

LHIN 9

Central East



9. Central East LHIN

Key Findings

Top three priority risk factor population estimates by sex (see Table 9.1 below):

Females

Alcohol—current consumption

Smoking—ever-smoked status

Inadequate vegetable and fruit consumption

Males

Inadequate vegetable and fruit consumption

Smoking—ever-smoked status

Alcohol—current consumption

Risk factor summary

Alcohol—current consumption

Priority areas:

- Females: areas throughout the LHIN except for eastern Toronto and parts of Oshawa
- Males: areas in the central (e.g., Lindsay) and southern (e.g., Bowmanville) parts of the LHIN
- Adolescent females: areas scattered throughout the LHIN except for eastern Toronto
- Adolescent males: areas dispersed throughout the LHIN except for eastern Toronto

Alcohol—consumption exceeding cancer prevention recommendations

Priority areas:

- Females: areas throughout the central part of the LHIN (e.g., Lindsay, Peterborough)
- Males: areas throughout the LHIN except around Pickering and in eastern Toronto

Excess body weight

Priority areas:

- Females: areas in the northern and southern parts of the LHIN (e.g., Haliburton, Oshawa, Bowmanville, Port Hope, Cobourg, Campbellford)
- Males: areas in the northern and eastern parts of the LHIN (e.g., Haliburton and Campbellford, respectively) and along the southern boundary near Bowmanville
- Adolescent females: areas in the northern and western parts of the LHIN (e.g., Haliburton and Campbellford, respectively)



Inadequate vegetable and fruit consumption

Priority areas:

- Females: areas around Lindsay and in many parts of Eastern Toronto, Whitby and Oshawa
- Males: areas throughout the LHIN except in the southeastern tip near Pickering and in eastern Toronto
- Adolescent females: areas in Oshawa
- Adolescent males: areas in Whitby and Oshawa

Physical activity

Priority areas:

- Females: parts of eastern Toronto and in Whitby and Oshawa
- Males: many parts of eastern Toronto, Whitby and Oshawa
- Adolescent females: parts of eastern Toronto
- Adolescent males: parts of eastern Toronto

Sedentary behaviour

Priority areas:

- Females: clusters around Lindsay, Peterborough, Oshawa and Whitby
- Males: one area in each of Peterborough and Oshawa

Smoking—current status

Priority areas:

- Females: areas throughout the central and northern parts of the LHIN as well as in Bowmanville, Oshawa, Whitby and eastern Toronto
- Males: areas around Haliburton and Lindsay and in Peterborough, Oshawa, Whitby and eastern Toronto
- Adolescent females: areas throughout the LHIN (e.g., Haliburton, Peterborough, Oshawa and Bowmanville)
- Adolescent males: areas in the eastern half of the LHIN (e.g., Haliburton, Peterborough, Campbellford, Port Hope and Cobourg) but also in Oshawa

Smoking—ever-smoked status

Priority areas:

- Females: areas throughout the LHIN and in the southeastern tip of eastern Toronto
- Males: areas throughout the LHIN except for most parts of eastern Toronto and northern Whitby



Introduction

This section describes the estimated local prevalence of risk factors across the LHIN compared to the Ontario prevalence estimates from 2000 to 2014. These comparisons are always relative to Ontario with respect to the level of statistical evidence for the underlying prevalence estimate and often the number of areas meeting specific criteria are presented in parentheses (e.g., n=40). Risk factor maps are presented for females and males age 12 and older, and for adolescent females and adolescent males ages 12 to 18 inclusive. Throughout the text, the terms “area(s)” and “local” refer to the 2006 census dissemination areas (see the [Data and Methods](#) section, page 3).

Exclusions

As discussed in the [Interpretation](#) section (page 7), maps are shown only for risk factor estimates in the LHIN where one or more local estimates were higher than Ontario (or lower than Ontario for physical activity). Therefore, the risk factor maps not displayed for Central East LHIN include:

- excess body weight (overweight/obese) among adolescent males; and
- sedentary behaviour among adolescent females and adolescent males.

Notes

Risk factor prevalence could not be estimated for several areas in the Central East LHIN (e.g., suppressed census populations or institutionalized populations), which are shown as “insufficient data” on the maps. These areas include the Alderville, Curve Lake, Hiawatha and the Mississaugas of Scugog Island First Nations. Additionally, areas with unavailable population data are shown as “insufficient data.” See [Appendix C](#) for a complete list of areas in the insufficient data category.

Priority population estimates

Priority population estimates may be helpful in prioritizing health promotion and planning efforts for potential populations affected by certain modifiable risk factors. Table 9.1 (page 302) presents the estimated priority populations for each risk factor by sex and age group in the Central East LHIN. Priority populations are defined as those living in areas with a higher risk factor prevalence (or lower prevalence for physical activity) than Ontario. These estimates were produced by summing the population from all higher (or lower for physical activity) prevalence small areas (2006 dissemination areas) after taking into account the risk factor prevalence of each area. For example, if among females 100 areas had a higher prevalence of current alcohol consumption than Ontario, the female 2006 census populations in each of these areas were multiplied by the prevalence of current alcohol consumption for each area and then summed across the 100 areas to produce an estimate of the female “priority population.” These calculations are intended to provide a measure to prioritize the risk factors rather than a population estimate.

According to the [Methods](#) (page 4) and [Interpretation](#) (page 7) sections, these higher prevalence areas had strong statistical evidence of elevated prevalence compared to Ontario (posterior probabilities $\geq 80\%$). An exception is physical activity, which had strong statistical evidence of lower prevalence estimates than Ontario (posterior probabilities $\leq 20\%$). Therefore, the population estimates for each risk factor are likely undercounted because areas with less statistical certainty (posterior probabilities $< 80\%$ and physical activity posterior probabilities $> 20\%$) are not included in the priority population estimates.



Table 9.1 Estimated priority populations among higher prevalence** dissemination areas compared to Ontario by risk factor, sex and age group, Central East Local Health Integration Network (LHIN), using 2006 census populations

Risk factor	Female priority population**†	% of female population in the LHIN† (n=637,070)	Male priority population**†	% of male population in the LHIN† (n=587,660)	Adolescent female priority population**‡	% of adolescent female population in the LHIN† (n=69,480)	Adolescent males priority population**‡	% of adolescent male population in the LHIN† (n=73,010)
Alcohol—current consumption	157,540	25%	61,500	10%	3,040	4%	4,950	7%
Alcohol—consumption exceeding cancer prevention recommendations	9,380	1%	20,660	4%	NM	—	NM	—
Excess body weight	65,640	10%	60,200	10%	520	1%	NE	—
Inadequate vegetable and fruit consumption	151,040	24%	167,340	28%	2,930	4%	8,880	12%
Physical activity**	43,120	7%	48,700	8%	5,600	8%	8,430	12%
Sedentary behaviour	17,970	3%	770	0%	NE	—	NE	—
Smoking—current status	42,510	7%	23,060	4%	820	1%	580	1%
Smoking—ever-smoked status	157,060	25%	124,500	21%	NM	—	NM	—

NE = no estimates within the “higher” prevalence categories**; NM = not modelled

* Estimates rounded to multiples of 10

** For physical activity, priority populations are those living in areas with a lower risk factor prevalence compared to Ontario

† Population age 12 and older

‡ Population ages 12 to 18

— Value not applicable



Alcohol—current consumption

People age 12 and older

An estimated 70% of females and 79% of males in Ontario reported current alcohol consumption.

[Higher prevalence than Ontario](#)

There were more areas with a higher prevalence of current alcohol consumption than the Ontario average for females (n=697; Figure 9.1) compared to males (n=240; Figure 9.2). For females, these areas were common throughout the LHIN, except in parts of eastern Toronto (southwestern tip of the LHIN). For males, higher prevalence areas occurred mostly in central and southern parts of the LHIN, in areas in-between Haliburton and Lindsay, east of Uxbridge, northeast of Bowmanville and Port Hope and in the outskirts of Whitby.

[Lower prevalence than Ontario](#)

Areas with a lower prevalence of current alcohol consumption than Ontario occurred mostly in eastern Toronto and the south of Oshawa for females (n=679; Figure 9.1) and males (n=757; Figure 9.2). Additional areas of lower prevalence were located in parts of Peterborough, Campbellford and Pickering.

Adolescents

Among the adolescent population in Ontario, approximately 40% of females and males reported current alcohol consumption.

[Higher prevalence than Ontario](#)

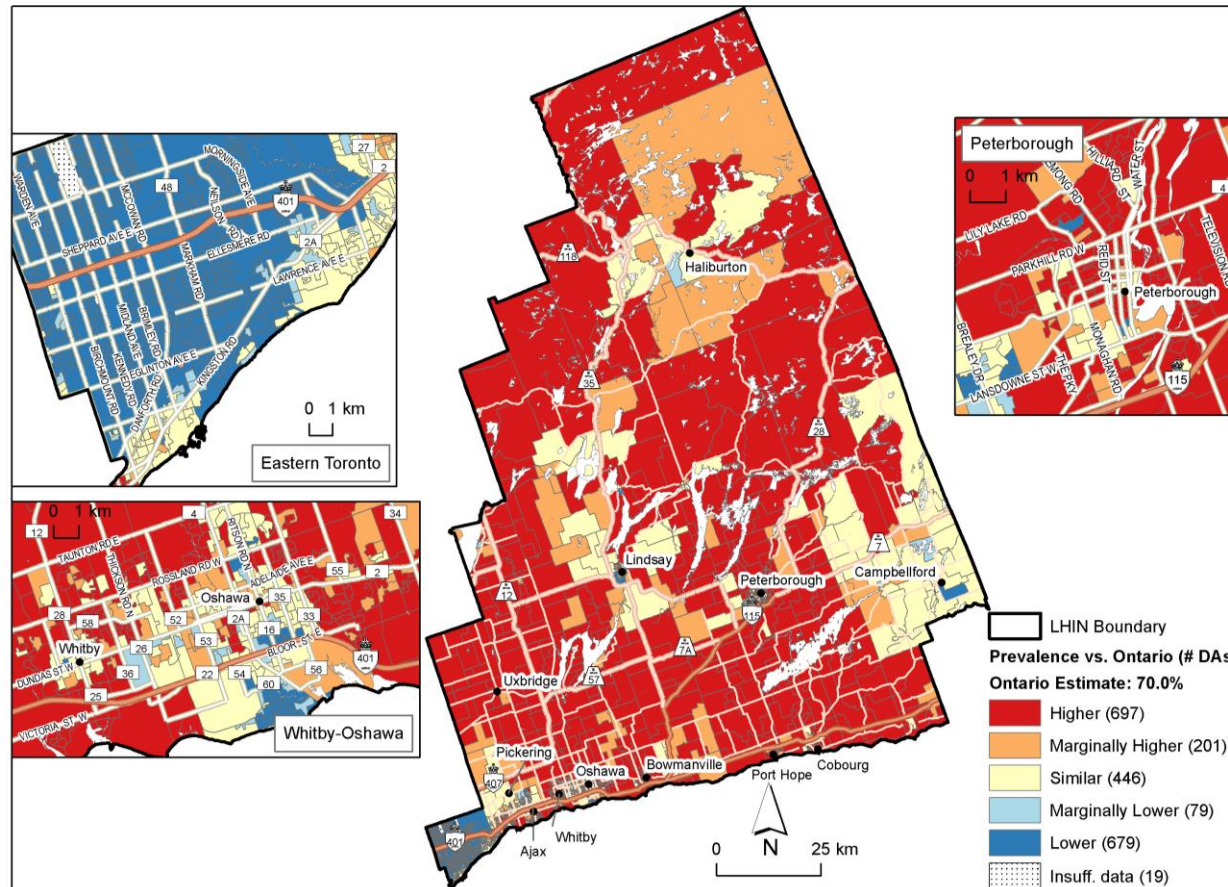
Areas with a higher prevalence of current alcohol consumption than Ontario were dispersed across the LHIN except in eastern Toronto, Pickering and Ajax for adolescent females (n=257; Figure 9.3) and adolescent males (n=358; Figure 9.4). Additional areas of higher prevalence for adolescent males were located mostly around Bowmanville, Cobourg, Campbellford, Peterborough and Haliburton.

[Lower prevalence than Ontario](#)

Lower prevalence of current alcohol consumption than Ontario was identified for 911 areas for adolescent females (Figure 9.3) and 841 areas for adolescent males (Figure 9.4). For both sexes, these lower prevalence areas occurred in many parts of eastern Toronto, Pickering and Ajax and were otherwise scattered across the rest of the LHIN.



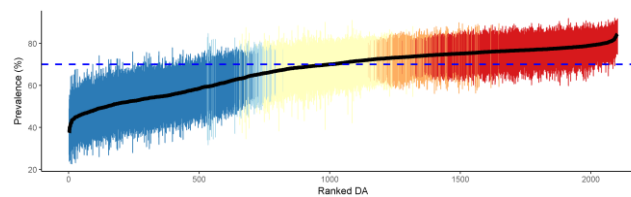
Figure 9.1 Current alcohol consumption among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	67.5
Higher	77.1 (73.4, 84.5)
Marginally Higher	73.8 (72.2, 76.3)
Similar	69.7 (63.2, 73.8)
Marginally Lower	64.9 (59.5, 67.4)
Lower	54.6 (37.4, 65.3)

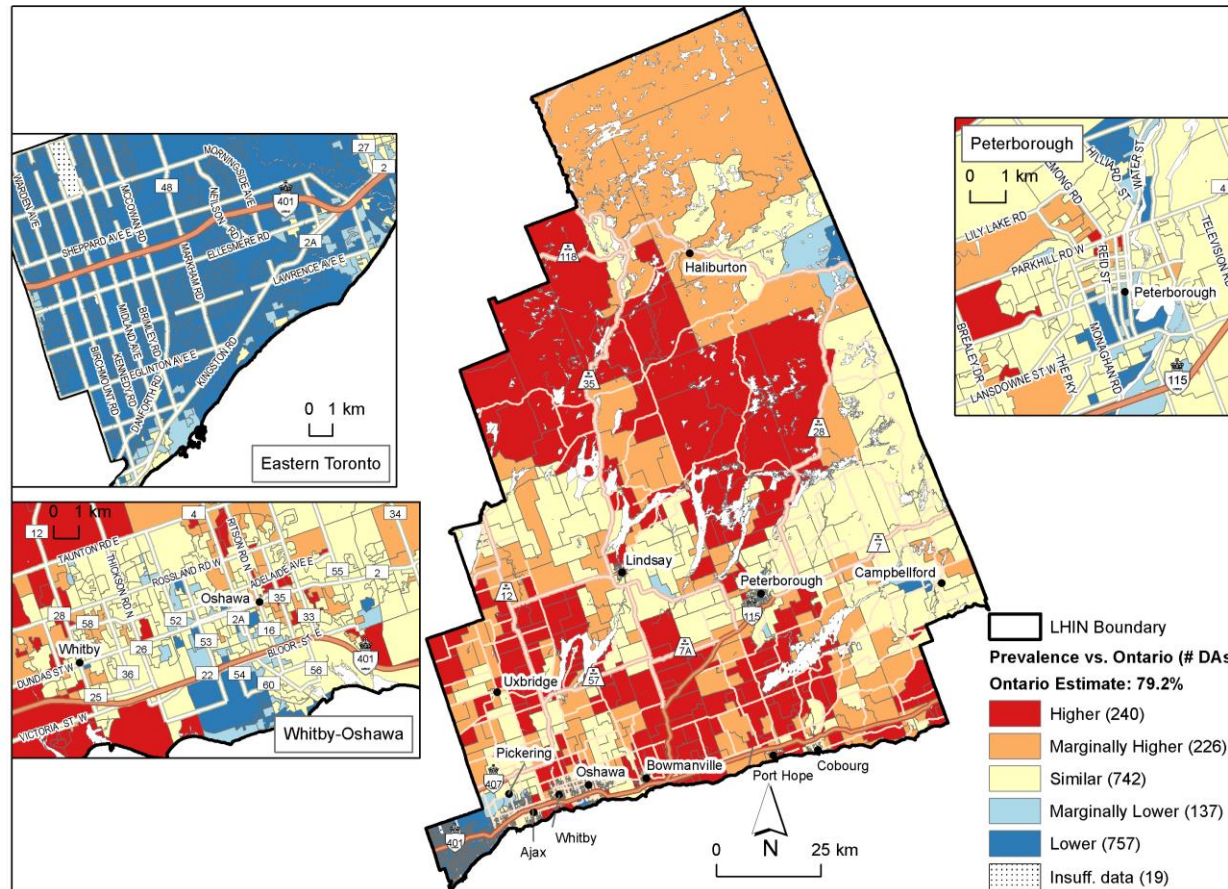
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



