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Substantial increases in the prevalence of obesity over the past 25 years underscore the importance of identifying and understanding behaviour correlates of obesity. A recent study of adults based on data from the 2007 Canadian Community Health Survey (CCHS) found evidence that screen time (time spent viewing television and using computers) was positively associated with obesity, inactive leisure time and a poor diet.[1] In that study, associations between screen time and obesity were independent of the effects of leisure-time physical activity and diet. Smaller-scale surveys, often based on specific sub-groups and occupations,[2] have yielded similar results.

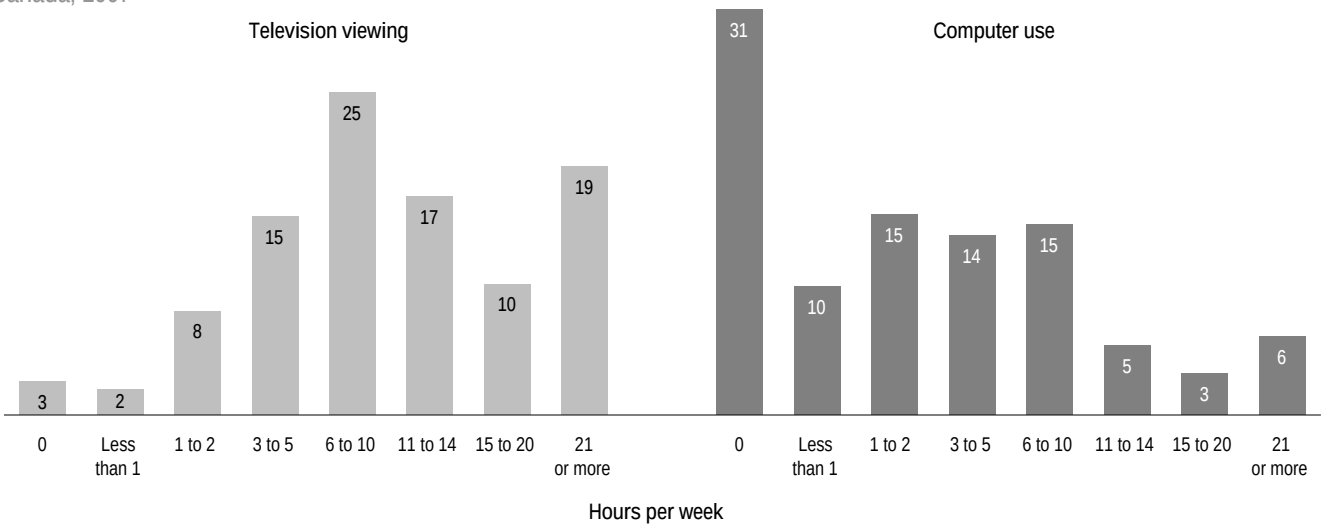
These findings highlight the importance of considering screen time as a distinct construct in the development of interventions to reduce obesity. An important first step is to gain a better understanding of the characteristics of people who report the most screen time.

Using data from the 2007 CCHS, this article profiles Canadian adults who, according to their self-reports, were frequent television viewers and leisure-time computer users. Frequent television viewing was defined as 15 or more hours per week, and frequent computer use as 11 or more hours per week. Trends in television viewing are examined with data from Statistics Canada's General Social Survey.[3]

Frequent television viewing more common

In 2007, a substantial proportion of Canadian adults were frequent television viewers (Figure 1). Close

Figure 1
Percentage distribution of hours per week viewing television and using computers, household population aged 20 years or older, Canada, 2007



Source: 2007 Canadian Community Health Survey.

to three in 10 (29%) reported that they averaged 15 or more hours per week (over 2 hours per day) watching television, and 19% reported 21 or more hours per week (an average of at least 3 hours per day).

Frequent leisure-time computer use was less common. Approximately 15% of adults averaged 11 or more hours per week. Only 6% reported 21 or more hours per week, and close to one-third (31%) reported no leisure-time computer use.

One adult in 20 (5%) was both a frequent television viewer and a frequent computer user. The correlation between time spent watching television and using the computer was not significant (correlation coefficient=0.01).

Less television time

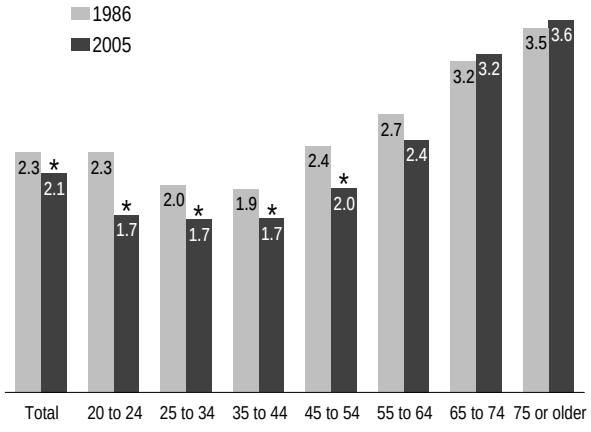
Estimates from Statistics Canada's General Social Survey[3] indicate small declines in time spent watching television since the mid-1980s: from an average of 2.3 hours per day in 1986 to 2.1 hours per day in 2005 (Figure 2). Men's average daily viewing fell from 2.6 to 2.3 hours, a somewhat greater decline than for women, among whom viewing time fell from 2.1 to 2.0 hours (data not shown).

The largest drop in television viewing time—more than half an hour per day—was among 20- to 24-year-olds (Figure 2). Declines were more modest among people aged 25 to 54 years. And among those aged 55 years or older, changes since the mid-1980s were not significant.

The downturn in television viewing parallelled the introduction and rapid proliferation of home computers. By 2006, 75% of Canadian households had a home computer, up from 40% in 1997. During the same period, home access to the Internet increased from 17% to 68% of households.[4]

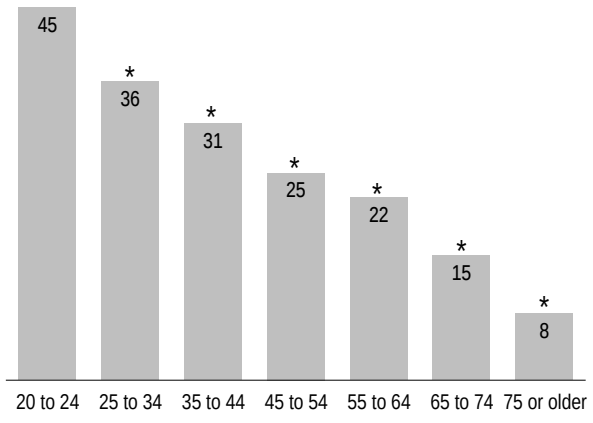
Data from the 2007 CCHS suggest that among younger age groups computer use may be replacing television as the screen time activity of choice (Figure 3). Close to half (45%) of all the screen hours reported by 20- to 24-year-olds were spent on a computer rather than watching television. Even middle-aged adults (45 to 54 years) spent one-quarter of their screen time using a computer.

