatic reductions in the number of food retailers appears to be closely linked to the most dramatic reductions in population density. The thinning out of food retail was particularly significant in the West End, North End, Fort Rouge (South Osborne), St. Boniface, and areas along Henderson Highway. Several of these areas are urban neighbourhoods outside the active core.

Map 9 – Winnipeg Food Retail Heat Map 1971. Adapted from Google Fusion Tables by M. Lennon, 2015.

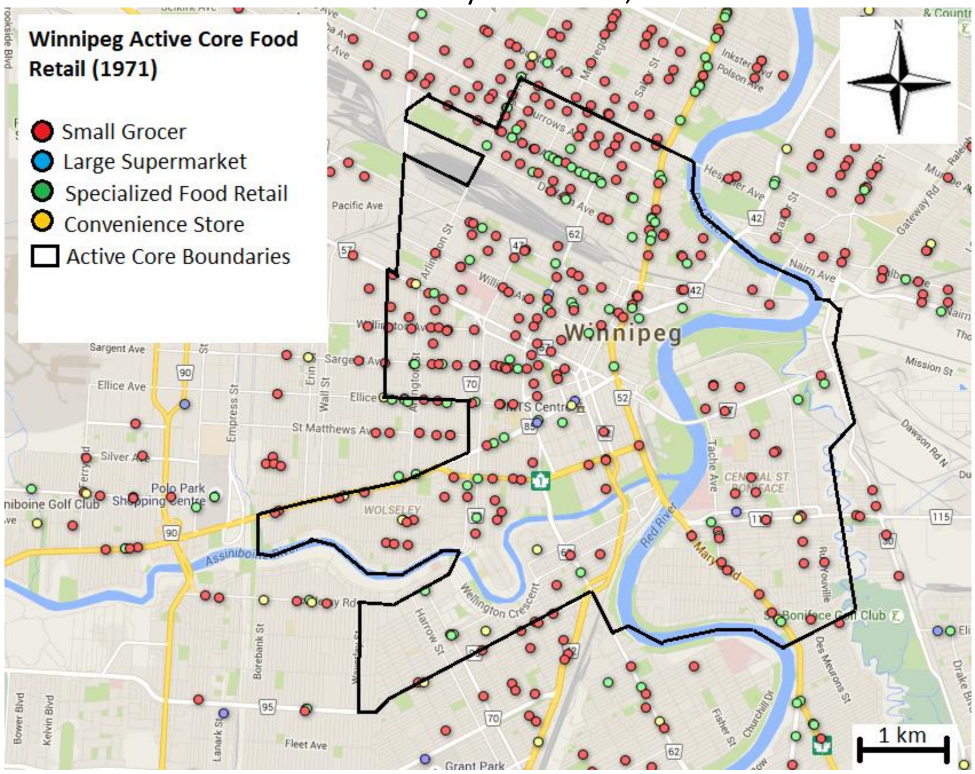


Map 10 – Winnipeg Food Retail Heat Map 2014. Adapted from Google Fusion Tables by M. Lennon, 2015.

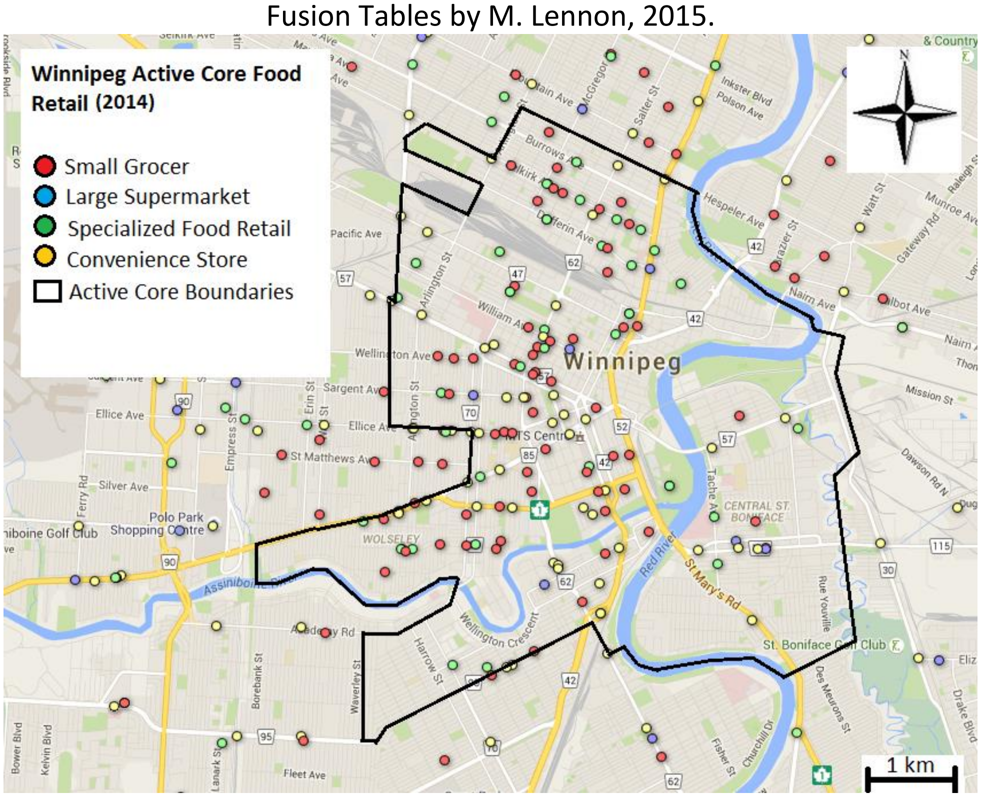


Maps 11 and 12 show a closer look at the changes in food retail in and around Winnipeg's active core between 1971 and 2014.

Map 11 – Winnipeg Active Core Food Retail by Category (1971). Adapted from Google Fusion Tables by M. Lennon, 2015.



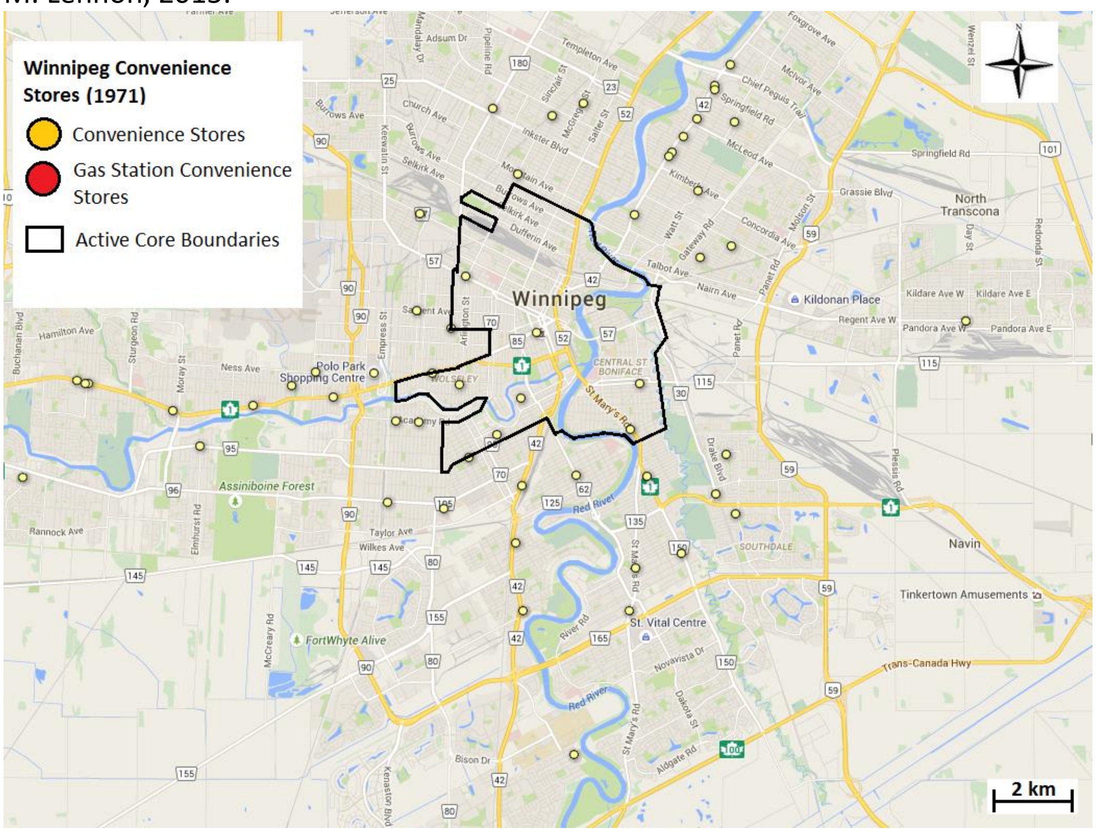
Map 12 – Winnipeg Active Core Food Retail by Category (2014). Adapted from Google Fusion Tables by M. Lennon, 2015.