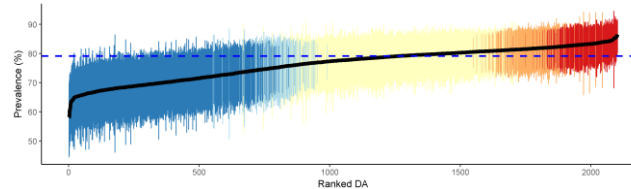
Figure 9.2 Current alcohol consumption among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	76.4
Higher	83.3 (81.3, 86.5)
Marginally Higher	81.6 (80.6, 83.9)
Similar	79.0 (73.7, 81.4)
Marginally Lower	75.5 (72.2, 77.3)
Lower	70.2 (58.1, 76.5)

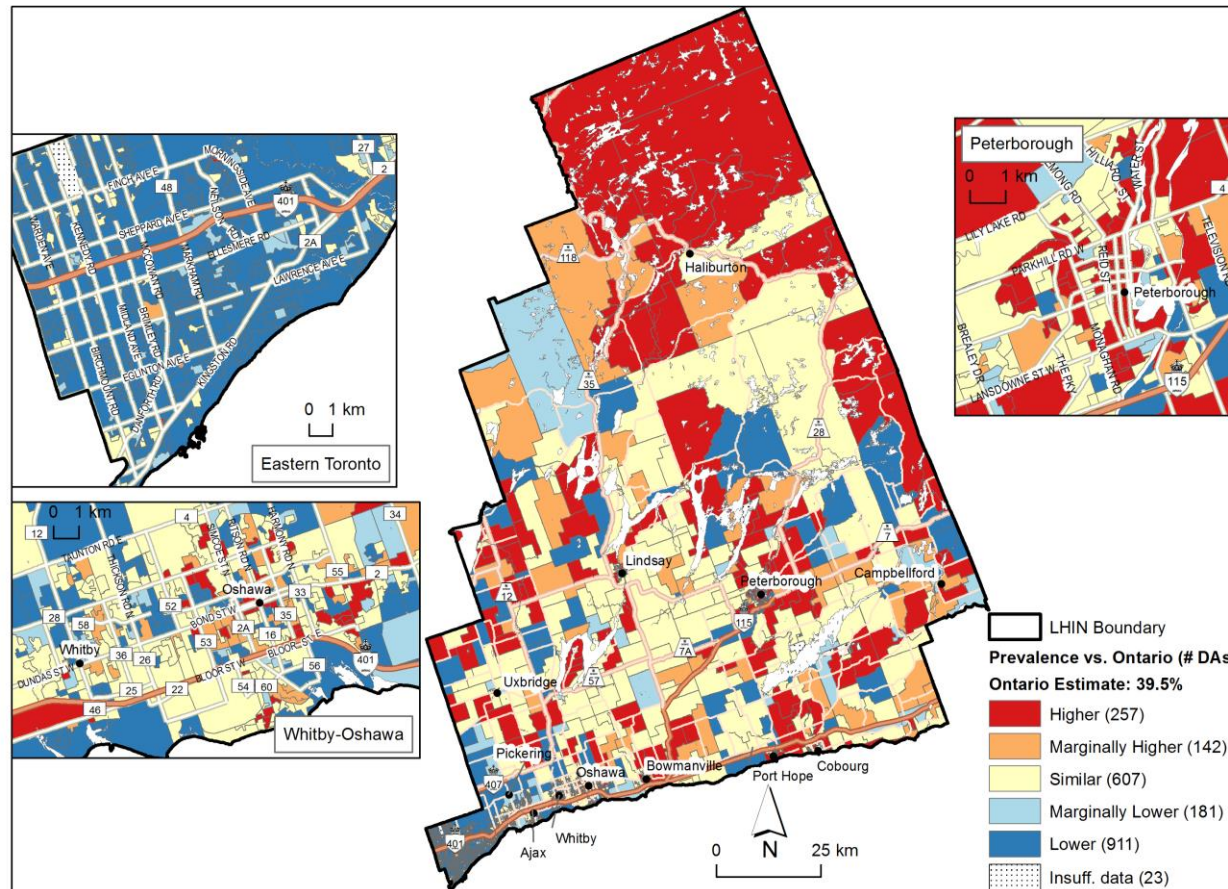
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.

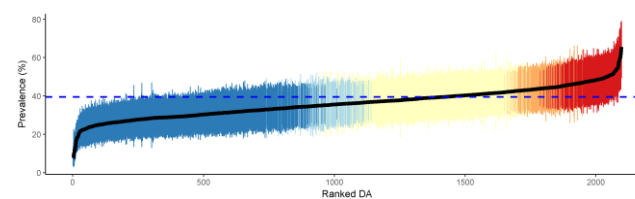


Figure 9.3 Current alcohol consumption among adolescent females (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Category	Mean prevalence % (range)
Overall	36.1
Higher	48.4 (43.9, 65.6)
Marginally Higher	43.7 (42.0, 47.0)
Similar	39.4 (35.0, 43.3)
Marginally Lower	35.6 (33.0, 36.9)
Lower	29.4 (7.6, 35.7)

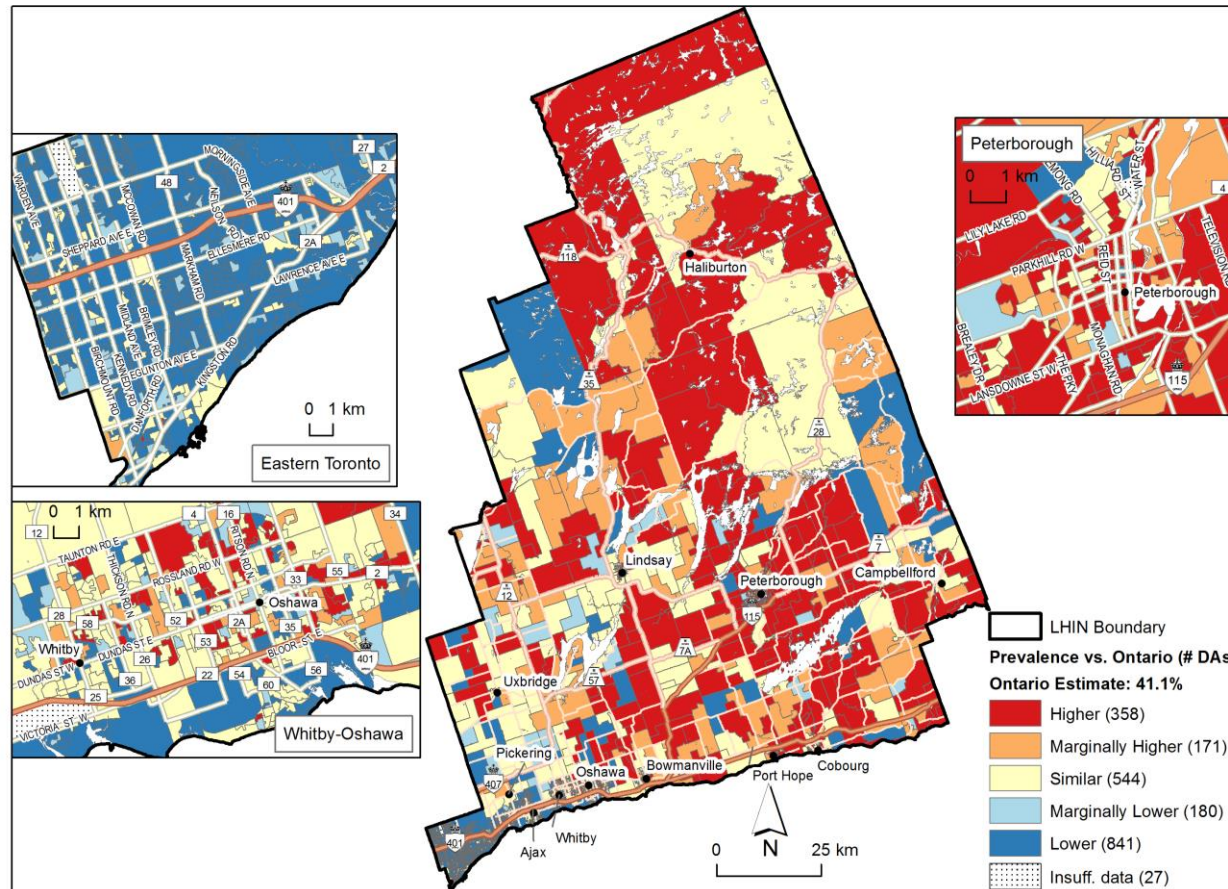
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



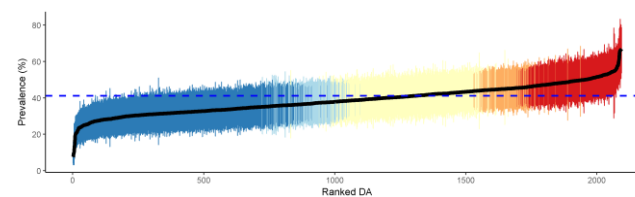
Figure 9.4 Current alcohol consumption among adolescent males (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	38.8
Higher	50.2 (45.5, 66.9)
Marginally Higher	45.1 (43.8, 49.8)
Similar	41.1 (36.1, 45.1)
Marginally Lower	37.1 (35.1, 38.9)
Lower	31.5 (7.6, 37.6)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Alcohol—consumption exceeding cancer prevention recommendations

People age 12 and older

Almost 7% of the female population in Ontario drank alcohol in excess of the recommended limits for cancer prevention. Among males, the Ontario prevalence of exceeding the recommended limits was 8.5%.

Higher prevalence than Ontario

Compared to the Ontario averages, 328 areas had a higher prevalence of alcohol consumption in excess of cancer prevention recommendations for females (Figure 9.5) and 674 areas for males (Figure 9.6). For females, higher prevalence areas were distributed across the central and western parts of the LHIN, from Peterborough to Uxbridge. Higher prevalence areas were also found around Bowmanville, Cobourg, Port Hope and south of Campbellford. For males, many areas of the LHIN had a higher prevalence of alcohol consumption in excess of cancer prevention recommendations than Ontario (e.g., Haliburton, Campbellford, Oshawa, Bowmanville, Port Hope, Cobourg, Lindsay and Peterborough). An exception was the southeastern tip of the LHIN, which includes eastern Toronto, Pickering and Ajax.

Lower prevalence than Ontario

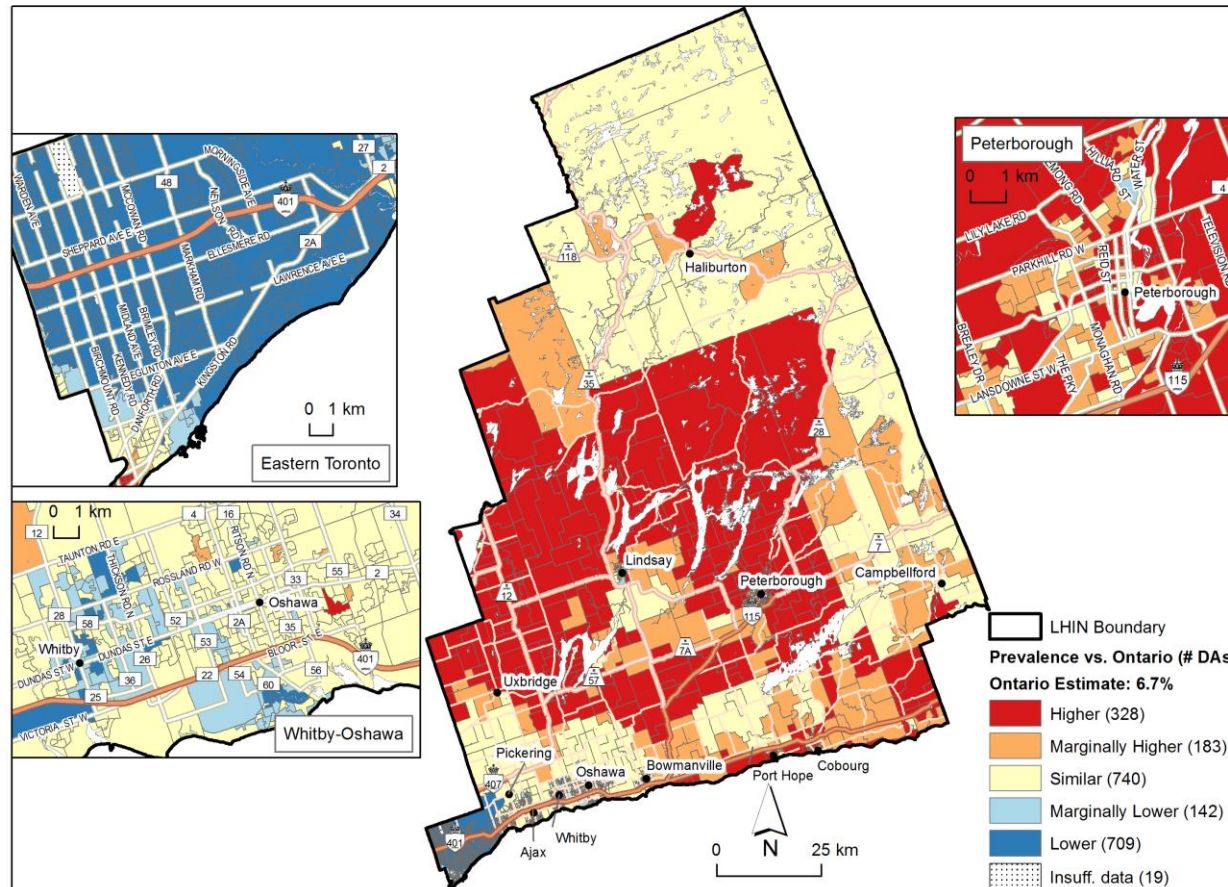
Lower prevalence areas were located in the southwestern parts of the Central East LHIN, particularly in eastern Toronto and Pickering for females (n=709; Figure 9.5) and males (n=785; Figure 9.6). Additional lower prevalence areas for females were located in the Whitby-Oshawa area.

Adolescents

The area-based prevalence of exceeding cancer prevention recommendations was not estimated for adolescent populations.