Figure 2
Mean hours per day viewing television, by age group, household population aged 20 years or older, Canada excluding territories, 1986 and 2005



* significantly lower than estimate for 1986
Sources: 1986 and 2005 General Social Survey.

Figure 3
Percentage of total weekly screen-time hours spent using computers, by age group, household population aged 20 years or older, Canada, 2007



* significantly lower than estimate for previous category ($p < 0.05$)
Source: 2007 Canadian Community Health Survey.

Among seniors, television viewing remained, by far, the preferred screen time activity.

Overall, men devoted 29% of their total screen time to computers, compared with 26% among women (data not shown).

Frequent television viewers

The likelihood of being a frequent television viewer rose steadily with age from 20% at ages 20 to 24 years to 52% at age 75 years or older (Table 1). Compared with those who were married, never-married individuals were somewhat more likely to be frequent television viewers.

Negative associations with socio-economic status were evident. Close to half (47%) of people with less than secondary graduation were frequent television viewers, compared with 24% of postsecondary graduates. As well, 39% of people in the lowest household income quintile were frequent viewers, compared with 22% of those in the highest income quintile.

Residents of highly populated urban areas (500,000 or more) were somewhat less likely to be frequent television viewers (26%) than were people in rural areas (31%). However, the figure was slightly higher (35%) among those in areas with populations of 30,000 to under 100,000. Only 19% of recent immigrants were frequent viewers, compared with 30% of the Canadian-born.

Among people of working age, employment status was strongly associated with television viewing. Only 21% of full-time workers were frequent viewers, compared with 37% of those who were not employed.

When examined in a multivariate model, these associations between socio-demographic characteristics and frequent television viewing generally persisted (Table 1).

While men and women were equally likely to be frequent television viewers, differences were evident for certain sub-populations (Appendix Table A). Notably, among people of working age who were not employed, women were less likely than men to be frequent television viewers: 34% versus 45%.

Table 1

Prevalence of and adjusted odds ratios for viewing television 15 or more hours per week, by selected characteristics, household population aged 20 years or older, Canada, 2007

	View television 15 or more hours per week			
	%	95% confidence interval	Adjusted odds ratio	95% confidence interval
Total	29.2	28.6 to 29.8	...	...
Sex				
Male	29.5	28.6 to 30.3	1.1*	1.1 to 1.2
Female†	28.9	28.1 to 29.7	1.0	...
Age group				
20 to 24	20.0*	18.1 to 22.0	0.6*	0.5 to 0.7
25 to 34	22.4*	21.0 to 23.8	0.8*	0.7 to 0.9
35 to 44	21.5*	20.3 to 22.7	0.8*	0.7 to 0.9
45 to 54†	26.1	24.8 to 27.4	1.0	...
55 to 64	36.1*	34.6 to 37.5	1.6*	1.4 to 1.7
65 to 74	46.9*	45.1 to 48.7	2.1*	1.9 to 2.4
75 or older	52.1*	50.4 to 53.9	2.4*	2.1 to 2.6
Marital status (aged 25 to 54 years)				
Married/Common-law†	22.3	21.4 to 23.2	1.0	...
Divorced/Separated/Widowed	24.6	22.4 to 26.9	1.0	0.9 to 1.1
Never married	26.9*	25.4 to 28.5	1.1*	1.0 to 1.2
Education				
Less than secondary graduation	47.4*	45.9 to 48.8	1.8*	1.7 to 1.9
Secondary graduation	33.8*	32.2 to 35.3	1.4*	1.3 to 1.5
Some postsecondary	30.6*	28.1 to 33.1	1.3*	1.1 to 1.5
Postsecondary graduation†	23.6	22.9 to 24.4	1.0	...
Household income quintile				
1 (lowest)	39.2*	37.7 to 40.7	1.4*	1.3 to 1.6
2	31.5*	30.1 to 32.9	1.1	1.0 to 1.2
3†	28.1	26.7 to 29.4	1.0	...
4	25.1*	23.8 to 26.4	0.9*	0.8 to 1.0
5 (highest)	22.1*	20.8 to 23.4	0.8*	0.7 to 0.9
Urban/Rural status				
Rural†	31.0	29.9 to 32.1	1.0	...
Urban: population less than 30,000	32.2	30.7 to 33.7	1.1	1.0 to 1.2
Urban: population 30,000 to 99,999	35.2*	33.2 to 37.2	1.2*	1.1 to 1.3
Urban: population 100,000 to 499,999	32.0	30.7 to 33.3	1.1*	1.0 to 1.2
Urban: population 500,000 or more	26.1*	25.1 to 27.1	0.9*	0.8 to 1.0
Immigrant status				
Immigrant: 0 to 9 years in Canada	18.9*	16.1 to 21.7	0.7*	0.6 to 0.9
Immigrant: 10 to 19 years in Canada	24.4*	21.4 to 27.4	0.9	0.7 to 1.1
Immigrant: 20 or more years in Canada	31.5	29.6 to 33.4	0.8*	0.8 to 0.9
Canadian-born†	30.1	29.4 to 30.8	1.0	...
Employment status (aged 25 to 54 years)				
Employment full-time	20.8*	20.0 to 21.6	0.5*	0.4 to 0.5
Employment part-time	24.4*	21.8 to 27.0	0.6*	0.5 to 0.7
Not employed†	37.4	35.2 to 39.5	1.0	...

† reference category
* significantly different from estimate for reference category ($p < 0.05$)
... not applicable
Notes: The odds ratios for employment status are based on a model including all variables in the table for the population aged 25 to 54 years. All other odds ratios are based on a model for the population aged 20 years or older and exclude employment status.
Source: 2007 Canadian Community Health Survey.

