Interactive mapping of environmental health assessment of communities across Canada:
Contextual factors study of the Canadian Alliance for Healthy Hearts and Minds

March 19 2019

MEETING START: 9:00AM PACIFIC | 12:00 noon EASTERN

FOR AUDIO – PLEASE CALL:
1-855-494-5988

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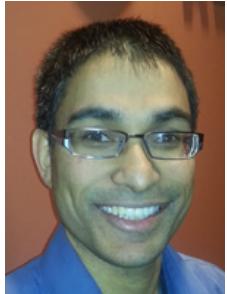
March 19 2019

chat…

info@canue.ca

Interactive mapping of environmental health assessment of communities across Canada:
Contextual factors study of the Canadian Alliance for Healthy Hearts and Minds

March 19 2019

Russell de Souza is an Assistant Professor in the Department of Health Research Methods, Evidence, and Impact at McMaster University. He is a registered dietitian, and his research focuses on dietary patterns, health, and how the food environment shapes food choice and risk of cardiovascular disease.

Interactive mapping of environmental health assessment of communities across Canada: *Contextual factors study of the Canadian Alliance for Healthy Hearts and Minds*

Dr. Russell J. de Souza, RD, ScD

Assistant Professor

McMaster University

Department of Health Research Methods, Evidence, and Impact

March 19, 2010

@DrRussRD

Objectives of the CVCD Alliance

I. To understand the role of socio-environmental contextual factors on individual risk factors, subclinical disease, and events.

II. To identify unique patterns of contextual factors, risk, health service utilization and clinical outcomes in high risk groups including Aboriginal people, Asian, Afro- Canadians.

III. To identify markers of early subclinical dysfunction of the brain and the heart and describe their relationship to individual/contextual risk, and outcome.
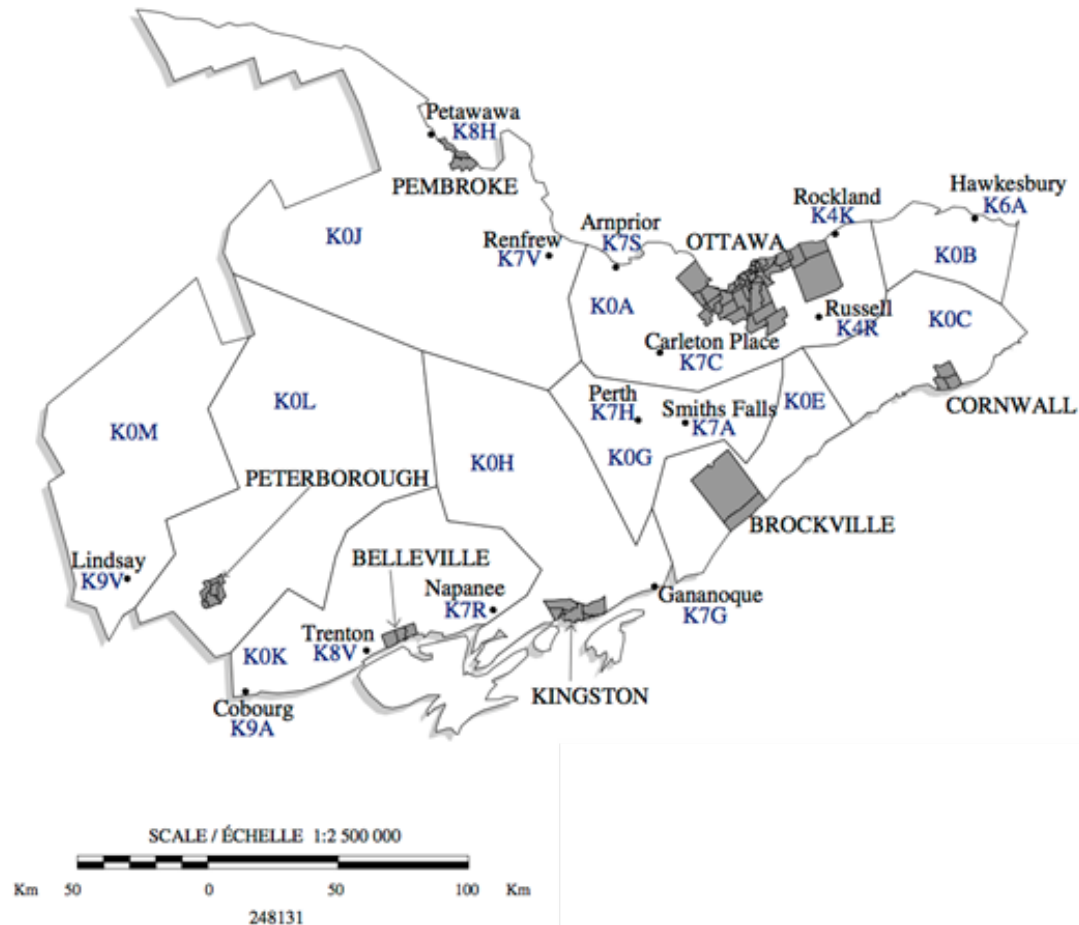
Contextual factors assessment

Why assess "contextual" factors?

- We call these the "causes of the causes"
  - Environmental factors that contribute to the development of risk factors
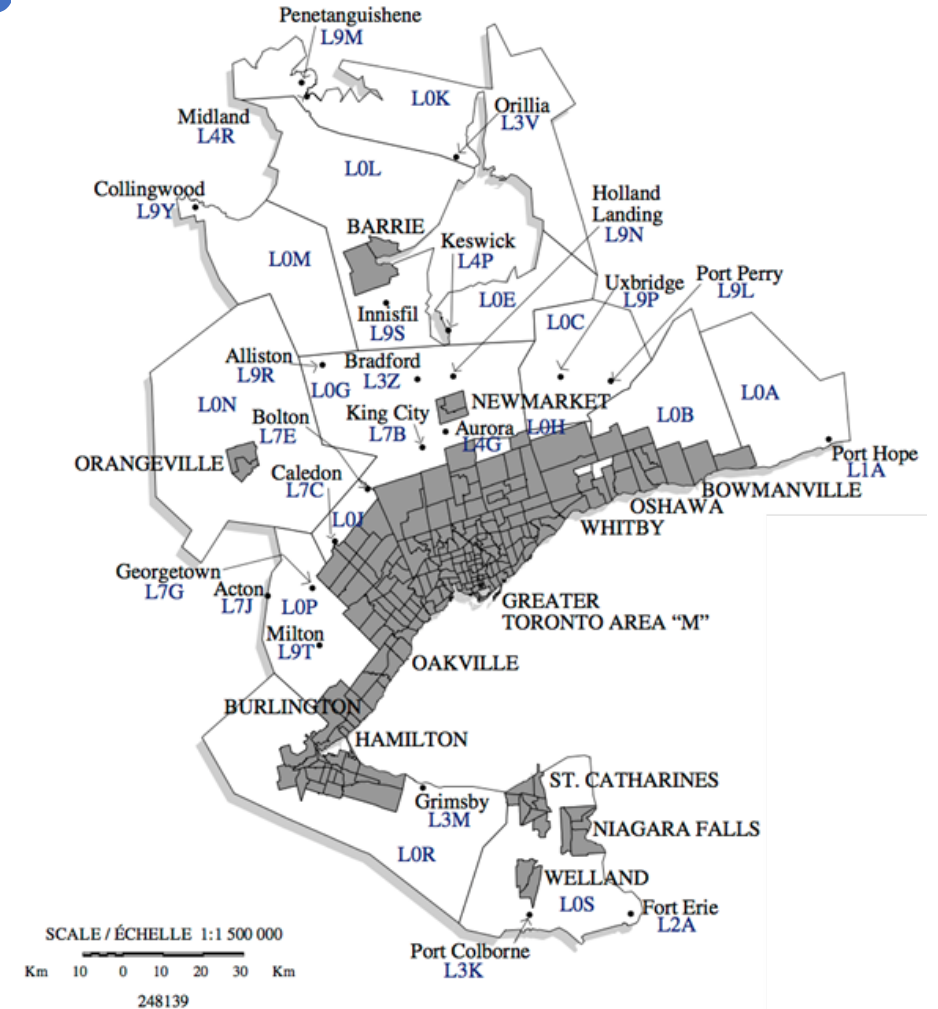
Definition of Community

- The FSA (forward sortation area) was the community unit
  - Low representation of cohort participants from census tracts in rural areas and eastern provinces
  - FSA reported by census respondents for their place of residence
  - Can link aggregate age, sex, marital status, housing costs to FSA

Definition of Community

SCALE / ÉCHELLE 1:2 500 000

248131

SCALE / ÉCHELLE 1:1 500 000

248139

https://www.businesssellcanada.com/sale/cpc/056.gif

https://www.businesssellcanada.com/sale/cpc/064.gif

Limitation of Definition

- One value per FSA does not represent large or densely-populated FSA with income discrepancies

- If income IQR: Median > 0.5: surveyed 2 postal codes at random from those in the top 25th and bottom 25th percentile of family income

	A	B	C	D	E	F
1	Ontario		Total	156		
2	Community ID	FSA	Urban/Rural Status		Community ID	Postal Codes
3	112	L1R	Urban		597	M1J3J5
4	113	L1S	Urban		598	M1J1J4

27 auditors physically visited 2,074 communities

- **Before leaving:**
  - Selected the community center, a tobacco store, a grocery store, an alcohol retail outlet and a restaurant

- **At the community center:**
  - Photograph any advertisements
  - Fill out the EPOCH-1 assessment tool

- **After completion:**
  - questionnaires scanned and sent to data repository at Population Health Research Institute (Hamilton, ON)

Community Centre

- an area in FSA with the highest number of grocery stores and restaurants
- Established prior to the audit by searching for restaurants and grocery stores using Google Maps

EPOCH
Environmental Profile of a Community's Health

- physical environment audit tool

- Four sections :
  - Community demographics
  - Assessment of a tobacco retail outlet
  - Assessment of a grocery store
  - Assessment of a restaurant

What were we auditing for each community?
Demographic characteristics

- Population size (# of postal codes)

- Cost per unit of residential land (difficult!)

- Average house cost (difficult!)

- Nearest city/major urban centre (google maps)

- Nearest provincial highway (google maps)

- Connectivity by bus/train (bus stops, subways, train stations)

Selecting retail locations

Type of store	Procedure
Tobacco outlet	Any store or outlet that sells cigarettes in the community center and note down the location
Alcohol outlet	Any store or outlet that sells beer and/or wine in the community center and note down the location
Grocery store	The chain grocery store (Loblaws, Sobeys, or Metro) located in the community centre of the FSA that offers the lowest prices for the compared items.
Restaurant	Family restaurant with table service and children's menu that provides an appetizer, soft drink, main course, and dessert for $30, scaled to the average income of the FSA

What were we auditing for each community?
Tobacco store

- In-store signage (age, no smoking, warnings)
- In-store advertisement of products
- Open displays of cigarettes
- Point-of-sale tobacco advertisements
- Smoking cessation age
- Number of brands sold
- Sizes of packages
- Prices

Community subgroups

Northern – Southern	Urban – Rural
Northern: higher than median latitude	**Urban:** 21% or more postal codes within its FSA fell within a CMA/CA
Southern: lower than median latitude	**Rural:** <21% fell within a CMA/CA

CMA/CA: one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the core

Community subgroups

Province	Cut-off[1]	Closest location to cutoff[2]	Northern Location[3]	Southern Location[4]	Distance (km)[5]	Straight-line distance (km)[6]
NL	47.7239072	Terrenceville	Miller Town	St. John's	318.6	155.6
NS	45.0108247	Lochaber Mines	Eskasoni	Dartmouth	279.5	144.0
PE	46.2732890	Warren Grove	North Milton	Fullerton's Creek	18.3	13.6
NB	46.0561587	New Zion	White Rapids	Quispamis	153.7	152.1
PQ	45.5808590	Saint-Dominique	Quebec City	Montreal	184.3	132.5
ON	43.7057053	Brampton	Sutton	Oakville	104.6	97.5
MB	49.9099339	St. Francis Xavier	West St. Paul	Linden Woods	17.7	17.6
SK	52.0961074	Meacham	Hague	Regina	269.1	234.6
AB	53.2022632	Leduc	Edmonton	Calgary	280.4	277.8
BC	49.2666086	Harbor Chines	Squamish	Richmond	57.6	57.0

What were we auditing for each community?
Grocery store

- availability of 36 fruits and 45 vegetables

- prices of
  - 7 Fruits (2 organic options)
  - 4 Vegetables
  - Milk
  - Bread
  - Chicken
  - Meat (pork chops)
  - Eggs
  - Cola
  - Chocolate

- Advertisements: junk food, sweet drinks, fruits and vegetables, cigarettes and alcohol

Photographed by our audit team

What were we auditing for each community?
Alcohol outlet

- Price of 24 cans of beer (most popular brand)
- Price of bottle (750 ml) white wine (most popular brand)

Photographed by our audit team

What were we auditing for each community?
Family restaurant

- Healthy menu options (low sodium, low calories, low-fat, other)
- *Health Check*
- salad main dish option
- "super-size" portion size
- All-you-can eat buffet
- Nutritional information availability (on-line or pamphlet)

jackastors.com

Results

What did we find?

We audited 2,074 communities in 10 provinces

	44
	50.0
	50.0

	2,074
	83.5
	16.5

	9
	77.8
	22.2

	103
	78.6
	21.4

	141
	48.5
	51.5

	238	197	57	77	696	517
Urban	87.4	80.7	71.9	72.7	92.1	87.0
Rural	12.6	19.3	28.1	27.3	7.9	13.0

Most of Canada is urban (N=2,074)

Rural, 17%

Urban, 83%

Adapted from: de Souza et al, *Cities and Health*, 2017
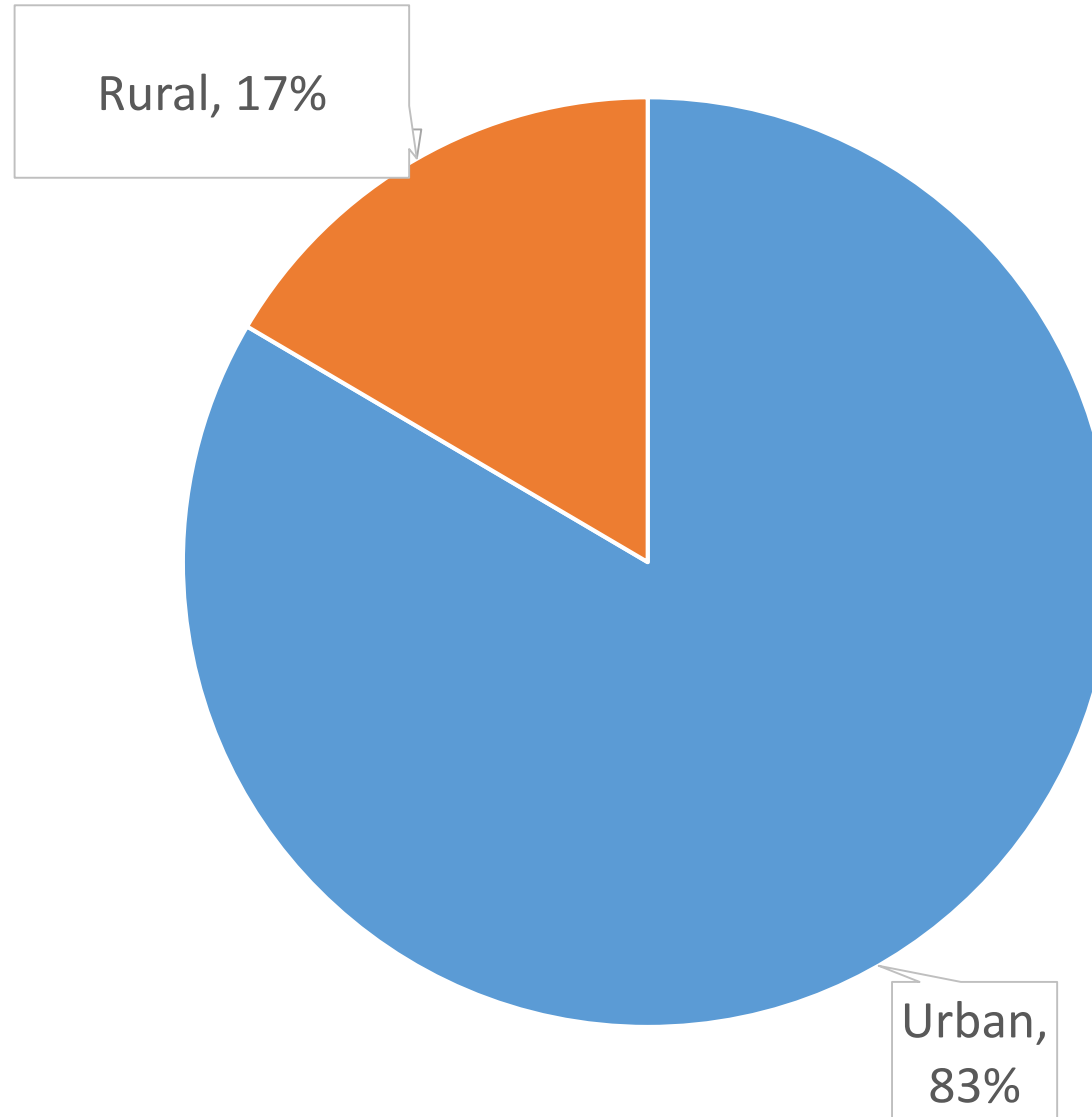
Most provinces are largely urban:
ON, QC most urban; NB, NL the most rural