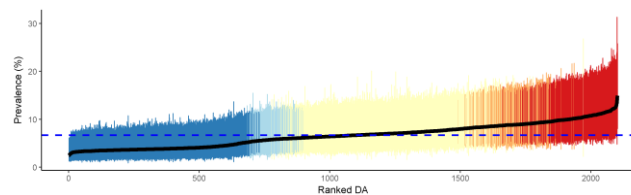
Figure 9.5 Alcohol consumption exceeding cancer prevention recommendations among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	6.6
Higher	10.3 (8.7, 14.9)
Marginally Higher	8.8 (7.9, 10.2)
Similar	7.1 (5.8, 10.5)
Marginally Lower	5.8 (5.2, 6.1)
Lower	3.9 (2.5, 5.5)

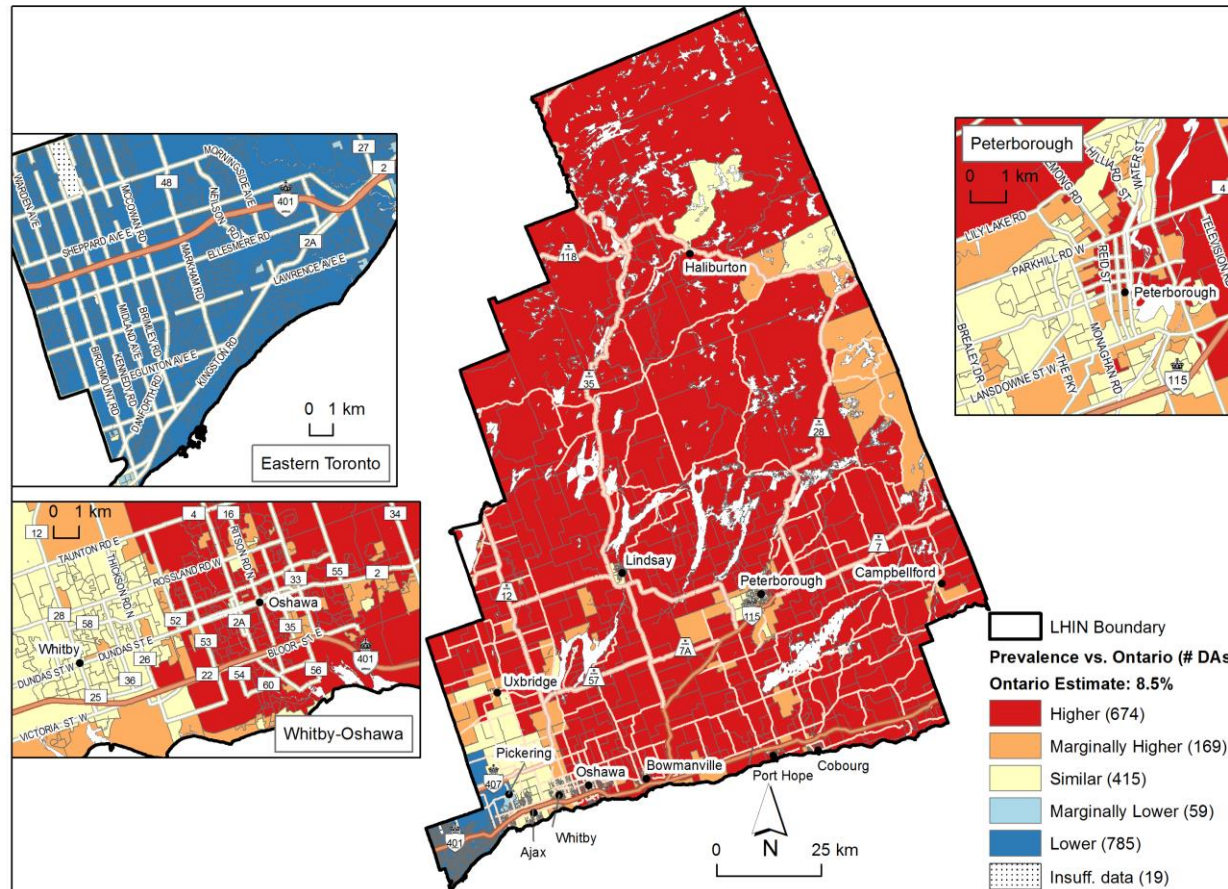
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



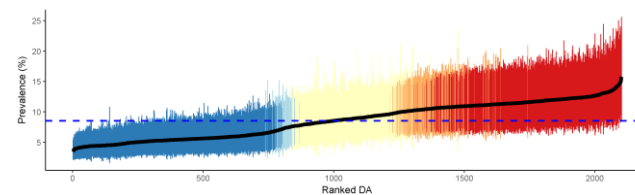
Figure 9.6 Alcohol consumption exceeding cancer prevention recommendations among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	8.6
Higher	11.8 (10.3, 15.8)
Marginally Higher	10.5 (9.6, 11.6)
Similar	8.8 (7.4, 10.9)
Marginally Lower	7.3 (6.5, 7.8)
Lower	5.4 (3.4, 7.2)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Excess body weight

People age 12 and older

The estimated Ontario prevalence of excess body weight (overweight or obese) among females was 41% and among males was 56%.

[Higher prevalence than Ontario](#)

Areas with a higher prevalence of excess body weight than the Ontario averages were detected for females (n=500; Figure 9.7) and males (n=361; Figure 9.8). For females, areas with a higher prevalence occurred primarily in the northern (e.g., around Haliburton), eastern (e.g., around Campbellford) and southern-most (e.g., Oshawa to Cobourg) part of the LHIN. Overall, the geographic pattern of higher prevalence areas for males was similar to that of females, but these areas were less extensive north of Port Hope and south of Peterborough.

[Lower prevalence than Ontario](#)

Areas with lower estimates compared to Ontario among females (n=387; Figure 9.7) and males (n=858; Figure 9.8) were common in eastern Toronto. Among females, additional lower prevalence areas were located around Uxbridge, Pickering, Whitby and Peterborough. Among males, additional lower prevalence areas were located in Peterborough and parts of Oshawa.

Adolescents

Among Ontario adolescents, an estimated 15% of females and 25% of males were overweight or obese.

[Higher prevalence than Ontario](#)

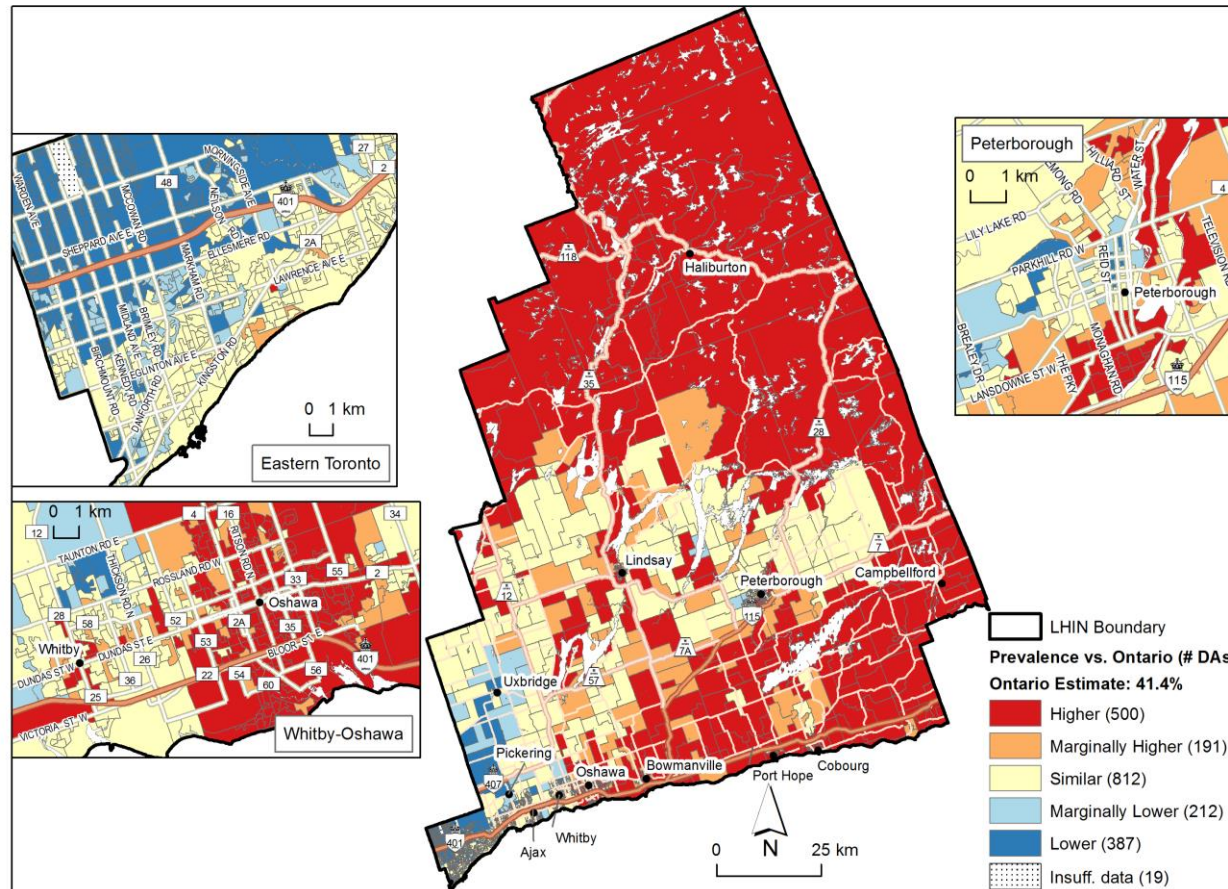
Higher prevalence areas among adolescent females (n=94; Figure 9.9) were located mainly in the northern (e.g., Haliburton) and eastern (e.g., Campbellford) parts of the LHIN, as well as in Oshawa, around Peterborough and Cobourg. No areas with a higher prevalence of excess body weight than Ontario were detected for adolescent males (map not shown).

[Lower prevalence than Ontario](#)

Areas with a lower prevalence of excess body weight than Ontario were detected in the western tip of eastern Toronto for adolescent females (n=97; Figure 9.9).



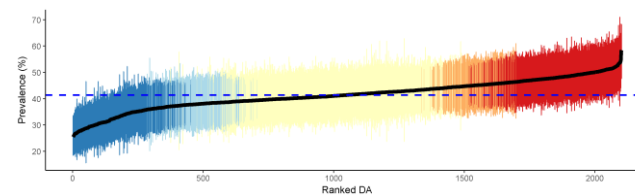
Figure 9.7 Excess body weight (overweight/obese) among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	41.4
Higher	48.4 (44.9, 58.5)
Marginally Higher	44.8 (43.4, 46.4)
Similar	41.2 (37.1, 44.8)
Marginally Lower	38.1 (35.9, 39.4)
Lower	33.1 (25.4, 37.8)

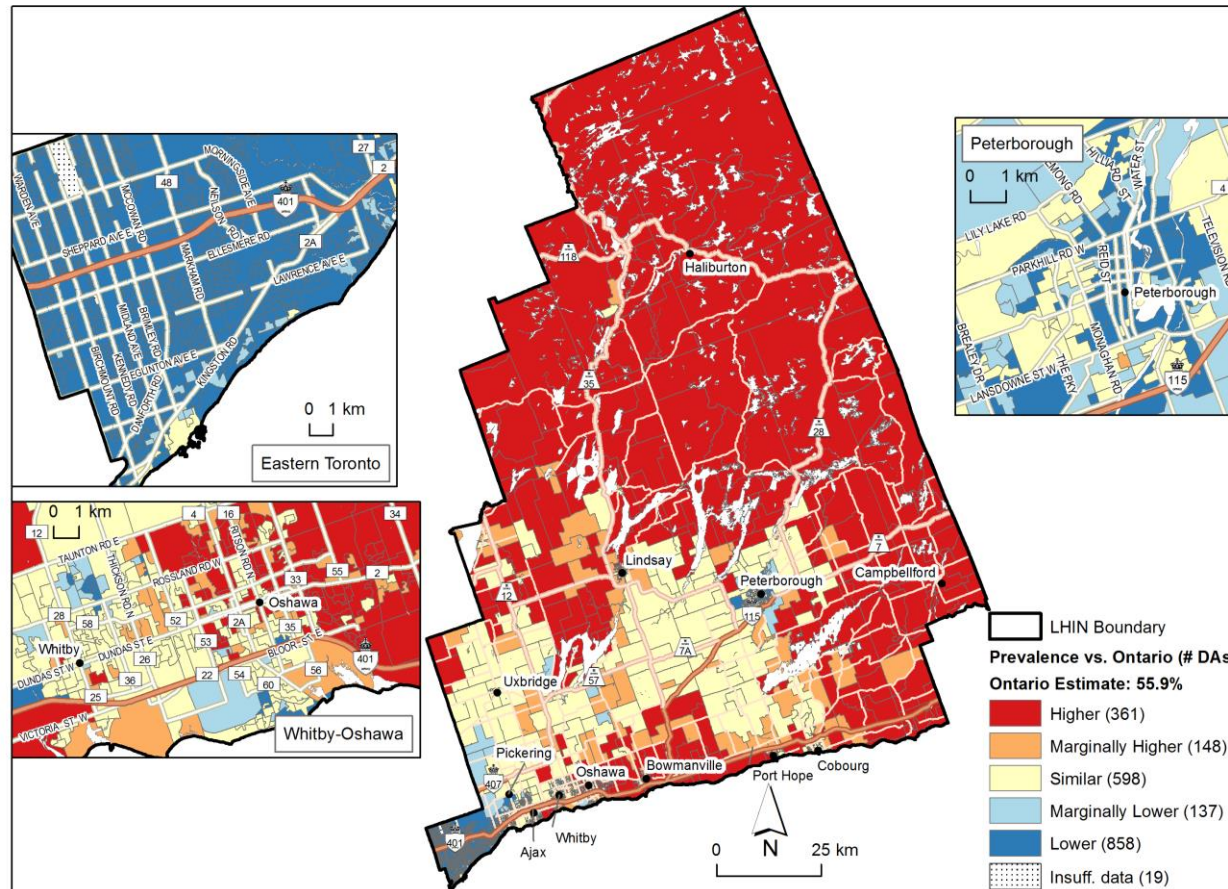
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



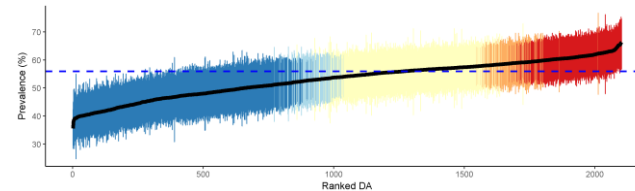
Figure 9.8 Excess body weight (overweight/obese) among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	53.1
Higher	61.3 (58.7, 66.3)
Marginally Higher	58.7 (57.8, 62.3)
Similar	56.0 (52.2, 59.1)
Marginally Lower	52.9 (51.2, 54.0)
Lower	46.7 (35.6, 53.0)