The data

The data are from the 2007 Canadian Community Health Survey (CCHS), which covers the household population aged 12 years or older. Residents of Indian reserves, institutions and some remote areas; full-time members of the Canadian Forces; and all residents (military and civilian) of Canadian Forces bases were excluded. Interviews were conducted from January through December, 2007. The overall response rate was 78%, yielding a sample of 65,946 respondents. More information about the CCHS is available in a published report[5] and on Statistics Canada's Web site (www.statcan.ca).

This study was based on the population aged 20 years or older and represents 57,367 respondents who answered the question on television viewing, and 57,617 respondents who answered the question on leisure-time computer use.

All estimates were weighted to be representative of the household population aged 20 years or older in 2007. Cross-tabulations and logistic regression analysis were used to study associations between socio-demographic characteristics and self-reported screen time. To account for the survey design effect, standard errors, coefficients of variation and 95% confidence intervals were estimated using the bootstrap technique.[6,7] Differences between estimates were tested for statistical significance, which was established at $p < 0.05$.

Screen time was assessed by asking CCHS respondents the number of hours in a typical week over the past three months they spent watching television (including videos) and using a computer (including playing computer games and using the Internet). Respondents were instructed to report leisure-time hours only and to exclude time spent on these activities at work or school. For each behaviour, respondents reported their weekly hours in one of eight categories: none, less than 1 hour, 1 to 2 hours, 3 to 5 hours, 6 to 10 hours, 11 to 14 hours, 15 to 20 hours, or more than 20 hours. No guidelines have been proposed for adults, but the Canadian Paediatric Society recommends a maximum of two hours of television per day for children.[8] Among adults, a variety of cut-points have been used in the literature to define frequent viewing. For this analysis, those who reported 15 or more hours per week were defined as frequent television viewers, and those who reported 11 or more hours of leisure-time computer use were defined as frequent computer users. To calculate the proportion of total screen time devoted to computers, continuous measures were derived for television viewing and computer use by assigning the midpoint of each response category (0, 0.5, 1.5, 4, 8, 12.5, 17.5, or 25 hours for the highest category).

Based on their highest level of education, respondents aged 25 years or older were grouped into four categories: postsecondary graduation, some postsecondary, secondary graduation, and less than secondary graduation. The same categories were used for those aged 20 to 24 years, but for these respondents, education was based on the highest level in the household.

Household income groups were derived by calculating the ratio between the total household income from all sources in the previous 12 months and Statistics Canada's low-income cutoff (LICO) specific to the number of people in the household, the size of the community, and the survey year. These adjusted income ratios were grouped into quintiles (five groups, each containing one-fifth of Canadians).

Trends in television viewing are from the General Social Survey (GSS) (1986 and 2005), which used a one-day time use diary to collect information on time spent on a wide variety of activities.[3]

CCHS estimates of screen time are based on self-reported data, which are subject to social desirability and recall biases. Single-item measures for the assessment of sedentary behaviours lack content validity and likely yield only crude estimates.[9] Comparisons with GSS data suggest that television viewing time is underestimated in the CCHS; according to 2005 data from the GSS, the prevalence of frequent television viewing (15 or more hours per week) was 39%, substantially above the estimate of 29% from the 2007 CCHS.

Characteristics of frequent computer users

Men were more likely than women to report frequent leisure-time computer use (17% versus 12%) (Table 2). Frequent computer use fell with age from 30% among 20- to 24-year-olds to 6% among seniors aged 75 years or older. Frequent computer use was much more common among people who were never married (24%) than among those who were married (13%).

Only 7% of people with less than secondary graduation were frequent computer users, compared with 17% of postsecondary graduates. On the other hand, proportions were similar across all household income levels.

Table 2

Prevalence of and adjusted odds ratios for using computers 11 or more hours per week, by selected characteristics, household population aged 20 years or older, Canada, 2007

	Use computers 11 or more hours per week			
	%	95% confidence interval	Adjusted odds ratio	95% confidence interval
Total	14.8	14.3 to 15.3	...	...
Sex				
Male	17.4*	16.7 to 18.1	1.5*	1.4 to 1.6
Female†	12.3	11.7 to 12.9	1.0	...
Age group				
20 to 24	29.9*	27.6 to 32.3	2.1*	1.8 to 2.5
25 to 34	21.1*	19.8 to 22.4	1.7*	1.5 to 1.9
35 to 44	13.8*	12.8 to 14.8	1.1	1.0 to 1.3
45 to 54†	11.3	10.3 to 12.3	1.0	...
55 to 64	10.6	9.7 to 11.5	1.0	0.9 to 1.2
65 to 74	11.2	10.2 to 12.3	1.3*	1.1 to 1.5
75 or older	5.9*	5.1 to 6.8	0.7*	0.6 to 0.8
Marital status (aged 25 to 54 years)				
Married/Common-law†	12.9	12.2 to 13.6	1.0	...
Divorced/Separated/Widowed	14.1	12.3 to 15.9	1.1*	1.0 to 1.3
Never married	23.9*	22.2 to 25.6	1.7*	1.5 to 1.9
Education				
Less than secondary graduation	6.8*	6.1 to 7.5	0.5*	0.4 to 0.5
Secondary graduation	11.7*	10.6 to 12.8	0.7*	0.6 to 0.8
Some postsecondary	18.1	16.3 to 19.9	1.0	0.9 to 1.2
Postsecondary graduation†	17.1	16.4 to 17.7	1.0	...
Household income quintile				
1 (lowest)	15.7	14.6 to 16.9	1.2*	1.0 to 1.3
2	15.3	14.0 to 16.5	1.1	1.0 to 1.3
3†	14.0	13.0 to 15.1	1.0	...
4	15.9	14.7 to 17.0	1.1	1.0 to 1.3
5 (highest)	14.1	12.9 to 15.3	1.0	0.9 to 1.2
Urban/Rural status				
Rural†	10.1	9.3 to 10.8	1.0	...
Urban: population less than 30,000	12.4*	11.5 to 13.3	1.2*	1.1 to 1.4
Urban: population 30,000 to 99,999	15.0*	13.8 to 16.2	1.4*	1.2 to 1.6
Urban: population 100,000 to 499,999	15.7*	14.8 to 16.7	1.4*	1.3 to 1.6
Urban: population 500,000 or more	16.6*	15.8 to 17.4	1.4*	1.2 to 1.5
Immigrant status				
Immigrant: 0 to 9 years in Canada	27.7*	24.9 to 30.5	2.0*	1.7 to 2.3
Immigrant: 10 to 19 years in Canada	21.1*	18.0 to 24.3	1.5*	1.2 to 1.8
Immigrant: 20 or more years in Canada	10.5*	9.3 to 11.8	0.9	0.8 to 1.0
Canadian-born†	14.1	13.6 to 14.6	1.0	...
Employment status (aged 25 to 54 years)				
Employment full-time	13.8*	13.1 to 14.5	0.5*	0.4 to 0.5
Employment part-time	16.6*	14.1 to 19.1	0.7*	0.6 to 0.9
Not employed†	22.5	20.5 to 24.4	1.0	...

