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## THE HEALTH OF RURAL CANADIANS: A RURAL-URBAN COMPARISON OF HEALTH INDICATORS

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### HIGHLIGHTS

- ◆ A lower proportion of Canadians living in small town regions (non-metro-adjacent), rural regions and northern regions rated their health as “excellent”, compared to the national average.
- ◆ Health risk factors that are more prevalent in the non-metropolitan region population included being overweight (i.e., higher body mass index) and smoking.
- ◆ A lower proportion of Canadians living in northern regions reported excellent or very good functional health (based on eight factors: vision, hearing, speech, mobility, dexterity, feelings, cognition and pain).
- ◆ Arthritis/rheumatism was higher than the national average in rural (non-metro-adjacent) regions, and conversely, lower in major metro (central) regions even after adjusting for age. People living in northern regions had a higher prevalence of high blood pressure. No significant difference was found by region in the prevalence of diabetes.
- ◆ Northern regions had higher unmet health care needs compared to the national average while major metro (central) regions had lower unmet health care needs.



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**Abstract**

The health of Canada's rural people has gained increased attention over the past few years as studies have shown that the health status of those living in rural and remote regions of Canada is lagging behind that of urban residents. The objective of this analysis is to compare a number

of key health indicators between rural and urban regions in Canada to determine if the type of region in which a person lives is associated with the health of the population.

The analysis for this report is based on data acquired from Statistic Canada's 2000/01

Canadian Community Health Survey. The survey population is segmented into four types of metropolitan regions (large metro-central, large metro-fringe, mid-sized metro, and small metro) and four types of non-metropolitan regions (small cities, towns, rural, and northern).

This study finds that the self-rated health of Canadians (those reporting their health as excellent) declines from the most urban regions of the nation to the most rural and remote parts. The research points to personal health risk factors including being overweight (i.e., high body mass index) and smoking as being significantly higher in small town regions, rural regions, and northern regions of Canada. In addition, the northern regions of Canada have a significantly higher than average share of the population with a probability of suffering a major depressive episode and a higher proportion of the population with high blood pressure. Rural regions (non-metro-adjacent) and small metropolitan regions have a higher than average prevalence of arthritis/rheumatism even after standardizing for age.

## **Introduction**

Recent studies have indicated that the health status of Canadians living in the most rural and remote parts of Canada is lagging behind that of urban residents (Pitblado *et al.*, 1999; Shields & Tremblay, 2002). Governments, health researchers and practitioners continue to identify a significant need to examine and document rural health to support the policy decisions and health programs based on statistical evidence and not solely on anecdotes.

Canadians living in rural and remote areas of Canada experience unique geographic challenges in maintaining their health and obtaining health care. Approximately two-thirds of residents living in northern remote communities reside

more than 100 kilometres from a physician and seven percent of Canadians in rural and small town Canada live more than 25 km from a physician (Ng *et al.*, 1999). In addition to the physical geographic location of rural people in Canada, there are social, cultural and environmental differences within the population which may lead to differences in risk factors and hence differences in health outcomes.

The purpose of this study is to compare a number of key health indicators between rural and urban regions in Canada. Statistics Canada's 2000/01 Canadian Community Health Survey (CCHS) provides a very rich database in which to make such a comparison. The large survey sample size allows for the segmentation of the population into four types of metropolitan regions (large metro-central, large metro-fringe, mid-sized metro, and small metro) and four types of non-metropolitan regions (small cities, towns, rural, and northern).

The Government of Canada has announced a number of initiatives over the past few years to address rural health issues. Health Canada introduced a national rural health strategy in 2000 to address issues on the future of health care in Canada's rural and remote regions. The recently released Romanow Commission report on Canada's health care system has specifically addressed the health of rural and remote communities as a priority. In recent years, the federal government has promoted the inclusion of rural perspectives in national health research. Some examples are a special advisor for rural health within the Canadian Institutes of Health Research (CIHR), the creation of an Office of Rural Health within Health Canada, a Ministerial Advisory Council on Rural Health, and cooperative research between Health Canada, the Centre for Rural and Northern Health Research at Laurentian University and Statistics Canada.

## **Methods**

### **Data Source**

The analysis is based on data from Statistics Canada's 2000/01 Canadian Community Health Survey (CCHS) (cycle 1.1). The CCHS was undertaken over a 14 month period beginning in September 2000. The survey covered the household population aged 12 or older in all provinces and territories (except persons living on Indian reserves, full time members of the Canadian Armed Forces, and some remote areas). The resulting sample size of the CCHS was 131,535 respondents where 83 percent were interviewed face-to-face and 17 percent by telephone. Please refer to the Statistics Canada paper by Y. Beland entitled "Canadian Community Health Survey – Methodological Overview" for additional information on the survey design and methodology.

### **Analytical technique**

All estimates produced with data from the CCHS have been weighted to represent the appropriate target populations at the regional level. To account for the variation in age distribution among regions, all estimates were age-standardized, according to the age distribution of the Canadian population. Given the complex sampling design of the CCHS, confidence intervals and levels of significance for the estimates were calculated using a bootstrapping method of re-sampling.

### **Limitations**

To study and compare health indicators over an urban to rural gradient, data had to be aggregated according to a specific geographical definition. A variety of definitions were explored and the one chosen reflects a method that recorded the most significant differences in prevalence rates (i.e., the percent of the population within a region reporting each indicator). Comparisons of health indicators in this analysis may mask important fluctuations that arise due to socio-demographic factors such as gender, education, income, cultural differences, and province of residence. The small sample size of the CCHS in regions of Canada with a low population results in a comparatively large confidence interval in the analysis and for certain health indicators the results need to be used with caution.

### **How to read the figures**

Figures 1 through 12 provide a graphical analysis of the differences between the CCHS respondents living in metropolitan and non-metropolitan regions of Canada. For each type of region, the mean is represented by the square and the 95% confidence interval by the line (there is a 95% probability the mean will fall within this range). The star over the line shows that the indicator for the region is significantly above or below the national average.

## Defining “rural”

Several alternative definitions of “rural” are used in Canada for national and provincial level policy analysis. The policy issue and the geographical focus being addressed (i.e., local, regional, national or international) leads an analyst to choose one definition over another. A recent Statistics Canada paper outlines six alternative ways of defining “rural” in Canada (du Plessis *et al.*, 2002). Depending on the definition of rural being applied, there is between 22 percent and 38 percent of the Canadian population defined as rural (approximately six to eleven million Canadians).

For this study, the Beale Code approach is chosen to allocate the survey population into metropolitan and non-metropolitan regions. This American classification system was first developed by Calvin Beale at the United States Department of Agriculture. The Beale classification has been adapted for this analysis by utilizing Canadian census divisions (CDs) as “building blocks” for defining the regional types.

Metropolitan regions are defined as those CDs that have 50,000 or more people living in urban settlements while non-metropolitan regions have a population under 50,000 living in urban settlements. The metropolitan and non-metropolitan regions are further divided into sub-categories as summarized in Table 1.

Table 1: "Modified Beale Codes" for Canadian Analysis of Metropolitan vs Non-Metropolitan Regions ( by Census Division )

		CCHS Population (aged 12 and over)	
		million	%
<b>Metropolitan Regions</b>			
<b>Major metro (central)</b>	Census Divisions (CDs) with urban settlements of one million or more people (central)	7.0	27.1
<b>Major metro (fringe)</b>	CDs with urban settlements of one million or more people (fringe)	3.0	11.5
<b>Mid-sized metro</b>	CDs with urban settlements of 250,000 to 999,999 people	5.5	21.4
<b>Small metro</b>	CDs with urban settlements of 50,000 to 249,999 people	3.9	15.2
		<b>Sub-Total</b>	<b>19.4 75.2</b>
<b>Non-Metropolitan Regions</b>			
<b>Small city (metro-adjacent)</b>	CDs with 20,000 to 49,999 people in urban settlements, adjacent to a metropolitan region	1.2	4.7
<b>Small city (non-metro-adjacent)</b>	CDs with 20,000 to 49,999 people in urban settlements, non-adjacent to a metropolitan region	1.5	6.0
<b>Small town (metro-adjacent)</b>	CDs with 2,500 to 19,999 people in urban settlements, adjacent to a metropolitan region	1.1	4.2
<b>Small town (non-metro-adjacent)</b>	CDs with 2,500 to 19,999 people in urban settlements, non-adjacent to a metropolitan region	1.9	7.1
<b>Rural (metro-adjacent)</b>	CDs with no people in urban settlements of 2,500 or more, adjacent to a metropolitan region	0.1	0.3
<b>Rural (non-metro-adjacent)</b>	CDs with no people in urban settlements of 2,500 or more, non-adjacent to a metropolitan region	0.2	0.8
<b>Northern</b>	CDs that are entirely or in major part north of the following lines of latitude by region: Newfoundland, 50th; Quebec and Ontario, 49th; Manitoba, 53rd; Saskatchewan, Alberta and British Columbia, 54th; and all of the Yukon, Northwest Territories, and Nunavut	0.4	1.7
		<b>Sub-Total</b>	<b>6.4 24.8</b>
		<b>Total</b>	<b>25.8 100.0</b>

Sources : Ehrensaft (1990), Ehrensaft and Beeman (1992) and  
Statistics Canada, Canadian Community Health Survey 2000/01

## Health Indicator Definitions

Twelve health indicators are used to test for significant differences in the health of our Canadian population by geographic region. The following provides a summary of the health indicators used in this study:

**Action to improve health:** Respondents (aged 12 and over) who report they have taken action over the past 12 months to improve upon their health.