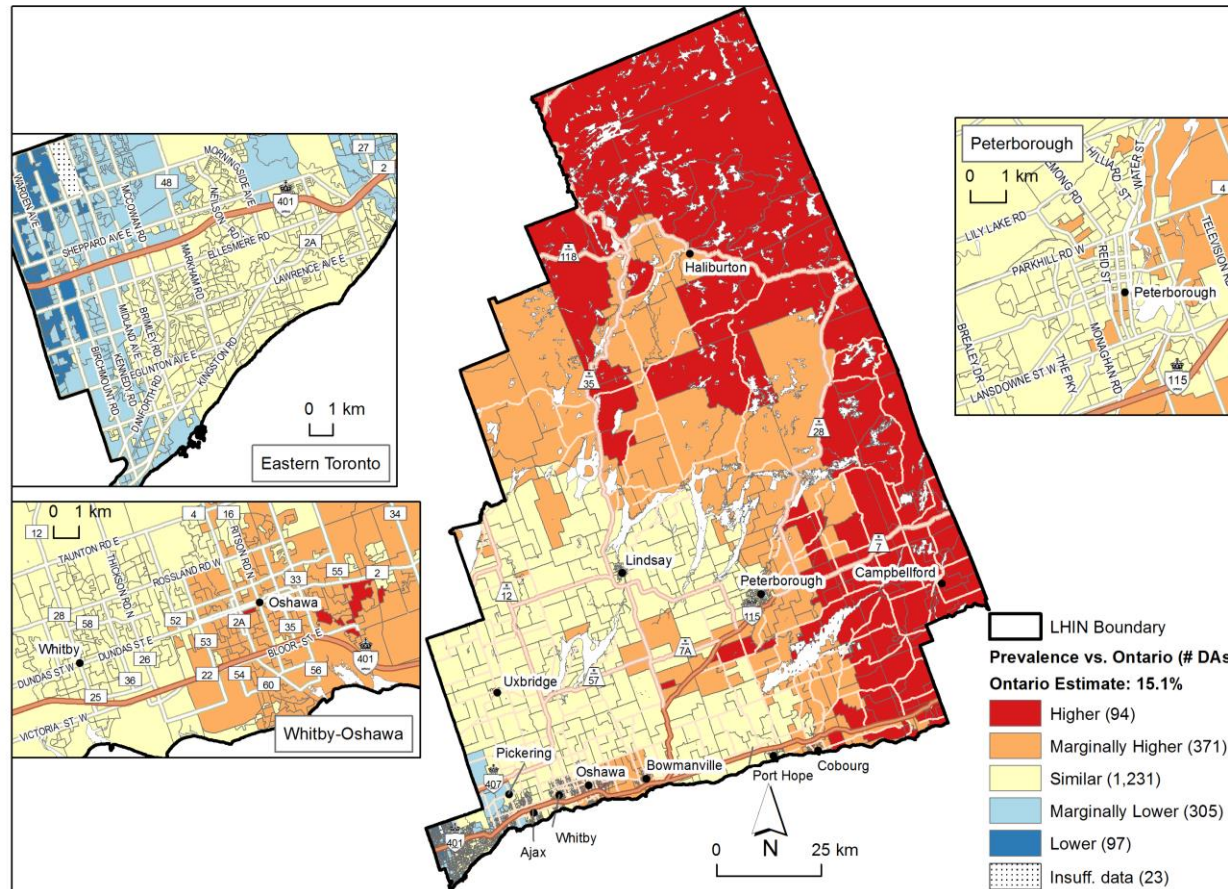
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



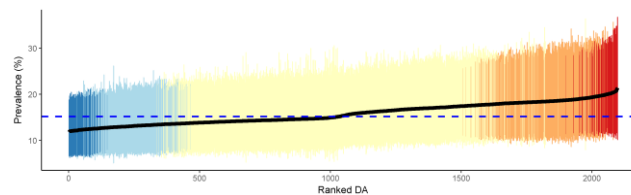
Figure 9.9 Excess body weight (overweight/obese) among adolescent females (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	15.7
Higher	19.9 (18.7, 21.4)
Marginally Higher	18.5 (17.4, 20.4)
Similar	15.5 (13.4, 19.2)
Marginally Lower	13.1 (12.2, 13.8)
Lower	12.3 (11.8, 12.8)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Inadequate vegetable and fruit consumption

People age 12 and older

Inadequate consumption of vegetables and fruits was common across Ontario, with approximately 63% of females and 77% of males reporting inadequate consumption.

[Higher prevalence than Ontario](#)

Areas with a higher prevalence of inadequate vegetable and fruit consumption than the Ontario average were less widespread for females (n=657; Figure 9.10) compared to males (n=775; Figure 9.11). For females, higher prevalence areas were detected mainly in the western half of the LHIN, around Lindsay, Peterborough, Uxbridge, eastern Toronto, Whitby, Oshawa and Bowmanville. In contrast, higher prevalence areas for males occurred throughout the LHIN, except in eastern Toronto.

[Lower prevalence than Ontario](#)

There were 16 areas with a lower prevalence than Ontario for females (Figure 9.10) and 14 areas for males (Figure 9.11). For females, these lower prevalence areas were detected in parts of eastern Toronto, Peterborough, Port Hope and east of Cobourg. For males, these lower prevalence areas were located in the east of eastern Toronto.

Adolescents

More than two thirds of the adolescent Ontario population had inadequate vegetable and fruit consumption at approximately 68% for females and 74% for males.

[Higher prevalence than Ontario](#)

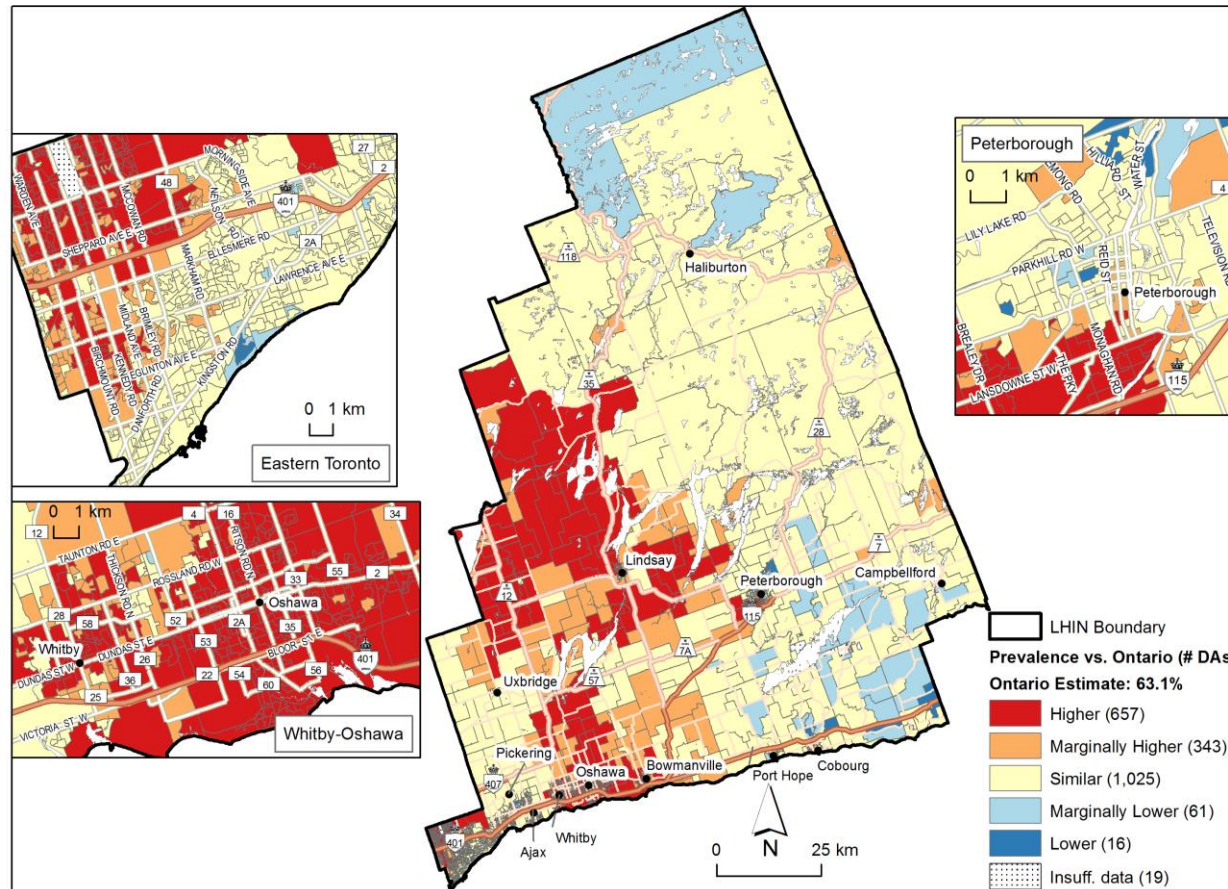
One hundred twenty-five higher prevalence areas were identified for adolescent females (Figure 9.12) and 331 were identified for adolescent males (Figure 9.13). For adolescent females, higher prevalence areas occurred in Peterborough and Whitby, and were concentrated in Oshawa. For adolescent males, higher estimates occurred in the Whitby-Oshawa area, as well as parts of Pickering and Bowmanville.

[Lower prevalence than Ontario](#)

There were very few lower prevalence areas for adolescents (females, n=1; Figure 9.12; males, n=1; Figure 9.13). These areas were located in eastern Toronto.



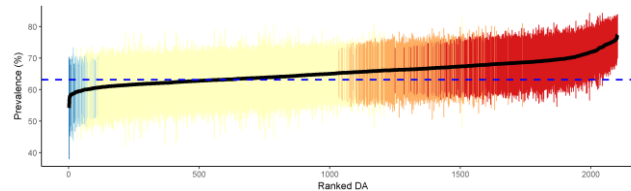
Figure 9.10 Inadequate vegetable and fruit consumption among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	65.5
Higher	69.5 (65.5, 77.4)
Marginally Higher	66.4 (65.3, 68.7)
Similar	63.2 (59.3, 67.4)
Marginally Lower	59.7 (58.1, 60.7)
Lower	58.3 (54.2, 59.8)

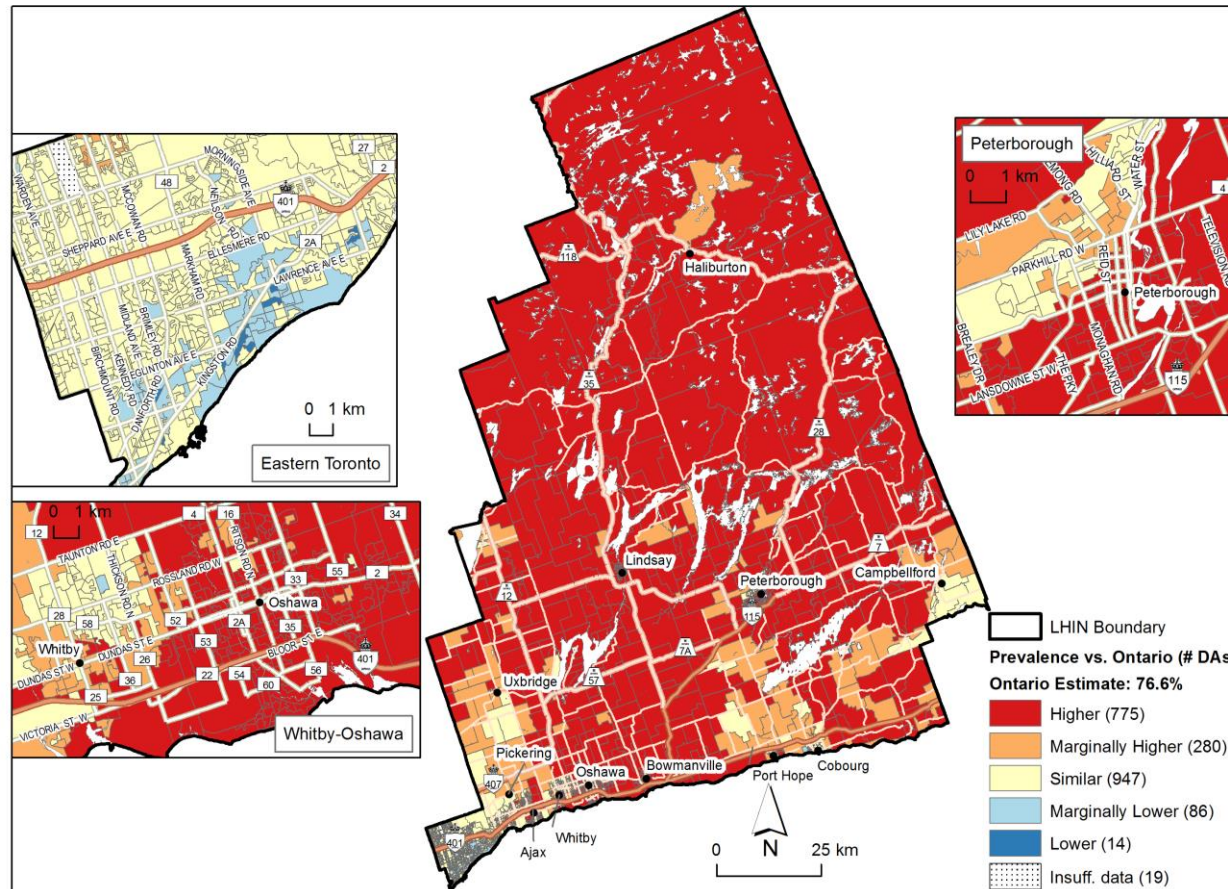
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



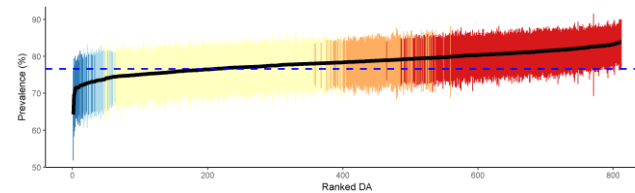
Figure 9.11 Inadequate vegetable and fruit consumption among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	78.3
Higher	81.1 (78.9, 84.6)
Marginally Higher	79.0 (78.1, 80.5)
Similar	76.3 (73.4, 78.9)
Marginally Lower	73.9 (72.9, 74.7)
Lower	72.1 (70.5, 73.2)

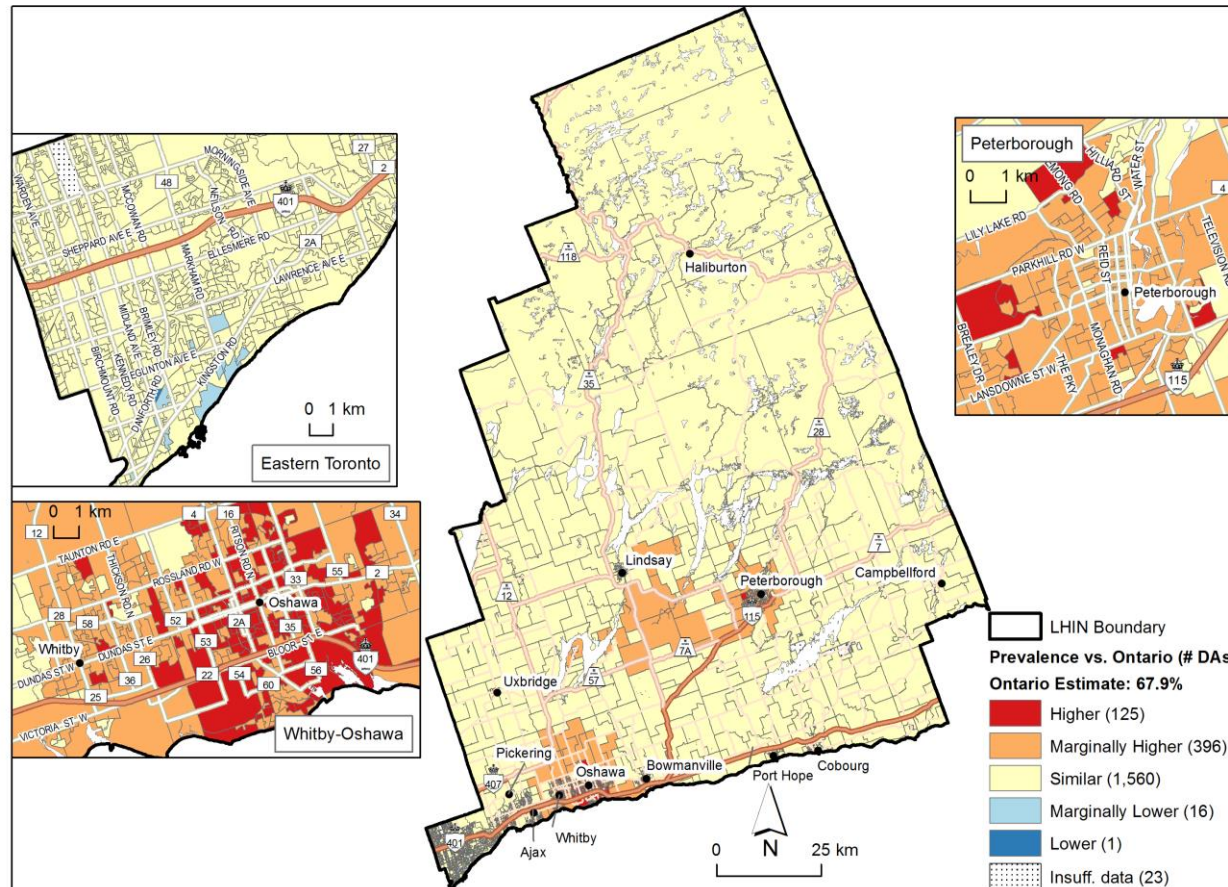
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