† reference category
* significantly different from estimate for reference category ($p < 0.05$)
... not applicable
Notes: The odds ratios for employment status are based on a model including all variables in the table for the population aged 25 to 54 years. All other odds ratios are based on a model for the population aged 20 years or older and exclude employment status.
Source: 2007 Canadian Community Health Survey.

Residents of urban areas were more likely to be frequent computer users than were those in rural areas. The percentages ranged from 10% among rural residents to 17% among residents of urban areas with a population of 500,000 or more.

Recent immigrants were far more likely than those who were Canadian-born to be frequent computer users (28% versus 14%).

Among the working-age population, those who were not employed were appreciably more likely to be high leisure-time computer users (23%) than were full-time workers (14%).

When examined in a multivariate model, these associations between socio-demographic characteristics and frequent leisure-time computer use generally persisted.

Regional differences

Across the provinces, the proportion of adults who were frequent television viewers varied from the national level (29%). Frequent viewing was somewhat higher in New Brunswick (32%) and Quebec (31%) and somewhat lower in Alberta (26%) and British Columbia (27%) (Appendix Table B). As well, 44% of Nunavut residents were frequent television viewers.

Compared with the proportion for Canada (15%), high leisure-time computer use was slightly more common in Ontario (16%), British Columbia (18%) and Nunavut (20%,) and slightly less common in Newfoundland and Labrador (11%), Quebec (12%), Manitoba (13%) and Saskatchewan (12%) (Appendix Table C).

A major strength of the CCHS is its large sample size. As a result, it was possible to produce estimates of frequent television viewing and computer use for health regions (Appendix Tables B and C).

Conclusion

In 2007, 29% of Canadian adults were classified as frequent television viewers, and 15% as frequent leisure-time computer users. Differences in socio-demographic characteristics were apparent, often in opposite directions for the two screen-time activities. Younger ages and higher levels of education were negatively associated with frequent television viewing, but positively associated with frequent computer use. Recent immigrants were less likely than people born in Canada to be frequent television viewers, but more likely to be frequent computer users. Among the working-age population, those employed full-time were less likely to be frequent viewers of television or frequent leisure-time computer users than were people who were not employed.

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Table A

Percentage reporting frequent screen time, by sex and selected characteristics, household population aged 20 years or older, Canada, 2007

	View television 15 or more hours per week		Use computers 11 or more hours per week	
	Men	Women	Men	Women
	%		%	
Total	29.5	28.9	17.4	12.3‡
Age group				
20 to 24	19.8*	20.3*	33.4*	26.4*‡
25 to 34	23.4*	21.4*	25.3*	16.8*‡
35 to 44	24.0	19.1*‡	16.0*	11.7‡
45 to 54†	27.4	24.8	12.7	9.9‡
55 to 64	36.6*	35.5*	11.5	9.8‡
65 to 74	44.6*	49.1*‡	14.0	8.7‡
75 or older	50.2*	53.4*	9.1*	3.8*‡
Marital status (age 25 to 54 years)				
Married/Common-law†	23.5	21.0‡	14.9	10.9‡
Divorced/Separated/Widowed	28.0	22.5‡	15.7	13.1
Never married	28.7*	24.7*‡	27.3*	19.6*‡
Education				
Less than secondary graduation	45.4*	49.2*‡	7.3*	6.3*
Secondary graduation	33.6*	33.9*	14.0*	9.8*‡
Some postsecondary	29.9*	31.2*	19.3	17.0
Postsecondary graduation†	25.1	22.2‡	20.3	13.9‡
Household income quintile				
1 (lowest)	40.3*	38.6*	18.1	14.2‡
2	31.4	31.5*	18.2	12.6‡
3†	29.3	26.8	16.5	11.5‡
4	26.4	23.7‡	19.0	12.3‡
5 (highest)	24.1*	19.4*‡	16.3	11.3‡
Urban/Rural status				
Rural†	31.1	30.8	10.8	9.3
Urban: population less than 30,000	33.2	31.3	12.7	12.1*
Urban: population 30,000 to 99,999	34.2	36.1*	16.9*	13.3*‡
Urban: population 100,000 to 499,999	31.5	32.5	18.2*	13.3*‡
Urban: population 500,000 or more	26.8*	25.5*	20.6*	12.9*‡
Immigrant status				
Immigrant: 0 to 9 years in Canada	15.3*	22.0*‡	30.3*	25.3*
Immigrant: 10 to 19 years in Canada	25.1	23.8*	29.1*	13.8‡
Immigrant: 20 or more years in Canada	32.0	31.1	13.3*	7.9*‡
Canadian-born†	30.6	29.6	16.4	11.9‡
Employment status (age 25 to 54 years)				
Employment full-time	22.6*	18.4*‡	16.4*	10.5*‡
Employment part-time	31.2*	22.7*‡	30.3	13.1*‡
Not employed†	44.7	33.9‡	27.6	20.0‡

† reference category
* significantly different from estimate for reference category ($p < 0.05$)
‡ significantly different from estimate for men ($p < 0.05$)
... not applicable
Source: 2007 Canadian Community Health Survey.