N communities
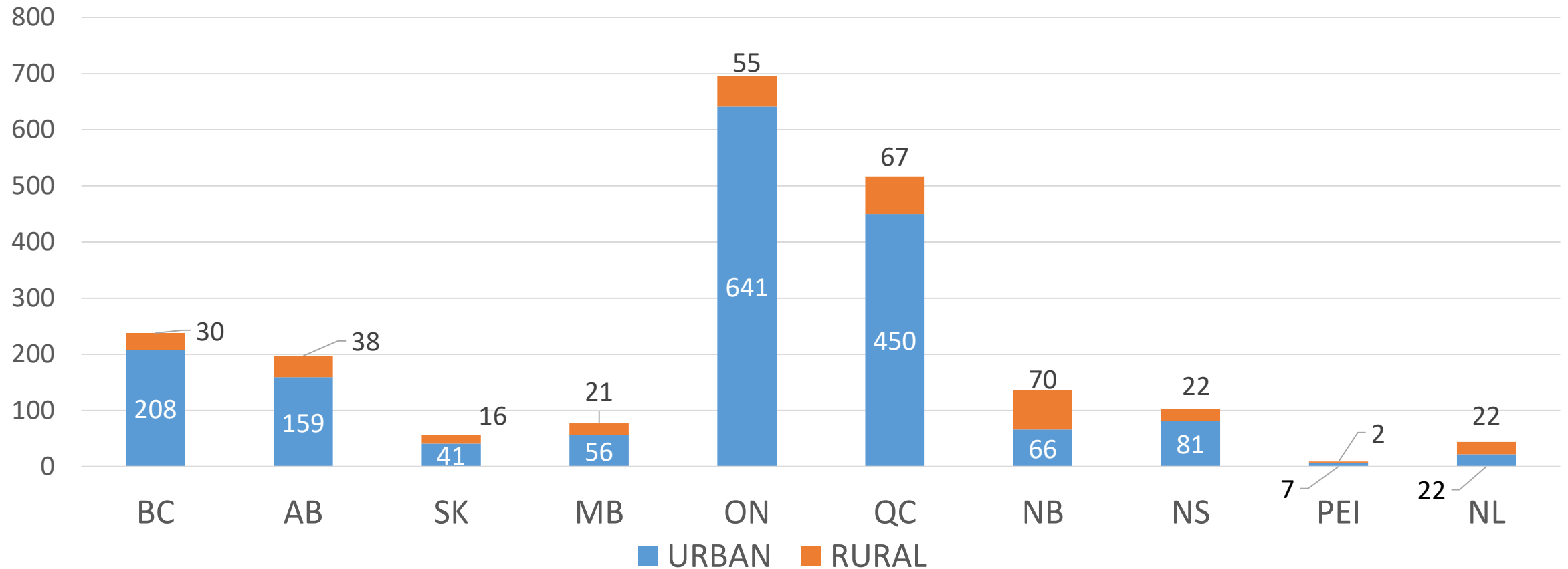
Adapted from: de Souza et al, *Cities and Health*, 2017

Northern communities more likely to be rural
ON north more urban than country average
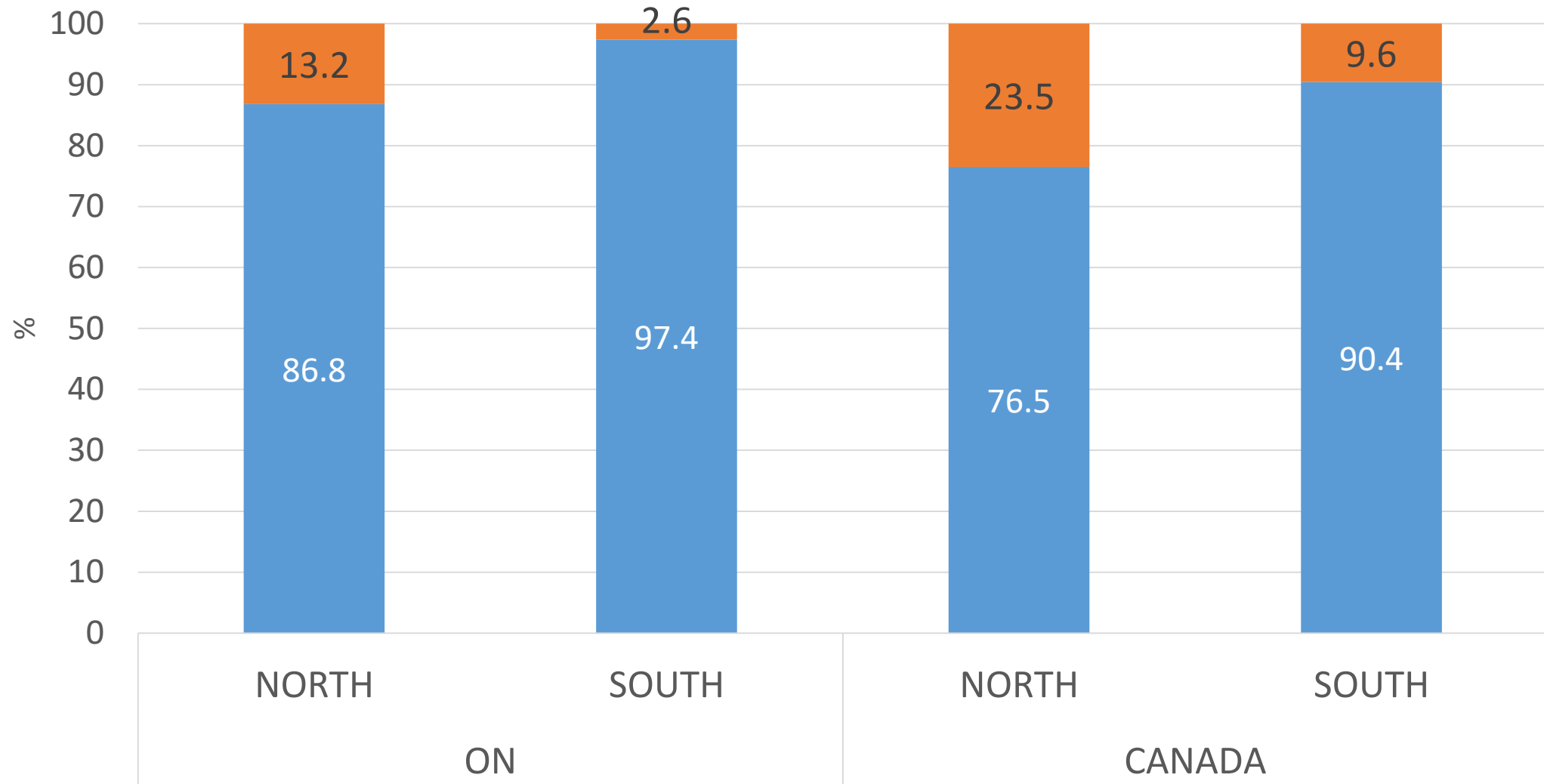
Adapted from: de Souza et al, *Cities and Health*, 2017

Urban incomes are higher:
Gap is largest in NL, smallest in PEI
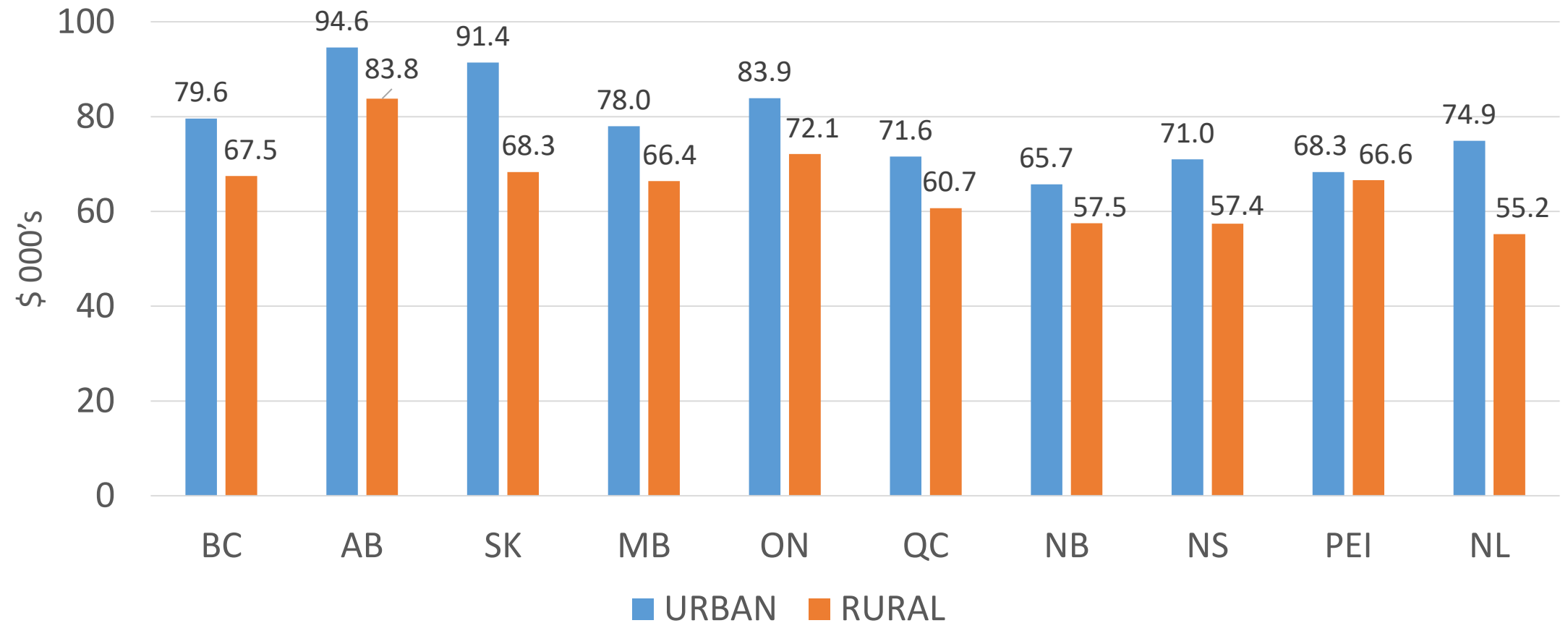
	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL
URBAN	79.6	94.6	91.4	78.0	83.9	71.6	65.7	71.0	68.3	74.9
RURAL	67.5	83.8	68.3	66.4	72.1	60.7	57.5	57.4	66.6	55.2

$ 000's

■ URBAN ■ RURAL
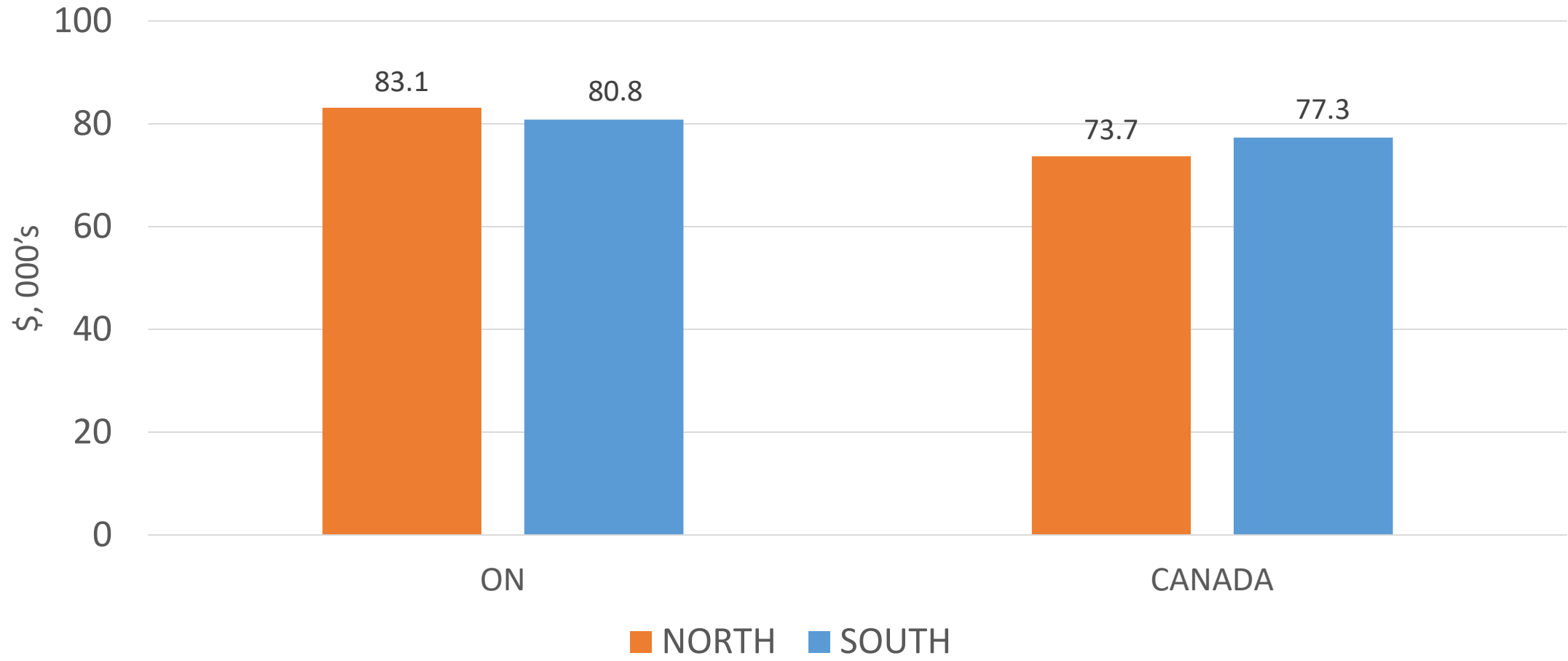
Adapted from: de Souza et al, *Cities and Health*, 2017