6.2 Possible Causes of Convenience Store Spike

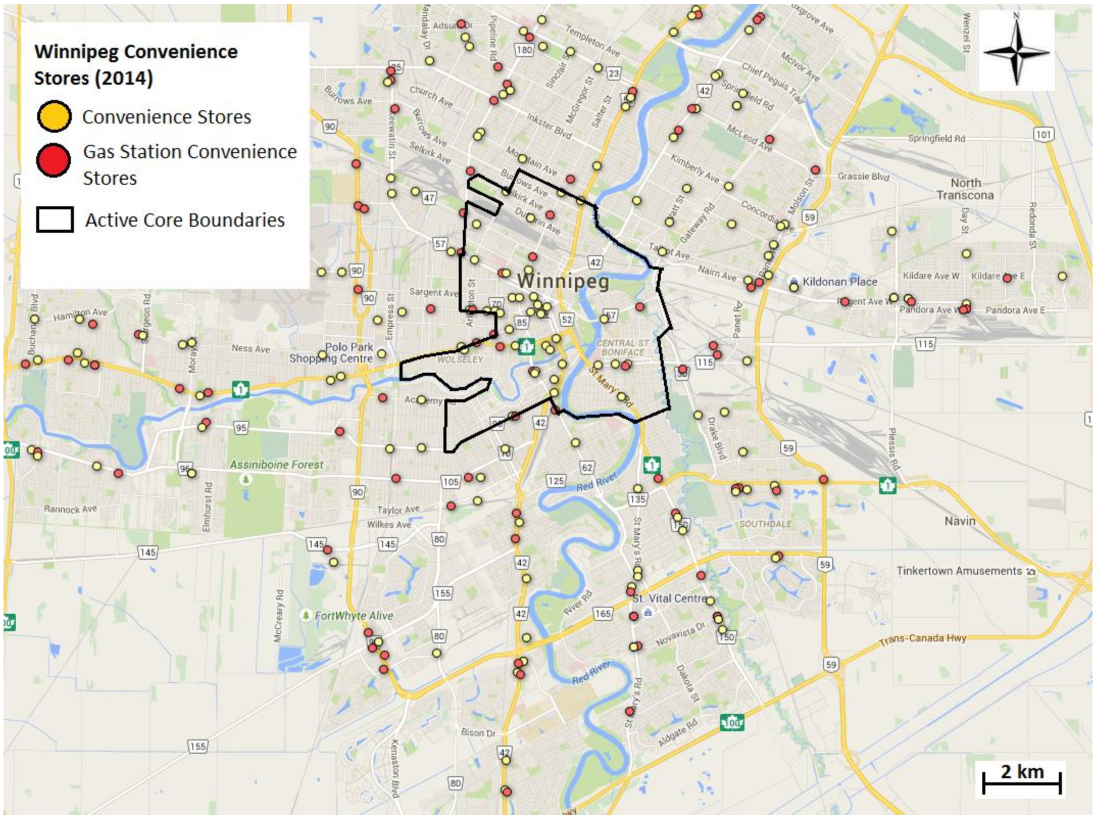
The findings revealed that the significant increase in the number of convenience stores in the 1990s appears to be a direct result of the large number of gas stations expanding operations to include convenience stores (see Maps 13 and 14). A close look at the gas station locations reveals that they tend to be along regional streets and regional intersections, and extend to the far reaches of the city.

Map 13 – Winnipeg Convenience Stores (1971). Adapted from Google Fusion Tables by M. Lennon, 2015.



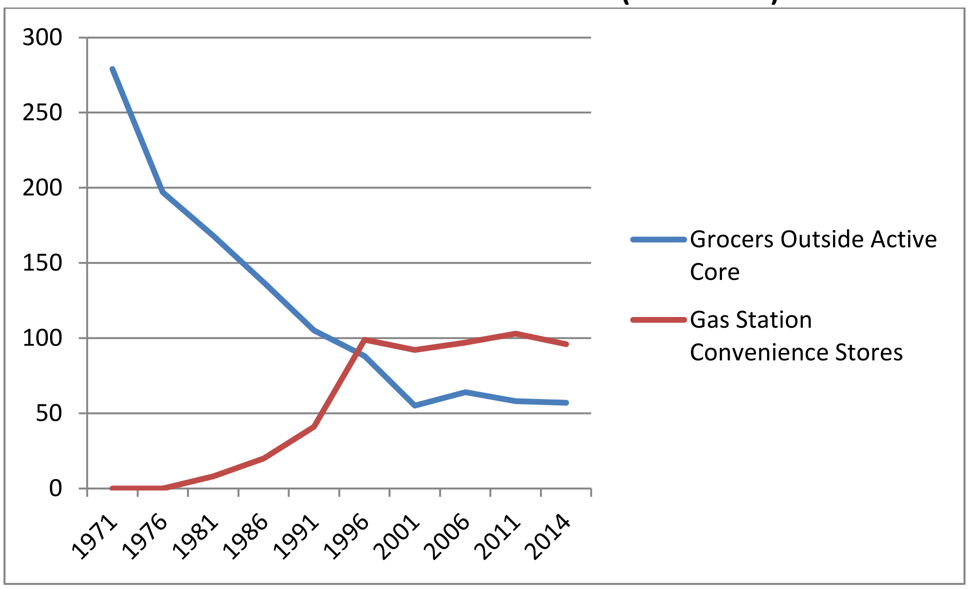
The wide distribution of gas stations convenience stores may simply be a result of the wide distribution of gas stations. A gas station may be a fairly viable business in suburban neighbourhoods because the further a driver lives away from their destinations the more gas they are likely to use.

Map 14 – Winnipeg Convenience Stores 2014. Adapted from Google Fusion Tables by M. Lennon, 2015.



The large number of gas station convenience stores across the city would explain why the increase in the number of convenience stores was much greater outside the active core. By definition, people tend to use motor vehicles less in the active core and as a result, are less likely to purchase gas at a gas station. On the other hand, people who tend to use motor vehicles more – residents of car dependent neighbourhoods – have frequent opportunities to purchase supplemental groceries (such as bread, milk, or eggs) during a regular visit to the local gas station. As a result, it is possible that gas station convenience stores provide more significant competition to small grocers in neighbourhoods outside the active core than they do within active core neighbourhoods. In other words, the drastic increase in competition from gas station convenience stores outside the active core between 1991 and 1996 may have contributed to the significant decline in the number of small grocers outside the active core between 1996 and 2001 (see Chart 10). On the other hand, gas station convenience stores may have filled a gap where locally accessible convenience foods were no longer available, due to fewer grocery stores.

Chart 10 – Comparison between the Numbers of Grocers outside the Active Core and Gas Station Convenience Stores (1971-2014)