Table B

Percentage viewing television 15 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007

	Region code	%	95% confidence interval	Significantly higher or lower ($p < 0.05$) than: Canada	Province or Territory
Canada		29.2	28.6 to 29.8	...	...
Newfoundland and Labrador	10	31.6	28.6 to 34.6	Same	...
Eastern Regional Integrated Health Authority	1011	30.2	26.0 to 34.5	Same	Same
Central Regional Integrated Health Authority	1012	37.0	32.5 to 41.6	Higher	Higher
Western Regional Integrated Health Authority	1013	31.4	23.4 to 39.4	Same	Same
Labrador-Grenfell Regional Integrated Health Authority	1014	28.9	22.8 to 34.9	Same	Same
Prince Edward Island	11	29.0	25.9 to 32.1	Same	...
Kings County	1101	41.2	28.9 to 53.5	Same	Higher
Queens County	1102	24.3	20.7 to 28.0	Lower	Lower
Prince County	1103	31.5	26.5 to 36.5	Same	Same
Nova Scotia	12	31.3	28.8 to 33.7	Same	...
Zone 1	1201	37.0	31.2 to 42.8	Higher	Higher
Zone 2	1202	30.5	23.1 to 37.9	Same	Same
Zone 3	1203	32.9	27.4 to 38.5	Same	Same
Zone 4	1204	36.3	29.6 to 43.1	Higher	Same
Zone 5	1205	42.3	35.6 to 48.9	Higher	Higher
Zone 6	1206	24.7	20.4 to 29.0	Lower	Lower
New Brunswick	13	32.4	30.1 to 34.8	Higher	...
Region 1	1301	35.3	30.2 to 40.4	Higher	Same
Region 2	1302	25.4	20.2 to 30.6	Same	Lower
Region 3	1303	31.5	26.3 to 36.7	Same	Same
Region 4	1304	33.7	27.2 to 40.2	Same	Same
Region 5	1305	48.3	40.5 to 56.0	Higher	Higher
Region 6	1306	32.9	28.1 to 37.6	Same	Same
Region 7	1307	39.2	32.7 to 45.7	Higher	Higher
Quebec	24	31.1	29.8 to 32.4	Higher	...
Région du Bas-Saint-Laurent	2401	29.2	25.3 to 33.2	Same	Same
Région du Saguenay - Lac-Saint-Jean	2402	38.1	31.7 to 44.5	Higher	Higher
Région de la Capitale Nationale	2403	36.1	31.6 to 40.5	Higher	Higher
Région de la Mauricie et du Centre-du-Québec	2404	39.1	32.6 to 45.6	Higher	Higher
Région de l'Estrie	2405	37.3	32.0 to 42.6	Higher	Higher
Région de Montréal	2406	29.0	25.9 to 32.2	Same	Same
Région de l'Outaouais	2407	33.1	28.0 to 38.1	Same	Same
Région de l'Abitibi-Témiscamingue	2408	38.4	33.1 to 43.8	Higher	Higher
Région de la Côte-Nord	2409	37.1	30.0 to 44.2	Higher	Same
Région du Nord-du-Québec	2410	25.0	19.9 to 30.1	Same	Lower
Région de la Gaspésie - Îles-de-la-Madeleine	2411	36.8	31.2 to 42.4	Higher	Higher
Région de la Chaudière-Appalaches	2412	24.3	20.3 to 28.3	Lower	Lower
Région de Laval	2413	24.9	21.1 to 28.7	Lower	Lower
Région de Lanaudière	2414	28.6	24.3 to 32.8	Same	Same
Région des Laurentides	2415	32.4	27.4 to 37.5	Same	Same
Région de la Montérégie	2416	28.3	24.4 to 32.1	Same	Same
Ontario	35	29.1	28.1 to 30.1	Same	...
District of Algoma Health Unit	3526	36.3	31.1 to 41.5	Higher	Higher
Brant County Health Unit	3527	39.3	33.0 to 45.5	Higher	Higher
Durham Regional Health Unit	3530	30.6	25.7 to 35.5	Same	Same
Elgin-St Thomas Health Unit	3531	31.8	23.6 to 40.0	Same	Same
Grey Bruce Health Unit	3533	36.7	30.7 to 42.7	Higher	Higher
Haldimand-Norfolk Health Unit	3534	34.3	27.1 to 41.6	Same	Same
Haliburton, Kawartha, Pine Ridge District Health Unit	3535	38.5	32.0 to 45.1	Higher	Higher
Halton Regional Health Unit	3536	24.8	20.2 to 29.3	Same	Same
City of Hamilton Health Unit	3537	30.4	25.9 to 34.8	Same	Same
Hastings and Prince Edward Counties Health Unit	3538	43.9	36.2 to 51.5	Higher	Higher
Huron County Health Unit	3539	37.4	31.0 to 43.8	Higher	Higher
Chatham-Kent Health Unit	3540	38.6	31.3 to 46.0	Higher	Higher

Table B

Percentage viewing television 15 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007 *continued*