The distance to the nearest major highway varies: Rural QC, NS, NL most isolated

Adapted from: de Souza et al, *Cities and Health*, 2017
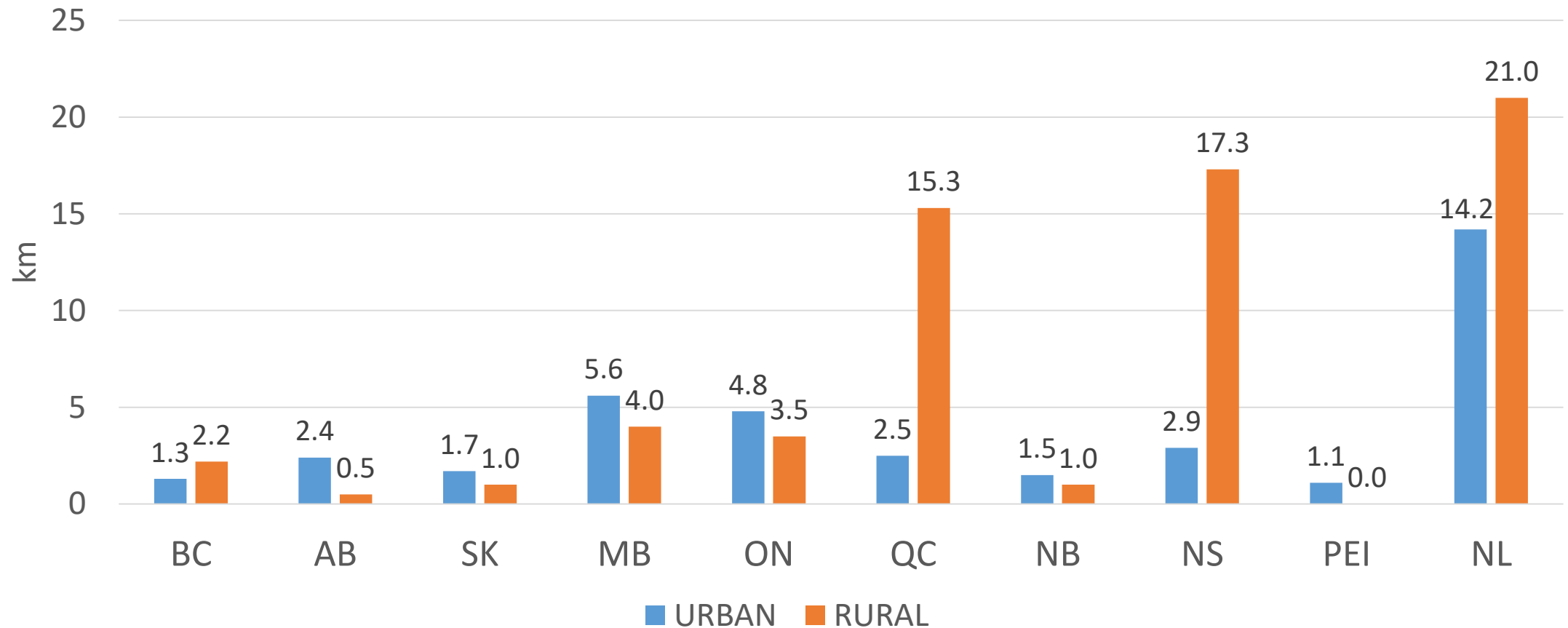
Northern and southern communities close to highways
Southern Ontario communities a bit further

Adapted from: de Souza et al, *Cities and Health*, 2017
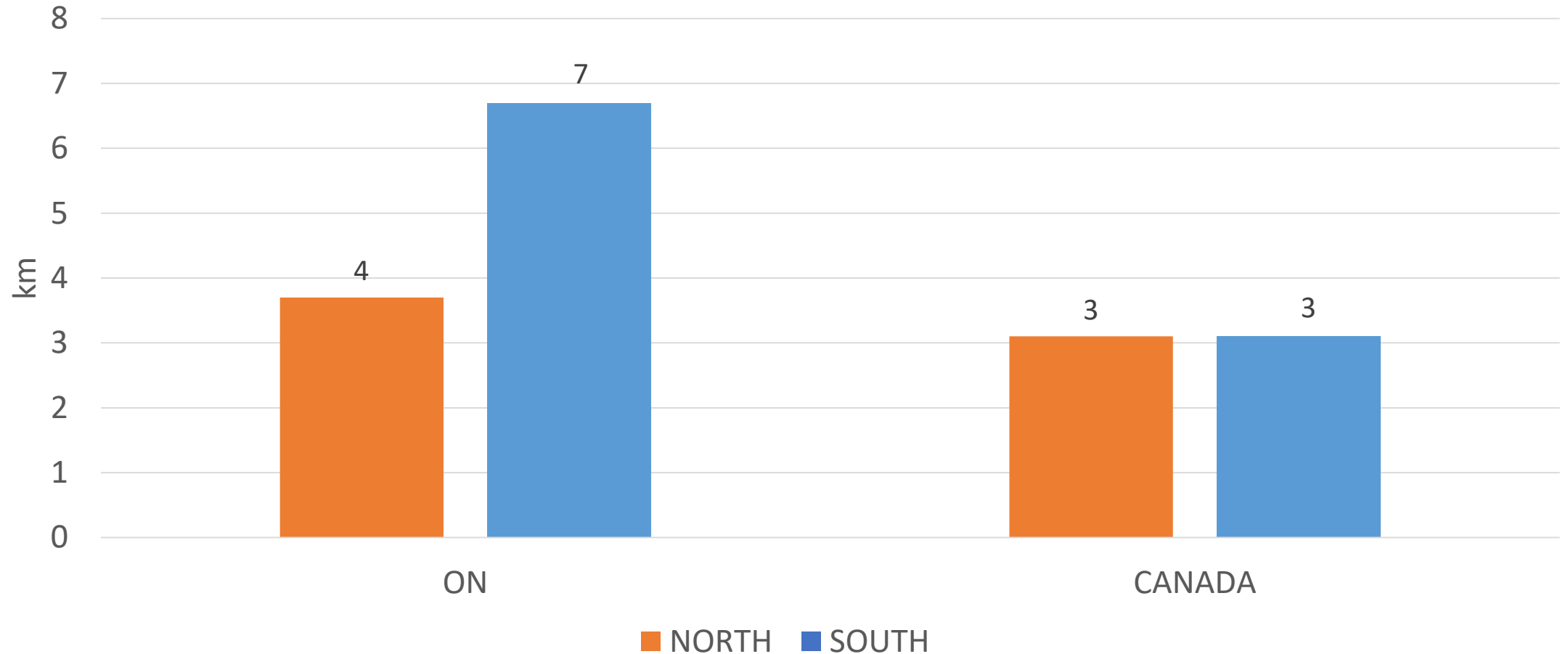
Urban communities more likely to have buses:
Better service in more distal rural QC, NS, NL

78.5% URBAN / 20.9% RURAL

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL
URBAN	95.1	74.7	80	82.3	81.7	76.3	28.8	69.1	57.1	77.3
RURAL	55.2	5.6	0	0	5.5	47.8	0	50	0	31.8

■ URBAN ■ RURAL

Adapted from: de Souza et al, *Cities and Health*, 2017
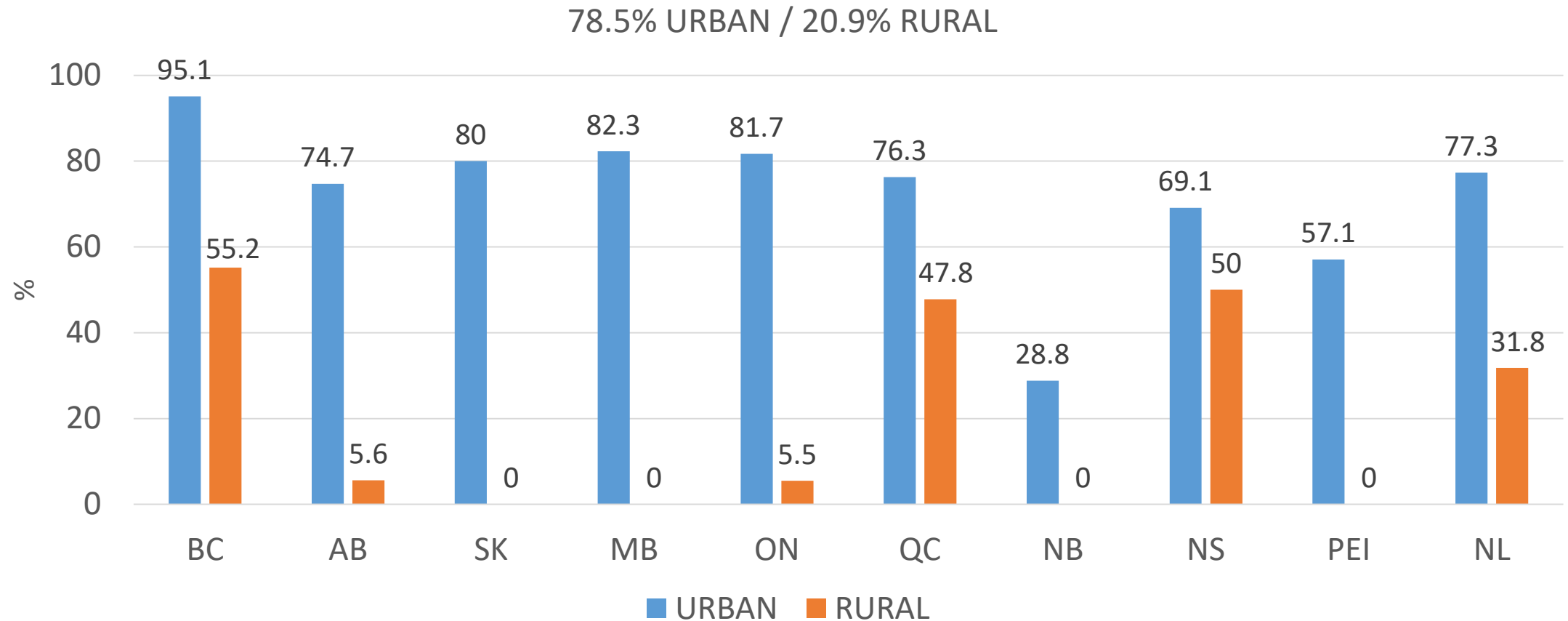
Northern and southern communities have buses
Better coverage in Southern Ontario
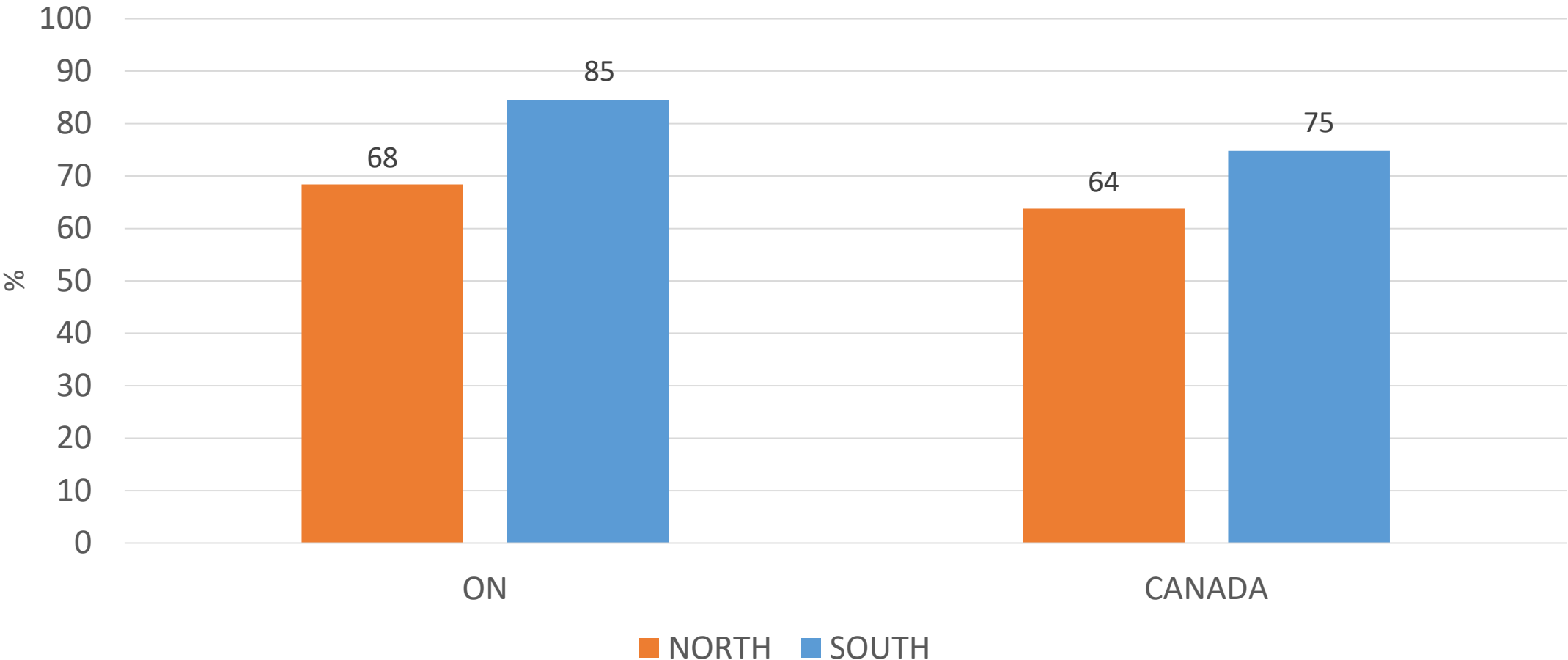
Adapted from: de Souza et al, *Cities and Health*, 2017

Access to train service limited to 4 provinces:
Urban BC, AB, ON, QC

12.0% URBAN / 0.0% RURAL
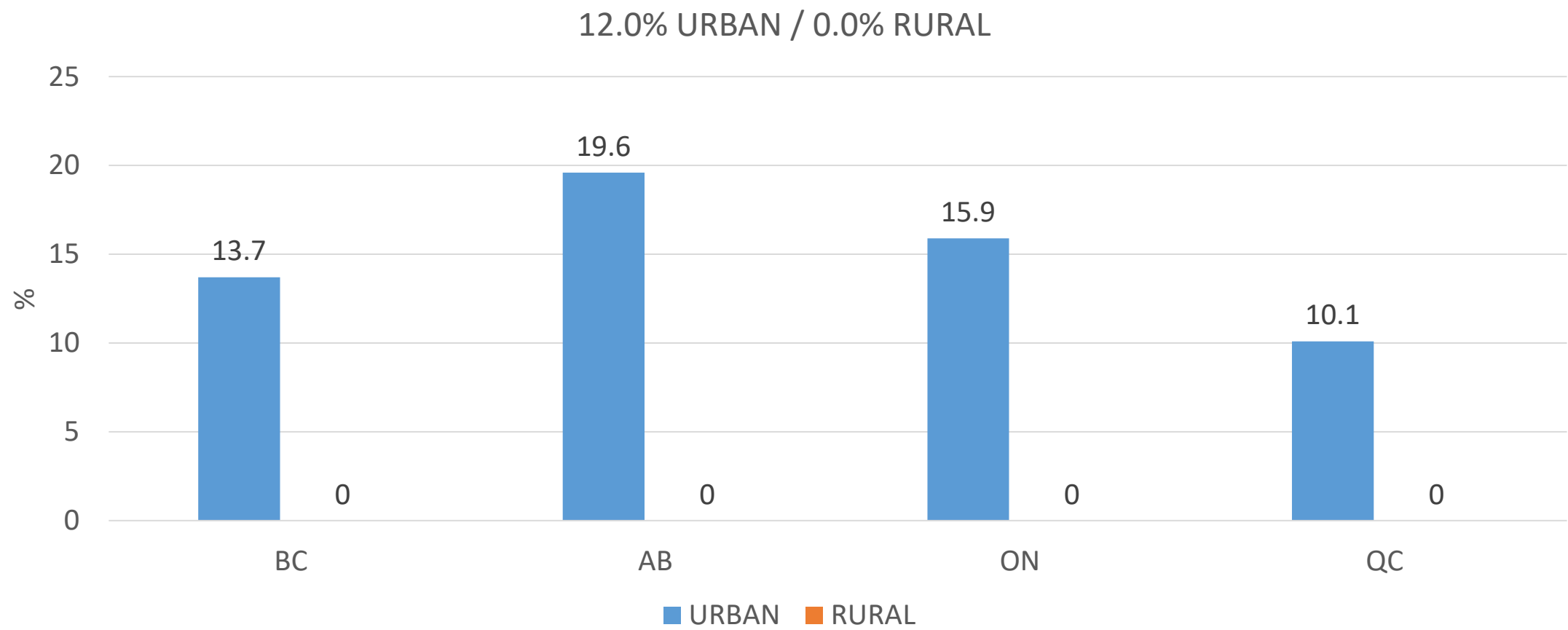
Adapted from: de Souza et al, *Cities and Health*, 2017