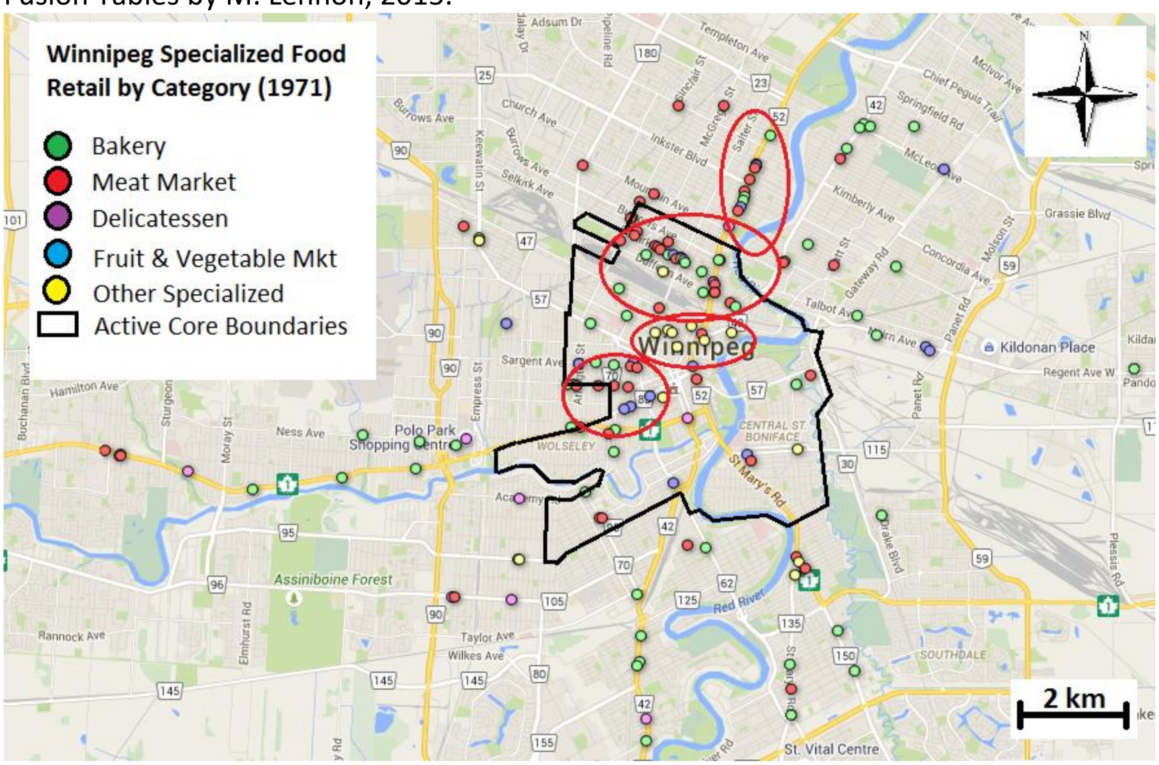


While the dramatic increase in gas station convenience stores explains the large spike of conveniences stores between the mid-1980s and mid-1990s, the number of other convenience stores has increased significantly in both the active core and remaining city. For instance, between 1971 and 2014 the number of convenience stores in the active core doubled. During the 1970s and 1980s the vast majority of convenience stores throughout the city were increasingly chain stores, either Mac's Convenience Store or 7-Eleven, until the more recent increase in gas station convenience stores. Chain stores have an advantage of highly visible signage, good lighting and visibility (which may reduce crime), longer operating hours, significant advertising budgets, economies of scale, and a greater ability to take risks in promotions and changing product offerings. In addition, chain stores have greater ability to navigate legal and regulatory requirements, they have the capacity to offer lower prices, and a greater budget for advertising, all of which can have an impact on a smaller business's ability to continue operations (Alexander and Shaw 2012). Given these advantages, convenience stores throughout the city may have provided significant competition for the purchase of supplemental grocery products, and opened new locations where small grocers were no longer able to operate. While grocery stores generally provide a much greater variety of products, the consistent and increasing competition and changing legal and regulatory environment may have had a significant impact over time.

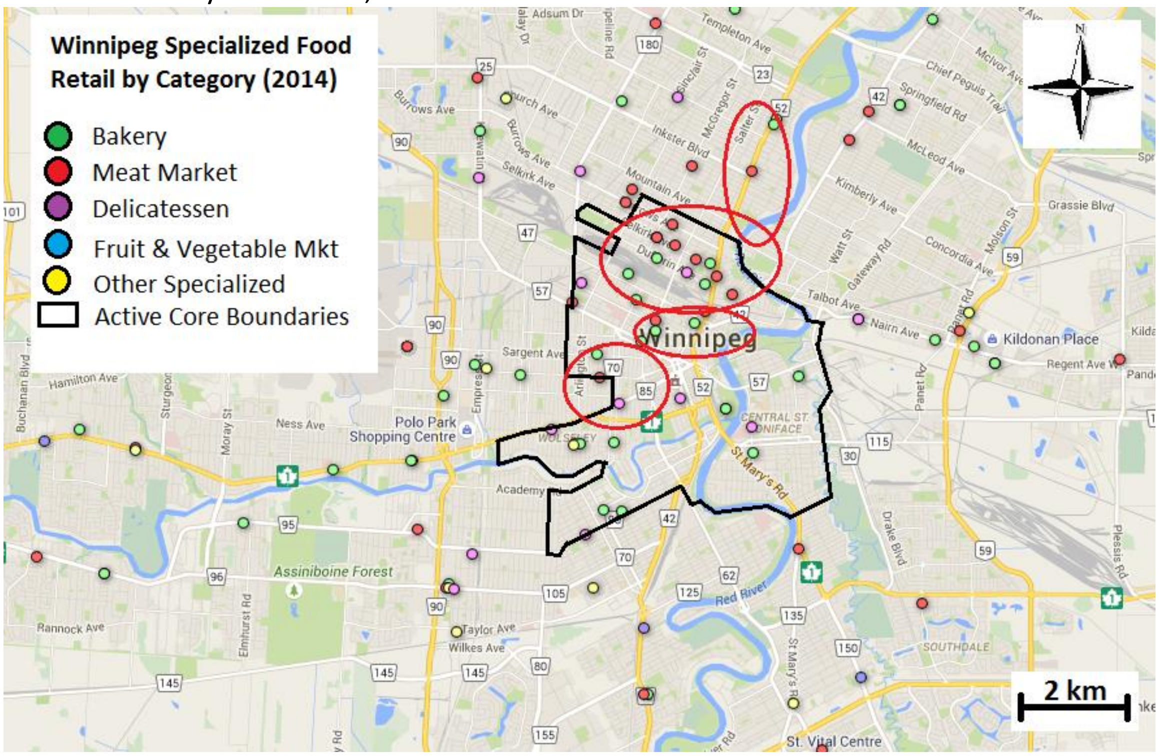
6.3 Possible Causes for Specialized Food Retail Decline

Between 1971 and 2014, the active core had a significantly greater decline in the number of specialized food retailers (decline of 48.6%) than that of the remaining city (decline of 8.6%). Interestingly small grocers had the greater decline outside the active core (decline of 79.6%) than that within the active core (65.4%). The overall decline of 27.5% in specialized food retail in Winnipeg was led by the decline in fruits and vegetable markets and a gradual decline in the number of bakeries and meat markets, although the numbers fluctuated somewhat from year to year. Maps 15 and 16 show a further breakdown of specialized food retail in 1971 and 2014.

Map 15 – Winnipeg Specialized Food Retail by Category (1971). Adapted from Google Fusion Tables by M. Lennon, 2015.



Map 16 – Winnipeg Specialized Food Retail by Category (2014). Adapted from Google Fusion Tables by M. Lennon, 2015.



Interestingly, in 1971 the Centennial and South Point Douglas areas (central circled area in maps 15 and 16) had seven fish and seafood and frozen food retailers (identified as Other Specialized) that were no longer present in 2014. The North End along Selkirk Avenue and along Main Street just outside the active core boundaries had a high concentration of specialized food retailers in 1971 – mostly meat markets and bakeries. Now a small fraction of that number remains. Winnipeg's West End had similar reductions, with all of the fruit and vegetable markets close and all but one meat market close. Several other urban areas outside the active core, such as Elmwood and South Osborne, have had all specialized food retailers leave these areas. There is, however, an increase in the number of meat markets and bakeries along regional streets in suburban areas throughout the city, far from the active core, in 2014.

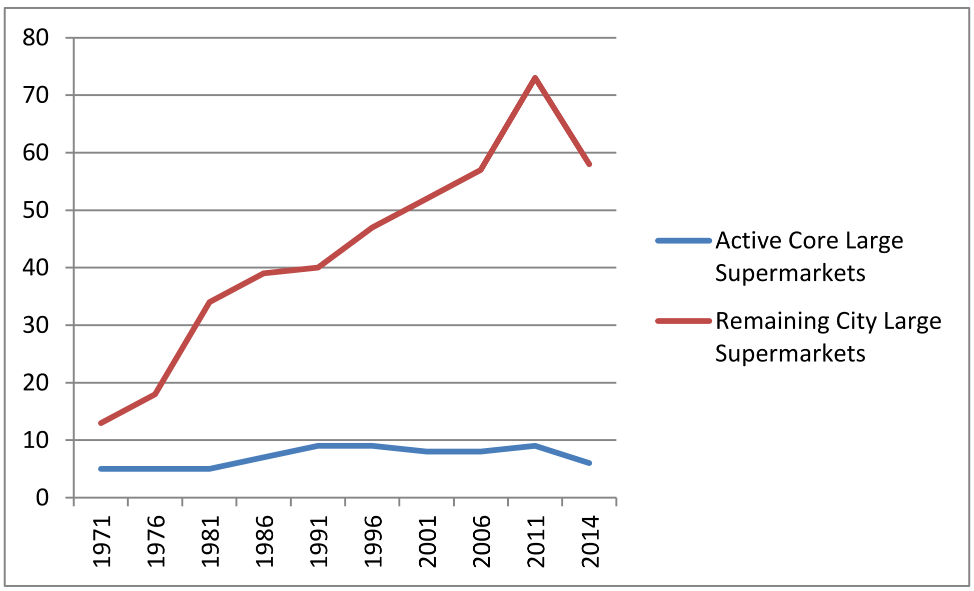
The reduction in the number of specialized food retailers within Winnipeg's active core (decrease of 48.6%) was comparable to the reduction of grocery stores within Winnipeg's active core (decrease of 65.4%). It is possible that when there is less variety in supplemental products within walking distance, a shopper will be more willing to travel further to a full scale supermarket. For instance, if a resident has a bakery store, a deli, and a small grocery store within walking distance, they may be able to purchase the majority of their grocery needs without traveling by bus or motor vehicle. However, if the bakery and deli close, the grocery store alone may not provide a great enough variety of products to consistently purchase a sufficient variety of healthy food products to meet a resident's needs. Similarly, if the grocery store closes, the specialized food retail options may not be sufficient without the grocer to meet a shopper's grocery needs. With these changes, local residents may be more likely to travel further to a large supermarket for the majority of their grocery needs, and may be more likely to use the local food retailers only for supplemental grocery purchases.