**Arthritis/rheumatism:** Respondents (aged 12 and over) who report they have been diagnosed by a health professional as having arthritis or rheumatism. It includes both rheumatoid arthritis and osteoarthritis, but excludes fibromyalgia.

**Asthma:** Respondents (aged 12 and over) who report they have been diagnosed by a health professional as having asthma.

**Body Mass Index (overweight):** Body Mass Index (BMI) is a common method of determining if an individual's weight is in a healthy range based on their height. BMI is calculated as a person's weight in kilograms divided by height in metres squared. The BMI index is classified as under 20.0 (underweight), 20.0 to 24.9 (acceptable weight), 25.0 to 27.0 (some excess weight), and greater than 27.0 (overweight). The index is calculated for those aged 20 to 64.

**Depression:** Respondents (aged 12 and over) who indicate symptoms of depression, based on their responses to a set of questions that establishes the probability of suffering a "major depressive episode".

**Diabetes:** Respondents (aged 12 and over) who report they have been diagnosed by a health professional as having diabetes.

**Functional health:** Respondents (aged 12 and over) reporting measures of overall functional health, based on eight factors (vision, hearing, speech, mobility, dexterity, feelings, cognition and pain). A score of 0.8 to 1.0 is considered to be excellent or very good functional health.

**High blood pressure:** Respondents (aged 12 and over) who report they have been diagnosed by a health professional as having high blood pressure.

**Physically inactive:** Respondents (aged 12 and over) are classified as physically inactive if the energy expenditure in leisure activities is less than 1.5 kcal/kg/day.

**Self-rated health:** Respondents (aged 12 and over) who rate their own health status as being excellent.

**Smoking:** Respondents (aged 12 and over) who report they smoke daily or occasionally.

**Unmet health care needs:** Respondents (aged 12 and over) who felt they needed health care during the past 12 months but did not receive it.

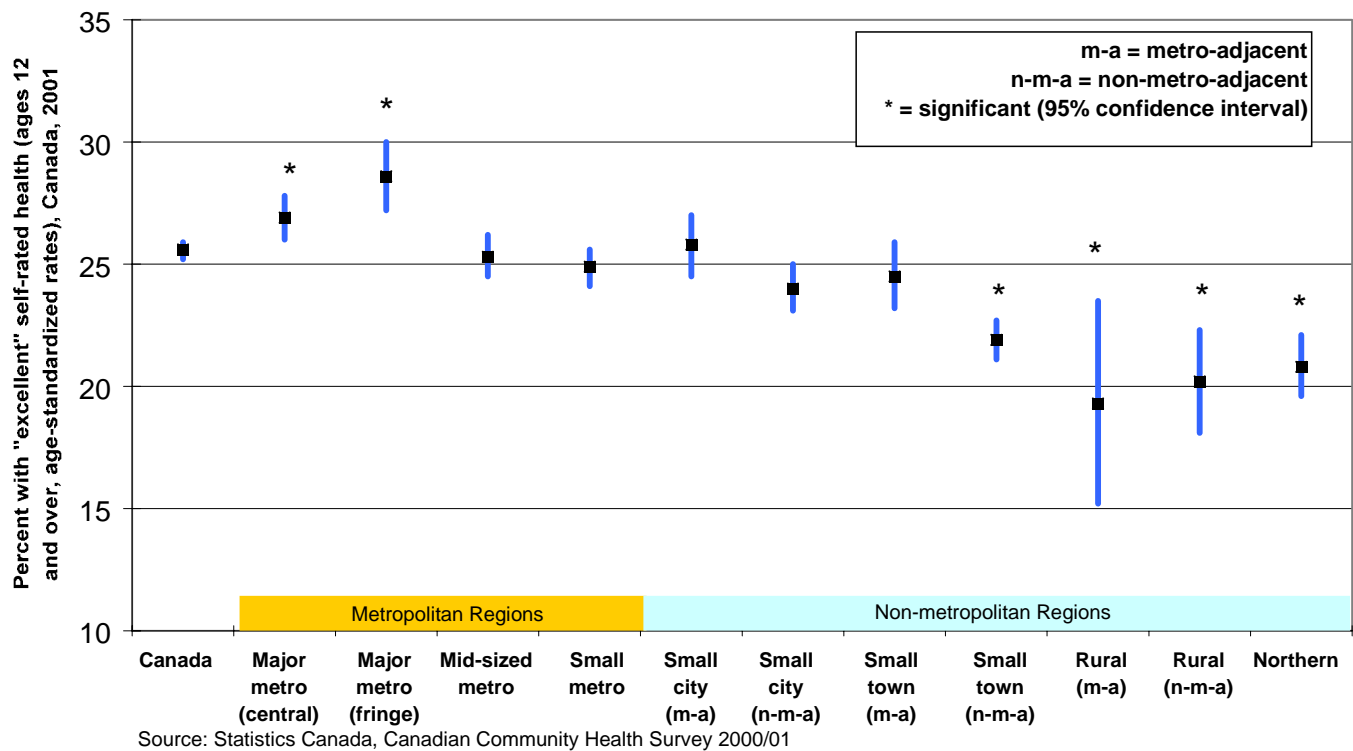


## Self-rated health declines from urban to rural Canada

Canadians were asked to rate their health from “excellent” to “poor” in the CCHS. The results indicate that the more rural the population, the lower the proportion of the population rating their health as excellent (Figure 1). Canadians living in major metropolitan regions had a significantly higher proportion of their population rating their health as excellent, while conversely, Canadians

living in small town regions (non-metro-adjacent), rural regions, and northern regions had a significantly lower than average share of the population rating their health as excellent. For example, 28.6 percent of persons living in the fringe of the major metropolitan cities in Canada (population over one million) rated their health as excellent compared to only 20.2 percent and 20.8 percent rating their health as excellent in rural regions (non-metro-adjacent) and northern regions, respectively.

**Figure 1: Rural metro-adjacent regions have the lowest share of individuals with excellent self-rated health**



The question this raises is why do Canadians living in more rural and remote parts of Canada self-rate their health status lower than those living in the largest of our urban centers? The results of this research indicates that two major health risk factors, most notably being overweight (i.e., Body Mass Index greater than 27) and smoking may contribute to the lower overall health status of rural and northern people. The sections which follow provide the highlights of these two important risk factors.