Train service more common in Southern communities
Better coverage in Ontario

Adapted from: de Souza et al, *Cities and Health*, 2017
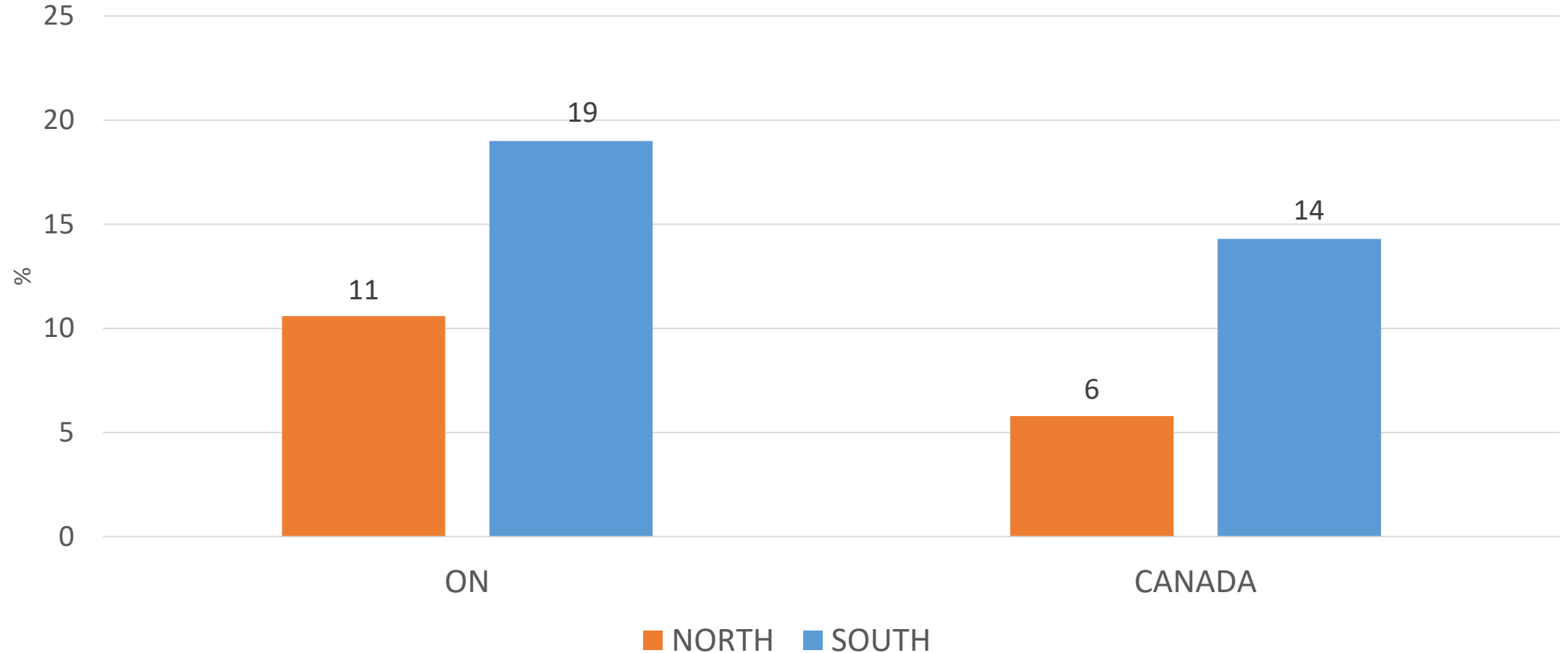
Cigarette prices vary by $2 per 20-pack
Cheapest in ON, QC… priciest in MB

$11.21 URBAN / $12.00 RURAL

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NL
URBAN	12.7	12.2	13.2	14.1	10.1	10.5	13.5	13.7	13.5	13.0
RURAL	12.9	12.8	12.7	13.6	11.2	10.4	13.6	14.1		12.8

■ URBAN   ■ RURAL

Adapted from: de Souza et al, *Cities and Health,* 2017
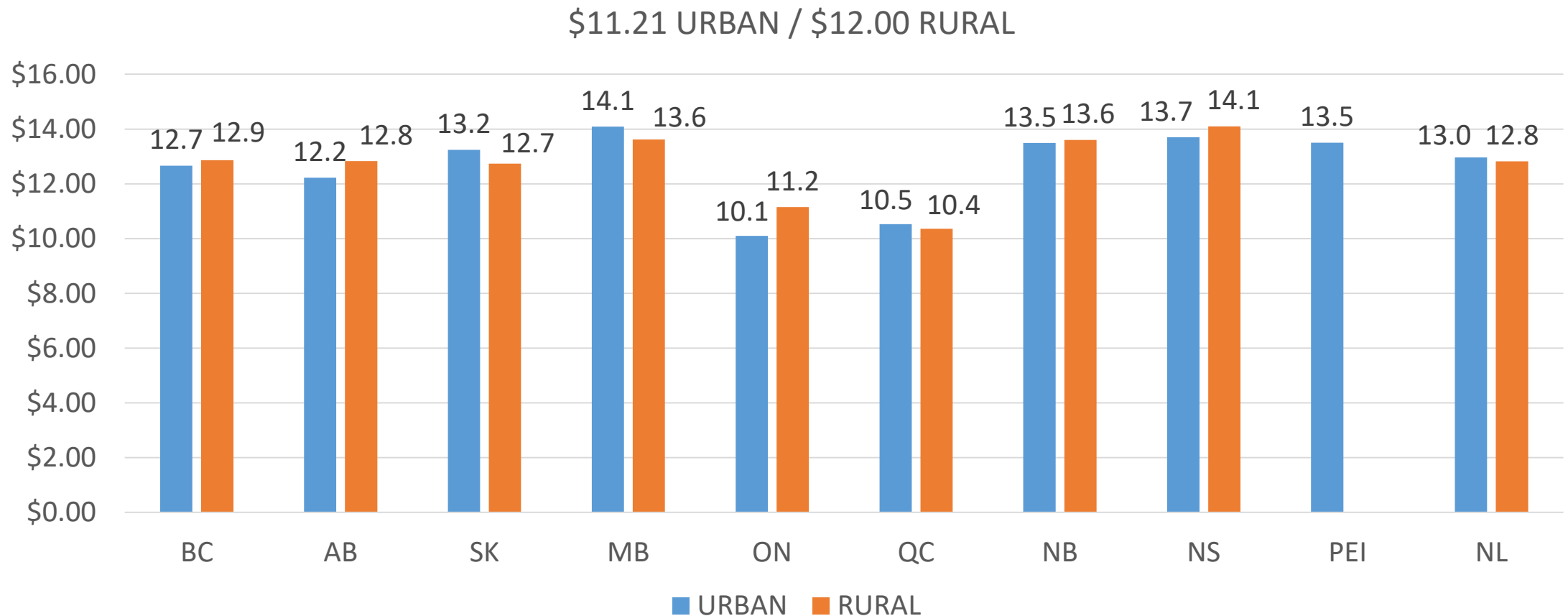
Cigarettes prices similar between north and south
Ontario a bit cheaper
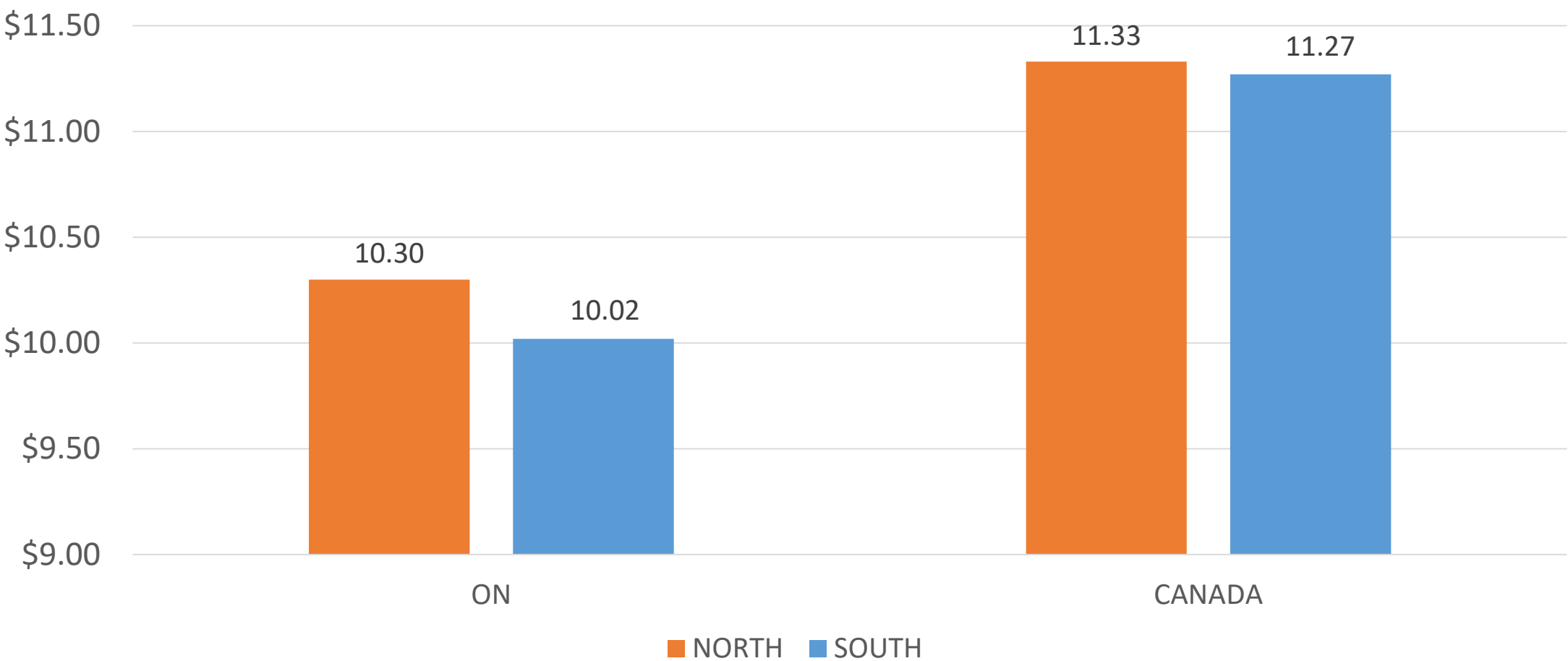
Adapted from: de Souza et al, *Cities and Health*, 2017

Variety of fruits similar across provinces
Urban NB about 50% of the variety

n FRUITS

25 URBAN / 23 RURAL
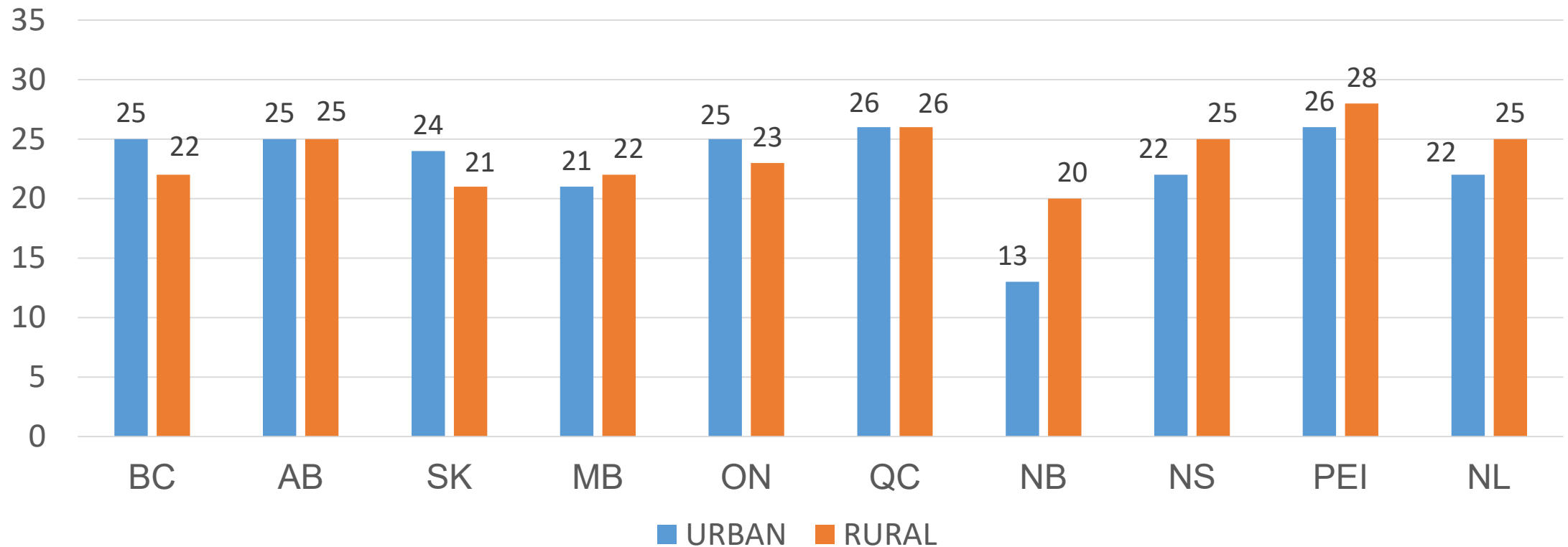
Adapted from: de Souza et al, *Cities and Health*, 2017

Fruit choice similar between north and south
Ontario consistent with national trend