	Region code	%	95% confidence interval	Significantly higher or lower (p < 0.05) than: Canada	Province or Territory
Kingston, Frontenac and Lennox and Addington Health Unit	3541	33.3	28.8 to 37.9	Same	Same
Lambton Health Unit	3542	40.4	34.1 to 46.7	Higher	Higher
Leeds, Grenville and Lanark District Health Unit	3543	36.5	31.6 to 41.3	Higher	Higher
Middlesex-London Health Unit	3544	30.6	26.0 to 35.2	Same	Same
Niagara Regional Area Health Unit	3546	34.3	29.1 to 39.5	Higher	Higher
North Bay Parry Sound District Health Unit	3547	35.1	30.0 to 40.2	Higher	Higher
Northwestern Health Unit	3549	35.3	26.4 to 44.2	Same	Same
City of Ottawa Health Unit	3551	23.0	19.4 to 26.7	Lower	Lower
Oxford County Health Unit	3552	30.7	23.9 to 37.6	Same	Same
Peel Regional Health Unit	3553	24.4	20.7 to 28.1	Lower	Lower
Perth District Health Unit	3554	26.9	20.7 to 33.2	Same	Same
Peterborough County-City Health Unit	3555	35.5	30.0 to 41.1	Higher	Higher
Porcupine Health Unit	3556	35.7	28.2 to 43.1	Same	Same
Renfrew County and District Health Unit	3557	41.5	34.4 to 48.6	Higher	Higher
Eastern Ontario Health Unit	3558	37.5	31.5 to 43.6	Higher	Higher
Simcoe Muskoka District Health Unit	3560	36.3	32.2 to 40.3	Higher	Higher
Sudbury and District Health Unit	3561	30.8	26.0 to 35.6	Same	Same
Thunder Bay District Health Unit	3562	33.6	27.9 to 39.3	Same	Same
Timiskaming Health Unit	3563	33.2	26.1 to 40.2	Same	Same
Waterloo Health Unit	3565	30.6	25.6 to 35.7	Same	Same
Wellington-Dufferin-Guelph Health Unit	3566	25.6	21.7 to 29.5	Same	Same
Windsor-Essex County Health Unit	3568	32.0	27.5 to 36.4	Same	Same
York Regional Health Unit	3570	26.9	23.1 to 30.8	Same	Same
City of Toronto Health Unit	3595	24.0	21.4 to 26.5	Lower	Lower
Manitoba	46	30.7	28.0 to 33.4	Same	...
Winnipeg Regional Health Authority	4610	33.3	29.1 to 37.4	Same	Higher
Brandon Regional Health Authority	4615	36.5	29.3 to 43.7	Higher	Same
North Eastman Regional Health Authority	4620	27.0	18.8 to 35.1	Same	Same
South Eastman Regional Health Authority	4625	23.0	16.9 to 29.1	Lower	Lower
Interlake Regional Health Authority	4630	31.2	25.4 to 37.0	Same	Same
Central Regional Health Authority	4640	19.6	14.8 to 24.5	Lower	Lower
Assiniboine Regional Health Authority	4645	27.3	21.5 to 33.1	Same	Same
Parkland Regional Health Authority	4660	22.1	16.2 to 28.1	Lower	Lower
Norman Regional Health Authority	4670	38.8	29.2 to 48.5	Higher	Same
Burntwood/Churchill	4685	28.7	21.5 to 35.9	Same	Same
Saskatchewan	47	29.8	27.7 to 32.0	Same	...
Sun Country Regional Health Authority	4701	32.9	25.6 to 40.2	Same	Same
Five Hills Regional Health Authority	4702	30.6	23.7 to 37.4	Same	Same
Cypress Regional Health Authority	4703	38.9	28.9 to 48.9	Same	Same
Regina Qu'Appelle Regional Health Authority	4704	31.6	27.1 to 36.0	Same	Same
Sunrise Regional Health Authority	4705	29.5	23.1 to 35.9	Same	Same
Saskatoon Regional Health Authority	4706	25.2	20.7 to 29.7	Same	Lower
Heartland Regional Health Authority	4707	25.3	17.4 to 33.2	Same	Same
Kelsey Trail Regional Health Authority	4708	27.2	20.7 to 33.8	Same	Same
Prince Albert Parkland Regional Health Authority	4709	38.4	30.0 to 46.8	Higher	Higher
Prairie North Regional Health Authority	4710	30.3	24.0 to 36.6	Same	Same
Mamawetan/Keewatin/Athabasca	4714	35.9	25.2 to 46.5	Same	Same
Alberta	48	25.7	23.7 to 27.6	Lower	...
Chinook Regional Health Authority	4821	26.2	20.0 to 32.4	Same	Same
Palliser Health Region	4822	25.9	21.0 to 30.8	Same	Same
Calgary Health Region	4823	26.2	22.4 to 29.9	Same	Same
David Thompson Regional Health Authority	4824	26.7	22.3 to 31.0	Same	Same
East Central Health	4825	25.3	21.2 to 29.4	Same	Same
Capital Health	4826	24.8	20.9 to 28.7	Lower	Same
Aspen Regional Health Authority	4827	27.3	21.7 to 32.8	Same	Same
Peace Country Health	4828	25.9	20.5 to 31.3	Same	Same
Northern Lights Health Region	4829	20.1[E]	12.0 to 28.2	Lower	Same

Table B

Percentage viewing television 15 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007 *continued*

	Region code	%	95% confidence interval	Significantly higher or lower (p < 0.05) than: Canada	Province or Territory
British Columbia	59	26.7	25.3 to 28.1	Lower	...
East Kootenay Health Service Delivery Area	5911	31.7	25.5 to 37.9	Same	Same
Kootenay-Boundary Health Service Delivery Area	5912	28.0	20.6 to 35.4	Same	Same
Okanagan Health Service Delivery Area	5913	31.5	26.7 to 36.3	Same	Higher
Thompson/Cariboo Health Service Delivery Area	5914	34.4	28.9 to 39.9	Same	Higher
Fraser East Health Service Delivery Area	5921	25.4	21.1 to 29.7	Same	Same
Fraser North Health Service Delivery Area	5922	19.7	15.8 to 23.6	Lower	Lower
Fraser South Health Service Delivery Area	5923	26.2	21.9 to 30.5	Same	Same
Richmond Health Service Delivery Area	5931	27.8	22.2 to 33.5	Same	Same
Vancouver Health Service Delivery Area	5932	23.2	19.0 to 27.4	Lower	Same
North Shore/Coast Garibaldi Health Service Delivery Area	5933	21.0	15.5 to 26.5	Lower	Lower
South Vancouver Island Health Service Delivery Area	5941	31.3	26.4 to 36.2	Same	Same
Central Vancouver Island Health Service Delivery Area	5942	32.0	26.2 to 37.8	Same	Same
North Vancouver Island Health Service Delivery Area	5943	34.8	28.5 to 41.0	Same	Higher
Northwest Health Service Delivery Area	5951	34.7	25.9 to 43.5	Same	Same
Northern Interior Health Service Delivery Area	5952	28.2	22.4 to 34.0	Same	Same
Northeast Health Service Delivery Area	5953	21.2	15.0 to 27.3	Lower	Same
Yukon Territory	6001	35.4	28.5 to 42.3	Same	...
Northwest Territories	6101	33.2	27.2 to 39.3	Same	...
Nunavut - 10 largest communities[1]	6201	43.8	34.2 to 53.4	Higher	...

... not applicable

[E] coefficient of variation between 16.6% and 33.3% (interpret with caution)

1. The Canadian Community Health Survey is administered in the 10 largest communities in Nunavut, using an alternative methodology that accommodates some of the operational difficulties inherent to remote locales. The 10 largest communities are Iqaluit, Cambridge Bay, Baker Lake, Arviat, Rankin Inlet, Kugluktuk, Pond Inlet, Cape Dorset, Pangnirtung, Igloolik.

Source: 2007 Canadian Community Health Survey.