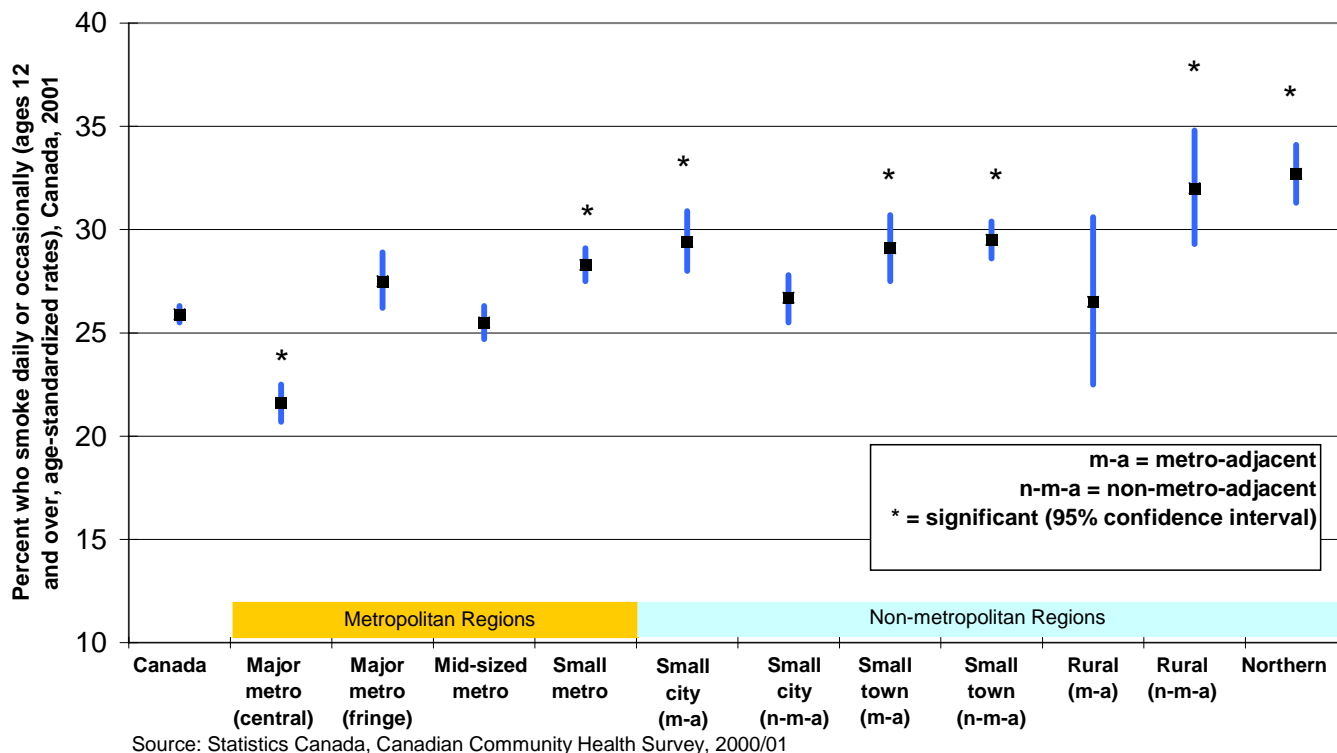
### Smoking increases the more rural the region

Based on the 2000/01 CCHS, 25.9 percent of Canadians (aged 12 and over) smoke daily or occasionally. The proportion of Canada's

population that smokes continues to be the highest in the northern regions with 32.7 percent of the population smoking. The second highest level of smoking is in the rural regions (non-metro-adjacent) at 32.0 percent (Figure 2). The lowest incidence of smoking is in the major metropolitan cities (central) where an estimated 21.6 percent of the population smokes, significantly below the Canadian average.

Smoking is a risk factor strongly associated with poor health. In Canada, approximately 45,000 deaths in 1996 were attributed to smoking and one-fifth of all deaths due to cancer, heart disease and stroke were attributed to cigarette smoking (Shields and Tremblay, 2002).

**Figure 2: Northern regions have the highest share of individuals who smoke**



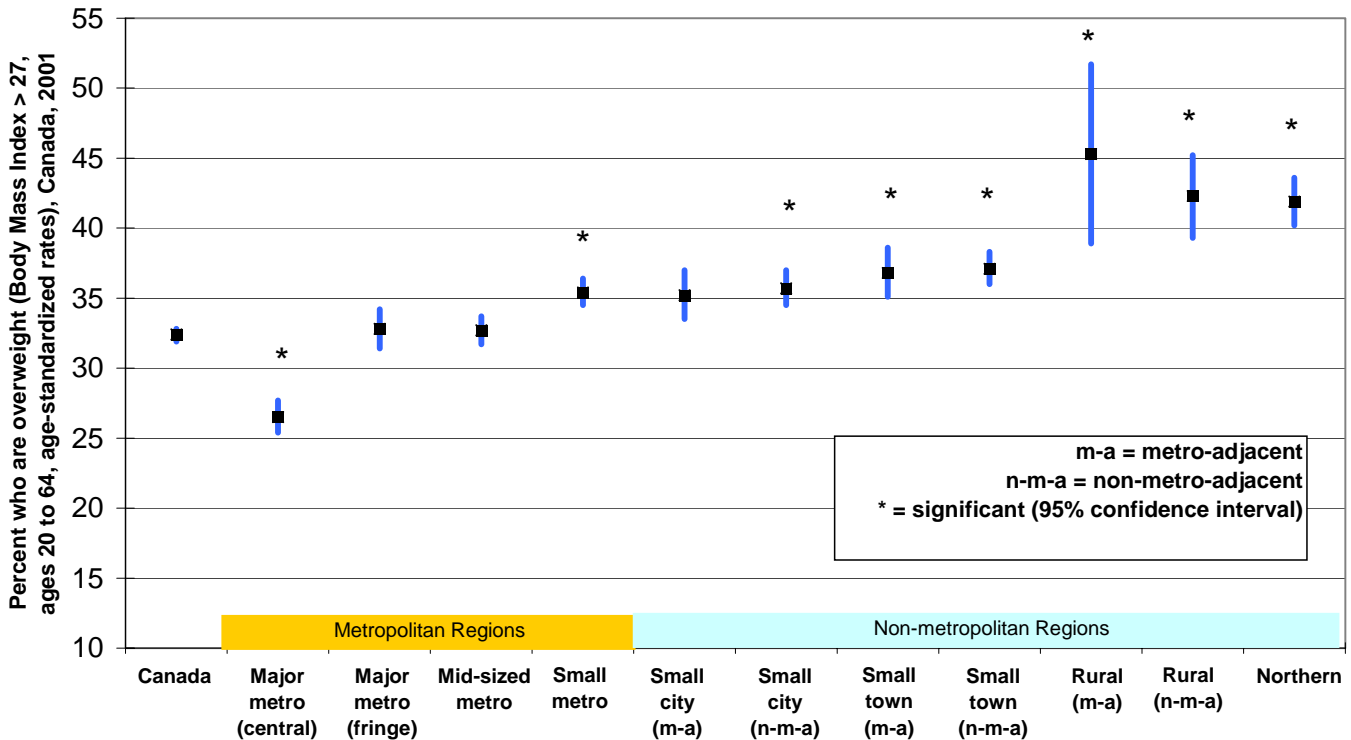


### A higher proportion of rural and northern Canadians are overweight

Earlier it was noted that the self-rated health of Canadians declined the more rural the region. There is also an apparent gradient in relation to the proportion of Canadians that are overweight. In Canada, 32.4 percent of the population (ages 20 to 64) is estimated to be overweight or obese. The prevalence of Canadians being overweight ranges

from a low of 26.5 percent in major metro (central) regions to over 40 percent in rural and northern regions (Figure 3). The proportion of the population being overweight is significantly above the Canadian average in small metro regions, small cities (non-metro-adjacent), all small town and rural regions and northern regions. Therefore, being overweight is not just a “rural issue” — but the prevalence of Canadians being overweight generally increases the more rural the region.