Adapted from: de Souza et al, *Cities and Health*, 2017
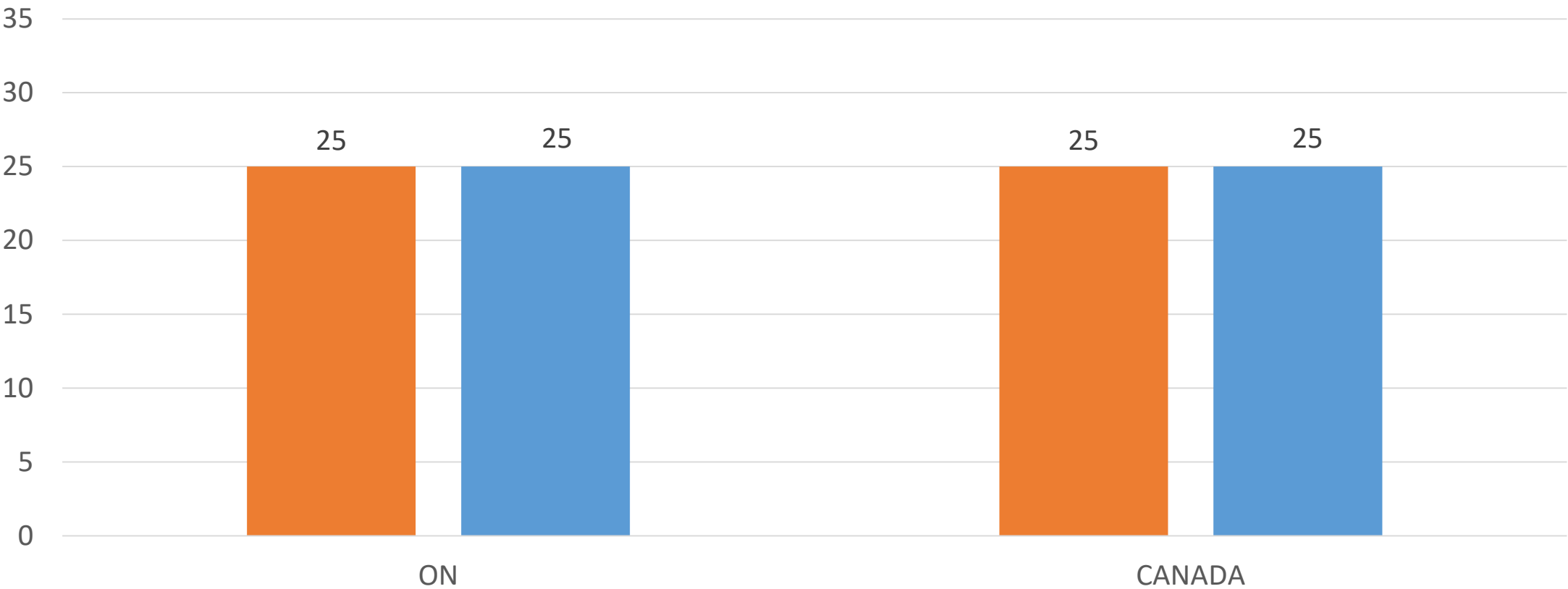
Variety of vegetables similar across provinces
Urban NB about 65% of the variety

n VEGETABLES

32 URBAN / 28 RURAL

Adapted from: de Souza et al, *Cities and Health*, 2017
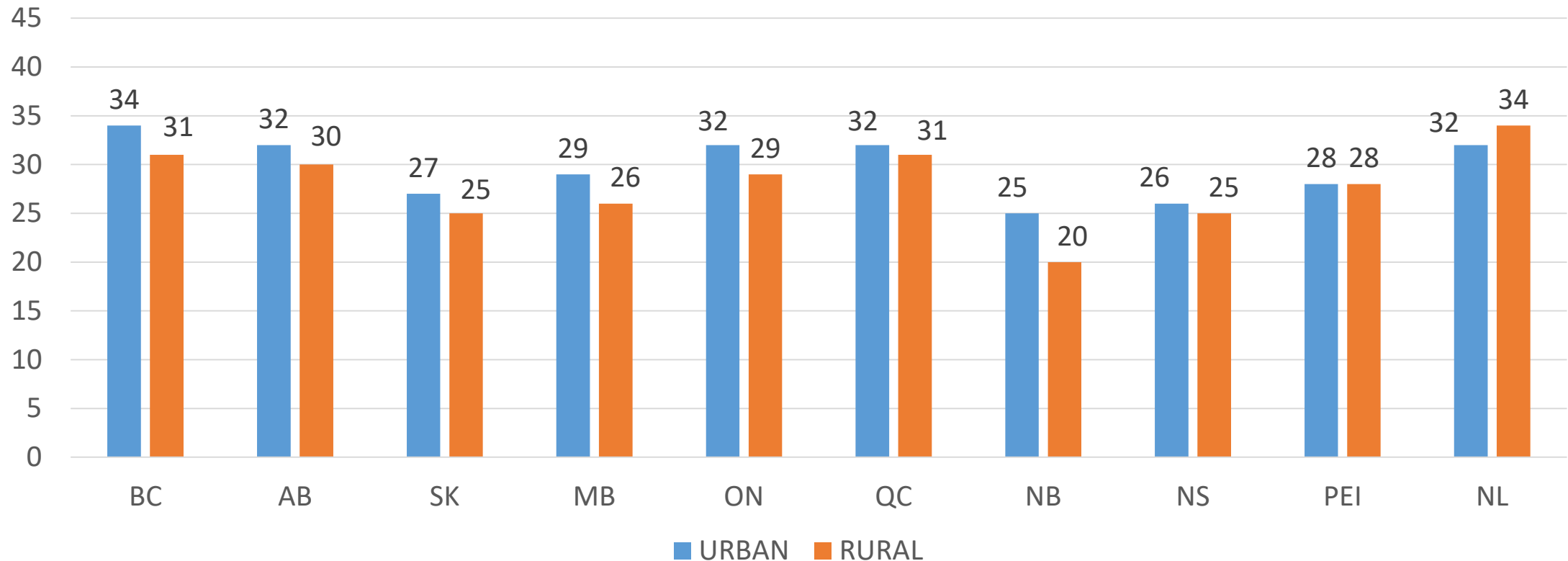
Vegetable choice similar between north and south Ontario consistent with national trend

n VEGETABLES
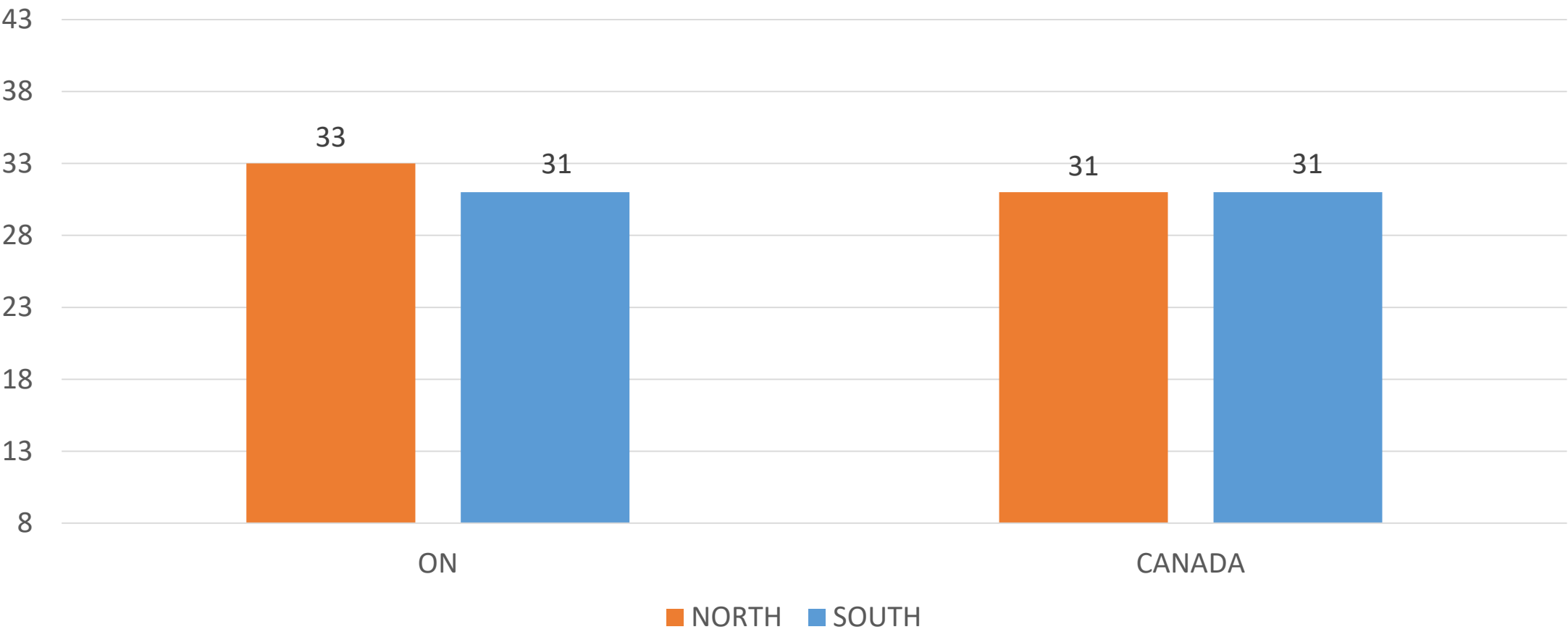
Adapted from: de Souza et al, *Cities and Health*, 2017

Common fruits and vegetables were in >90% of stores

Fruits

- **Most Common**
  - Apple
  - Orange
  - Banana
  - Lemon
  - Grapes

- **Least common**
  - Jackfruit
  - Pumpkin
  - Lychee
  - Guava
  - Persimmon

Vegetables

- **Most Common**
  - Carrots
  - Tomato
  - Celery
  - Onion
  - Cucumber

- **Least Common**
  - Mustard Greens
  - Broad (Lima) beans
  - Gourd
  - Winter melon

Price of nutritious food higher in rural communities
Most expensive in NB, most affordable in ON

$66.2 URBAN / $70.7 RURAL

State	URBAN	RURAL
BC	69.7	75.8
AB	65.2	64.8
SK	64.0	68.1
MB	66.3	70.4
ON	62.5	69.6
QC	66.9	67.4
NB	91.4	90.8
NS	76.1	78.5
PEI	82.4	79.2
NL	80.4	82.1

■ URBAN ■ RURAL
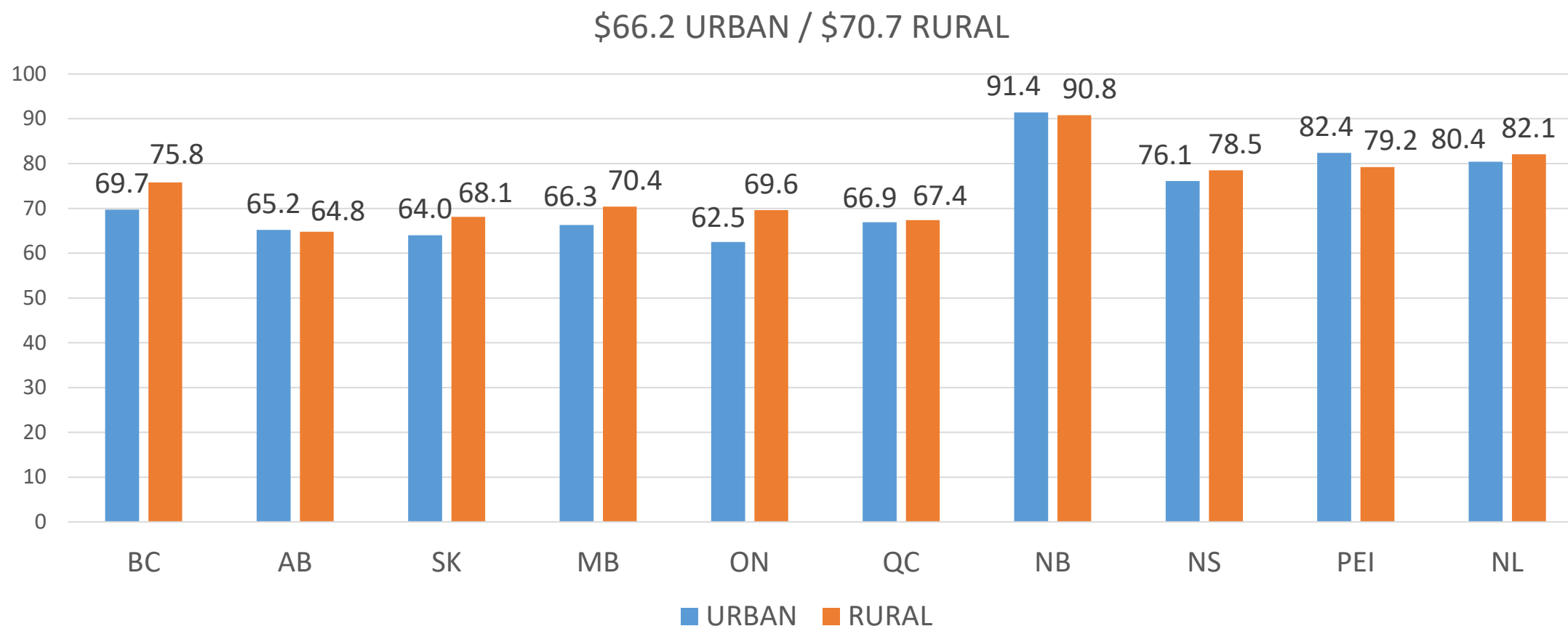
Nutritious food: 2% milk, eggs, chicken drumsticks, pork loin chops, carrots, lettuce, apples, bananas, grapes, oranges, pears, tomatoes, white bread, white rice, brown rice

Adapted from: de Souza et al, *Cities and Health*, 2017

Price of nutritious foods higher in northern Canada
Ontario consistent with national trend
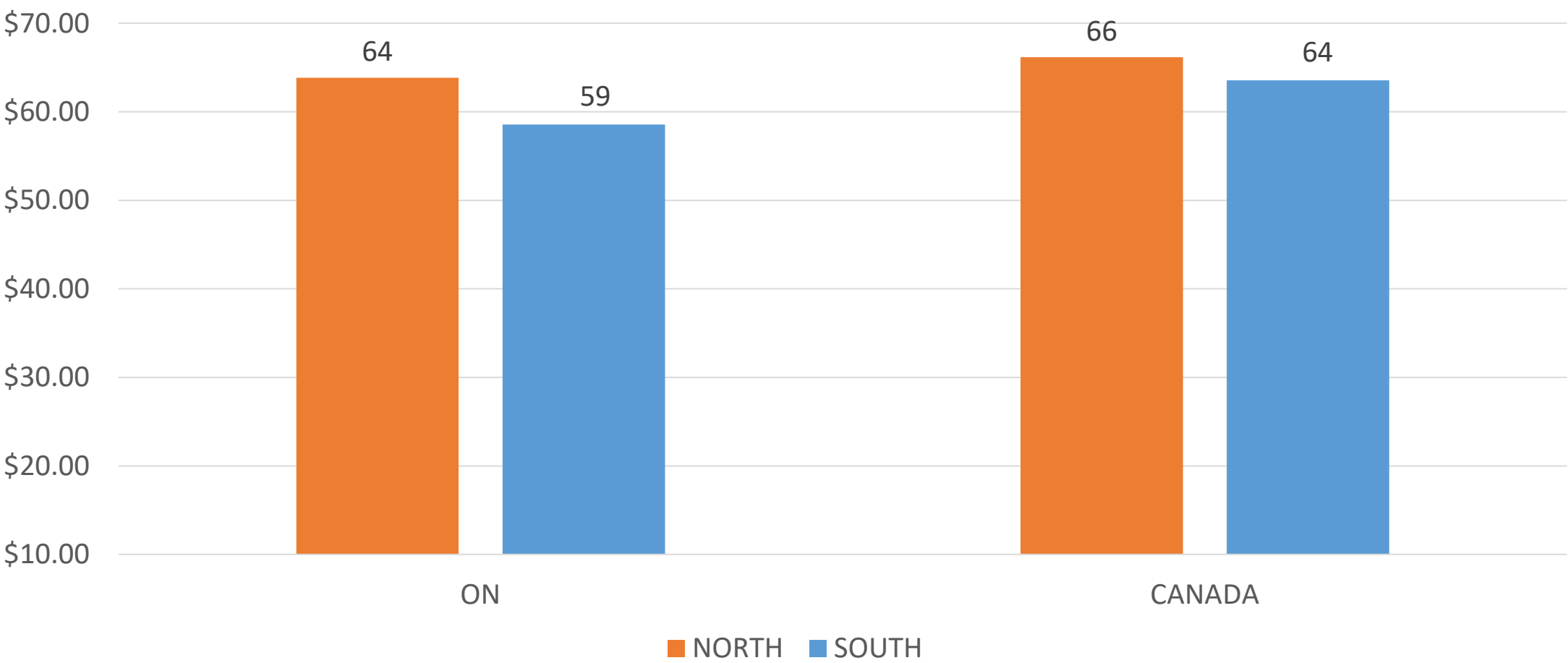
Adapted from: de Souza et al, *Cities and Health*, 2017