Table C

Percentage using computers 11 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007

	Region code	%	95% confidence interval	Significantly higher or lower ($p < 0.05$) than: Canada	Province or Territory
Canada		14.8	14.3 to 15.3	...	...
Newfoundland and Labrador	10	11.0	9.0 to 13.0	Lower	...
Eastern Regional Integrated Health Authority	1011	11.5	8.4 to 14.7	Lower	Same
Central Regional Integrated Health Authority	1012	9.1[E]	5.5 to 12.6	Lower	Same
Western Regional Integrated Health Authority	1013	9.6	6.5 to 12.7	Lower	Same
Labrador-Grenfell Regional Integrated Health Authority	1014	15.1	10.6 to 19.5	Same	Same
Prince Edward Island	11	13.0	10.7 to 15.3	Same	...
Kings County	1101	21.7[E]	10.9 to 32.5	Same	Same
Queens County	1102	11.6	9.0 to 14.1	Lower	Same
Prince County	1103	11.5[E]	7.1 to 15.8	Same	Same
Nova Scotia	12	14.7	12.8 to 16.7	Same	...
Zone 1	1201	11.8[E]	7.5 to 16.1	Same	Same
Zone 2	1202	13.4	9.5 to 17.3	Same	Same
Zone 3	1203	13.3[E]	8.9 to 17.7	Same	Same
Zone 4	1204	15.7[E]	9.8 to 21.7	Same	Same
Zone 5	1205	13.0	9.4 to 16.6	Same	Same
Zone 6	1206	16.6	13.0 to 20.3	Same	Same
New Brunswick	13	13.0	11.1 to 14.8	Same	...
Region 1	1301	15.4	11.1 to 19.6	Same	Same
Region 2	1302	14.9	10.3 to 19.5	Same	Same
Region 3	1303	12.1[E]	8.0 to 16.1	Same	Same
Region 4	1304	8.4[E]	4.9 to 11.9	Lower	Lower
Region 5	1305	11.1[E]	5.3 to 16.8	Same	Same
Region 6	1306	9.9[E]	6.0 to 13.8	Lower	Same
Region 7	1307	10.9[E]	6.1 to 15.6	Same	Same
Quebec	24	11.9	11.0 to 12.8	Lower	...
Région du Bas-Saint-Laurent	2401	4.5[E]	2.6 to 6.3	Lower	Lower
Région du Saguenay - Lac-Saint-Jean	2402	11.9	8.7 to 15.2	Same	Same
Région de la Capitale Nationale	2403	15.0	11.4 to 18.7	Same	Same
Région de la Mauricie et du Centre-du-Québec	2404	12.1	8.2 to 16.0	Same	Same
Région de l'Estrie	2405	9.0[E]	6.0 to 12.1	Lower	Same
Région de Montréal	2406	17.5	15.2 to 19.9	Higher	Higher
Région de l'Outaouais	2407	10.9	7.8 to 14.0	Lower	Same
Région de l'Abitibi-Témiscamingue	2408	6.7[E]	4.2 to 9.3	Lower	Lower
Région de la Côte-Nord	2409	6.3[E]	4.2 to 8.4	Lower	Lower
Région du Nord-du-Québec	2410	7.8[E]	4.5 to 11.1	Lower	Lower
Région de la Gaspésie - Îles-de-la-Madeleine	2411	7.1[E]	4.3 to 9.9	Lower	Lower
Région de la Chaudière-Appalaches	2412	6.2[E]	4.1 to 8.3	Lower	Lower
Région de Laval	2413	10.9[E]	7.2 to 14.6	Lower	Same
Région de Lanaudière	2414	8.6[E]	5.8 to 11.4	Lower	Lower
Région des Laurentides	2415	9.7	6.6 to 12.8	Lower	Same
Région de la Montérégie	2416	9.3	7.3 to 11.3	Lower	Lower
Ontario	35	16.1	15.3 to 17.0	Higher	...
District of Algoma Health Unit	3526	17.1	12.9 to 21.4	Same	Same
Brant County Health Unit	3527	14.4	10.1 to 18.6	Same	Same
Durham Regional Health Unit	3530	18.3	13.8 to 22.7	Same	Same
Elgin-St Thomas Health Unit	3531	15.5	10.8 to 20.2	Same	Same
Grey Bruce Health Unit	3533	16.3	11.6 to 21.0	Same	Same
Haldimand-Norfolk Health Unit	3534	10.0[E]	5.5 to 14.5	Lower	Lower
Haliburton, Kawartha, Pine Ridge District Health Unit	3535	13.6	9.9 to 17.3	Same	Same
Halton Regional Health Unit	3536	17.4	13.1 to 21.8	Same	Same
City of Hamilton Health Unit	3537	14.7	10.7 to 18.8	Same	Same
Hastings and Prince Edward Counties Health Unit	3538	17.2[E]	11.4 to 23.1	Same	Same
Huron County Health Unit	3539	11.1[E]	7.1 to 15.1	Same	Lower
Chatham-Kent Health Unit	3540	10.9[E]	7.1 to 14.7	Lower	Lower

Table C

Percentage using computers 11 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007 *continued*