The increase in the number of meat markets and bakeries outside the active core along regional streets may be a reflection of changing shopping patterns. Similar to large supermarkets, by being situated on regional streets they tend to cater to a larger number of neighbourhoods rather than to pedestrian traffic from a local neighbourhood. It may also be a reflection of the trend towards a greater number of chain stores and fewer independent retailers (CANSIM 2011, 2013), which may have affected specialized food retailers, grocery stores, and supermarkets.

6.4 Supermarket Increase Outside Active Core

Chart 9 shows that the increase in the number of large supermarkets between 1971 and 2014 was significantly greater outside the active core. While the number of large supermarkets increased between 1971 and 2014, there was a sudden decrease between 2011 and 2014, mainly due to several closures in 2014 after Canada Safeway was purchased by Sobey's. Cameron et al (2010) revealed the difficulty of acquiring sufficient zoning, parking, and purchasing large areas of land within the inner-city, so it should follow that there would be a greater increase in the number of large supermarkets outside of the active core. The number of large supermarkets within the active core was the same in 2014 as that of 1971, which was five stores (see Chart 10). In the remaining city, there was an increase of 354%, from 13 stores to 59 stores.

Chart 11 – Number of Winnipeg Large Supermarkets in Active Core and Remaining City (1971-2014)

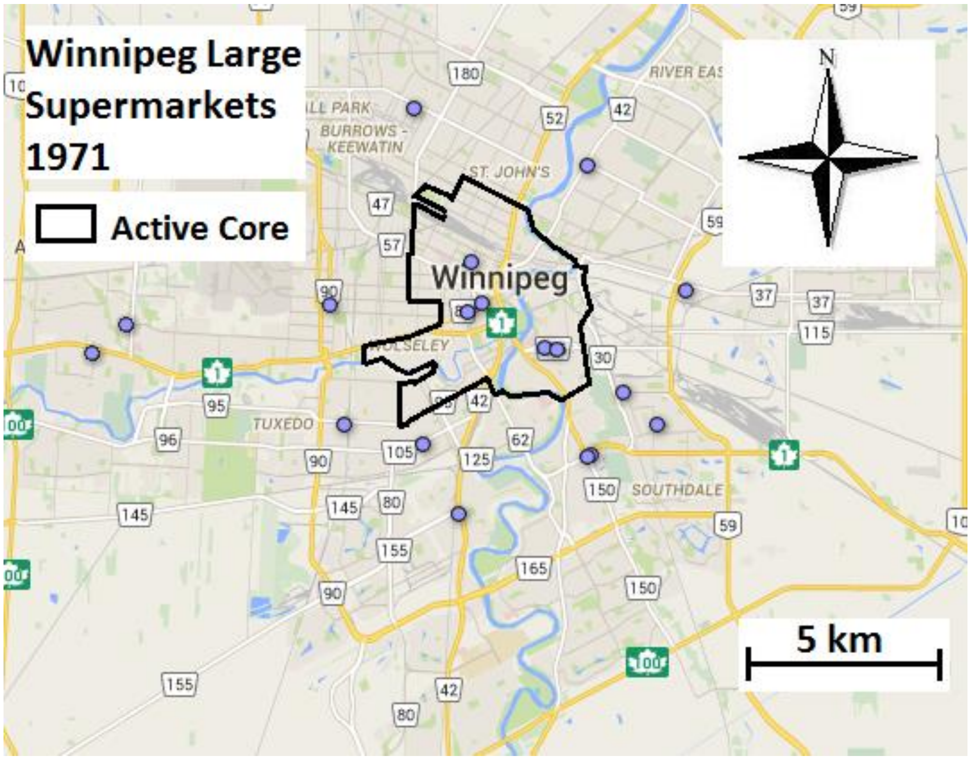


Wrigley (2001) found mergers and acquisitions consolidated the retail industry during the 1990s, resulting in fewer and larger stores with more buying power, advertising dollars, and overall ability to outcompete. Price wars during the 1990s in Winnipeg were reported to have led to a number of smaller supermarket closures (Flood 1993, Cash 1996). The late 1990s had the second highest percentage decrease in the decline of grocery store numbers (Chart 1), which may have been linked to the supermarket price wars.

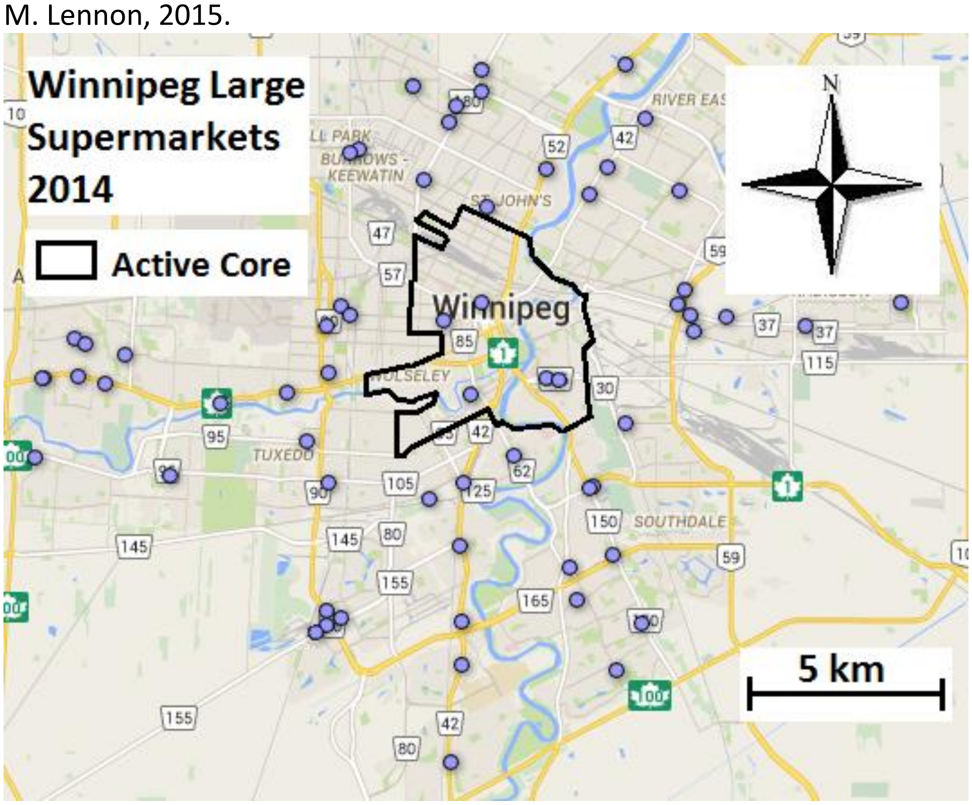
While the competitive effect of these supermarkets has likely had a significant impact on the decline of smaller retailers, there may be several local factors that contributed to or resulted from their success.

As the neighbourhood population density map (Map 8) showed, populations within inner-city neighbourhoods declined while new neighbourhoods were formed on the outskirts of the city. With newer neighbourhoods growing further from the active core, there are likely more residents dependent on automobiles now than in the early 1970s, which would be beneficial for large scale supermarkets. Maps 17 and 18 show how the distribution of supermarkets changed between 1971 and 2014 to increasingly service suburban neighbourhoods, which may provide another reason for why the small grocery store decline was greater outside the active core.

Map 17 – Winnipeg Large Supermarkets (1971). Adapted from Google Fusion Tables by M. Lennon, 2015.



Map 18 – Winnipeg Large Supermarkets (2014). Adapted from Google Fusion Tables by M. Lennon, 2015.



Map 18 shows that large supermarkets in 2014 tend to be located along regional roads with high volumes of traffic. It also reveals that there are several areas in the city where large supermarkets cluster in groups, such as at Kenaston Boulevard and McGillivray Boulevard, Regent Avenue and Lagimodiere Boulevard, McPhillips Street and Leila Avenue. These intersections accommodate some of the highest traffic volumes in the city. Table 4 titled 'Select Daily Traffic Counts (1993 & 2012)' shows the increase in traffic volumes at these locations over a twenty-year period.