Junk food advertisements are common
Least common in SK, MB, PEI, NL

79% URBAN / 72% RURAL

Adapted from: de Souza et al, *Cities and Health,* 2017
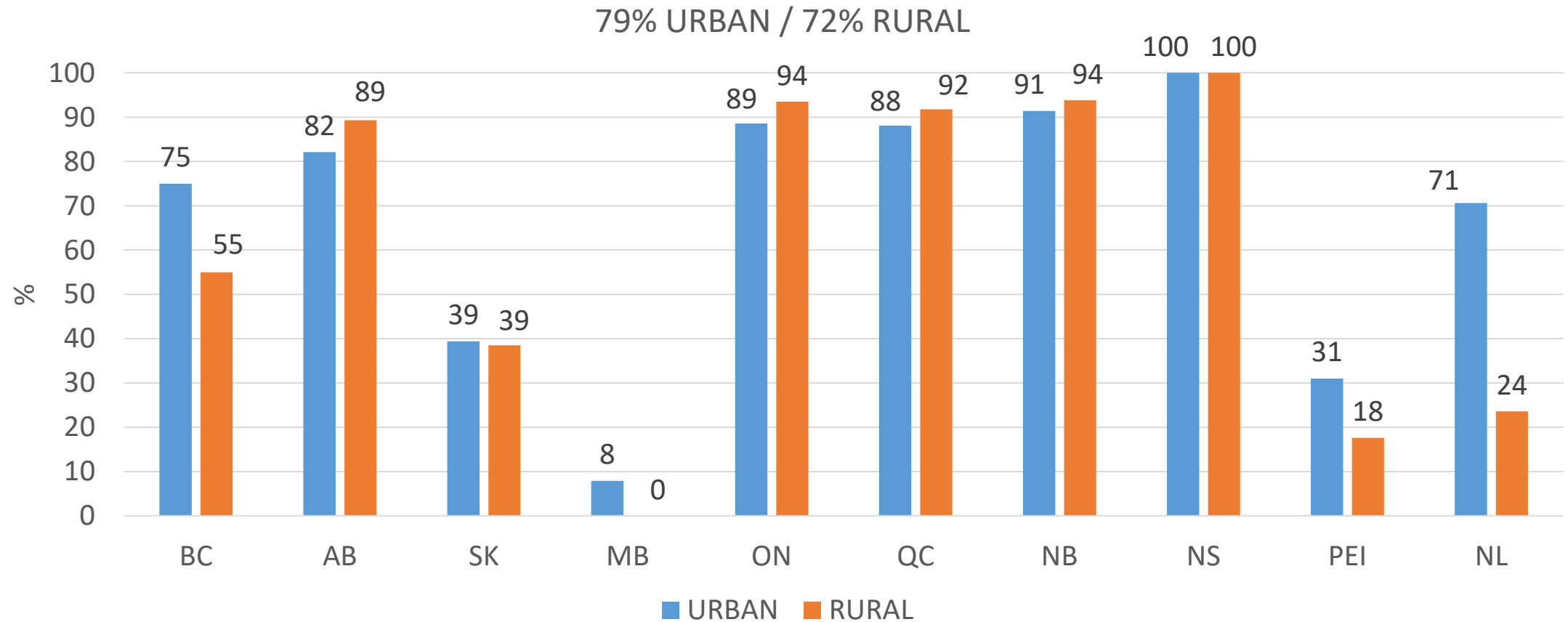
Junk food advertisements are common
Ontario higher than national averages

Adapted from: de Souza et al, *Cities and Health*, 2017

Sugary drink advertisements are common
Least common in SK, MB, PEI, NL

74% URBAN / 73% RURAL
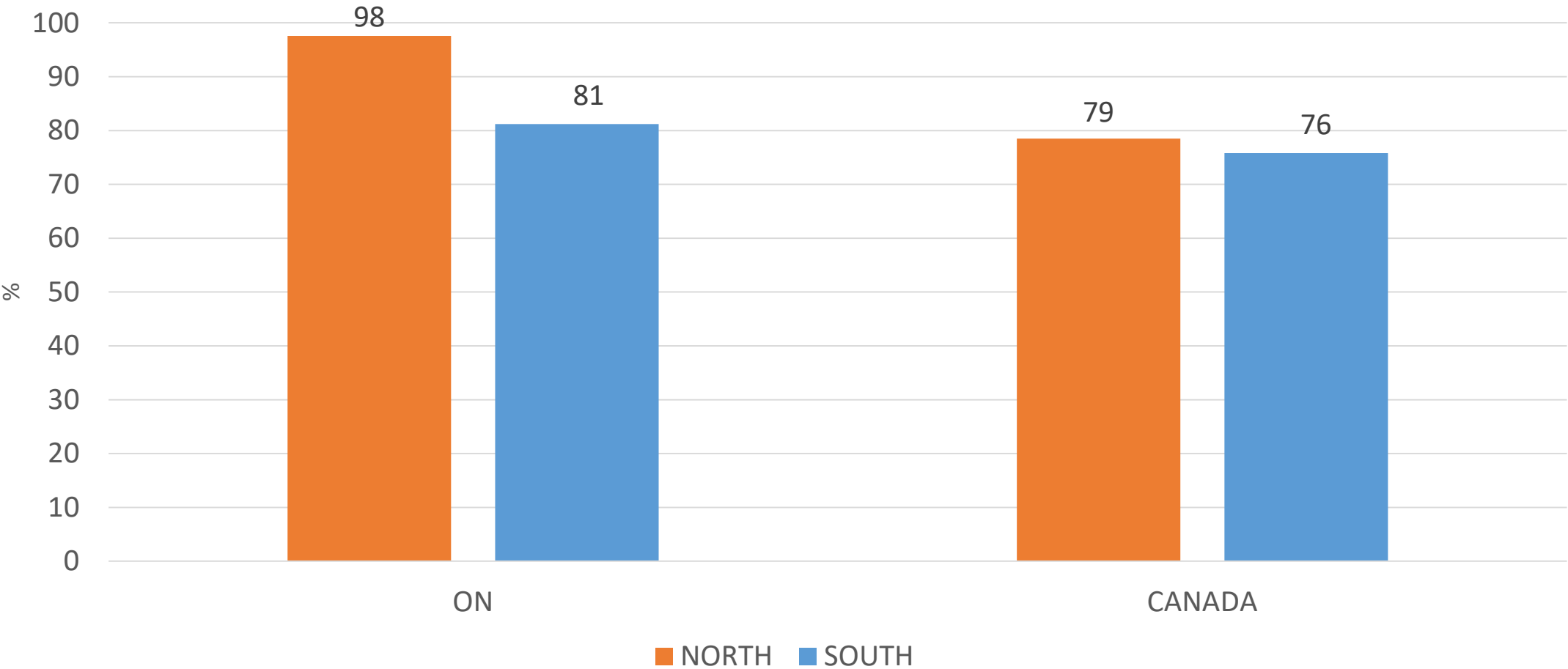
Adapted from: de Souza et al, *Cities and Health,* 2017
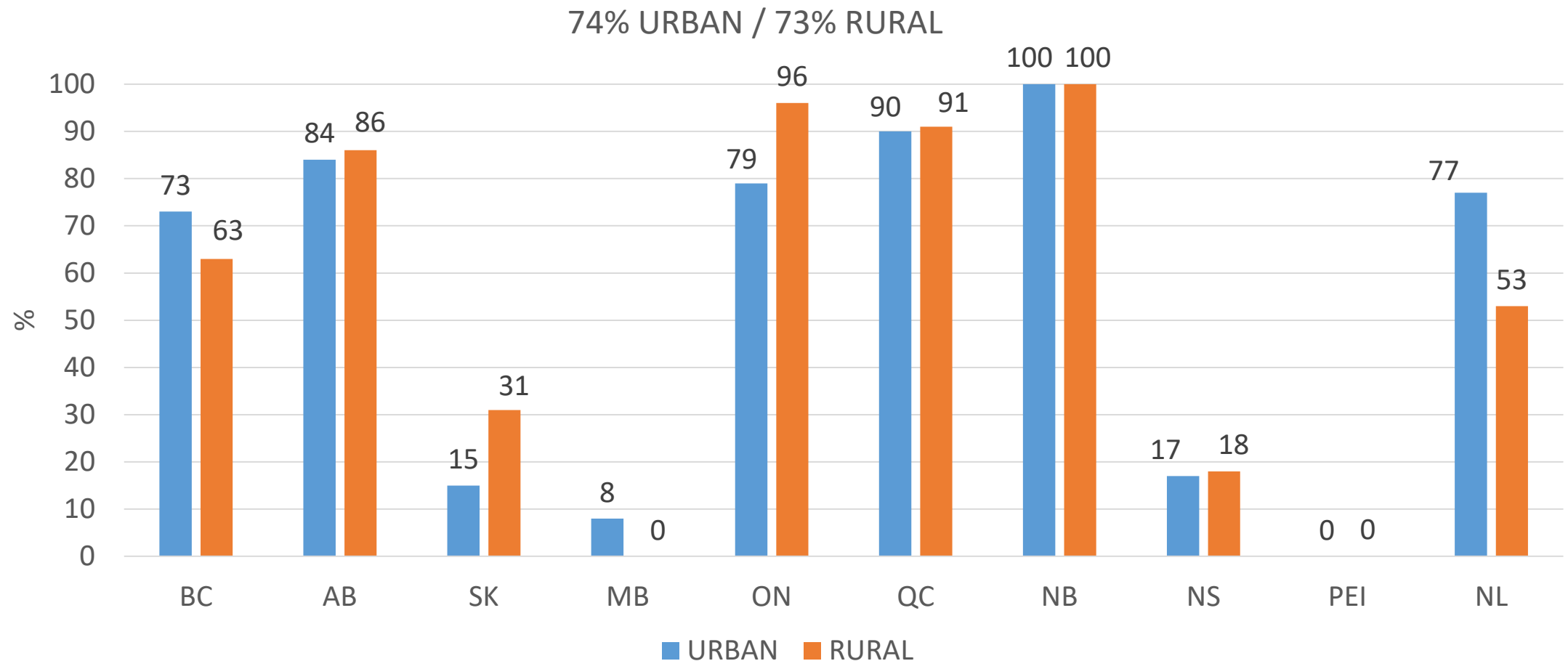
Sugary drink advertisements are common
Ontario higher than national averages, more in north
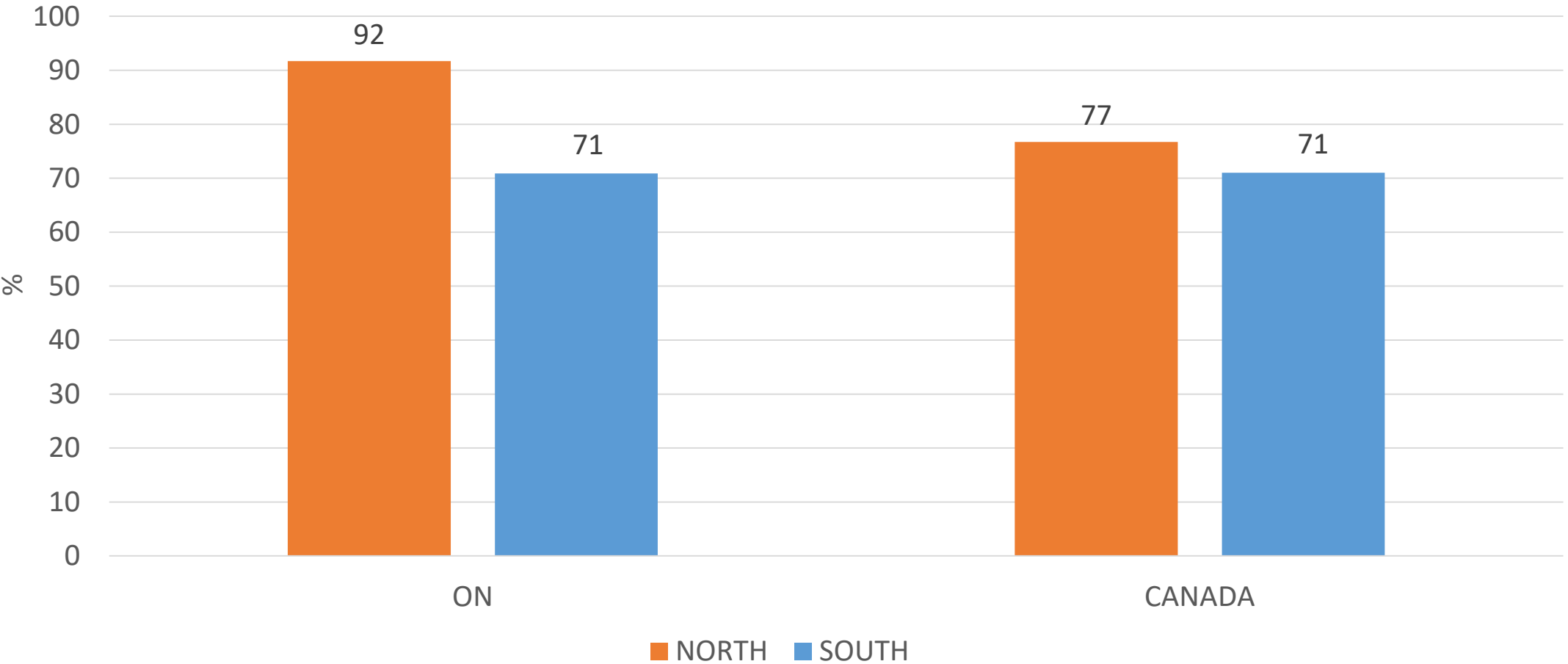
Adapted from: de Souza et al, *Cities and Health*, 2017