	Region code	%	95% confidence interval	Significantly higher or lower (p < 0.05) than: Canada	Province or Territory
Kingston, Frontenac and Lennox and Addington Health Unit	3541	22.5	17.9 to 27.2	Higher	Higher
Lambton Health Unit	3542	18.6	13.6 to 23.6	Same	Same
Leeds, Grenville and Lanark District Health Unit	3543	16.3	12.2 to 20.3	Same	Same
Middlesex-London Health Unit	3544	19.1	15.1 to 23.2	Higher	Same
Niagara Regional Area Health Unit	3546	14.4	11.4 to 17.3	Same	Same
North Bay Parry Sound District Health Unit	3547	15.1[E]	8.8 to 21.4	Same	Same
Northwestern Health Unit	3549	13.5[E]	8.4 to 18.6	Same	Same
City of Ottawa Health Unit	3551	18.9	16.0 to 21.9	Higher	Same
Oxford County Health Unit	3552	11.1[E]	6.5 to 15.8	Same	Lower
Peel Regional Health Unit	3553	16.8	13.9 to 19.6	Same	Same
Perth District Health Unit	3554	13.3[E]	8.7 to 17.9	Same	Same
Peterborough County-City Health Unit	3555	10.4[E]	6.5 to 14.3	Lower	Lower
Porcupine Health Unit	3556	14.2	10.1 to 18.4	Same	Same
Renfrew County and District Health Unit	3557	10.7[E]	6.7 to 14.8	Same	Lower
Eastern Ontario Health Unit	3558	11.6	7.9 to 15.3	Same	Lower
Simcoe Muskoka District Health Unit	3560	14.2	11.5 to 16.9	Same	Same
Sudbury and District Health Unit	3561	12.9	9.3 to 16.4	Same	Same
Thunder Bay District Health Unit	3562	13.1	9.7 to 16.5	Same	Same
Timiskaming Health Unit	3563	8.6[E]	4.8 to 12.4	Lower	Lower
Waterloo Health Unit	3565	15.3	11.7 to 18.8	Same	Same
Wellington-Dufferin-Guelph Health Unit	3566	11.0	7.8 to 14.2	Lower	Lower
Windsor-Essex County Health Unit	3568	12.9	9.5 to 16.2	Same	Same
York Regional Health Unit	3570	17.5	14.0 to 21.0	Same	Same
City of Toronto Health Unit	3595	17.2	14.8 to 19.6	Higher	Same
Manitoba	46	12.6	10.9 to 14.3	Lower	...
Winnipeg Regional Health Authority	4610	14.8	12.2 to 17.5	Same	Higher
Brandon Regional Health Authority	4615	13.5[E]	8.6 to 18.5	Same	Same
North Eastman Regional Health Authority	4620	6.6[E]	3.0 to 10.2	Lower	Lower
South Eastman Regional Health Authority	4625	6.6[E]	3.8 to 9.5	Lower	Lower
Interlake Regional Health Authority	4630	11.9[E]	6.1 to 17.7	Same	Same
Central Regional Health Authority	4640	10.1[E]	6.1 to 14.1	Lower	Same
Assiniboine Regional Health Authority	4645	7.1[E]	3.5 to 10.7	Lower	Lower
Parkland Regional Health Authority	4660	F	...	...	...
Norman Regional Health Authority	4670	12.9[E]	7.0 to 18.7	Same	Same
Burntwood/Churchill	4685	15.4[E]	8.6 to 22.2	Same	Same
Saskatchewan	47	12.4	11.0 to 13.9	Lower	...
Sun Country Regional Health Authority	4701	13.0[E]	7.9 to 18.0	Same	Same
Five Hills Regional Health Authority	4702	12.8[E]	8.5 to 17.1	Same	Same
Cypress Regional Health Authority	4703	12.5[E]	6.6 to 18.4	Same	Same
Regina Qu'Appelle Regional Health Authority	4704	16.0	12.4 to 19.7	Same	Higher
Sunrise Regional Health Authority	4705	4.3[E]	1.6 to 7.0	Lower	Lower
Saskatoon Regional Health Authority	4706	13.9	10.6 to 17.2	Same	Same
Heartland Regional Health Authority	4707	8.1[E]	4.0 to 12.1	Lower	Lower
Kelsey Trail Regional Health Authority	4708	3.7[E]	1.3 to 6.0	Lower	Lower
Prince Albert Parkland Regional Health Authority	4709	13.3[E]	7.8 to 18.8	Same	Same
Prairie North Regional Health Authority	4710	5.7[E]	2.8 to 8.6	Lower	Lower
Mamawetan/Keewatin/Athabasca	4714	7.8[E]	3.7 to 12.0	Lower	Lower
Alberta	48	15.2	13.8 to 16.7	Same	...
Chinook Regional Health Authority	4821	15.6	11.5 to 19.6	Same	Same
Palliser Health Region	4822	16.6	12.6 to 20.7	Same	Same
Calgary Health Region	4823	14.8	12.4 to 17.2	Same	Same
David Thompson Regional Health Authority	4824	12.8	9.2 to 16.4	Same	Same
East Central Health	4825	6.0[E]	3.6 to 8.3	Lower	Lower
Capital Health	4826	18.2	14.9 to 21.5	Higher	Higher
Aspen Regional Health Authority	4827	11.6[E]	7.7 to 15.5	Same	Same
Peace Country Health	4828	11.4	8.3 to 14.4	Lower	Lower
Northern Lights Health Region	4829	16.8[E]	11.1 to 22.4	Same	Same

Table C

Percentage using computers 11 or more hours per week, by province/territory and health region, household population aged 20 years or older, Canada, 2007 *continued*

	Region code	%	95% confidence interval	Significantly higher or lower (p < 0.05) than: Canada	Province or Territory
British Columbia	59	17.6	16.2 to 19.0	Higher	...
East Kootenay Health Service Delivery Area	5911	12.8[E]	6.8 to 18.8	Same	Same
Kootenay-Boundary Health Service Delivery Area	5912	11.0[E]	6.9 to 15.1	Same	Lower
Okanagan Health Service Delivery Area	5913	13.0	10.0 to 16.1	Same	Lower
Thompson/Cariboo Health Service Delivery Area	5914	14.4	10.5 to 18.2	Same	Same
Fraser East Health Service Delivery Area	5921	15.2	10.6 to 19.9	Same	Same
Fraser North Health Service Delivery Area	5922	18.0	14.5 to 21.6	Same	Same
Fraser South Health Service Delivery Area	5923	18.7	14.0 to 23.5	Same	Same
Richmond Health Service Delivery Area	5931	21.7	16.6 to 26.9	Higher	Same
Vancouver Health Service Delivery Area	5932	21.9	17.5 to 26.4	Higher	Higher
North Shore/Coast Garibaldi Health Service Delivery Area	5933	17.9	12.3 to 23.4	Same	Same
South Vancouver Island Health Service Delivery Area	5941	17.7	13.8 to 21.7	Same	Same
Central Vancouver Island Health Service Delivery Area	5942	18.7	13.5 to 23.9	Same	Same
North Vancouver Island Health Service Delivery Area	5943	13.5[E]	7.8 to 19.2	Same	Same
Northwest Health Service Delivery Area	5951	20.5[E]	12.5 to 28.6	Same	Same
Northern Interior Health Service Delivery Area	5952	11.9[E]	8.0 to 15.9	Same	Lower
Northeast Health Service Delivery Area	5953	16.3[E]	8.4 to 24.3	Same	Same
Yukon Territory	6001	14.1	10.9 to 17.4	Same	...
Northwest Territories	6101	16.1	11.5 to 20.6	Same	...
Nunavut - 10 largest communities[1]	6201	20.1	15.6 to 24.6	Higher	...

... not applicable
[E] coefficient of variation between 16.6% and 33.3% (interpret with caution)
F coefficient of variation greater than 33.3% (too unreliable to be published)
1. The Canadian Community Health Survey is administered in the 10 largest communities in Nunavut, using an alternative methodology that accommodates some of the operational difficulties inherent to remote locales. The 10 largest communities are Iqaluit, Cambridge Bay, Baker Lake, Arviat, Rankin Inlet, Kugluktuk, Pond Inlet, Cape Dorset, Pangnirtung, Igloolik.
Source: 2007 Canadian Community Health Survey.