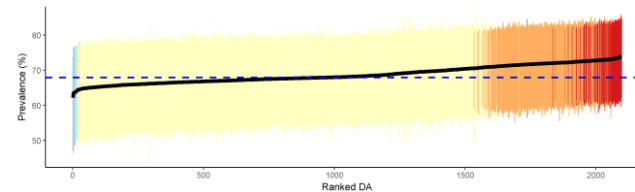
Figure 9.12 Inadequate vegetable and fruit consumption among adolescent females (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	68.7
Higher	73.0 (72.0, 74.0)
Marginally Higher	71.8 (70.6, 73.1)
Similar	67.7 (64.0, 71.5)
Marginally Lower	63.8 (63.4, 64.6)
Lower	62.2 (62.2, 62.2)

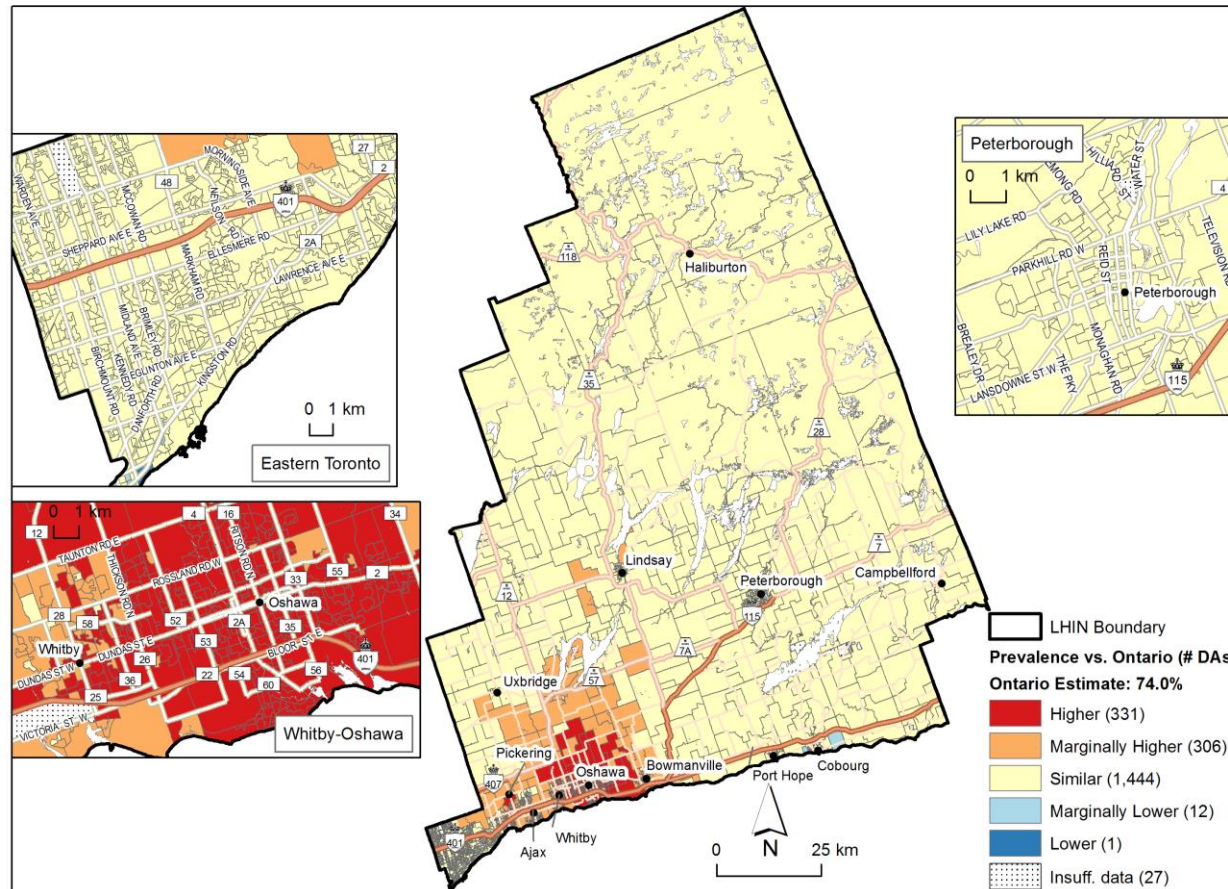
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



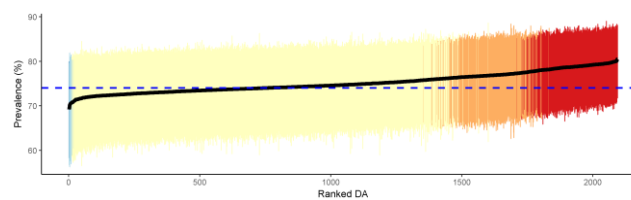
Figure 9.13 Inadequate vegetable and fruit consumption among adolescent males (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	75.1
Higher	78.8 (77.3, 80.5)
Marginally Higher	76.9 (75.8, 78.2)
Similar	74.0 (70.8, 76.8)
Marginally Lower	70.4 (69.5, 71.0)
Lower	69.2 (69.2, 69.2)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Physical activity

Because physical activity reduces cancer risk, lower prevalence estimates of this risk factor are of interest. The colour scheme of the maps was inverted so that the “lower than Ontario” estimates are displayed in red.

People age 12 and older

Most of the Ontario population was not physically active, with approximately one in five (23%) females and one in three (30%) males being physically active.

Lower prevalence than Ontario

A similar number of areas with a lower prevalence of physical activity than the Ontario average were identified for both sexes (females: n=733, Figure 9.14; males: n=654, Figure 9.15) in the Central East LHIN. Many were located in eastern Toronto, but a few were located in Oshawa, Whitby and Peterborough. For females, additional areas with a lower prevalence than Ontario were located around Lindsay and Port Hope.

Higher prevalence than Ontario

Areas with a higher prevalence of physical activity than Ontario were dispersed across the LHIN for females (n=536; Figure 9.14) and males (n=622; Figure 9.15). For females, these areas occurred more on the western and eastern boundaries of the LHIN compared to males, but were less extensive in the northern part of the LHIN (around Haliburton) and in Pickering and Ajax.

Adolescents

Adolescents were more physically active than adults, with approximately 40% of adolescent females and 57% of adolescent males being active.

Lower prevalence than Ontario

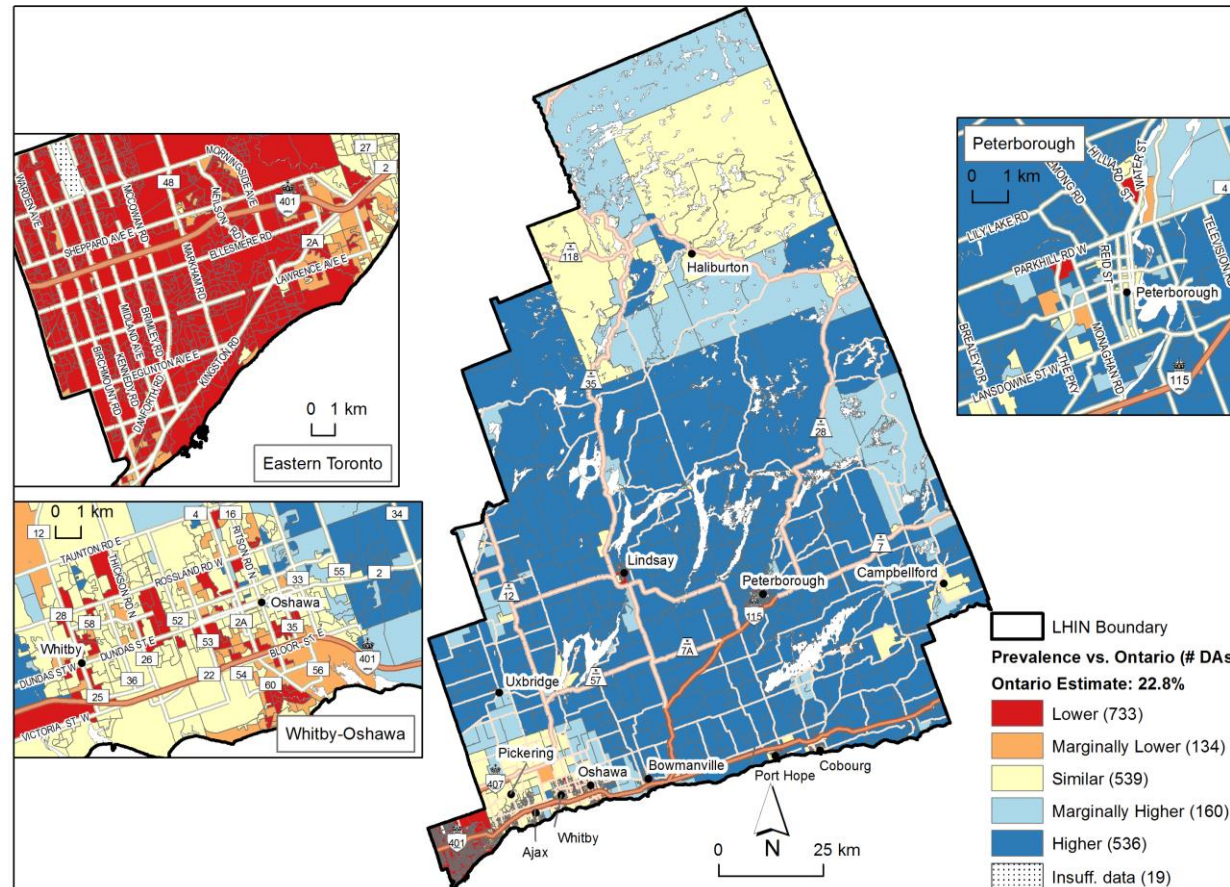
There were 438 areas with a lower prevalence of physical activity for adolescent females (Figure 9.16) and 408 areas for males (Figure 9.17). For both sexes, these areas occurred in many parts of eastern Toronto.

Higher prevalence than Ontario

Areas with a higher prevalence than the Ontario average were common across the LHIN—except for the southwestern part—for adolescent females (n=410; Figure 9.16). In contrast, for adolescent males, higher prevalence areas (n=103; Figure 9.17) were located only near Port Hope, Cobourg and Peterborough.



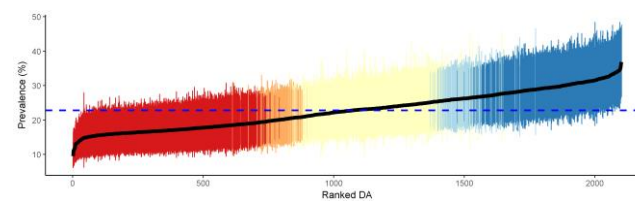
Figure 9.14 Physical activity among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	22.8
Lower	17.0 (9.5, 20.1)
Marginally Lower	20.1 (18.5, 21.2)
Similar	23.2 (20.5, 27.7)
Marginally Higher	26.2 (25.1, 28.9)
Higher	29.8 (26.1, 36.9)

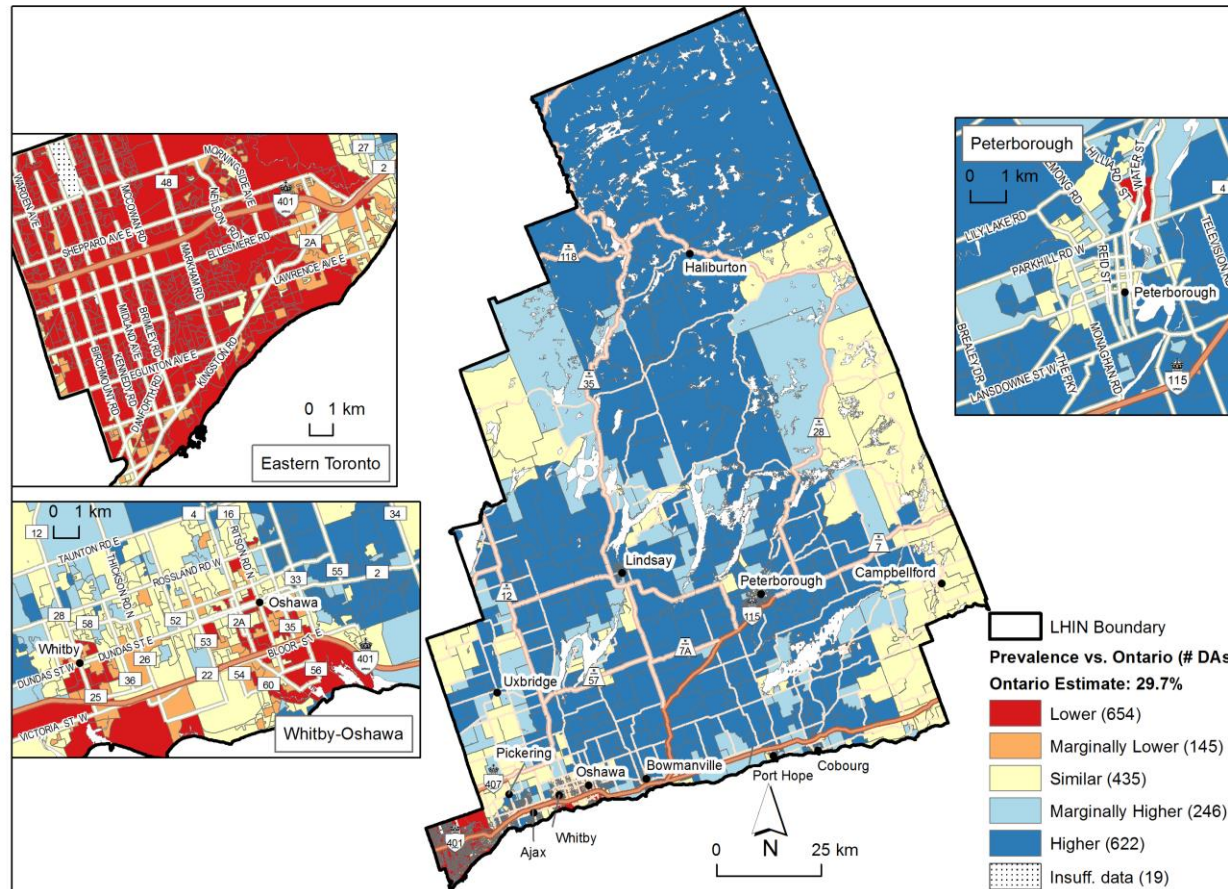
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