Fruit & vegetable advertisements are less common
Least common in SK, MB, BC

59% URBAN / 61% RURAL

Adapted from: de Souza et al, *Cities and Health*, 2017
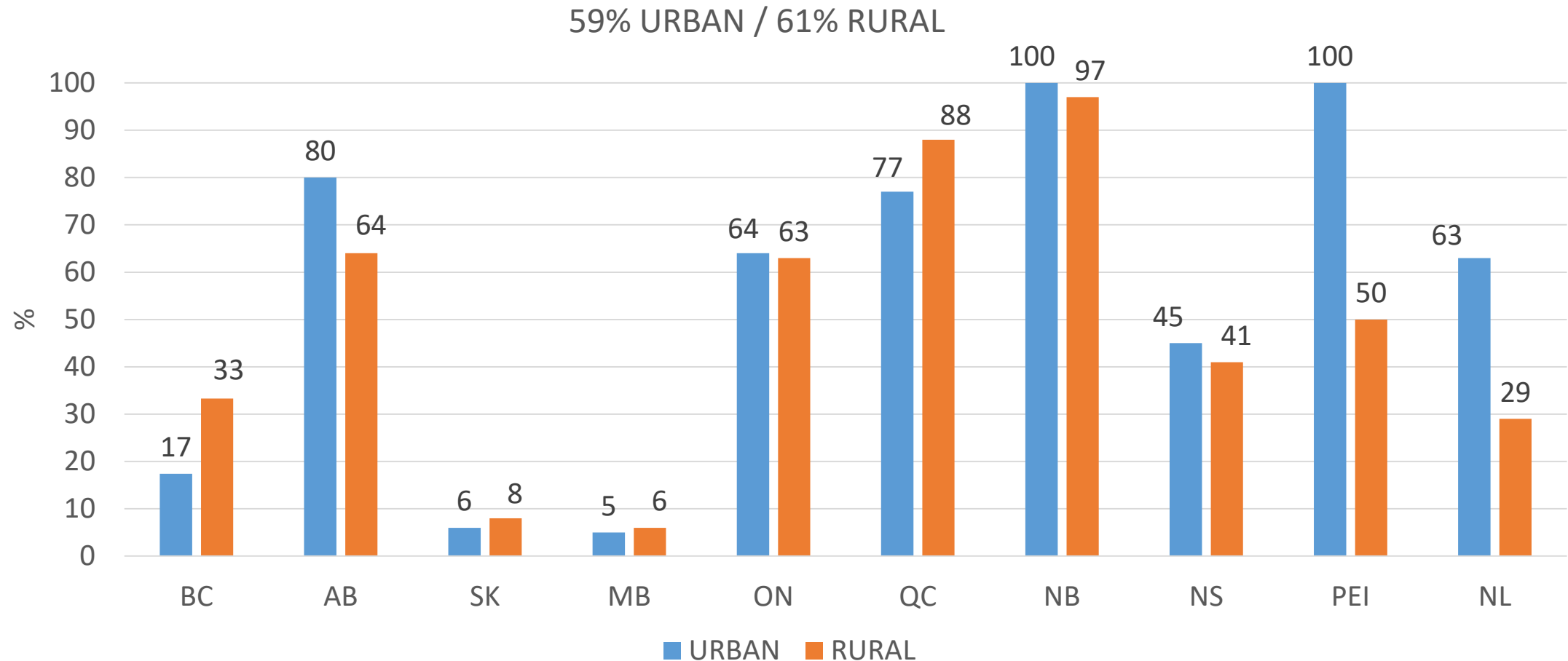
Fruit & vegetable advertisements are less common
Ontario a little better than most
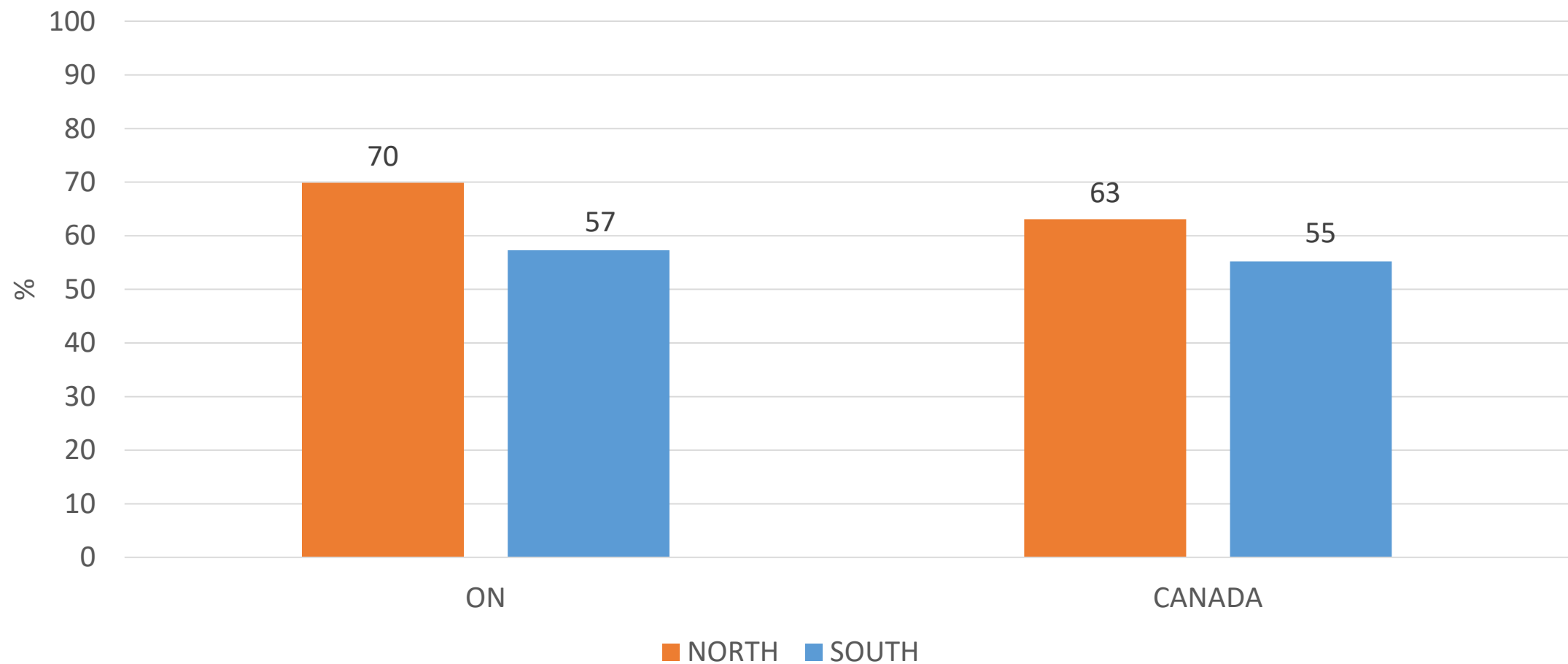
Adapted from: de Souza et al, *Cities and Health*, 2017

Price of beer varies across provinces
Cheapest in QC, NB… most expensive in NL

$34.13 URBAN / $33.26 RURAL

Adapted from: de Souza et al, *Cities and Health,* 2017
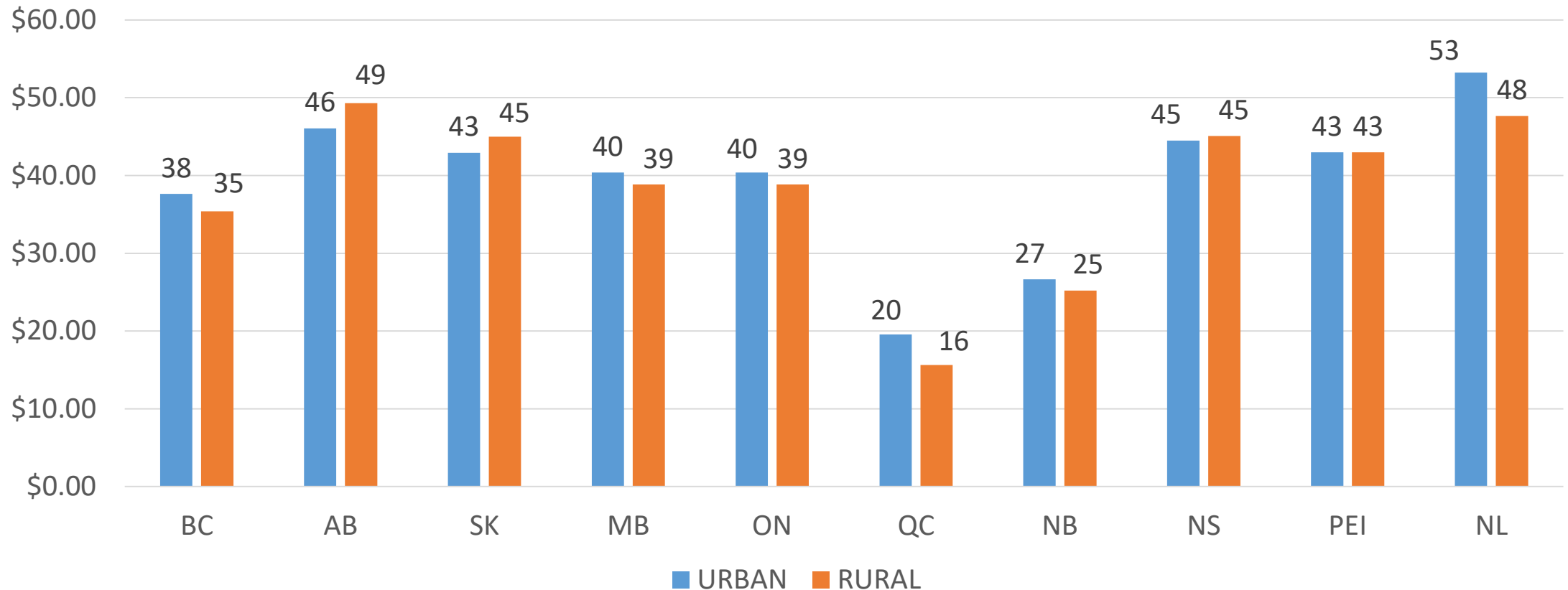
Price of beer varies across provinces
Little more expensive in Ontario; but QC, NB low
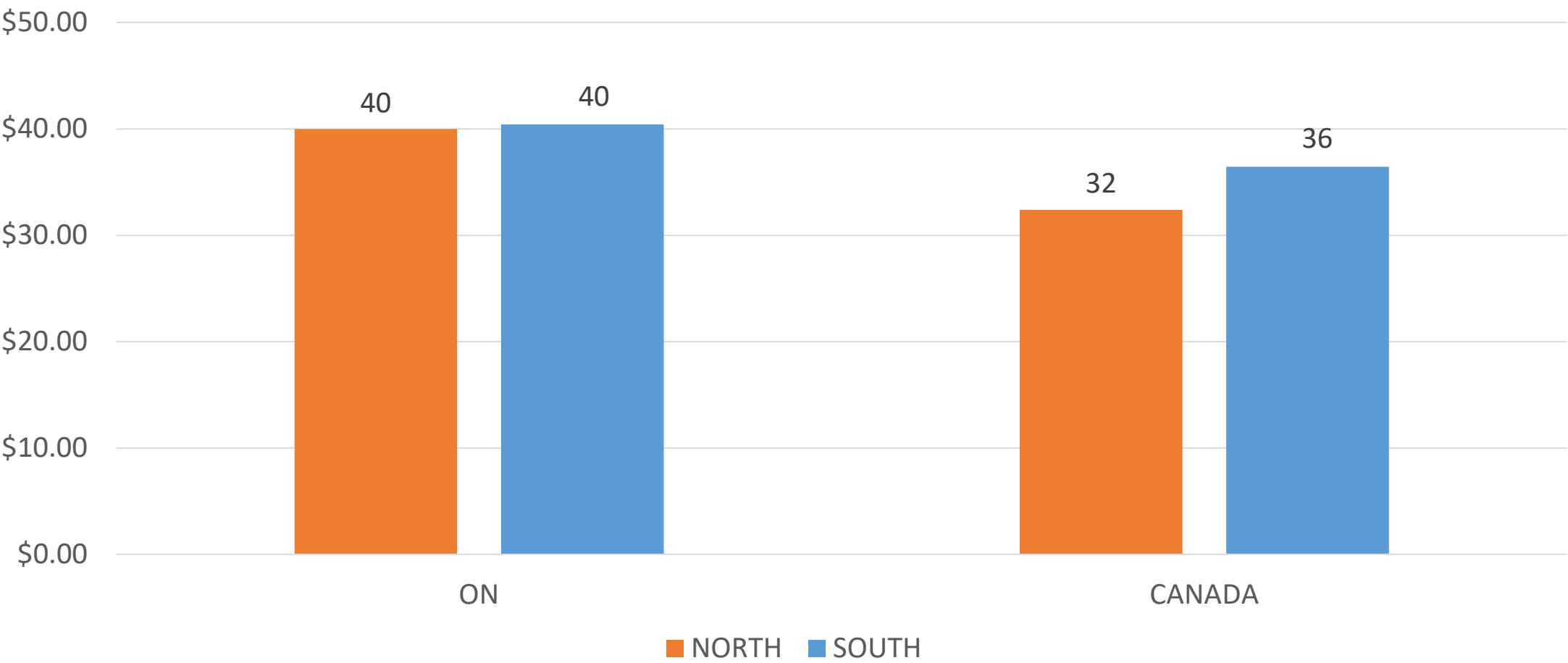
Adapted from: de Souza et al, *Cities and Health*, 2017

Nutrition information not available in most restaurants
Large inter-provincial variation

25% URBAN / 18% RURAL
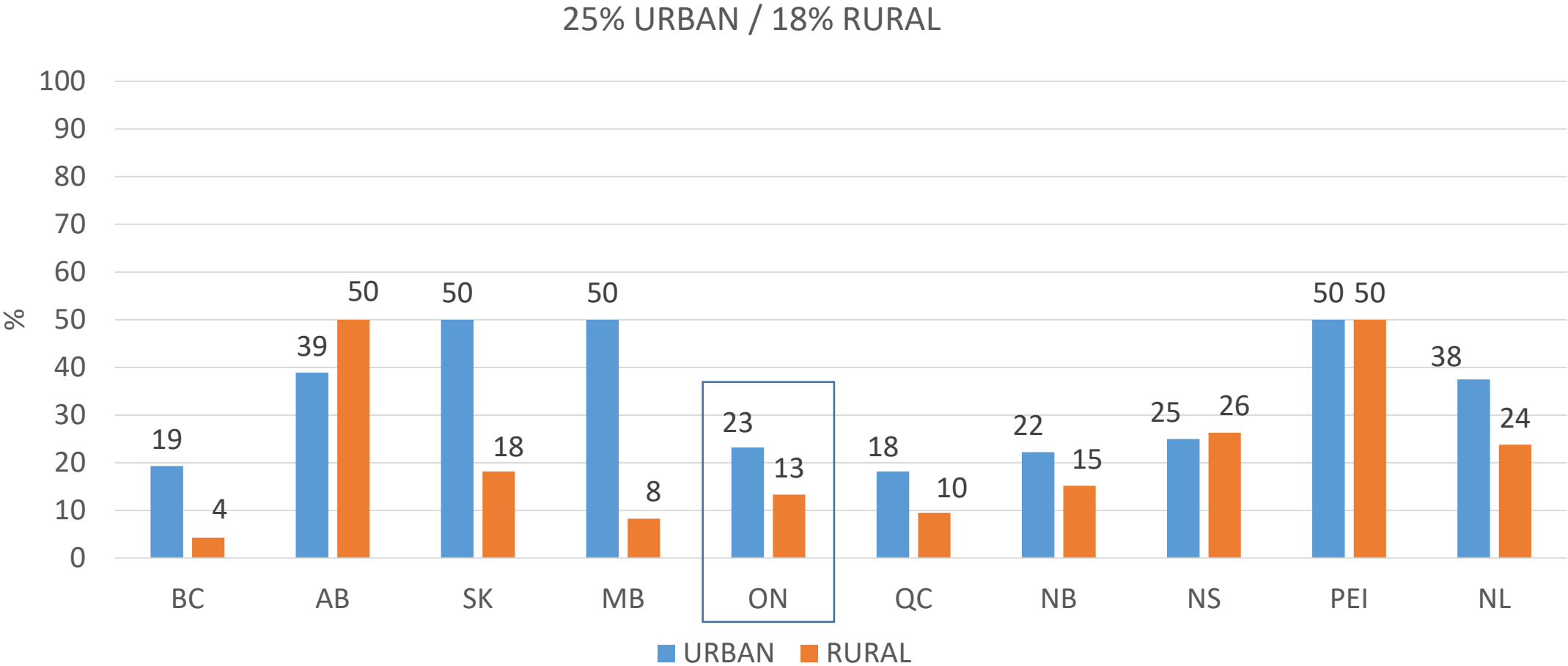
Adapted from: de Souza et al, *Cities and Health*, 2017

Nutritional information unavailable in most restaurants
Slightly less so in Northern Ontario