Table 5 – Select Daily Traffic Counts (1993 & 2012)

	1993	2012	% incr
Northbound McPhillips south of Leila	22553	46600	106.6%
Eastbound Nairn (Regent) west of Lagimodiere	31693	40100	26.5%
Southbound Kenaston north of McGillivray	22571	46300	105.1%

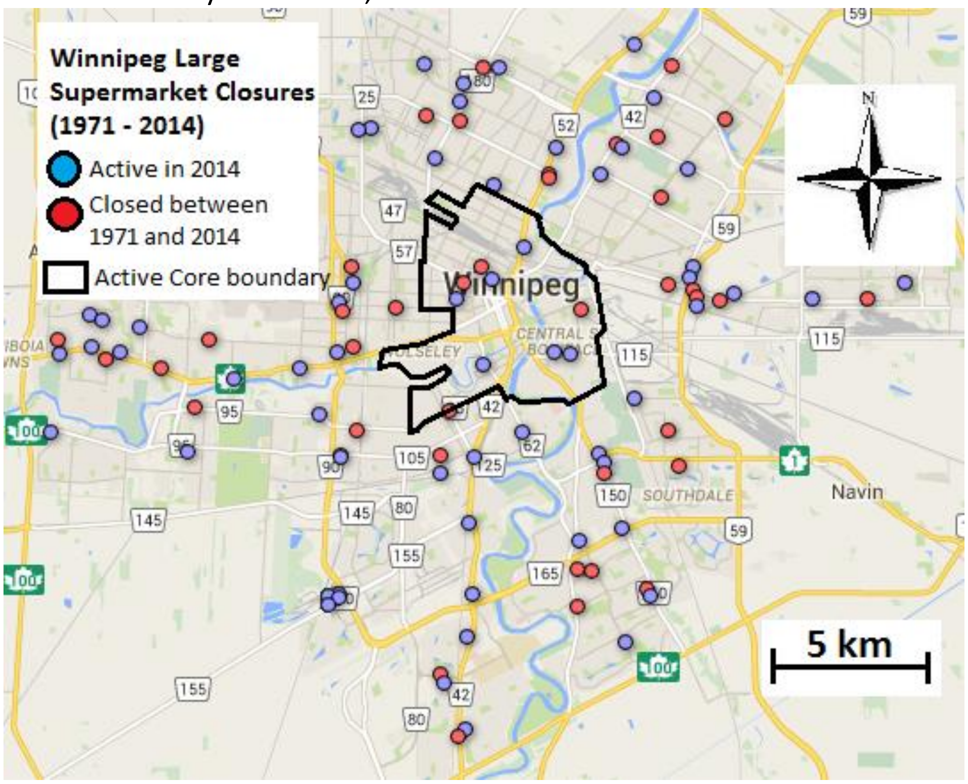
Source: 2012 (Winnipeg) Traffic Flow Map
1993 - The City of Winnipeg Traffic Flow Map

The City of Winnipeg traffic count maps have data from hundreds of intersections, and the general trend appears to be a large increase in traffic numbers throughout the entire city. Only select years were available through searches on the City of Winnipeg website and through Manitoba Historical Maps flicker website (City of Winnipeg 2013, Manitoba Historical Maps 2014).

Map 19 shows former large supermarket locations that have closed between the years of 1971 and 2014. While it appears that a large number of supermarkets have closed over the years, many of them were a result of locations closing and re-opening at nearby sites. Overall the number of large supermarkets had a steady increase until the setback in 2014.

Large supermarkets appear to have greater success where there are higher traffic volumes, possibly due to the large volume of potential shoppers that travel along these routes. Large supermarkets, often with massive parking lots located along regional streets, cater very well to a city with an increasing dependence on automobiles.

Map 19 – Winnipeg Large Supermarket Closures (1971-2014). Adapted from Google Fusion Tables by M. Lennon, 2015.



Chapter VII: Discussion

Several themes were common through the literature review, geographic food retail analysis, and interviews. The number of grocery stores and specialized food retailers within the active core has decreased over the years, with the number of convenience stores increasing and little change in the number of large supermarkets. The trend has been towards fewer healthy food retail options in Winnipeg's active core. Newspaper articles printed as far back as the 1970s reported a decline in the number of grocery stores in Winnipeg and a decrease in downtown supermarkets (Pona 1976, Winnipeg Tribune 1978). The food desertification of Winnipeg's inner city may result in other effects such as a higher cost of living and greater health impacts for inner-city residents (Sadler et al 2013). Several causes for this trend are apparent.

First, the food environment has become more spread out, resulting in fewer food retailers available on average within walking distance in Winnipeg. While the reduction in the number of food retailers was greater outside the active core, it was still quite significant within the active core, which by definition is the portion of the city where residents have the lowest use of motor vehicles.

Second, it appears the food retail environment may be closely connected to population density and walking activity. In areas where the population density decreased inside and outside the active core, so did the number of grocers and specialized food retailers – particularly the numbers of grocery stores and specialized food retailers. This is consistent with Bartlett (2003) reporting that a relatively high population per square kilometre is needed to support most forms of retail. However, the decrease in the number of food retailers may be lower than it would otherwise be if walking activity were less.

By definition the active includes areas that have “an average rate of active transportation, walking and cycling, 1.5 times higher than the overall average for the census metropolitan area” (Density Method, Gordon 2011). Handy and Clifton (2001) noted that urban residents tend to walk more and Dunkley et al (2004) pointed out that residents who walk are more likely to support local supermarkets. However, Rhodes et al (2007) revealed that lower retail activity tends to reduce walking activity. It’s possible that as the population density and number of food retailers have decreased, so has the pedestrian activity.

Third, smaller and independent food retailers tend to have difficulty competing with larger chain stores. Various challenges have been particularly hard on smaller food retailers over the years, including robberies and other criminal activity (Bohuslawsky 1988), changing legislation and by-laws affecting parking, signage, labour, and other business activities (Alexander & Shaw 2012), and various rising fees (Zeilig 1995). As these grocers struggle, large supermarkets and convenience stores appear to have greater ability to overcome these challenges, advertise, and for supermarkets to afford a greater product line (Alexander & Shaw 2012). In the early 1990s supermarket price wars Flood (1993) reported that many local food retailers did not have the financial resources to compete in the long term. Convenience stores have been growing in numbers throughout the city and large supermarkets have been appearing on regional roads, and in some cases in clusters.

Finally, the retail foodscape appears to be increasingly catered towards drivers at the expense of pedestrians. Convenience stores are set back with large parking lots, and large supermarkets service multiple neighbourhoods, often with massive parking lots.

While there was a great reduction in the number of specialized food retailers within the inner-city, there was an increase in the number of bakeries and meat markets catering to regional traffic. With further to walk to access a food retailer, many shoppers who have limited mobility have few options for purchasing healthy food.

These themes reflect the findings in the background research and interviews. Statistics Canada's reports on the increasing proportion of food retail chain stores and chain store sales in Manitoba (CANSIM 2010, 2011, 2013) shows that independent food retailers have had greater difficulty competing. The historic newspaper review revealed that price wars may have resulted in a greater competitive impact from large supermarkets during the 1990s (Flood 1993). Interviewees reported similar reasoning for the changing food retail environment, including increasing competition from large supermarkets, increasing costs of doing business, difficulties with criminal activity, and changing shopping patterns in recent years with a greater dependency on cars and less time spent on food.

While the interview responses were limited, the findings present opportunities for further research. The literature review and interviewees revealed possible solutions to address the decline in accessible healthy food retail in Winnipeg's inner city, including walkability improvements, food security programs and tools, business support and incentives, education and knowledge sharing, and government regulations.

Rhodes et al (2007) revealed that pedestrian activity may be influenced by aesthetic improvements and local amenities. Handy and Clifton (2001) revealed that urban residents are less likely to cross busy streets and value convenience more than distance, and Wood et al (2010) noted that pedestrian-oriented-retail and more leisurely walking increases a person's 'sense of community'. This could mean that the interviewee suggestions of improving street furniture, pedestrian crossing at regional streets, and other 'pedestrian-orientation' improvements in high density neighbourhoods may have merit for further exploration. Also, the suggestion to consider clusters of multiple complementing retailers may improve shopping convenience.

Targeted incentives may be effective in increasing healthy food offerings at food retailers (Song et al 2009). As one interviewee pointed out, a similar program is underway with several of Winnipeg's North End retailers. Further research into the findings of this program may reveal whether this tool could be expanded to improve healthy food retail options in Winnipeg's inner-city. Other incentives may include "grants, subsidies, and low-interest loans" or "preferential treatment in development applications" (Alexander & Shaw 2012, p. 31). Interviewees cautioned the difficulty in creating a fair process for financial incentives, and if used careful research and planning may be necessary in order to avoid public opposition or abuse of these incentives.

Other broad areas of incentives identified by Kim and Black (2011) include local procurement, general food access programs, food systems support, and food policy councils. Interviewees identified work on several of these programs currently underway, including a provincial 'Buy Local' campaign in Manitoba and work on several Community Food Assessments and a producer-retailer 'food hub', coordinated by Food Matters Manitoba in Winnipeg. Also, in June 2015, a City of Winnipeg committee of Council approved a recommendation regarding the creation of a Food Policy Council (City of Winnipeg 2015).

The wealth of knowledge amongst the various interviewees showed that there may be an opportunity to bring stakeholders together to cooperate on finding solutions. In March 2015, Food Matters Manitoba took such an opportunity to create its first food policy visioning session with more than 80 key stakeholders including “community organizers, business owners, city councillors, and urban planners”, sharing knowledge in discussing the next steps in providing solutions to Winnipeg’s food security issues (Food Matters Manitoba 2015).

It appears that much of the knowledge needed to find and work on solutions to Winnipeg’s access to healthy food retail issue is available, and that there is plenty of opportunity for government to engage these people and create the appropriate tools, incentives, regulations, and programs.