**Figure 3: Rural metro-adjacent regions have the highest share of individuals being overweight**



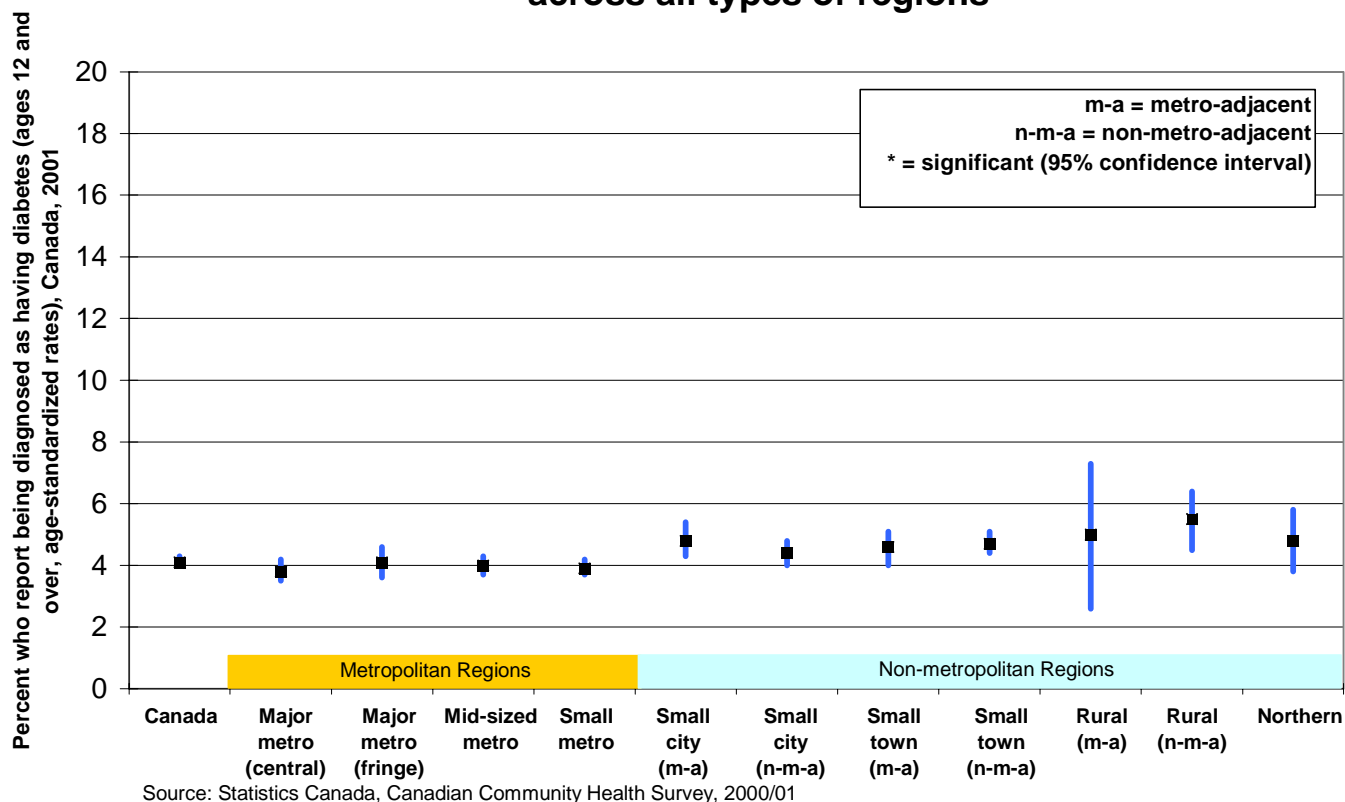
Source: Statistics Canada, Canadian Community Health Survey, 2000/01

Studies in Canada have identified obesity as a major risk factor leading to chronic health problems such as diabetes, arthritis, high blood pressure, heart disease, colorectal cancer, and respiratory problems. This study considers four chronic illnesses based on data from the CCHS (arthritis/rheumatism, asthma, diabetes and high blood pressure) to determine whether there are any differences in the prevalence of these chronic illnesses by region.

### No significant difference in the prevalence of diabetes by region

Based on the CCHS, it is estimated that 4.1 percent of Canadians have diabetes. The prevalence of diabetes in Canada ranged from a low of 3.8 percent in major metro (central) regions to a high of 5.5 percent in rural non-metro-adjacent regions (Figure 4). However, none of the prevalence rates of diabetes by region were significantly different than the national average.

**Figure 4: Prevalence of diabetes is similar across all types of regions**

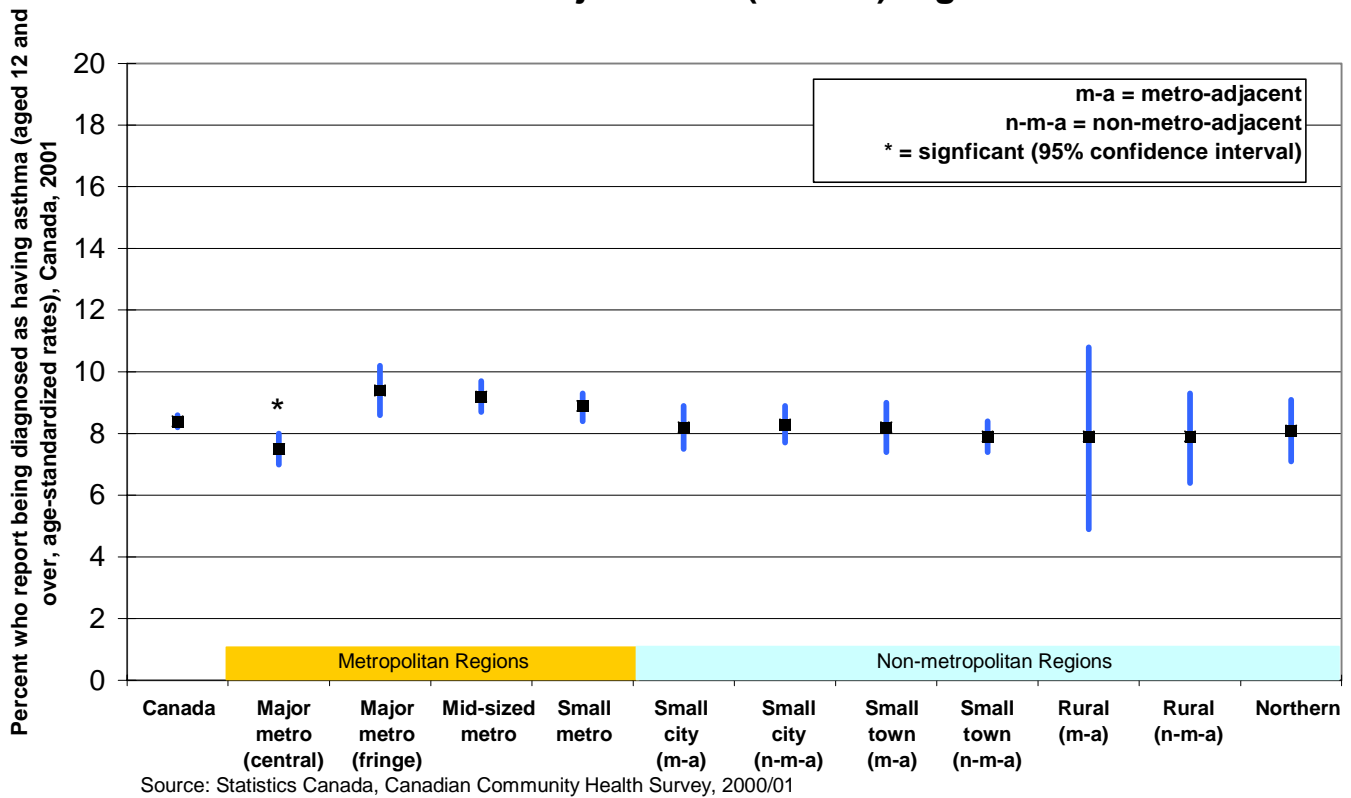


**Major metro (central) regions have significantly lower rates of asthma**

It is estimated that 8.4 percent of Canadians suffer from chronic asthma. The proportion of Canadians with asthma does not vary much

according to region. Only major metro (central) regions have a significantly lower incidence of asthma at 7.5 percent (Figure 5). All the other regions have no significant difference in asthma as compared to the national average.