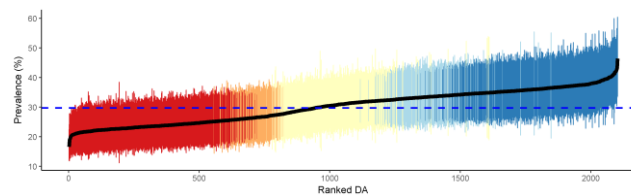
Figure 9.15 Physical activity among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	30.1
Lower	23.6 (16.6, 26.6)
Marginally Lower	26.6 (25.2, 27.7)
Similar	30.5 (26.9, 34.9)
Marginally Higher	33.4 (31.7, 36.5)
Higher	36.4 (33.2, 46.5)

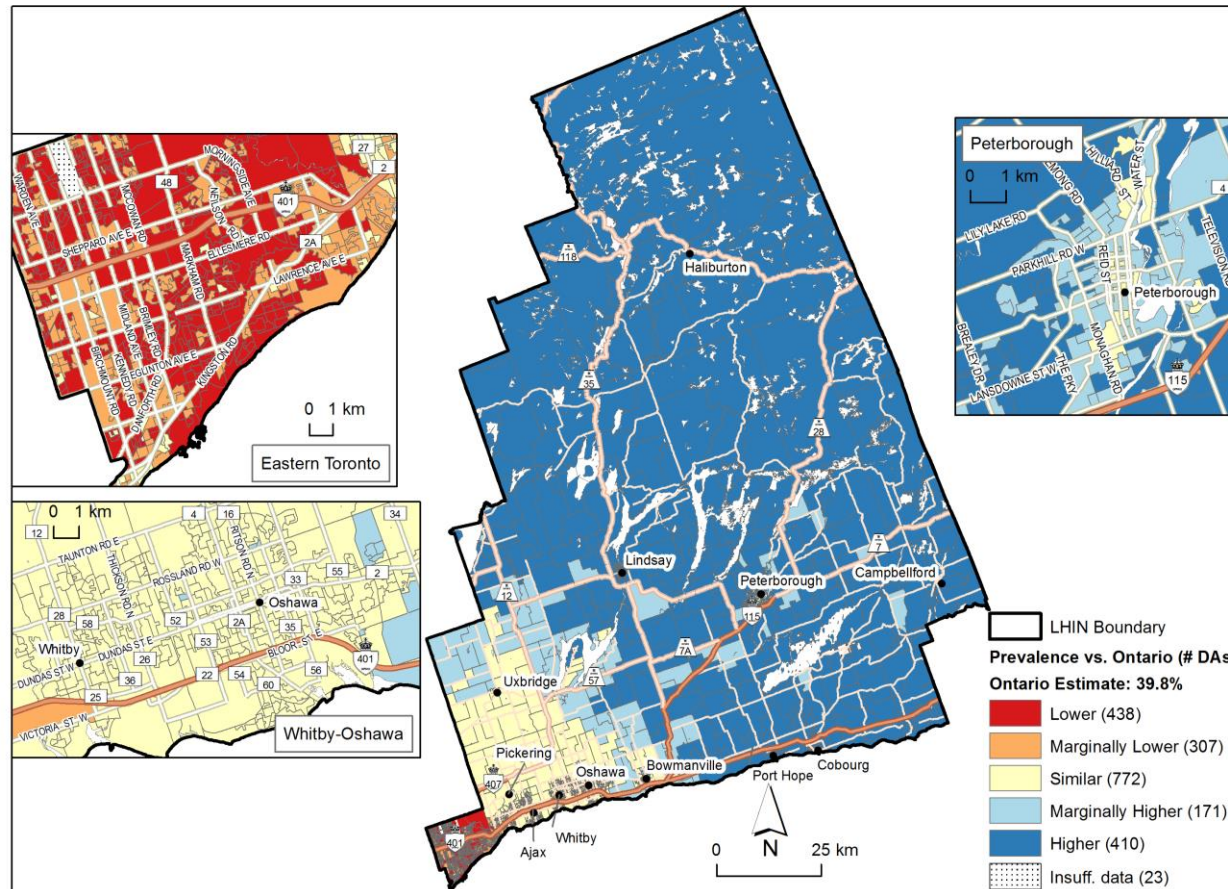
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



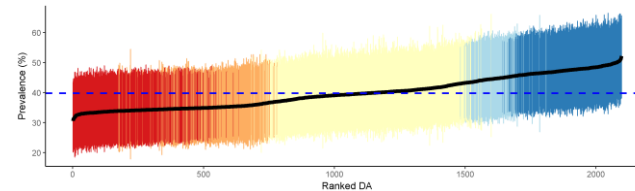
Figure 9.16 Physical activity among adolescent females (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	39.9
Lower	34.0 (30.6, 35.5)
Marginally Lower	35.3 (33.9, 37.0)
Similar	39.9 (35.8, 44.5)
Marginally Higher	44.6 (43.0, 46.7)
Higher	47.6 (45.0, 52.2)

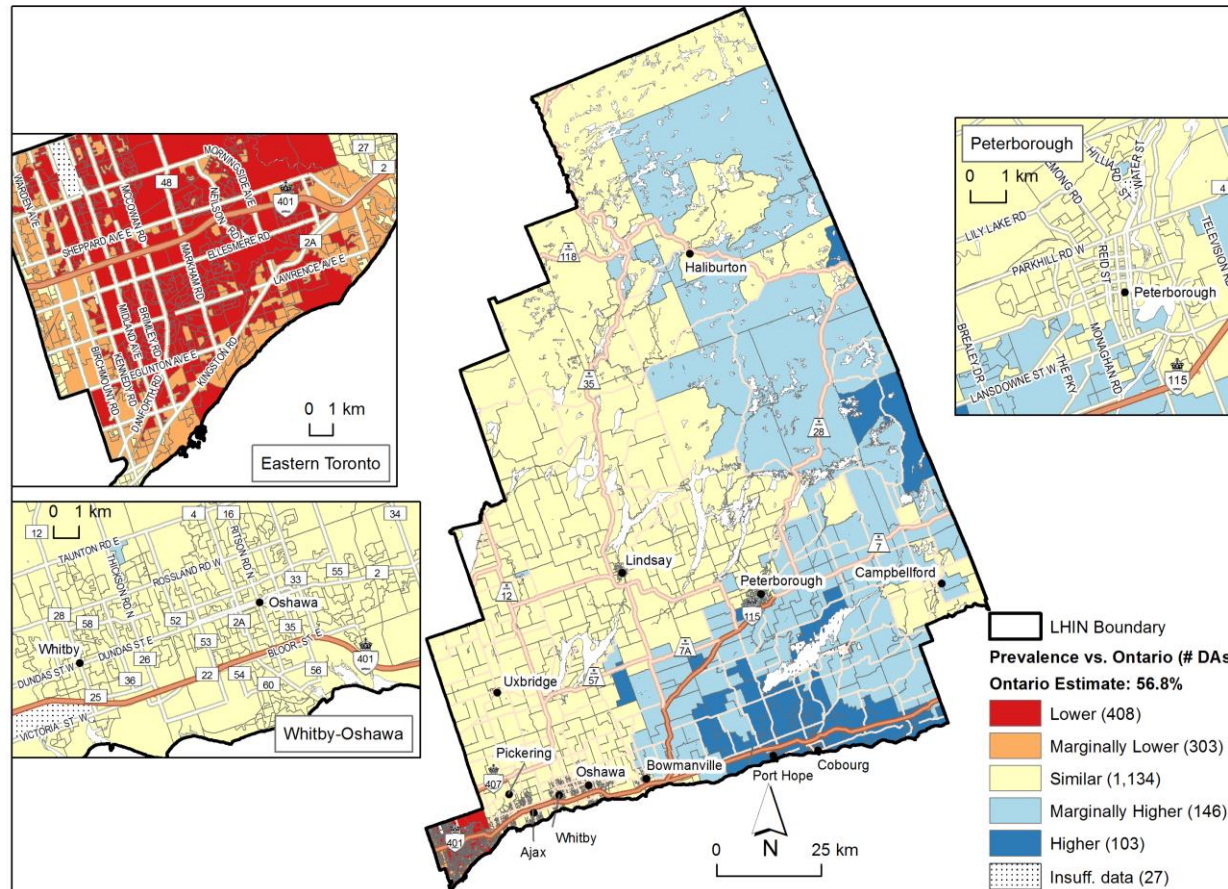
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



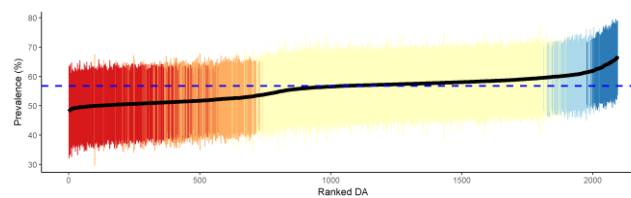
Figure 9.17 Physical activity among adolescent males (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	55.7
Lower	50.5 (48.1, 52.2)
Marginally Lower	52.1 (50.0, 53.7)
Similar	57.3 (52.5, 60.3)
Marginally Higher	60.6 (59.6, 62.8)
Higher	63.7 (61.5, 66.9)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Sedentary behaviour

People age 12 and older

Approximately half of the Ontario population reported sedentary behaviour during leisure time (females, 49%; males, 56%).

Higher prevalence than Ontario

Areas with a higher prevalence of sedentary behaviour than the Ontario average were more common for females (n=102; Figure 9.18) compared to males (n=5; Figure 9.19). For females, these areas clustered around Lindsay, Peterborough, Whitby and Oshawa. Higher prevalence areas for males were identified only in Oshawa and Peterborough.

Lower prevalence than Ontario

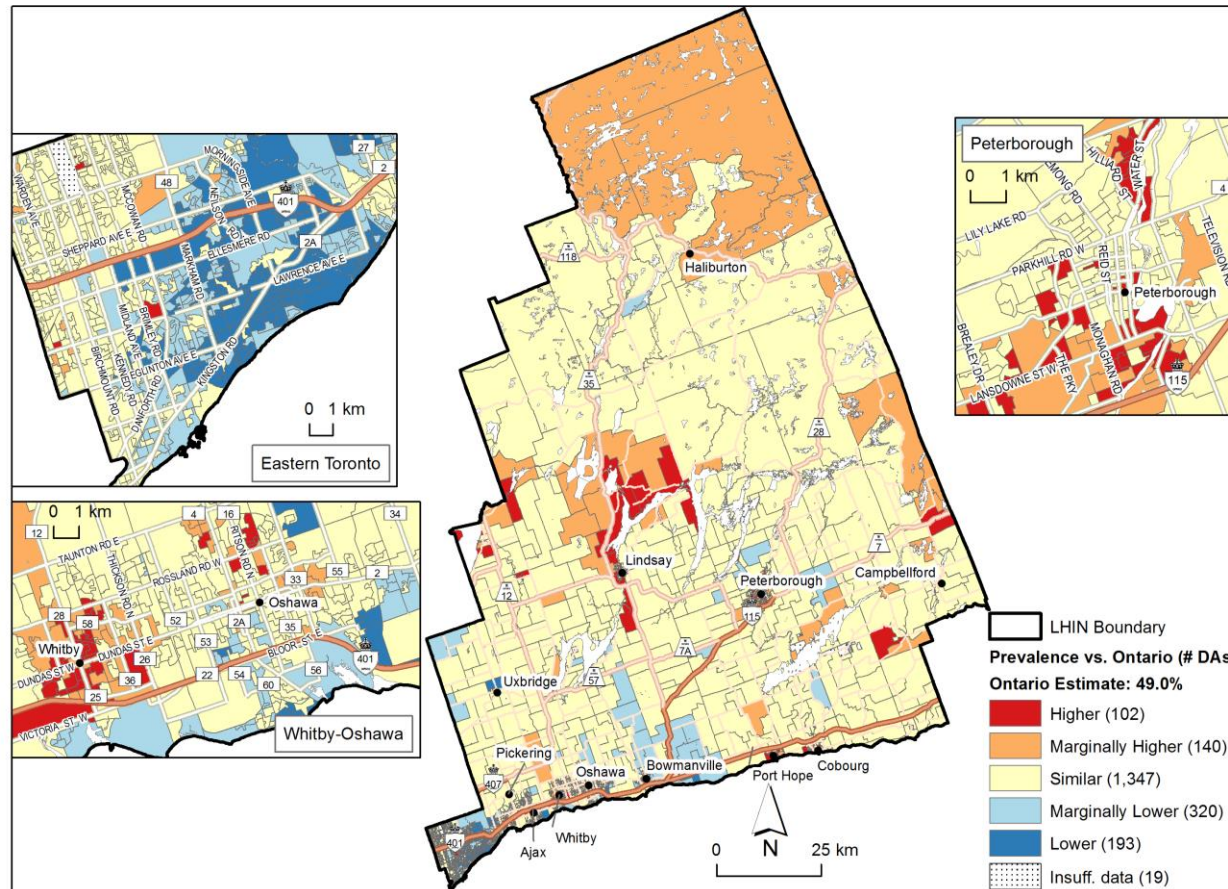
The number of areas with a lower prevalence of sedentary behaviour than Ontario for females (n=193; Figure 9.18) and males (n=239; Figure 9.19) was similar. For females, these areas were detected mainly in eastern Toronto, as well as a few areas near Uxbridge, Ajax, Oshawa and Bowmanville. For males, areas with a lower prevalence were clustered around Uxbridge, Lindsay, Peterborough, Bowmanville, as well as parts of eastern Toronto.

Adolescents

More than half of the Ontario adolescent population reported sedentary behaviour during leisure time, at approximately 55% for females and 60% for males. In the Central East LHIN, no areas with a higher prevalence than Ontario for adolescents were identified, which is why those maps are not shown.