The findings from this research demonstrate that there is a growing problem with access to healthy food retail in Winnipeg’s inner-city as a result of several trends. This problem isn’t unique to Winnipeg and various remedies have been attempted in other city, some of which are currently underway in Winnipeg. There is an opportunity for planners to acknowledge access to healthy food retail is an issue in Winnipeg and to work on solutions to this problem.

Chapter VIII: Conclusion

The geographic plotting of food retailers in Winnipeg has clearly shown that there has been a significant decrease in access to healthy food retail options within much of the city, which appears to be resulting primarily from a decrease in population density in Winnipeg's inner-city, increased competition from large chain stores and supermarkets, and increasing use of motor vehicles for everyday activities. While the definition of what qualifies a food desert may not be clear, what is clear is Winnipeg's trend towards fewer accessible healthy food retail options within the active core and surrounding neighbourhoods. The average Winnipegger has to travel further to access healthy food retail.

The small number of interviews limited the breadth of knowledge that may otherwise have been revealed. The existing interview findings revealed causes and solutions that are consistent with what has been observed in key literature and in other jurisdictions. The depth of knowledge provided by the interviewees did reveal a number of potential solutions available for consideration, some of which are currently in development. Still, there is untapped potential and an opportunity for planners and various other stakeholders to work together through a coordinated effort to find solutions – a 'shopping list' for planners – and resolve this pressing issue. Failing to address this issue will lead to higher car dependency, a greater food desert effect, and more difficulty in maintaining a healthy lifestyle for residents in Winnipeg's active core.

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Appendix A – Yellow Pages Category Filtration Methods Summary

1. **Company Name Content**
   - Was business a retailer?
   - What did retailer sell?
2. **Yellow Pages Advertisements**
   - Was business a retailer?
   - What did retailer sell?
3. **Comparison with Other Years Listed**
   - Does another year listing give me the info I'm looking for?
4. **Website Review**
   - Is company is a retailer?
   - when company began carrying staple foods
   - which locations of a chain sell staple foods
   - what year that retailer began selling staple foods
5. **Google Searches**
   - Was store a retailer?
   - Did store sell staple foods?
   - When was unlisted store in operation?
6. **Wikipedia Search**
   - When did retailer begin carrying staple foods?
7. **Google Earth Search**
   - Measure building size
8. **Assessment Search**
   - Is supermarket in original building or was it possibly expanded?

- Historic maps were used to determine whether the former structure was over 10,000 square feet.

9. Google Street View Search

- Is business a food retailer?
- Is building new or old?

10. Zoning Search

- Is building is in industrial-zoned area?

11. Historic Newspaper Article Search

- Review of historic Winnipeg newspaper articles

12. Search in Newspaperarchive.com

- What years was unlisted retailer in operation?

13. Historic Land Use Map Search

- Was supermarket always the same size?
- When did supermarket renovate to larger size?
- How big was former supermarket?

14. Yellow Pages Gas Station Feature Tables

- Does gas station have a convenience store?

15. Phone Call

- Called to determine what year outlet was opened

16. Duplication Review

- Was retailer listed in multiple categories?

Appendix B – Yellow Pages Categories & Filtration Method Table

Filtration methods are highlighted in grey for each Yellow Pages Directory category & unlisted category	Company Name Content	Yellow Pages Advertisements	Comparison with Other Years Listed	Website Review	Google Searches	Wikipedia Search	Google Earth Search	Assessment Search	Google Street View Search	Zoning Search	Historic Newspaper Article Search	Search in Newspaperarchive.com	Historic City of Winnipeg land use map searches	Yellow Pages Gas Station Feature Tables	Phone Call	Duplication Review
Bakeries	■	■	■	■	■											■
Convenience Stores	■	■	■	■												■
Delicatessens	■	■	■	■	■											■
Department Stores		■	■	■	■	■						■	■			■
Fish & Seafood	■	■	■		■				■	■						■
Frozen Foods	■	■	■		■				■	■						■
Fruit Markets	■	■	■		■											■
Grocery	■		■				■	■	■							■
Meat Markets	■	■														■
Pharmacies	■	■	■	■	■	■										■
Service (Gas) Stations	■	■	■	■										■		■
Organic Food Products	■	■	■	■	■											■
Environmental Products & Services	■	■	■	■												■
Health Food Products	■	■	■	■	■											■
Discount Stores	■	■	■	■											■	■
Food - Bulk	■	■	■	■	■											■
Specialty Foods	■	■	■	■	■											■
Food Products	■	■	■	■												■
General Stores	■	■	■	■												■
Pasta	■	■	■	■												■
Poultry	■	■	■	■												■
Sausage	■	■	■	■												■
Spices & Sauces.	■	■	■	■												■
Unlisted Retailers					■	■	■	■	■		■	■	■			■

Appendix C - Food Category Totals by Year

	1971	1976	Incr	1981	Incr	1986	Incr	1991	Incr	1996	incr
Bakery	55	48	(12.7)%	56	16.7%	61	8.9%	45	(26.2)%	40	(11.1)%
Bulk Food	0	0	-	0	-	3	-	3	0.0%	3	0.0%
Convenience Store	52	68	30.8%	70	2.9%	66	(5.7)%	103	56.1%	83	(19.4)%
Delicatessen	12	14	16.7%	31	121.4%	56	80.6%	35	(37.5)%	39	11.4%
Department Store	6	6	0.0%	9	50.0%	9	0.0%	9	0.0%	14	55.6%
Discount Stores	0	0	-	0	-	0	-	0	-	0	-
Environmental Products	0	0	-	0	-	0	-	0	-	1	-
Fish & Seafood	5	2	(60.0)%	13	550.0%	7	(46.2)%	10	42.9%	6	(40.0)%
Frozen Foods	7	4	(42.9)%	0	(100.0)%	2	-	0	(100.0)%	0	-
Fruits & Vegetables	19	12	(36.8)%	15	25.0%	21	40.0%	12	(42.9)%	16	33.3%
Health Food Products	2	5	150.0%	14	180.0%	10	(28.6)%	11	10.0%	12	9.1%
Organic Products	0	0	-	0	-	0	-	0	-	0	-
Supermarket	24	29	20.8%	43	48.3%	36	(16.3)%	32	(11.1)%	33	3.1%
Large Supermarket	16	21	31.3%	37	76.2%	44	18.9%	47	6.8%	54	14.9%
Meat Market	53	44	(17.0)%	42	(4.5)%	28	(33.3)%	40	42.9%	42	5.0%
Grocery	440	294	(33.2)%	245	(16.7)%	203	(17.1)%	176	(13.3)%	143	(18.8)%
Pharmacy	0	0	-	0	-	2	-	1	(50.0)%	0	(100.0)%
Gas Station	0	0	-	8	-	20	150.0%	41	105.0%	99	141.5%
Total	**691**	**547**	**(20.8)%**	**583**	**6.6%**	**568**	**(2.6)%**	**565**	**(0.5)%**	**585**	**3.5%**
Grocery	464	323	(30.4)%	288	(10.8)%	244	(15.3)%	209	(14.3)%	180	(13.9)%
Convenience	56	72	28.6%	85	18.1%	92	8.2%	150	63.0%	193	28.7%
Specialized	153	129	(15.7)%	171	32.6%	186	8.8%	157	(15.6)%	156	(0.6)%
Large Supermarket	18	23	27.8%	39	69.6%	46	17.9%	49	6.5%	56	14.3%
Total	**691**	**547**	**(20.8)%**	**583**	**6.6%**	**568**	**(2.6)%**	**565**	**(0.5)%**	**585**	**3.5%**

	Incr	2001	Incr	2006	Incr	2011	Incr	2014	incr
Bakery	(11.1)%	42	5.0%	35	(16.7)%	32	(8.6)%	37	15.6%
Bulk Food	0.0%	2	(33.3)%	2	0.0%	2	0.0%	4	100.0%
Convenience Store	(19.4)%	95	14.5%	89	(6.3)%	93	4.5%	101	8.6%
Delicatessen	11.4%	34	(12.8)%	24	(29.4)%	13	(45.8)%	18	38.5%
Department Store	55.6%	14	0.0%	14	0.0%	15	7.1%	6	(60.0)%
Discount Stores	-	1	-	13	1200.0%	21	61.5%	29	38.1%
Environmental Products	-	1	0.0%	1	0.0%	1	0.0%	1	0.0%
Fish & Seafood	(40.0)%	6	0.0%	3	(50.0)%	4	33.3%	0	(100.0)%
Frozen Foods	-	3	-	2	(33.3)%	5	150.0%	3	(40.0)%
Fruits & Vegetables	33.3%	9	(43.8)%	4	(55.6)%	3	(25.0)%	4	33.3%
Health Food Products	9.1%	11	(8.3)%	12	9.1%	11	(8.3)%	3	(72.7)%
Organic Products	-	0	-	3	-	3	0.0%	9	200.0%
Supermarket	3.1%	22	(33.3)%	27	22.7%	20	(25.9)%	16	(20.0)%
Large Supermarket	14.9%	59	9.3%	64	8.5%	71	10.9%	59	(16.9)%
Meat Market	5.0%	43	2.4%	47	9.3%	45	(4.3)%	38	(15.6)%
Grocery	(18.8)%	104	(27.3)%	114	9.6%	95	(16.7)%	98	3.2%
Pharmacy	(100.0)%	0	-	21	-	23	9.5%	21	(8.7)%
Gas Station	141.5%	92	(7.1)%	97	5.4%	103	6.2%	96	(6.8)%
Total	**3.5%**	**538**	**(8.0)%**	**572**	**6.3%**	**560**	**(2.1)%**	**543**	**(3.0)%**
Grocery	(13.9)%	126	(30.0)%	140	11.1%	124	(11.4)%	121	(2.4)%
Convenience	28.7%	201	4.1%	238	18.4%	242	1.7%	246	1.7%
Specialized	(0.6)%	151	(3.2)%	129	(14.6)%	112	(13.2)%	111	(0.9)%
Large Supermarket	14.3%	60	7.1%	65	8.3%	82	26.2%	65	(20.7)%
Total	**3.5%**	**538**	**(8.0)%**	**572**	**6.3%**	**560**	**(2.1)%**	**543**	**(3.0)%**