**Figure 5: Prevalence of asthma is lower in major metro (central) regions**

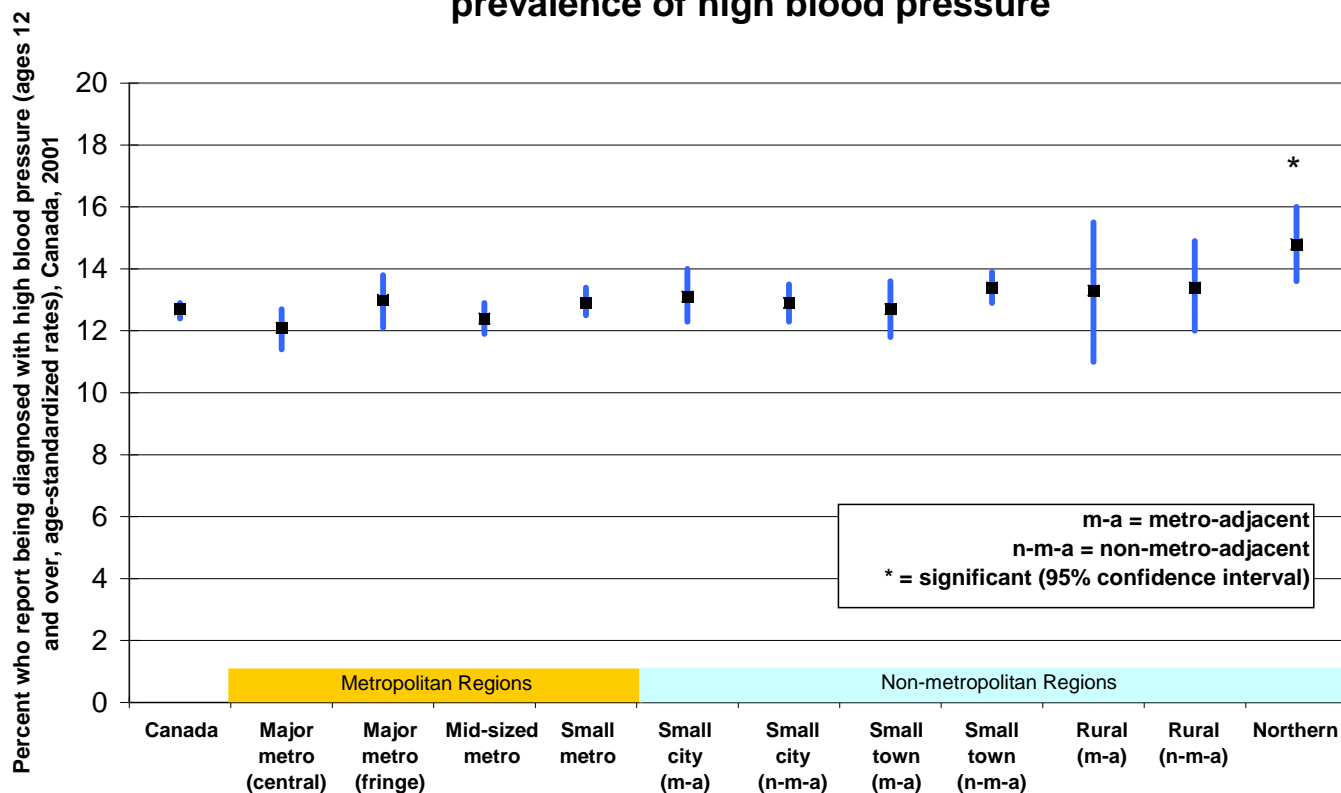


## Northern regions have significantly higher rates of high blood pressure

It is estimated that 12.7 percent of Canadians have high blood pressure (Figure 6). Those living in the northern regions of Canada report a

significantly higher incidence of high blood pressure at 14.8 percent compared to the national average. All other regions in Canada demonstrate no significant difference from the national average relative to high blood pressure.

**Figure 6: Individuals in northern regions have a higher prevalence of high blood pressure**



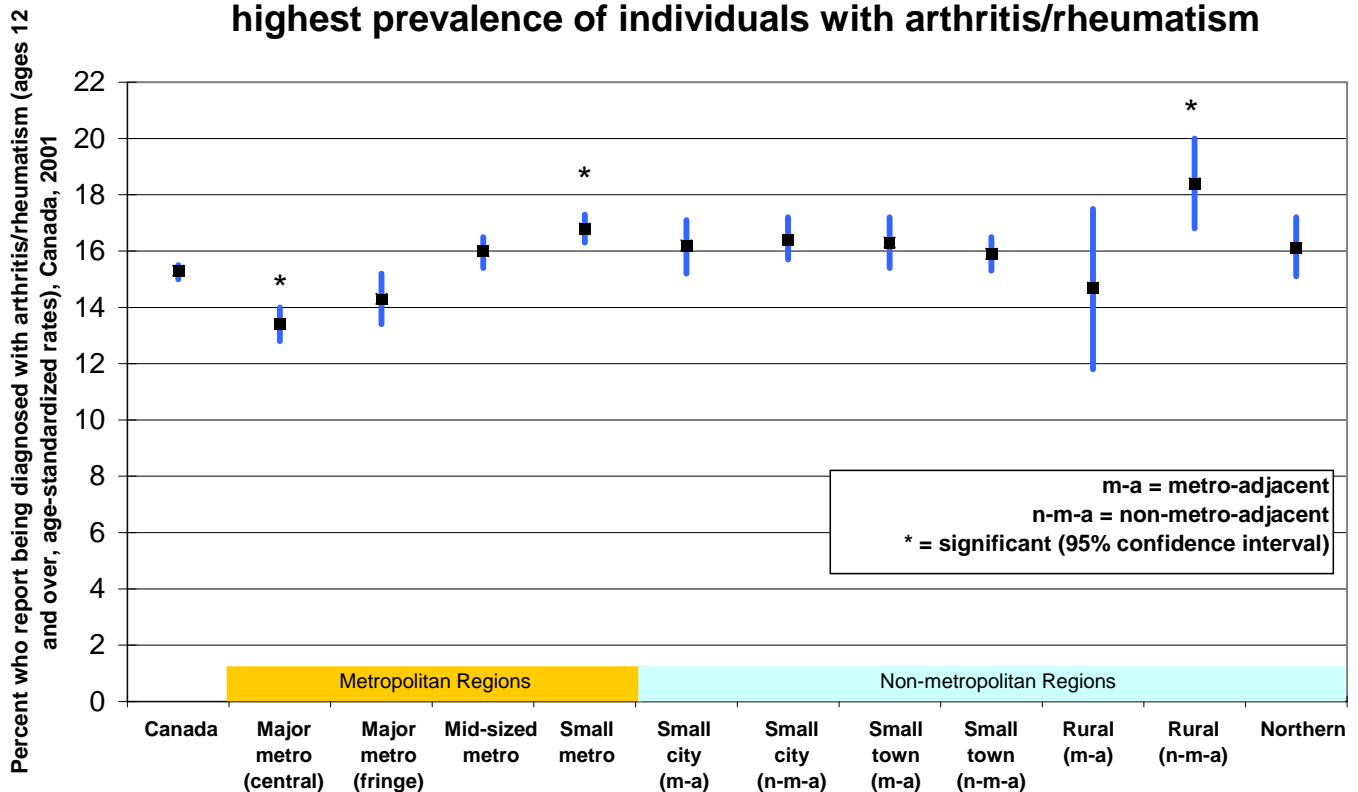
Source: Statistics Canada, Canadian Community Health Survey, 2000/01

**Rural (non-metro-adjacent) regions have significantly higher rates of arthritis**

It is estimated that 15.3 percent of Canadians have arthritis/rheumatism. The proportion of the population with arthritis/rheumatism is

significantly higher in rural (non-metro-adjacent) regions at 18.4 percent and small metro regions at 16.8 percent (Figure 7). In contrast, major metro (central) regions have a significantly lower incidence of arthritis/rheumatism of 13.4 percent compared to the national average.

**Figure 7: Rural non-metro-adjacent regions have highest prevalence of individuals with arthritis/rheumatism**



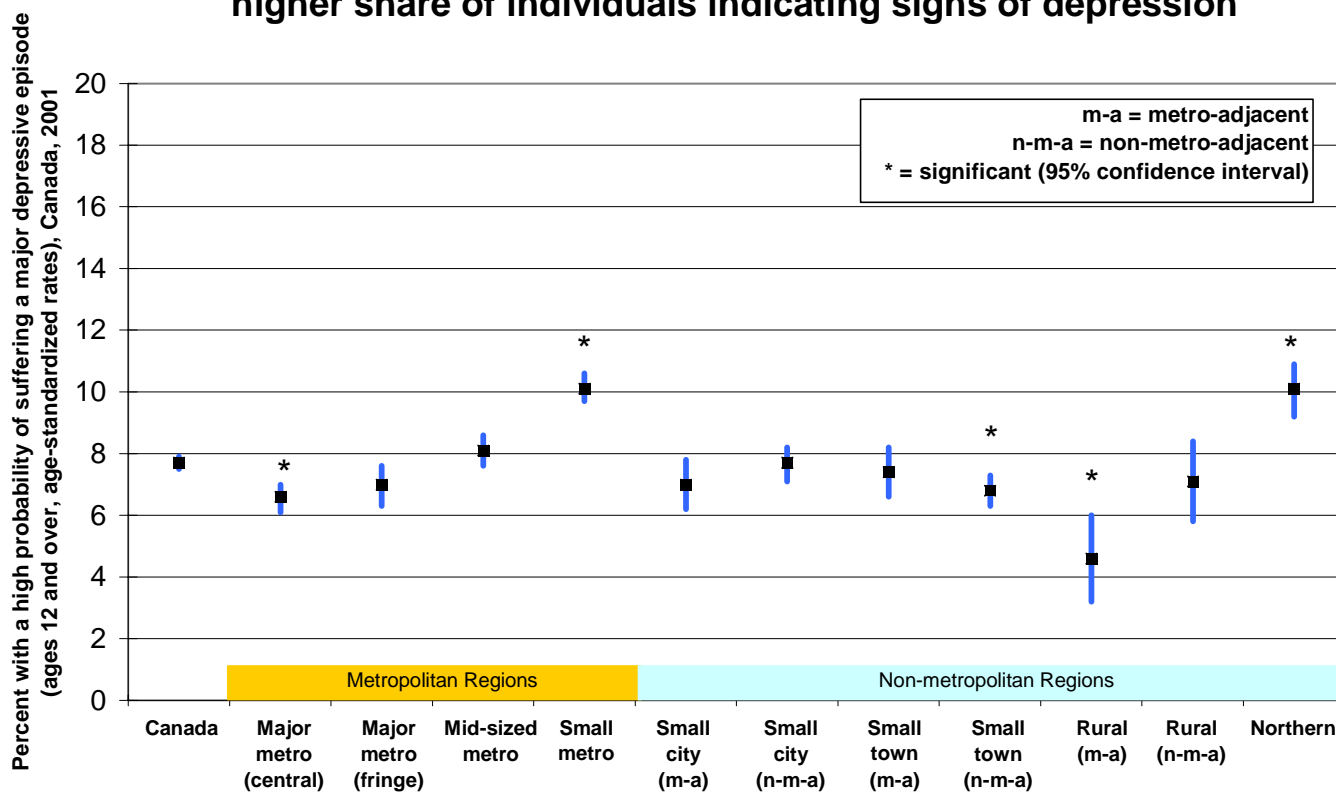
Source: Statistics Canada, Canadian Community Health Survey, 2000/01