Adapted from: de Souza et al, *Cities and Health*, 2017
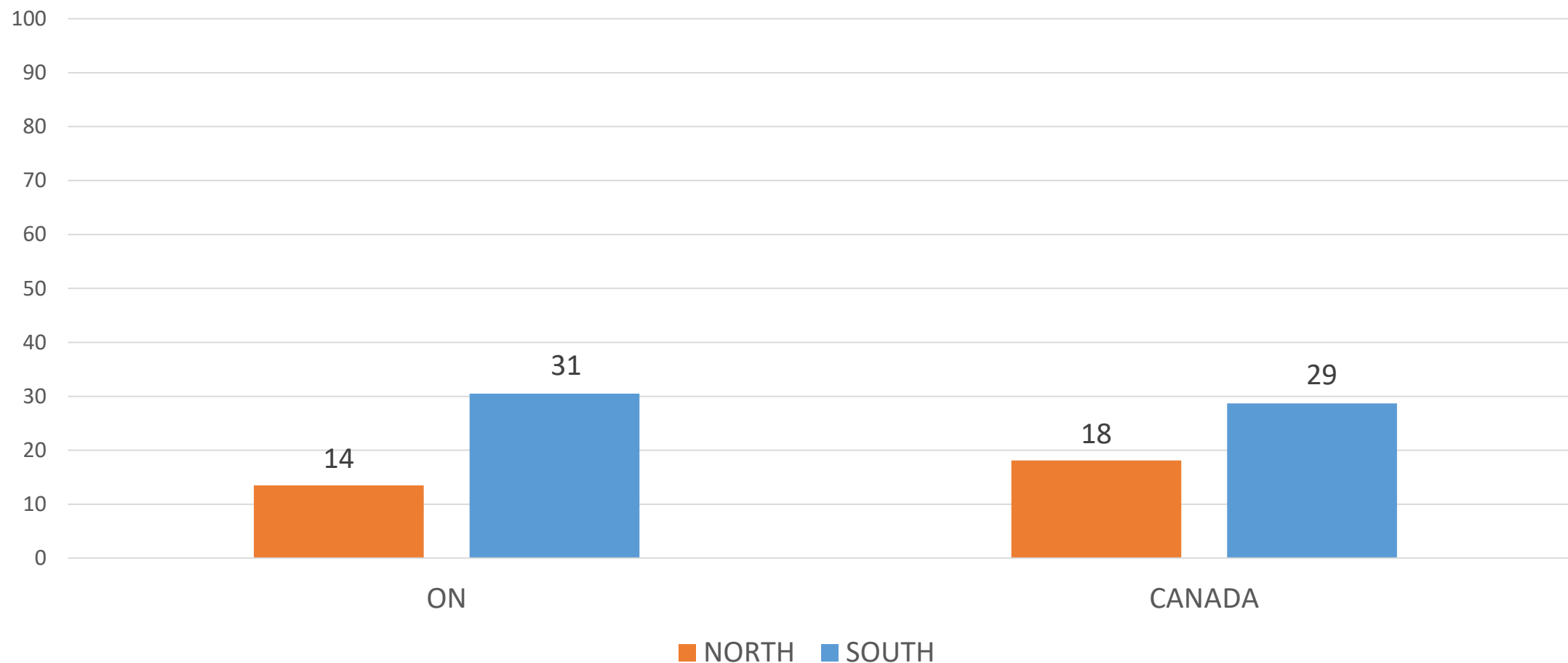
Development of the on-line map:
https://cvcdcontextual.mcmaster.ca/

1. Create database of audits for each community

2. Render the map of Canada using tile map service

3. Use Canadian FSA boundary data from Census Canada

4. Use postal boundary data from CanMap Postal Code Suite

5. Link #3 and 4 to EPOCH-1 data for each community

6. Integrate data from study, boundaries, and basemap (*leaflet*)

de Souza et al, *Cities and Health*, 2017

1. Simple database

- .csv format containing the values for each community's environmental assessment (Microsoft Excel, Microsoft Corporation

de Souza et al, *Cities and Health*, 2017

cfrhci	cfniord	cfsmka	new_cf	new_cf	new_cf	new_cf	new_cf	new_cf	new_cf	new_cf	new_cf
1	1	1	9.95	30.95	2.2	1.49	3.28	9.9	1.74	10.9912	9.8033
1	1	1	7.6	35.95	3.37	10.43	3.29	8.8	1.52	6.5859	1.0913
1	1	1	9.95	34.95	4.39	3.29	3.95	8.8	1.96	6.5859	1.8298
1	1	1	7.45	36.95	3.95	4.39	4.39	4.3872	1.74	8.7885	4.3824
1	1	1	7.45	36.95	2.84	4.39	3.95	6.5036	1.74	8.7885	3.0617
1	1	1	7.45	36.95	4.39	4.39	4.39	8.7965	1.74	6.5859	5.8529
2	1	1	8.95	29.95	2.14	2.8	2.8	6.55	1.26	3.9	0.73
1	1	1	7.45	.	3.95	4.39	3.95	8.7965	1.74	10.9912	5.8529
1	2	1	7.45	36.95	4.39	4.39	4.39	8.7965	1.74	8.7885	5.8529
1	2	1	7.45	36.95	3.95	3.95	5.05	6.5918	1.52	8.7885	5.8529
2	1	1	7.45	36.95	2.18	4.39	2.18	8.7965	1.74	8.7885	5.8529
1	1	1	7.45	36.95	4.39	4.39	5.05	8.7965	1.74	8.7885	5.8529
1	1	1	7.45	36.95	3.95	4.39	5.05	8.7965	1.96	8.7885	7.3529
1	1	1	10.25	.	2.84	2.18	2.84	6.59	1.26	5.0441	4.8852
2	1	1	7.95	35.95	3.24	2.8	2.8	6.55	1.26	4.3392	4.8197
1	1	1	9.95	.	3.92	3.26	2.18	6.57	1.26	8.77	1.74
2	1	1	8.95	35.95	4.17	3.73	3.95	8.8	1.74	4.49	2.18
1	1	1	9.29	.	2.2	3.28	3.95	9.9	1.74	4.99	3.28
1	1	1	11.95	.	3.24	2.8	3.24	6.55	1.26	.	2.18
2	1	1	9.95	29.95	3.95	3.28	3.28	9.9	1.74	.	2.14
1	2	1	7.45	36.95	4.39	4.39	4.39	8.7965	1.96	7.3211	4.9706

de Souza et al, *Cities and Health*, 2017

2. Render the map

- tile map service provided from CARTO (https://carto.com) to render the map of Canada

- CARTO provides stylized maps based on OpenStreetMap data

- OpenStreetMap (https://www.openstreetmap.org) is a collaborative project that offers open map data of the world that is free to download and use for any purpose

OpenStreetMap — Edit | History | Export — GPS Traces User Diaries Copyright Help About — Log In Sign Up

Search — Where is this? — Go

Relation: Canada (1428125) ×

delete country node (labels are not mappable objects and mapping country as area is prefereble)

Edited about 7 hours ago by Mateusz Konieczny
Version #278 · Changeset #68248211

Tags

ISO3166-1	CA
ISO3166-1:alpha2	CA
ISO3166-1:alpha3	CAN
ISO3166-1:numeric	124
admin_level	2
alt_name:vi	Ca-na-đa
boundary	administrative
capital_city	Ottawa
country_code_fips	CA
flag	http://upload.wikimedia.org/wikipedia/commons/c/cf/Flag_of_Canada.svg
int_name	Canada
name	Canada

Kalaallit Nunaat

Baffin Bay · Saknirutiak Imanga

Canada

Island

United Kingdom

France

500 km

https://carto.com/location-data-services/basemaps/   https://www.openstreetmap.org

3+4. Canadian FSA boundary (Census Canada)

- Display boundaries for regions nearby
- allow the user to view data on a region by selecting anywhere within a region's boundary
- Canadian FSA boundary data from the Canadian census (Statistics Canada), and the postal boundary data from CanMap Postal Code Suite
- Includes fields for six digit postal codes with and without space
- Includes shapefile for retired postal codes
- Level of accuracy = Ranging from CanMap Streetfiles to Dissemination Area centroid
- Projection = Unprojected Latitude/Longitude

https://library.mcmaster.ca/maps/dmt_plat.htm

CanMap Multiple enhanced Postal Codes

Attribute Name	Description
MEP_ID	Multiple enhanced postal code point unique identifier
POSTALCODE	Postal Code data with no space between the FSA and LDU
POST_CODE	Postal Code data with a space between the FSA and LDU
SLI	Single Link indicator (identifies main postal code record when multiple exist)
PROV	2 letter alpha abbreviation (Canada Post) according to the first letter of the postal code (i.e. L1R2H2=ON)
COMM_NAME	Community name
MAF_ID	Uniquely identifies a municpal amalgamation boundary
BIRTH_DATE	Data when the postal code became active (YYMMDD)
RET_DATE	Date when a postal code was retired or no longer in use by Canada Post Corporation (YYYYMMDD format)
DOM_DELMDE	Dominant Delivery Mode Type identifying the primary type of delivery service for Active Postal Code records only
TOTAL_POC	Total Points of Call-the total number of points of call (apartments, business, houses and farms) served by the postal code for all delivery mode types for Active Postal Code records only
POC_APART	Points of Call for Apartments-the total number of apartments served by the postal code for all delivery mode types for Active Postal Code Records only
POC_BUS	Points of Call for Business-the total number of business served by the postal code for all delivery mode types for Active Postal Code Records only
POC_HOUSE	Points of Call for Farms-the total number of houses served by the postal code for all delivery mode types for Active Postal Code Records only
POC_FARM	Points of Call for Farms-the total number of farms served by the postal code for all delivery mode types for Active Postal Code Records only
PC_COUNT	Total number of Postal Code point records associated with each postal code
POSITION	Representative point flag, this identifies the method used to geographically position the coordinate
LONGITUDE	Longitude in the decimal degrees
LATITUDE	Latitude in decimal degrees
CANMAPID	ID to reference to CanMap street file

de Souza et al, *Cities and Health,* 2017

5+6. Linkage

- used Leaflet (https://leafletjs.com/)

- open-source library for creating web maps

- integrate audit data, boundary data, and basemap

- create an interactive map that would be accessible via a mobile or desk/laptop browser

- Leaflet handles retrieval and processing of the basemap tiles and displays the FSA and postal boundaries with the study data

https://leafletjs.com/

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https://leafletjs.com/

Leaflet

an open-source JavaScript library
for mobile-friendly interactive maps

Overview   Tutorials   Docs   Download   Plugins   Blog

Dec 30, 2018 — Leaflet 1.4.0 has been released!

Leaflet is the leading open-source JavaScript library for mobile-friendly interactive maps. Weighing just about 38 KB of JS, it has all the mapping features most developers ever need.

Leaflet is designed with *simplicity*, *performance* and *usability* in mind. It works efficiently across all major desktop and mobile platforms, can be extended with lots of plugins, has a beautiful, easy to use and well-documented API and a simple, readable source code that is a joy to contribute to.
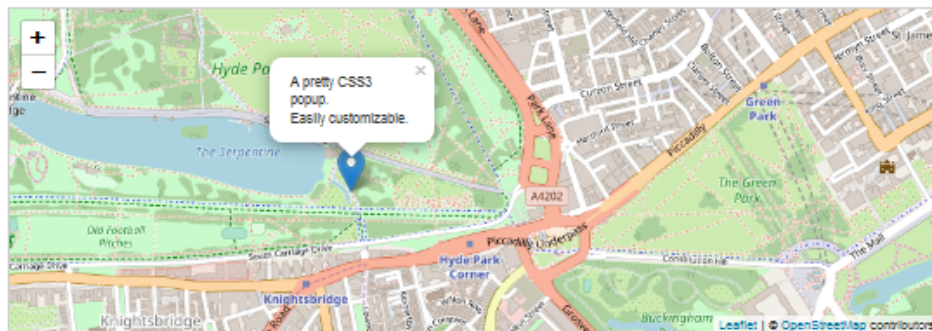
Here we create a map in the "map" div, add tiles of our choice, and then add a marker with some text in a popup:

```
var map = L.map('map').setView([51.505, -0.09], 13);

L.tileLayer('https://{s}.tile.openstreetmap.org/{z}/{x}/{y}.png', {
    attribution: '&copy; <a href="https://www.openstreetmap.org/copyright">OpenStreetMap</a> contributors'
}).addTo(map);

L.marker([51.5, -0.09]).addTo(map)
    .bindPopup('A pretty CSS3 popup.<br> Easily customizable.')
    .openPopup();
```

Learn more with the quick start guide, check out other tutorials, or head straight to the API documentation. If you have any questions, take a look at the FAQ first.

https://leafletjs.com/

Online Map:
https://cvcdcontextual.mcmaster.ca/

- https://cvcdcontextual.mcmaster.ca/

de Souza et al, *Cities and Health*, 2017

Implications for policy and practice

- *Foster collaboration between public health and built environment professionals, and legislators around the common aim of improving community health*

  - **Planners**: expertise in the use of strategic environmental assessments, sustainability appraisals, and health impact assessments

  - **Public health professionals**: knowledge of the wider determinants of health, health needs assessment, setting objectives for health, and monitoring and interpreting health information

  - **Public**: publicly-available data (assessments) can support grassroots campaigns

Pilkington et al, 2008

Implications for policy and practice

- *Policies that reduce and stabilize the prices of fruits and vegetables across rural and urban communities are likely to increase purchase and consumption*

  - **Barriers:** Canada requires a multi-factorial solution that addresses several challenges, including the lack of population density (i.e. less demand), and greater isolation, longer distances to travel under poor road conditions, a lack of storage and/or processing facilities

Afshin et al. 2017, Cobiac et al. 2017, Ferdinand et al. 2017, Pearson-Stuttard et al. 2017a, Li et al. 2018

Implications for policy and practice

- *Reducing the influence of advertising is an important step in reducing obesity, most specifically, childhood obesity*

  - **Models that work:** Strict prohibition of advertisements of tobacco and alcohol could be the model for a federal, enforceable restriction of marketing unhealthy foods to children and vulnerable populations

  - **Proposals:** "Junk food" or sugar taxes represent a complex solution

de Souza et al, *Cities and Health*, 2017; Raine et al. 2013

Implications for policy and practice

- *Higher prices of cigarettes are likely to be an effective strategy to prevent new smokers and increase cessation in existing smokers.*

  - **Price-sensitivity:** cigarette smokers seek out measures to purchase less expensive cigarettes

  - **Barrier to entry:** younger smokers deterred

Hyland et al., 2005

Implications for policy and practice

- *Our data may be linked with population-based data on other exposures (e.g. eating patterns, **air pollution**, access to health services) and outcomes (e.g. disease rates)*

de Souza et al, *Cities and Health*, 2017

Future research directions

- Linkage with cardiovascular and cancer outcomes
- Concordance between individual perceptions and our observations
- Multi-level models parsing the influence of individual and community

Summary of findings

1. Provincial and urban-rural differences exist in availability of fruits and vegetables; advertising differs between provinces more so than between urban and rural communities

2. Rural communities face higher food prices, are subject to more seasonal variation in fruit and vegetable selection, and generally see less promotion of healthy restaurant options and availability of nutritional information at restaurants than urban communities

3. In-store advertising for sweet drinks and junk food are more frequent than in-store advertisements for tobacco products

4. Cigarette prices are lower and the variety of brands is greater in urban than in rural tobacco stores; and are lowest in central Canada, where there is both more in-store advertising for cigarettes and signage prohibiting smoking in-store

5. Alcohol prices are lowest in Quebec

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Thank you

- @DrRussRD
- desouzrj@mcmaster.ca
- Watch our video:
  https://www.youtube.com/watch?v=PJU4qSkEndM

Search a FSA or Postal Code

m5a | Search

Enter a **Forward Sortation Area** (FSA) or **Postal code** above to display statistics about the area

General

FSA/Postal Code:	M5A
# of Postal Codes:	603
Average House Price:	$1,375,000
Rural?:	No
Nearest City:	Toronto
Nearest Highway:	404
Bus Frequency:	12 per hour
Subway Frequency:	20 per hour

Map

Tobacco

Point-of-Sale Advertising:	No Data
Openly Displayed Cigarettes:	No Data
Signs that Prohibit Smoking:	No Data
Signs Showing Harmful Effects:	No Data
⚙ # Cigarette Brands sold?:	33
⚙ # Smokeless Tobacco Brands?:	3
Available Packet Sizes:	20-24/pack, 25-30/pack, >30 or multi-pack carton,
⚙ Cheapest Brand Sold:	LD @ $6.88 for 20
⚙ Marlboro Brand Sold:	Rooftop @ $10.27 for 20
⚙ # of Health Warning on Cheapest Pack:	2
Smoking Cessation Aids Sold	No

Groceries

Junk Food Advertisment:	>=3
Sweet Drink Advertisment:	>=3
Fruit and Vegetable Advertisment:	1-2
Cigarette and Tobacco Advertisment:	None
Alcohol Advertisment:	None
⚙ # of Types of Fruit:	23
3+ Fruits Appear to be Damaged:	No
3+ Fruits are Specially Packaged:	Yes
⚙ # of Types of Vegetables:	32
Healthy Food Basket	$62.70
Junk Food Combination	No Data

Restaurants

Salads as Main Dish:	Yes
Increase Portion Size Option:	No
Buffet Service:	No
Health Check Items:	No
Nutritional Information Provided:	No

Alcohol

Store Sells Alcoholic Beverages?:	Yes
Price of a 750-ml Bottle of White Wine?	$10.10
Price of 24-Cans of Beer?:	$43.95