Appendix D – Interview Response Summary

Interviewees

While approximately 30 interviewees were contacted for an interview, only seven were interviewed due to the difficulty of getting potential respondents to commit. Several key informants were initially not anticipated, but were referred to by others. It was particularly difficult to secure interviews with current business owners due to a lack of interest or busy schedules. Of the interviews conducted, five were with government officials (municipal and provincial) involved in community planning or government policy development related to healthy food retail. One respondent was from a local food security advocacy organization and one was with a former supermarket owner.

While much information provided by interviewees was consistent with the literature, many respondents provided key insights that may be helpful in providing a more in-depth analysis into some of the key issues and opportunities surrounding Winnipeg's food climate.

Changes in the food environment

When asked how respondents saw changes in the food environment, respondents reported similar trends within Winnipeg's active core – namely that there are fewer food retailers offering a healthy diet. One respondent mentioned that there has been little political attention to these changes over the years and that there should be.

Fewer healthy foods

One respondent noted that some of the remaining grocers within Winnipeg's north end offer mostly dry goods for supplemental shopping and have signs of having offered a greater variety of foods in the past, such as markings of an old produce or meat cooler. Fresh foods selections are fairly limited in grocery stores and there are more convenience stores than in the past. The same respondent noted that prices of food had gone up and in comparing prices of milk, most stores she reviewed had milk prices above the provincially regulated prices and that the local supermarket appeared to "always have Pepsi on sale" while other supermarkets within that chain didn't. Another respondent mentioned that fresh produce is quite difficult for low volume retailers because it goes bad so fast. He said there is a critical mass to make it viable.

Some recent resurgence

One respondent noticed that some mature areas of the city outside the active core have had somewhat of a resurgence in healthy food retail options. He noted the increasing number of farmers' markets during summer months and an increasing number of specialized food retail outlets in the Old St. Vital neighbourhood. Another respondent noted that when the Extra

Foods supermarket closed down on Main Street there was an increase in offerings of fresh foods at some of the local grocers.

People travel further

One respondent noted that one likely change over the years is that people don't necessarily shop where they live. He said that some cities have done mapping of food journeys, finding that people travel to various parts of the city and that shopping patterns are differentiated by the mode of transportation and demographics, and that this is key to understanding the impacts of reduced local access to healthy foods. Few local food retailers in a low-income neighbourhood with limited transportations will have a greater impact than a similar level of access in an affluent suburb.

Costs on health

A respondent who works in provincial health policy claimed that around 70% of our health-related costs are related to nutrition. He said the best way to address these health costs would be to deal with them upstream, such as a greater focus on how people eat.

Reasons for changes in food retail

Respondents had a variety of responses as to the reasons for a decline in food retail. The most commonly stated reason, agreed by all respondents is competition from larger supermarket chains.

Large Supermarket Chains

Respondents touted a number of competitive advantages, including multiple services and shopping needs addressed under one roof, the perception of lower prices, and more advertising. Two planners mentioned that when larger stores go in they tend to see a decline in competing retail development over the years.

A couple respondents felt that large supermarkets don't move into the inner city because newer neighbourhoods have the space to achieve the size they want.

The former small supermarket owner felt that competition from large chains is what put him out of business. He said that sales gradually declined for quite some time and regular customers would begin shopping at larger chains due to the lower prices and ability to address multiple shopping needs, which in some cases could include getting a phone, getting insurance, or going to the gym. Every year his sales would be less. He said his business experienced a more significant impact when a larger chain moved in not too far away.

Advertising

Several respondents brought up adverting specifically as an important factor. While larger supermarkets would advertise more, respondents felt small businesses for the most part would advertise little. The former supermarket owner felt advertising had a significant impact on his business but that it was a cost that he couldn't compete with.

Perception of higher prices

Several respondents felt that high prices or the perception of high prices at smaller retailers has contributed to fewer people shopping at these retailers.

Increasing costs of doing business

The former supermarket owner mentioned several costs outside of the costs of goods sold that were increasingly difficult to keep paying over the years. He mentioned that over the years there have been increasing regulatory fees, licensing fees, taxes, etc. He also said that advertising was an increasing cost that his business couldn't afford as the environment became more competitive. Limited sales made it difficult to continue doing necessary upgrades in order to remain competitive. While he didn't mention rising food prices as being a significant factor in rising costs, two other respondents felt that rising food costs are taking a toll on small businesses.

Time for food-related activities

Most respondents mentioned that people spend less time on food, either by spending less time on food preparation, or through looking for conveniences in travel time. Two professionals exploring healthy-related impacts of food retail access mentioned that there appears to be decreasing knowledge of food preparation activities, which could affect buying patterns, including purchasing more prepared foods. Several respondents mentioned they believe people are less likely to go to various stores for different products and may prefer having everything under one roof. Interestingly, the Statistics Canada Overview of the Time Use of Canadians survey based on 15,390 Canadian respondents reported that the average time spent on 'Shopping for goods and services' had not changed between 1992 and 2010 (Statistics Canada 2002, 2011). Both years had a reported average time spent on these actives of 48 minutes. Interestingly, if people are shopping at retailers with more goods and services under one roof, it follows that they likely would save shopping and travel time with fewer retailers to visit. Unfortunately the surveys don't break down travel time. It's possible that people are spending more time travelling a greater distance, or spending more time in any given retailer.

Criminal activity

A few respondents mentioned crime as an issue that may affect continued business in some parts of the city. Several planners identified shoplifting as a high cost to many inner-city food retailers. The former supermarket owner added that robberies would occasionally occur.

Car dependency

Several respondents mentioned that people tend to walk less far and drive more, possibly due to a more car-dependent environment. While the former supermarket owner noticed more customers driving from further distances to the store, there were fewer local residents that would walk to the store. He also mentioned that delivery orders had increased over the years, which was a more costly form of doing business.

Changing demographics

The former supermarket owner mentioned that many German new immigrants would shop at the supermarket several decades ago, and that the supermarket was a social place where many customers would know each other. Many lived not far from the store. While many people were loyal customers for decades their children would tend to have different shopping habits or would move away. While there were many loyal older customers it was difficult to get new generations of regular customers. He also mentioned that families were larger in the mid-1900s. People would buy groceries for large families and people in the neighbourhood appeared to “make a decent living”. As poverty increased in the area and family sizes declined, so did sales. Another respondent noted that the North End area has more widespread poverty than in past decades, which may affect business.

Wholesaler Consolidation

The former supermarket owner reported that there used to be a greater connection between manufacturers / producers and retailers a few decades ago. Many manufacturers had reps that would regularly come. As wholesalers became fewer and bigger, the wholesalers would take over that role. While there were still some good deals passed on through wholesalers, there were fewer options for retailers. This is consistent with a review of wholesalers through the Yellow Page directories. In 1971 Winnipeg had 96 wholesalers listed in the directory (Winnipeg White Pages Directory 1971). In 2014 this number decreased to 47 wholesalers (Yellowpages.ca 2014).

Solutions to addressing limited access to healthy food retail

Clustering of retailers

One respondent mentioned that if people have reduced time to spend shopping then maybe city planning and zoning could accommodate space for multiple supporting types of retail, such as a bakery and deli.

Analysis on foodscape

Multiple respondents expressed the importance of getting a better picture of what is happening in the food environment and how people interact with it. It was pointed out that access would have to be clearly defined. As one respondent pointed out, access may related to what transportation options a resident may have as well as what options are in his or her environment. This analysis could include some mapping of how people use their food environment.

Best-practices government tool kits

One respondent mentioned they're producing a tool-kit for local health authorities and neighbourhoods about how they can go about providing food options. He said that many governments are working on the same thing. The prime audience would likely be local health people.

Increased neighbourhood density

Two city planners pointed out the decreasing density within some of Winnipeg's mature neighbourhoods. For example River Heights had approximately 25% more people fifty years ago. They mentioned that finding ways to increase neighbourhood density to levels similar to those in the past may build up local markets again to levels that could help sustain continued food retail at a local scale. While building large multi-family buildings are not always popular, hidden density might be increased through strategically-placed end caps on collector streets or through secondary suites. The former supermarket owner mentioned the number of local customers decreased over the years to a level where business was no longer sustainable.