## Probability of depression highest in northern regions and small metro regions

It is estimated that 7.7 percent of Canadians have a 90 percent probability of suffering a major

depressive episode. Northern regions and small metro regions have a significantly higher prevalence of the probability of suffering a major depressive episode at 10.1 percent compared to the national average (Figure 8).

**Figure 8: Small metro regions and northern regions have a higher share of individuals indicating signs of depression**



Source: Statistics Canada, Canadian Community Health Survey, 2000/01

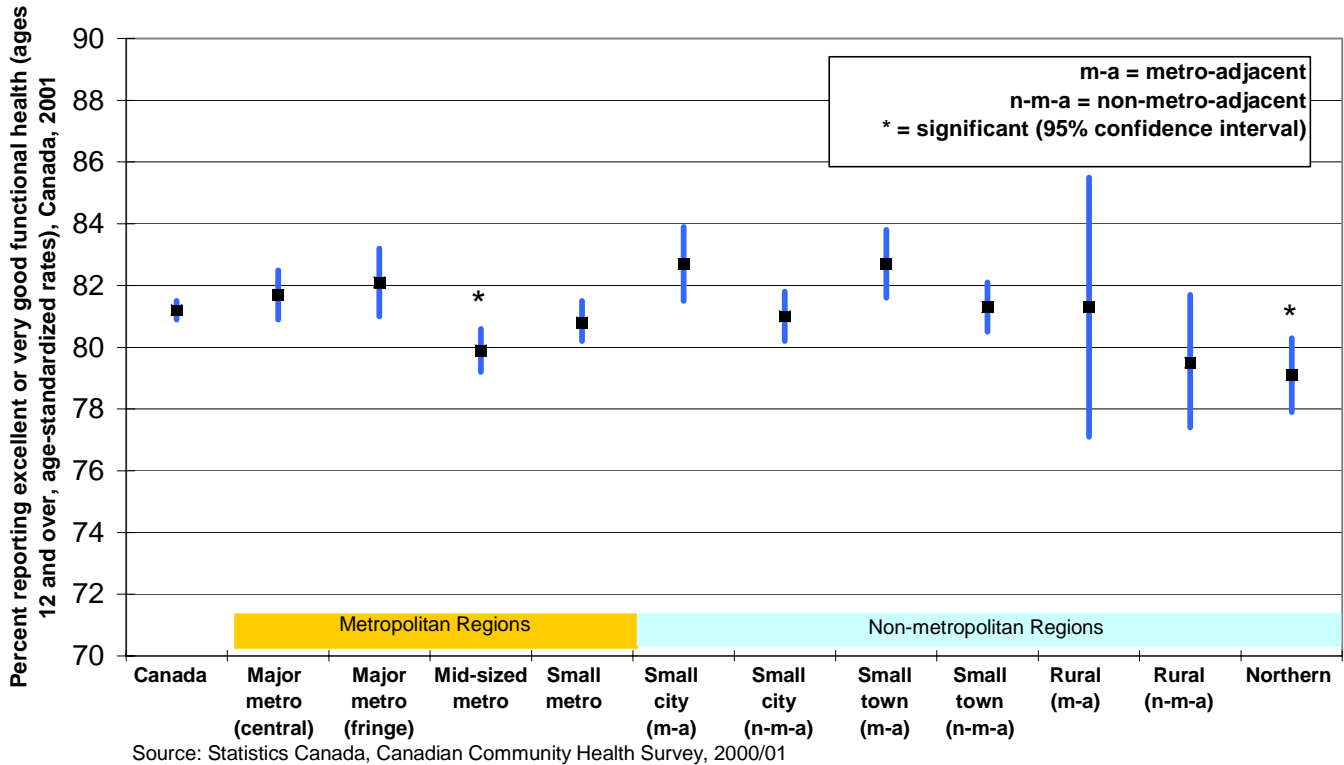


## Functional health significantly lower in northern regions and mid-sized metro regions

Functional health is a derived variable from the CCHS based on eight health factors which include vision, hearing, speech, mobility, dexterity,

feelings, cognition and pain. The functional health of Canadians is found to be significantly lower in mid-sized metro regions and northern regions. In Canada, it is estimated that 81.2 percent of the population has excellent or very good functional health while northern regions report 79.1 percent (Figure 9).