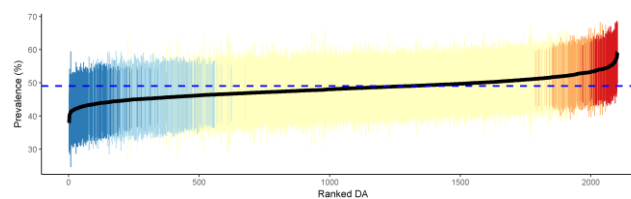
Figure 9.18 Sedentary behaviour among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	48.3
Higher	54.6 (52.9, 59.2)
Marginally Higher	52.5 (51.2, 54.4)
Similar	48.7 (44.8, 52.7)
Marginally Lower	45.5 (43.3, 46.9)
Lower	43.4 (37.9, 45.6)

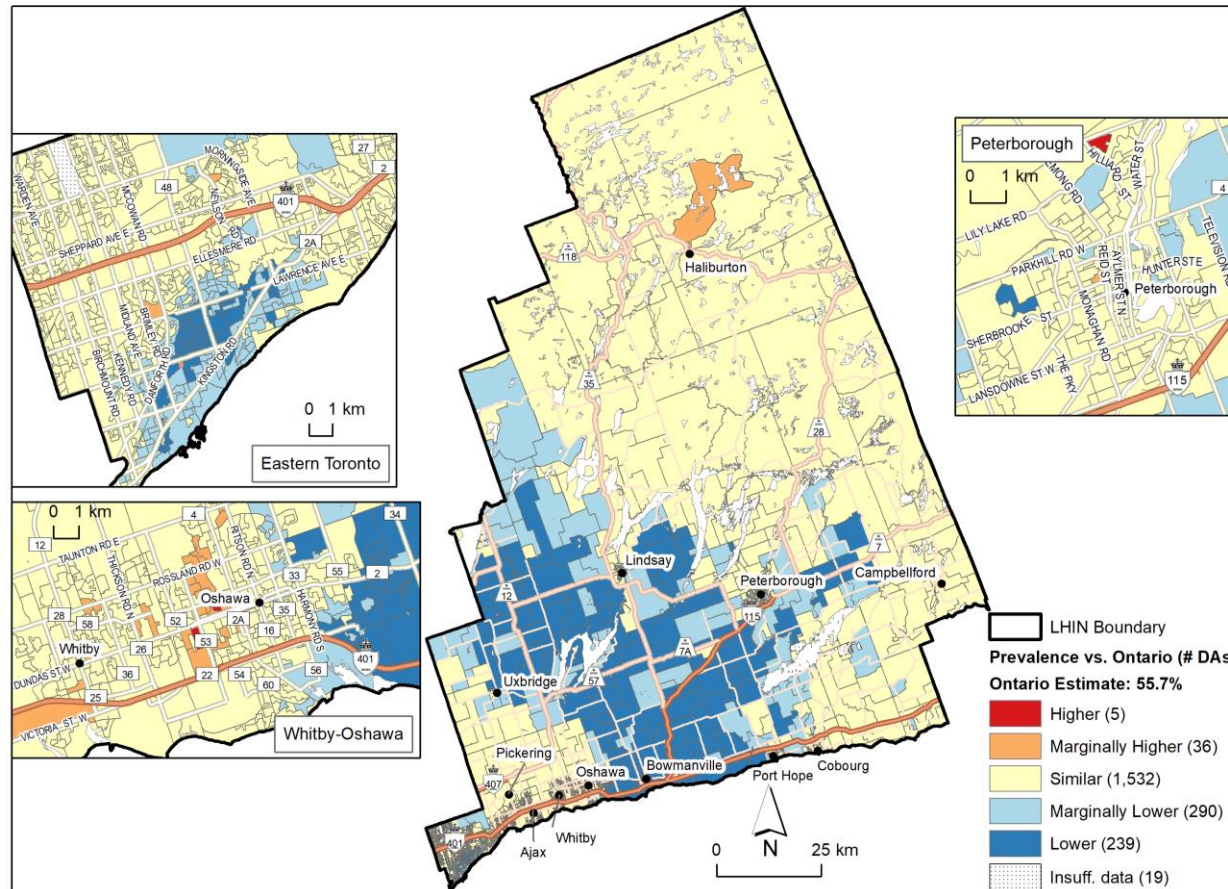
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



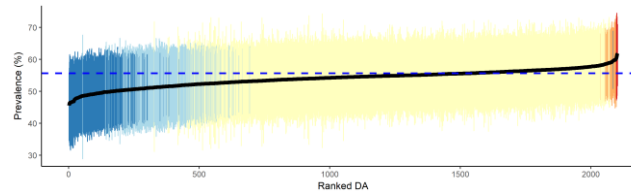
Figure 9.19 Sedentary behaviour among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 05-Oct-17

Category	Mean prevalence % (range)
Overall	54.0
Higher	61.3 (60.8, 61.9)
Marginally Higher	59.3 (58.2, 60.3)
Similar	55.1 (51.3, 59.0)
Marginally Lower	51.6 (48.6, 53.2)
Lower	49.3 (45.6, 51.8)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Smoking—current status

People age 12 and older

Current tobacco smoking was reported by 17% of Ontario females and 24% of males.

[Higher prevalence than Ontario](#)

More areas with higher prevalence of current tobacco smoking than the Ontario average occurred for females (n=607; Figure 9.20) compared to males (n=287; Figure 9.21). For females, these areas were widespread across the LHIN, and occurred in parts of eastern Toronto, Peterborough and the Whitby-Oshawa area. For males, higher prevalence areas were located around Haliburton, west of Lindsay, in Peterborough, east of Cobourg, in parts of Whitby and Oshawa.

[Lower prevalence than Ontario](#)

Lower prevalence of current smoking than the Ontario average was detected in 571 areas for females (Figure 9.20) and 544 areas for males (Figure 9.21). For both sexes, lower prevalence areas occurred in eastern Toronto, Uxbridge, Pickering and northern Whitby. In males, additional areas were found in Lindsay and around Peterborough, Oshawa, Port Hope and Cobourg.

Adolescents

Approximately 8% of adolescent females and adolescent males in Ontario reported that they currently smoked tobacco.

[Higher prevalence than Ontario](#)

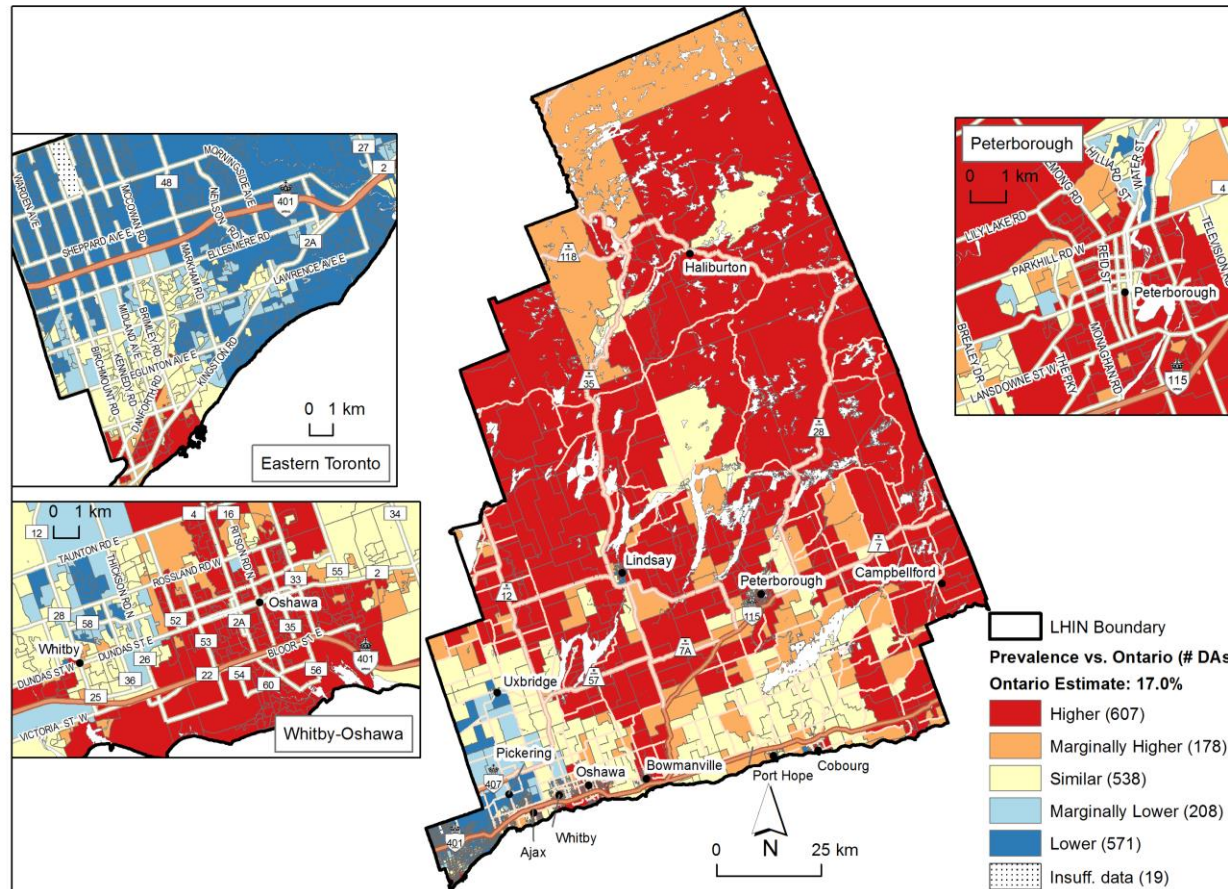
For adolescent females (n=246; Figure 9.22), areas with a higher prevalence of current smoking than Ontario were dispersed throughout the Central East LHIN. For adolescent males (n=177; Figure 9.23), these areas tended to be located around Haliburton and Oshawa and in the southeast of the LHIN (e.g., Peterborough, Campbellford, Port Hope and Cobourg).

[Lower prevalence than Ontario](#)

Lower prevalence areas were found predominantly in eastern Toronto but were also scattered around Pickering, Ajax and the Whitby-Oshawa area for adolescent females (n=523; Figure 9.22) and adolescent males (n=557; Figure 9.23).



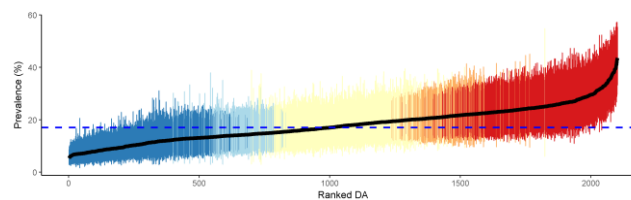
Figure 9.20 Current smoking among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	18.1
Higher	26.0 (19.8, 43.6)
Marginally Higher	21.0 (19.4, 24.4)
Similar	17.6 (14.5, 25.1)
Marginally Lower	14.3 (12.4, 15.5)
Lower	10.6 (5.4, 14.4)

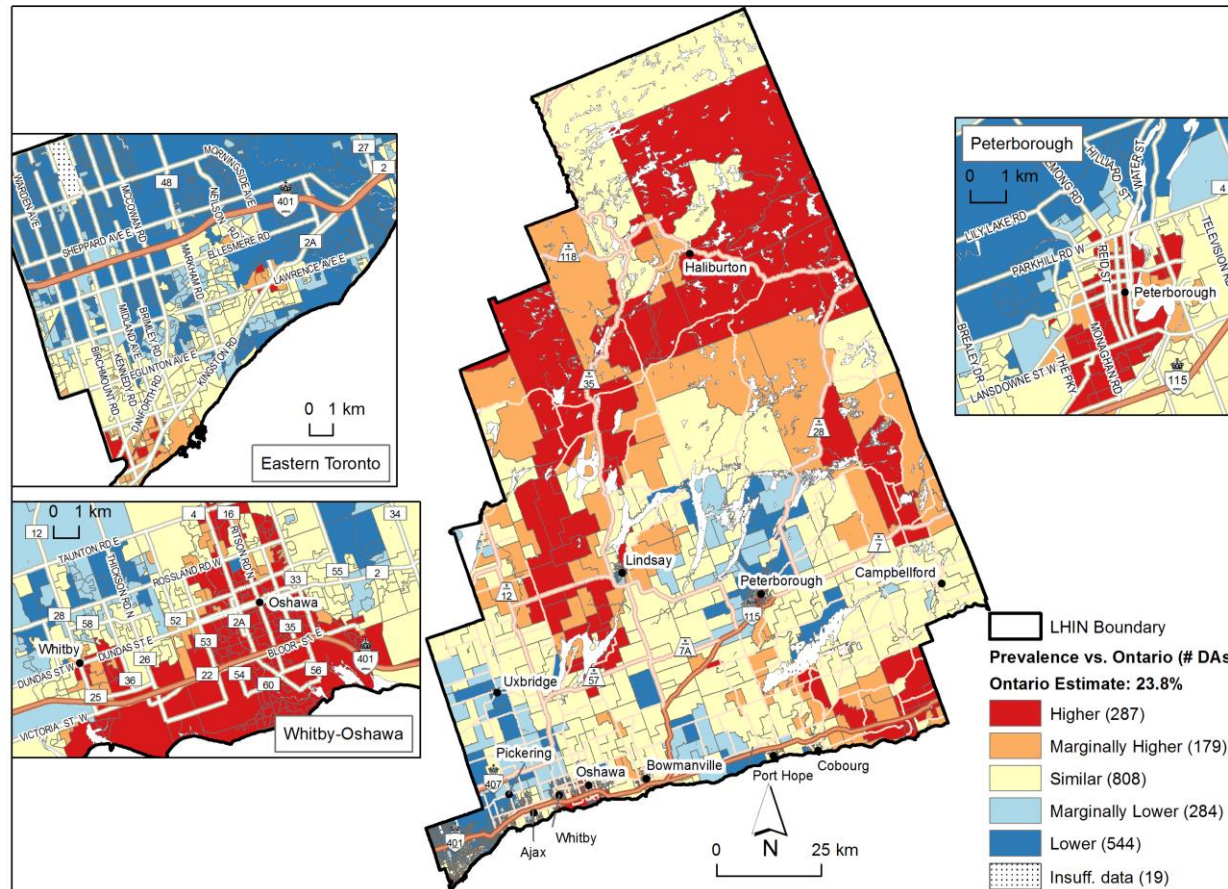
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



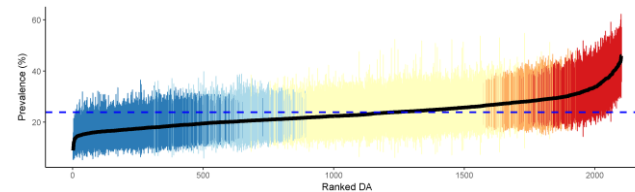
Figure 9.21 Current smoking among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	23.5
Higher	33.3 (27.9, 45.9)
Marginally Higher	28.1 (26.5, 31.0)
Similar	23.9 (20.6, 29.2)
Marginally Lower	20.5 (18.0, 21.8)
Lower	17.6 (8.9, 20.9)

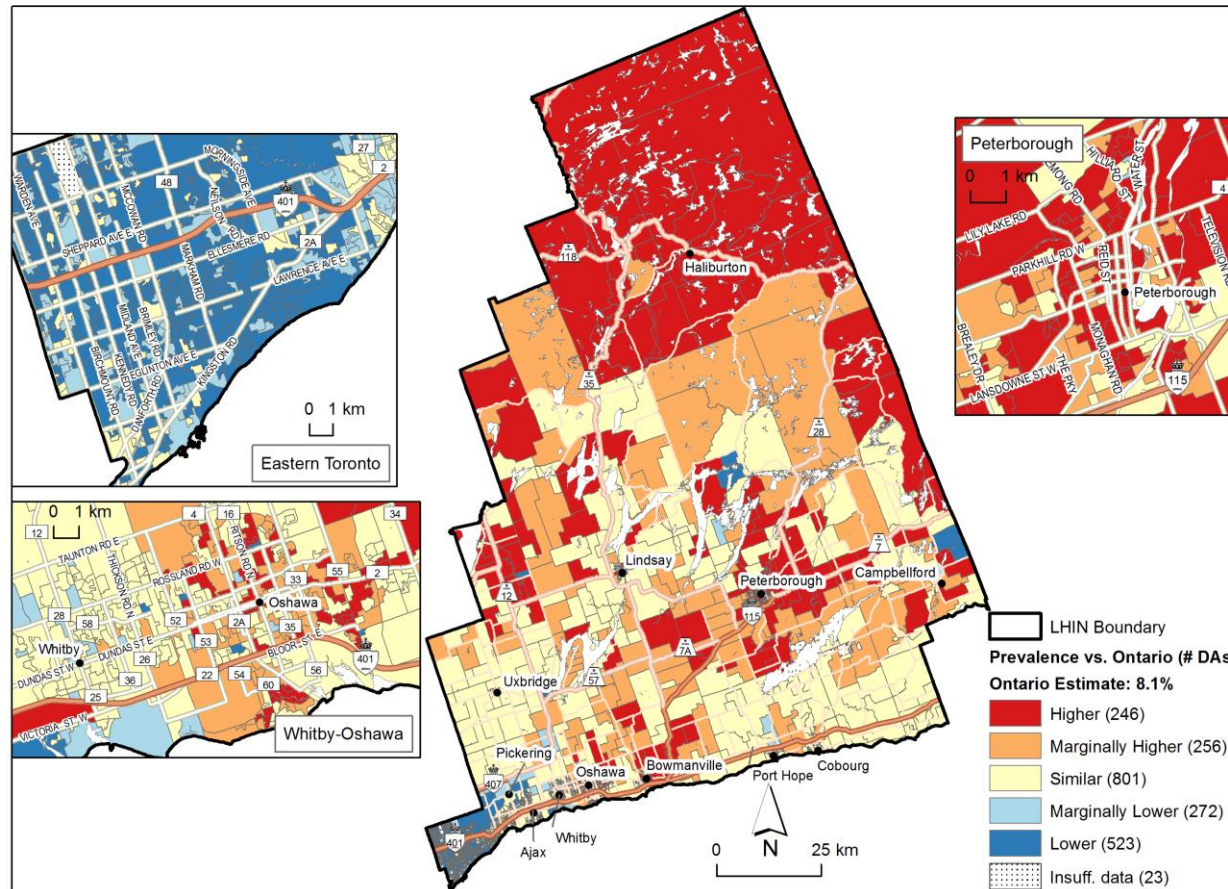
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