Incentives / financing options

One respondent mentioned New York City is using a number of incentives to convince grocers to go into areas with few healthy food retail options. He mentioned that other cities have been following this example but that it doesn't appear to be something that the City of Winnipeg is looking at. He also mentioned that small retailers sometimes get turned down by the banks for financing and that improved financing options may be helpful for retailers to start in some places. For instance banks may look at things like parking, which could give retailers in areas with limited parking a disadvantage. The former supermarket owner mentioned that starting a food retailer can be quite high – maybe $5 or $10 million. Refrigeration and proper equipment can be quite expensive. Another respondent mentioned a pilot project in Winnipeg's north end where various retailers are given incentives for adding a select set of healthy food options to their product line. Incentives include financial contributions towards these products, advertising through various mediums, and a variety of other supports including customer recipe cards that promote and educate on how to cook with these items. Another respondent mentioned design and regulatory support as options that could be helpful to get larger supermarkets into urban areas that have limited space and parking.

Non-traditional forms of retail

One respondent mentioned local organizations that deliver fresh produce to peoples' doors. This meets the needs of accessibility and is locally grown. While costs may be prohibitive, if shared between several people it may be less prohibitive.

Another respondent mentioned that New York had experimented with city-sponsored vendors to bring mobile shops on vans or small trucks that provide a full range of fresh food products. These vehicles could bring food right to where it's needed.

Government / community supported co-operatives

A few respondents mentioned government-supported community-oriented retailers in various cities in the US, including Detroit, Chicago, and Connecticut, such as customer focused co-operatives or social enterprises.

Public Education

Several respondents mentioned people seem to have less knowledge on how to cook healthy food than people had in past decades. One respondent mentioned a healthy eating guide offered to local residents showing where they could find local healthy foods, including bus routes, and how to cook with some of these foods. Brochures are also used that promote 30 local stores that passed their healthy food criteria.

Connecting retailers with local producers

One local organization is working on a pilot project that will connect local retailers with producers, possibly through facilitating a system of bulk-buying from local producers, or doing the buying through a middle organization like a food co-operative.

The Local People

A few respondents mentioned that Wolseley may be more resilient to food retail decline due to the values of the people who live in that neighbourhood.

Tools used in other cities in order to address food retail

Community Food Assessment (CSA) – A participatory and collaborative process for assessing food-related issues and resources in an area to come up with actions to improve community food security

Community Food Assessments well promoted as effective tools by the majority of interviewees, and several interviewees pointed out that several have already been undertaken in Winnipeg. One stakeholder found that CSAs provide a greater understanding of how people interact with their food retail environment and how improvements can be made. The former grocery store owner revealed that he had participated in one and thought the discussion was good, but he didn't see any benefits that came as a result of the CSA. Two respondents cautioned that a poor methodology design can result in limited use of CSAs. One said it would be helpful to have greater emphasis on what exactly is being measured, what the results mean, and what to do with the results to change the food landscape. The other said the lack of a rigorous process can lead to questionable reliability.

Creation of a Healthy Food Policy Committee, Branch, or Council

Some respondents suggested the province may create food policy program through a provincial department such as Food and Rural Initiatives. It was mentioned that a Northern Healthy Food Initiative, which is created out of five provincial departments working together, already exists in northern Manitoba.

It was suggested an advisory committee could be formed with the city. One interviewee mentioned that a municipal food policy council is something that the City of Winnipeg could take on, and that some other Canadian cities have successfully put one together.

Walkability improvements

A few respondents mentioned that improved walkability could be helpful for food retailers. Suggestions included improved sidewalk snow-clearing, better downtown amenities, and changing perceptions about the lack of safety in the inner-city.

One respondent mentioned that crossing a regional street is a big disincentive to visiting a food retailer. Some research had shown people viewed crossing Main Street as scary. Some improvements were recommended to improve pedestrian activity and crossing.

Free / affordable business resources

Several respondents agreed this could be helpful for food retailers. It was suggested this would likely come from the province, a government agency, a BIZ zone, or business association. The former business owner mentioned a business would need the appropriate resources to take advantage of this. Another respondent mentioned this could be done through.

A neighbourhood development plan, design guidelines, and / or more flexible zoning policies (*less restrictive or easier to change*)

Could be helpful but typically older poor neighbourhood don't get plans.

Accessible grants, subsidies, low-interest loans, or tax incentives for food retailers, or financial incentives for carrying 'healthy food' items

Several respondents cautioned on how this is conducted. Tax incentives can be helpful but it's tricky to find a process of picking a company while reducing the potential of any corruption. Large tax breaks may end up going to the companies that don't necessarily need it. One respondent acknowledge that while financial incentives would be nice, some retailers don't view this as fair. Nearly all respondents mentioned a rigorous process and possibly some research would be needed in order to do this effectively.

If a case could be made that this would generate more tax dollars then this may be easier to do. Incentive types that were suggested included tax breaks based on location or financial incentives for carrying certain types of food. One respondent mentioned Minneapolis has a healthy food ordinance. She also noted that there are financial incentives already for housing development, so why not food retail development. Another mentioned that low-interest loan programs for capital expenditures, such as freezers, may be helpful. Another respondent mentioned that some community cooperatives that have received government support have been successful, but that the investment could be risky as it may not end up being successful.

Regulations restricting predatory pricing or wholesale policies that result in advantages to larger scale supermarkets

The former business owner mentioned that sales started to drop around the time of the price wars, and that the price wars may have changed peoples' habits about how and where to shop. He suggested this might be a good idea but may prove difficult to do.

Buy local campaign

There are currently some 'buy-local' campaigns in production in Manitoba. It was also suggested that advertising a local shopping circuit may be helpful, such as purchasing food items from a variety of local grocery and specialized food retail outlets for a good variety of local food products. One respondent said that the province has some more work to do on improving policies so that they better enable local producers to sell to local retailers.

Another respondent mentioned that there are currently some efforts in Winnipeg to create a better connection between producers to retailers. One possible program may enable local farmers to drop their products off and then retailers could come get them delivered or pick them up. This would be producer focused, rather than retailer focused, which would make it easier for producers to sell their goods. Some of the issues include funding, space, and a truck. Some government funding may be helpful in ensuring this system takes off.

Educational resources on local food and food preparation

One respondent mentioned that this can be a difficult task since education is more than advertising – it's about building skills. He mentioned that providing recipes may be helpful, but many people simply don't know how to cook or don't have an interest in recipes. He mentioned that food literacy is a topic gaining increasing attention.

Regulating the size of large-scale supermarkets within select areas, or requiring that such supermarkets are designed to be oriented to pedestrians

Respondents were mixed on restricting supermarket size. A couple respondents mentioned that the City of Winnipeg Main Street Planned Development Overlays already provide such tools as design guidelines, which would restrict 'big box' supermarkets. One respondent mentioned that a large supermarket would be much better than a very limited food retail environment. Another mentioned that it's particularly problematic that so many types of services are available under one retailer that's the bigger problem.

Food Environment Software

One respondent mentioned there are some apps Weston University in London that they are hoping to work in, which includes having people choose foods and then options will show up, along with the distance to each one, and local recipes.

Other comments or suggestions

People are more mobile than you might think. They still had a lot of customers, but just not enough. Costs of food weren't a big factor. You make good money on the house brand stuff... like generic margarine over imperial.

Response on what former supermarket owner's business offered to the community

The former business owner mentioned that his store offered a series of services above and beyond what many other supermarkets had offered, including phone orders and delivery, donations to community organizations, bagging and carry-out service, cheque-cashing, and friendly service. He mentioned that some of the services became unsustainable as sales began to decline until he had to close the business.

How interviewee organizations have been responding to the issue

Interviewees revealed a number of existing resources and activities that have been done in response to food retail. Several community food assessments have been conducted in various neighbourhoods of Winnipeg. Several community organizations put together a 'Food Share Co-op' program, which provides affordable boxes of produce distributed twice per month, costing about 30% less than the average grocer.

Various provincial departments work with local and regional food security organizations, such as the Federal Territorial Provincial Group on Nutrition, which works on food environments, and Food Matters Manitoba, which engages in an assortment of projects and research related to food security. The Winnipeg Regional Health Authority has a food security working group, which is examining the local food environment and connections with health, and assessing food education and skills.

It was also mentioned that the City of Winnipeg has an economic development officer, who has the potential to provide business incentives, as had been done for industrial expansion.

Who could be involved in a plan for healthy foods?

Respondents suggested the following:

- Food Matters – They've tried for some time getting a Food Policy Council together, like those in Toronto and Vancouver for the City of Winnipeg
- The City of Winnipeg through city planners
- Province of Manitoba 'All Aboard' initiative, which includes a Food Security Strategy under Manitoba Family Services
- Policy and Priorities Committee of Cabinet