**Figure 9: Northern regions have the lowest share of individuals with excellent or very good functional health**

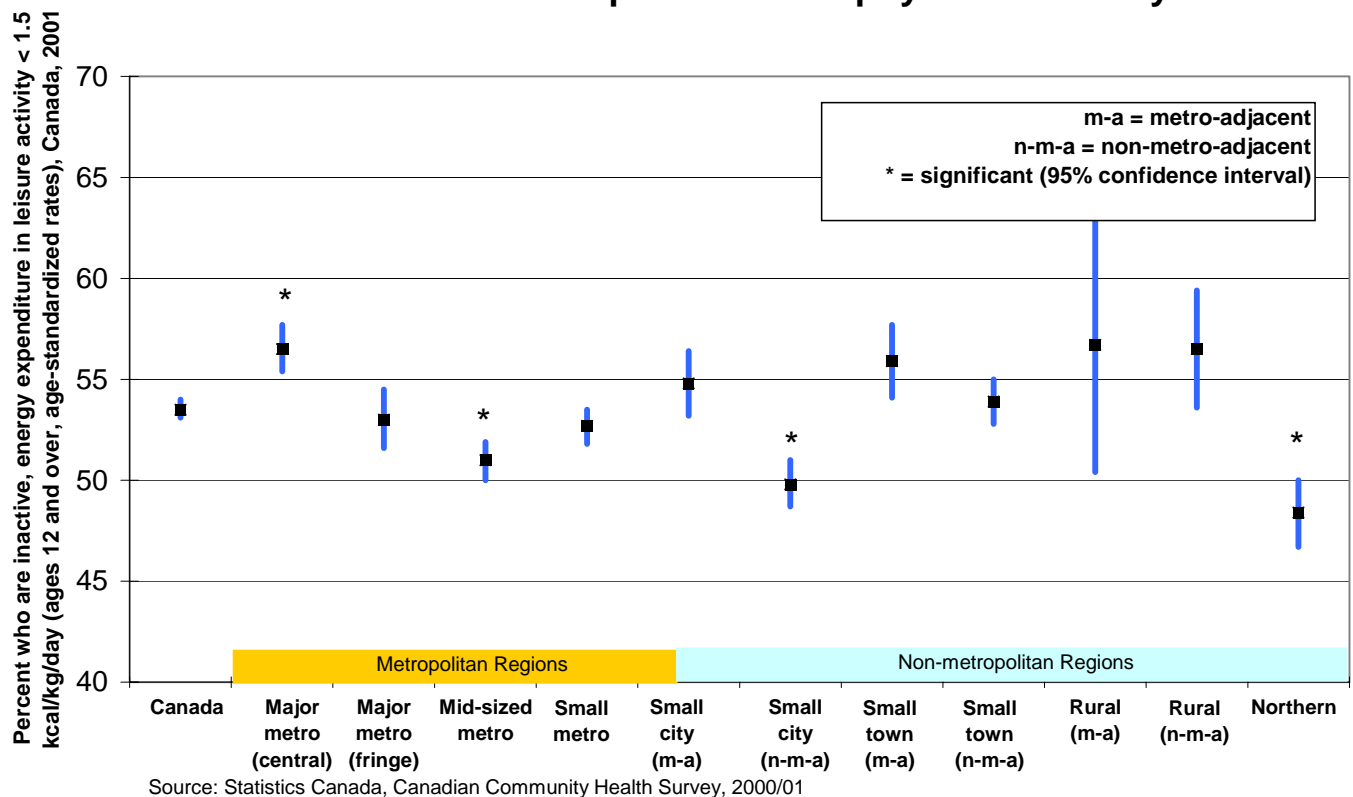


## Physical inactivity an issue in Canada

Physical inactivity is a general problem in Canada. Our lifestyle draws us to more sedentary activities (desk work at the office or school and computer games/internet surfing at home). Studies indicate a positive association between physical exercise and health with even a moderate amount of regular exercise reducing the odds of heart disease later in life.

It is estimated that 53.5 percent of Canadians aged 12 and over are physically inactive (less than 1.5 kcal/kg/day of energy expenditure in leisure activities). Major metro (central) regions have significantly higher levels of physical inactivity at 56.5 percent. Conversely, northern regions, mid-sized metro regions and small city regions (non-metro-adjacent) are significantly less inactive (or conversely more active in leisure activities) than the national average (Figure 10).

**Figure 10: Small city regions and northern regions have a lower prevalence of physical inactivity**

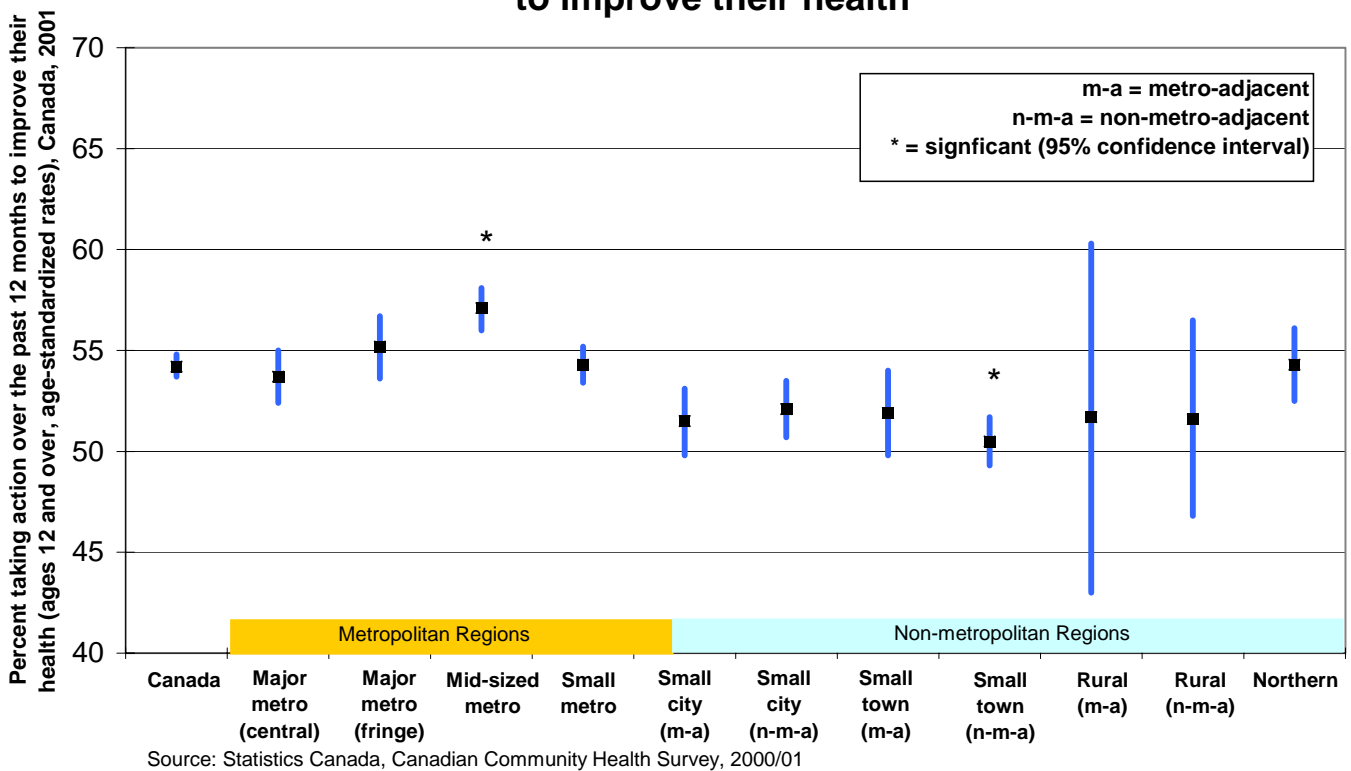


## Action to improve health

Over half of Canadians (54.2 percent) report they are doing something to improve upon their health. Mid-sized metro regions report the highest level of action to improve health at 57.1 percent,

significantly above the national average. Conversely, those living in small towns (non-metro-adjacent) report a significantly lower incidence of taking action to improve upon health at 50.5 percent (Figure 11).

**Figure 11: Non-metro-adjacent small town regions report the lowest share of individuals taking action to improve their health**



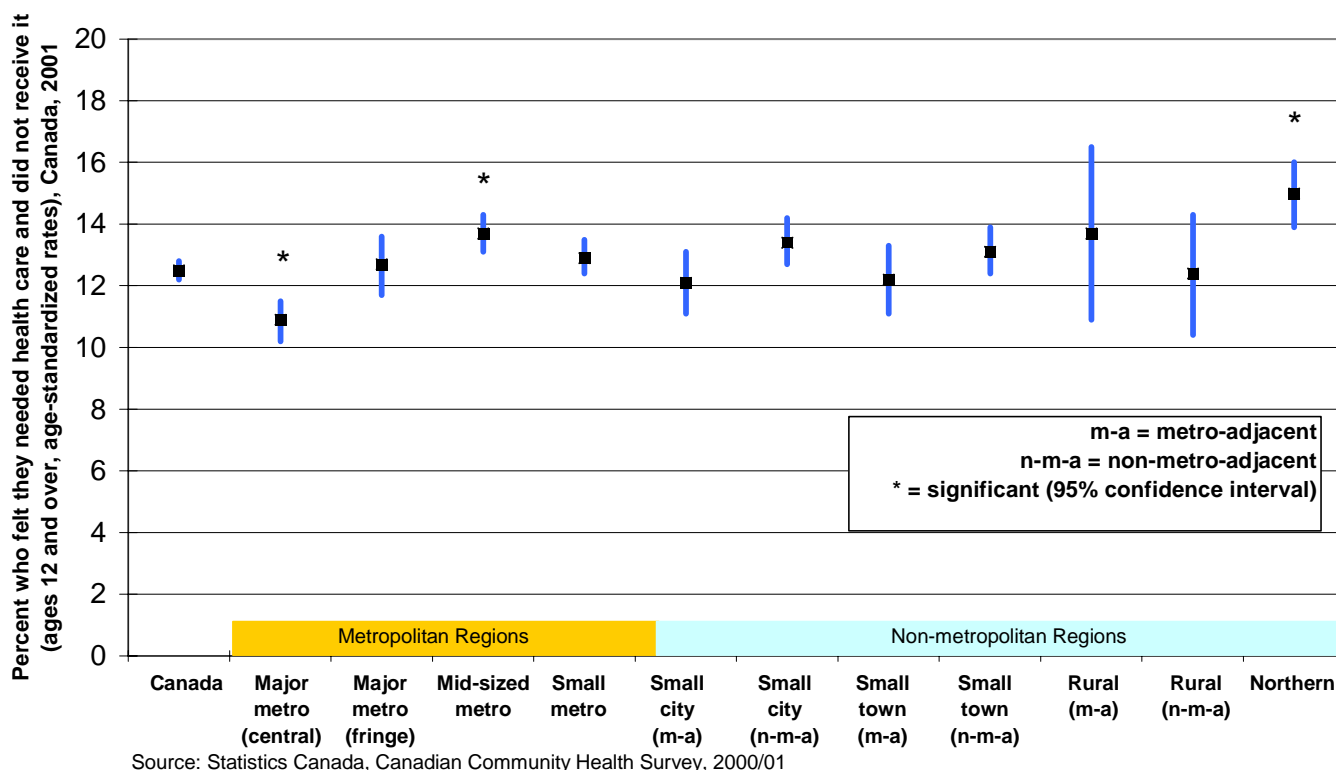
## Unmet health care needs highest in northern regions

When Canadians were asked in the CCHS whether their health care needs were met over the previous 12 months, the difference in response was very small among the regions. In Canada, 12.5 percent of Canadians report that their health care needs were not met. This response was very similar across the various regions of the country with the exception of the northern regions which were significantly higher at 15.0 percent and major metro regions (central) were significantly

lower (10.9 percent) than the national average (Figure 12).