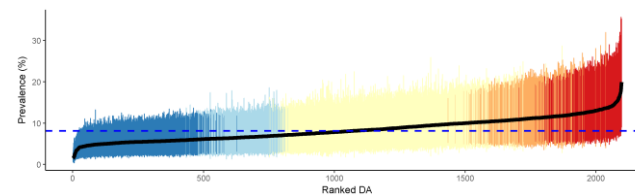
Figure 9.22 Current smoking among adolescent females (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	8.4
Higher	13.0 (10.9, 19.9)
Marginally Higher	11.0 (9.8, 13.6)
Similar	8.7 (6.9, 11.8)
Marginally Lower	6.6 (5.9, 7.2)
Lower	5.3 (1.5, 6.5)

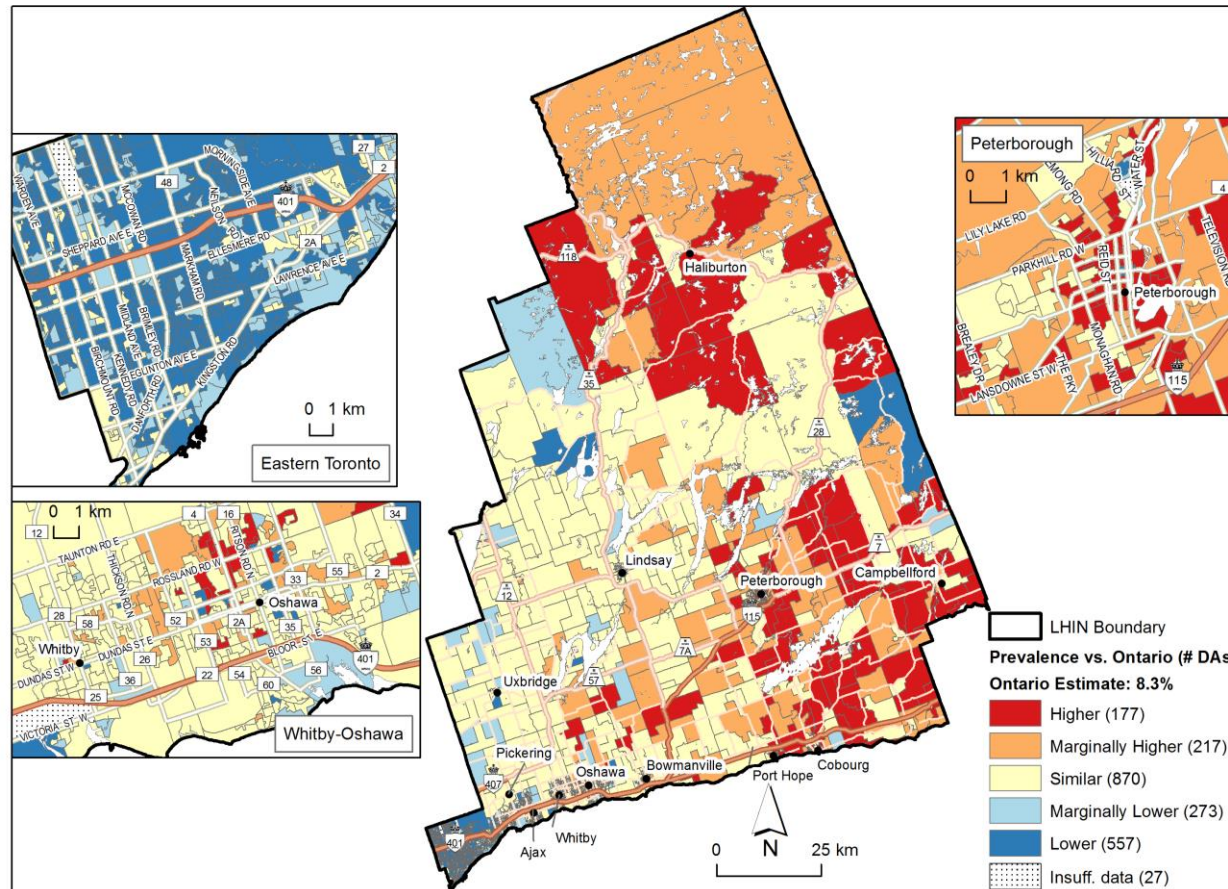
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



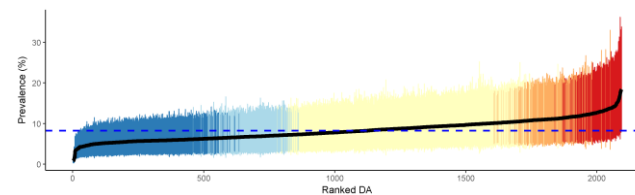
Figure 9.23 Current smoking among adolescent males (ages 12 to 18), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Map Created: 24-Sep-17

Category	Mean prevalence % (range)
Overall	8.3
Higher	13.1 (11.2, 18.5)
Marginally Higher	11.1 (10.1, 13.8)
Similar	8.8 (7.1, 11.2)
Marginally Lower	6.8 (6.2, 7.3)
Lower	5.6 (0.9, 6.7)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.



Smoking—ever-smoked status

People age 12 and older

Approximately one in two Ontario females and three in five Ontario males reported having ever-smoked.

Higher prevalence than Ontario

Areas with a higher ever-smoked prevalence than the Ontario average were typical in the Central East LHIN with 990 areas detected for females (Figure 9.24) and 719 for males (Figure 9.25). These areas were widespread across the LHIN for both sexes, except towards the southwestern tip in many parts of eastern Toronto.

Lower prevalence than Ontario

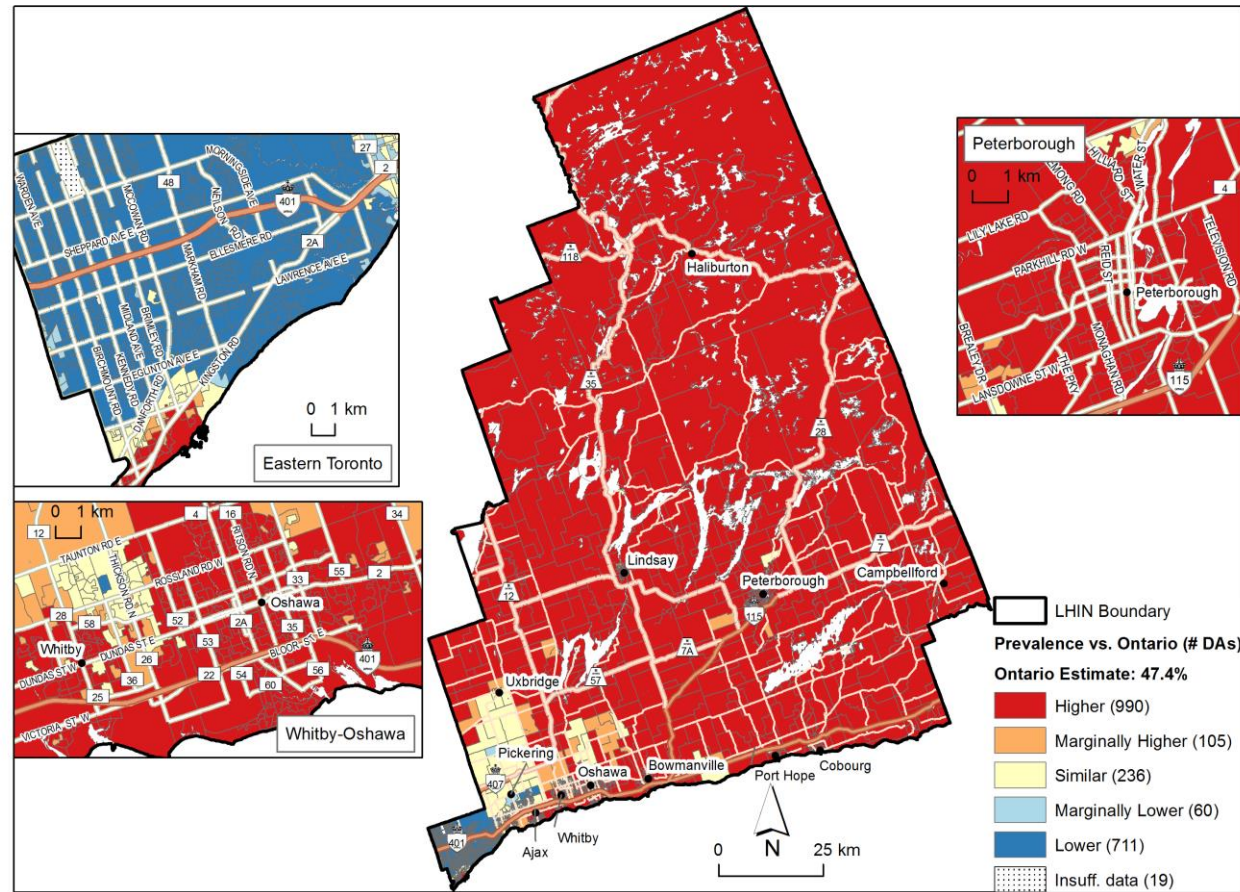
Areas with a lower prevalence of ever-smokers than Ontario were common in eastern Toronto and around Pickering for females (n=711; Figure 9.24) and males (n=823; Figure 9.25). For males, additional areas were located around Ajax, and Peterborough.

Adolescents

The area-based prevalence of ever-smoked status was not estimated for adolescent populations.

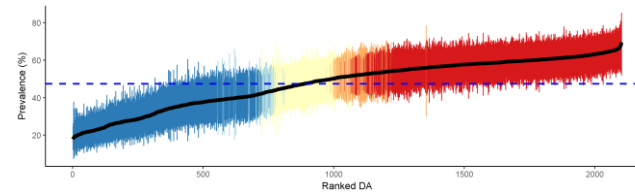


Figure 9.24 Ever-smoked status among females (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Category	Mean prevalence % (range)
Overall	47.7
Higher	58.6 (51.0, 69.5)
Marginally Higher	51.8 (49.6, 56.0)
Similar	47.4 (42.2, 51.7)
Marginally Lower	42.6 (38.7, 45.2)
Lower	32.3 (18.0, 43.3)

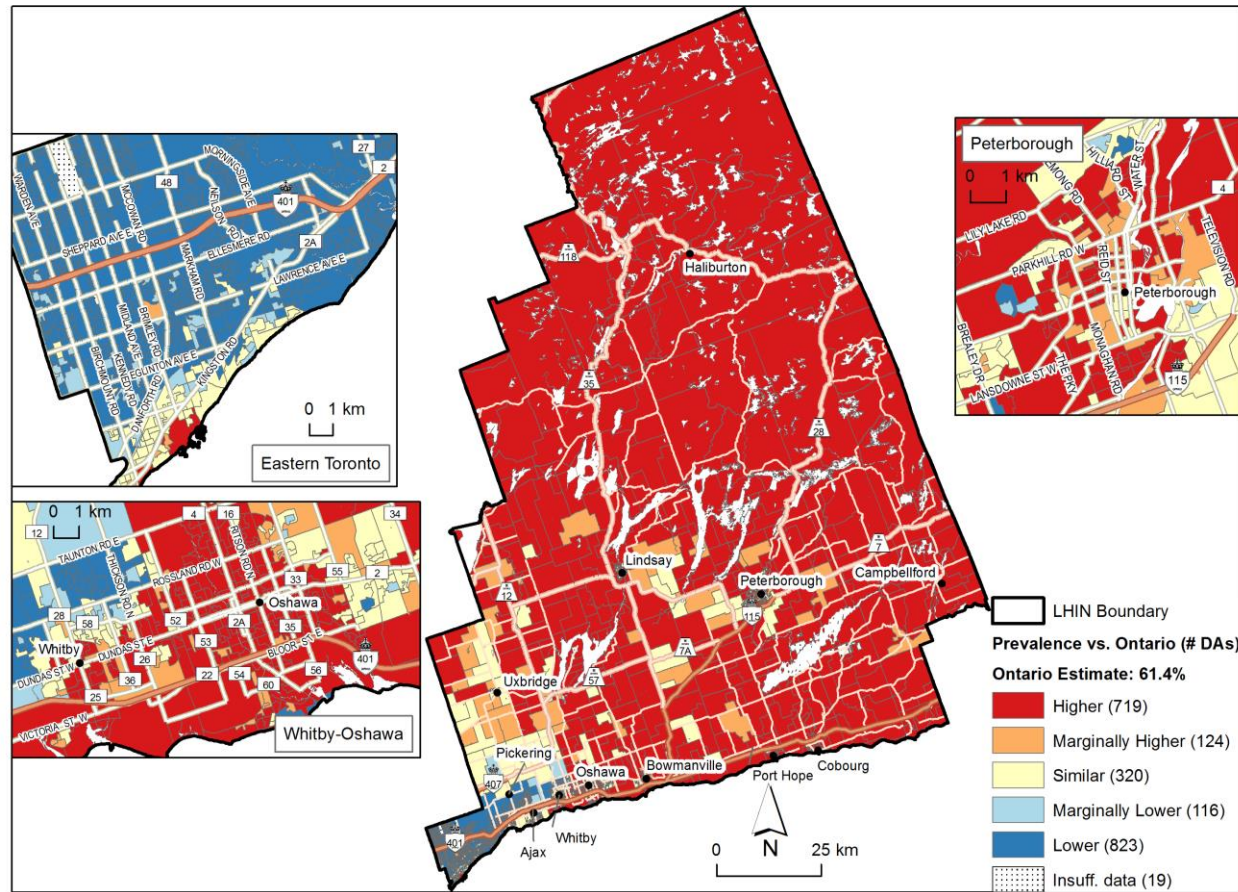
Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.

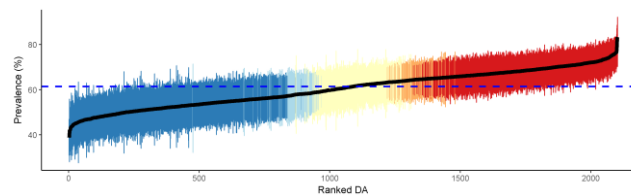


Figure 9.25 Ever-smoked status among males (age 12 and older), 2000–2014, Central East Local Health Integration Network (LHIN) by 2006 dissemination area (DA)



Category	Mean prevalence % (range)
Overall	60.3
Higher	68.9 (64.3, 83.4)
Marginally Higher	64.4 (63.2, 65.8)
Similar	61.4 (57.9, 64.3)
Marginally Lower	57.8 (53.2, 59.3)
Lower	52.0 (38.8, 58.1)

Prevalence by 2006 dissemination areas (DA) and 95% credibility intervals



Note: The black solid line is the mean prevalence estimate for each DA ranked in ascending order. The colour coded vertical lines are the 95% credibility intervals around the mean estimate for each DA, coloured by the categories on the table (and map). The blue dotted line in the background is the Ontario estimate.