A study by Wilson and Rosenberg (2002) using data from the 1998/99 National Population Health Survey (NPHS) found that 5.9 percent of Canadians (aged 25 and over) reported not receiving health care when needed. Therefore, there appears to be a growing sentiment in Canada that health care needs are not being met and these views are generally being expressed across all region types.

**Figure 12: Northern regions have the highest share of individuals with unmet health care needs**



## **Summary**

This analysis indicates that some significant differences in health indicators exist between urban and rural Canada. Health risk behaviors such as smoking and being overweight show a rising gradient from the urban to rural regions. In addition, the proportion of Canadians rating their health as “excellent” tends to decline from urban to rural regions. It is interesting that little significant difference is found between the urban and rural regions in the prevalence of chronic disease and in functional health.

Initiatives are underway in Canada to develop a set of health indicators specifically for rural communities. In addition, many new programs, policies, and technologies are being introduced to address health issues in remote and rural areas of Canada where population densities are low. These initiatives, combined with the actions of individuals to lead a healthy lifestyle can ensure that Canada ranks as one of the healthiest populations in the world, both in rural and urban regions of the nation.

Appendix A: Selected health indicators by type of region, Canada, 2001

Indicator	Canada	Major Metro (central)	Major Metro (fringe)	Mid-Sized Metro	Small Metro	Small City		Small Town		Rural		Northern
						Metro Adjacent	Non-metro Adjacent	Metro Adjacent	Non-metro Adjacent	Metro Adjacent	Non-metro Adjacent	
		(percent)				(percent)						
<b>Self-rated Health</b> (excellent)	25.6 (25.2-25.9)	26.9* (26.0-27.8)	28.6* (27.2-30.0)	25.3 (24.5-26.2)	24.9 (24.1-25.6)	25.8 (24.5-27.0)	24.0 (23.1-25.0)	24.5 (23.2-25.9)	21.9* (21.1-22.7)	19.3* (15.2-23.5)	20.2* (18.1-22.3)	20.8* (19.6-22.1)
<b>Functional Health</b> (excellent/very good)	81.2 (80.9-81.5)	81.7 (80.9-82.5)	82.1 (81.0-83.2)	79.9* (79.2-80.6)	80.8 (80.2-81.5)	82.7 (81.5-83.9)	81.0 (80.2-81.8)	82.7 (81.6-83.8)	81.3 (80.5-82.1)	81.3 (77.1-85.5)	79.5 (77.4-81.7)	79.1* (77.9-80.3)
<b>Body Mass Index</b> (overweight)	32.4 (31.9-32.8)	26.5* (25.4-27.7)	32.8 (31.4-34.2)	32.7 (31.7-33.7)	35.4* (34.5-36.4)	35.2 (33.5-37.0)	35.7* (34.5-37.0)	36.8* (35.1-38.6)	37.1* (36.0-38.3)	45.3* (38.9-51.7)	42.3* (39.3-45.2)	41.9* (40.2-43.6)
<b>Depression</b> (90% probability)	7.7 (7.5-7.9)	6.6* (6.1-7.0)	7.0 (6.3-7.6)	8.1 (7.6-8.6)	10.1* (9.7-10.6)	7.0 (6.2-7.8)	7.7 (7.1-8.2)	7.4 (6.6-8.2)	6.8* (6.3-7.3)	4.6* (3.2-6.0)	7.1 (5.8-8.4)	10.1* (9.2-10.9)
<b>Smoking</b> (daily/occasionally)	25.9 (25.5-26.3)	21.6* (20.7-22.5)	27.5 (26.2-28.9)	25.5 (24.7-26.3)	28.3* (27.5-29.1)	29.4* (28.0-30.9)	26.7 (25.5-27.8)	29.1* (27.5-30.7)	29.5* (28.6-30.4)	26.5 (22.5-30.6)	32.0* (29.3-34.8)	32.7* (31.3-34.1)
<b>Physically Inactive</b>	53.5 (53.1-54.0)	56.5* (55.4-57.7)	53.0 (51.6-54.5)	51.0* (50.0-51.9)	52.7 (51.8-53.5)	54.8 (53.2-56.4)	49.8* (48.7-51.0)	55.9 (54.1-57.7)	53.9 (52.8-55.0)	56.7 (50.4-63.0)	56.5 (53.6-59.4)	48.4* (46.7-50.0)
<b>Action to Improve Health</b>	54.2 (53.7-54.8)	53.7 (52.4-55.0)	55.2 (53.6-56.7)	57.1* (56.0-58.1)	54.3 (53.4-55.2)	51.5 (49.8-53.1)	52.1 (50.7-53.5)	51.9 (49.8-54.0)	50.5* (49.3-51.7)	51.7 (43.0-60.3)	51.6 (46.8-56.5)	54.3 (52.5-56.1)
<b>Unmet Health Care Needs</b>	12.5 (12.2-12.8)	10.9* (10.2-11.5)	12.7 (11.7-13.6)	13.7* (13.1-14.3)	12.9 (12.4-13.5)	12.1 (11.1-13.1)	13.4 (12.7-14.2)	12.2 (11.1-13.3)	13.1 (12.4-13.9)	13.7 (10.9-16.5)	12.4 (10.4-14.3)	15.0* (13.9-16.0)
<b>Arthritis / Rheumatism</b>	15.3 (15.0-15.5)	13.4* (12.8-14.0)	14.3 (13.4-15.2)	16.0 (15.4-16.5)	16.8* (16.3-17.3)	16.2 (15.2-17.1)	16.4 (15.7-17.2)	16.3 (15.4-17.2)	15.9 (15.3-16.5)	14.7 (11.8-17.5)	18.4* (16.8-20.0)	16.1 (15.1-17.2)
<b>Asthma</b>	8.4 (8.2-8.6)	7.5* (7.0-8.0)	9.4 (8.6-10.2)	9.2 (8.7-9.7)	8.9 (8.4-9.3)	8.2 (7.5-8.9)	8.3 (7.7-8.9)	8.2 (7.4-9.0)	7.9 (7.4-8.4)	7.9 (E) (4.9-10.8)	7.9 (6.4-9.3)	8.1 (7.1-9.1)
<b>Diabetes</b>	4.1 (4.0-4.3)	3.8 (3.5-4.2)	4.1 (3.6-4.6)	4.0 (3.7-4.3)	3.9 (3.7-4.2)	4.8 (4.3-5.4)	4.4 (4.0-4.8)	4.6 (4.0-5.1)	4.7 (4.4-5.1)	5.0 (E) (2.6-7.3)	5.5 (4.5-6.4)	4.8 (3.8-5.8)
<b>High Blood Pressure</b>	12.7 (12.4-12.9)	12.1 (11.4-12.7)	13.0 (12.1-13.8)	12.4 (11.9-12.9)	12.9 (12.5-13.4)	13.1 (12.3-14.0)	12.9 (12.3-13.5)	12.7 (11.8-13.6)	13.4 (12.9-13.9)	13.3 (11.0-15.5)	13.4 (12.0-14.9)	14.8* (13.6-16.0)

Notes:

1. Beale codes are used to assign census divisions to the various geographic categories.
2. Bootstrapping techniques were used to produce the coefficient of variation (CV) and 95% confidence intervals.
3. The 95% confidence intervals are shown in brackets.
4. The incidence of each indicator has been standardized for age.
5. \* significantly different than the national average (95% confidence interval).
6. Data with a coefficient of variation (CV) from 16.6% to 33.3% are identified by an (E) and should be interpreted with caution.

Source: Statistics Canada. Canadian Community Health Survey, 2000/01



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