



HEALTH SURVEILLANCE INDICATORS: SMOKING

Public Health Relevance

Cigarette smoking is the number one cause of preventable death and disease in Ontario. Smoking kills half of its long-term users.

Smoking has negative health impacts on people of all ages. It is associated with cardiovascular diseases, several types of cancers, lung and respiratory diseases, oral health issues, premature aging, and many other health conditions. Many of these health issues can be reversed after quitting smoking.

While daily smoking is more dangerous, occasional smoking also puts people at a higher risk for health problems than non-smoking.

Smoking produces second-hand smoke which is harmful for people who are exposed to it. In fact, the second-hand smoke from the burning end of a cigarette has more harmful chemicals in it than the smoke inhaled directly by the person who is smoking it. Individuals who are exposed to second-hand smoke can suffer many of the same health issues and conditions as smokers.

Highlights

1. The percent of current smokers in Toronto remained relatively stable from 2007 to 2014.
2. The percent of current smokers in Toronto was significantly lower than the rest of Ontario.
3. Socio-demographic factors such as sex, age, education, immigrant status, and ethno-racial identity were associated with significant differences in smoking amongst adults in Toronto.

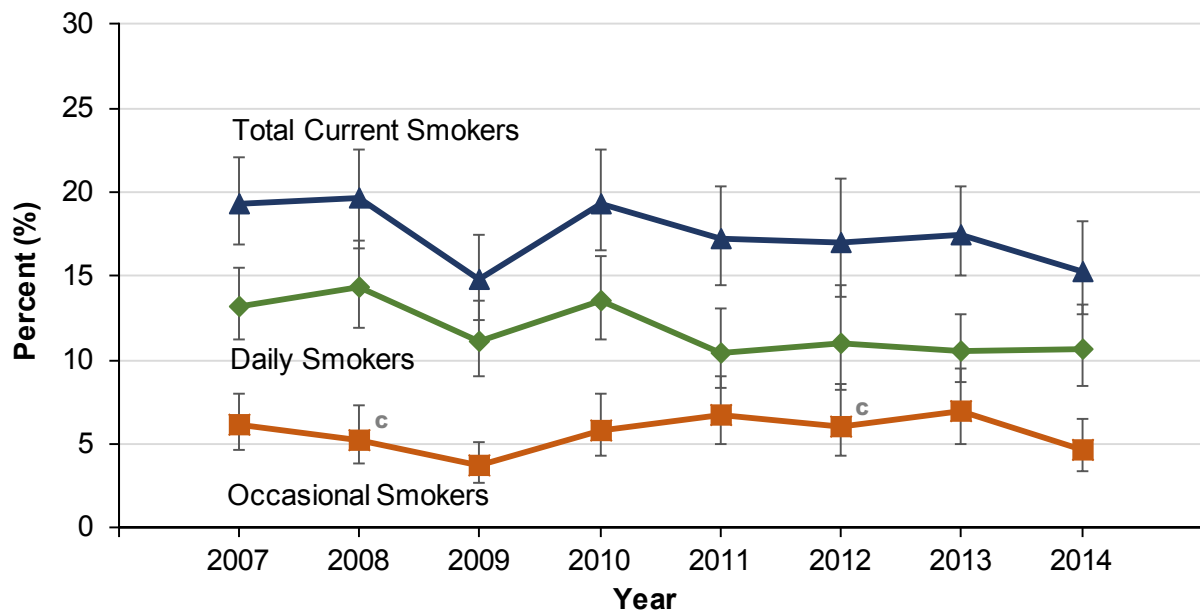
Trends Over Time

The percent of current smokers in Toronto remained relatively stable from 2007 to 2014.

Figure 1 shows the percent of Toronto's population that were current smokers, daily smokers, and occasional smokers from 2007 to 2014.

In 2014, about 10.6% of Toronto's population smoked daily and 4.7% smoked occasionally. The total percent of current smokers in 2014 (15.3%) was not significantly different than the percent observed in 2007 (19.3%).

Figure 1: Percent of Current Smokers, Daily Smokers, and Occasional Smokers, Adults Aged 20 Years and Older, Toronto, 2007 to 2014



^c Moderately high sampling variability, interpret with caution.

Error bars (I) represent the 95% confidence intervals.

Data Source: see Data Notes

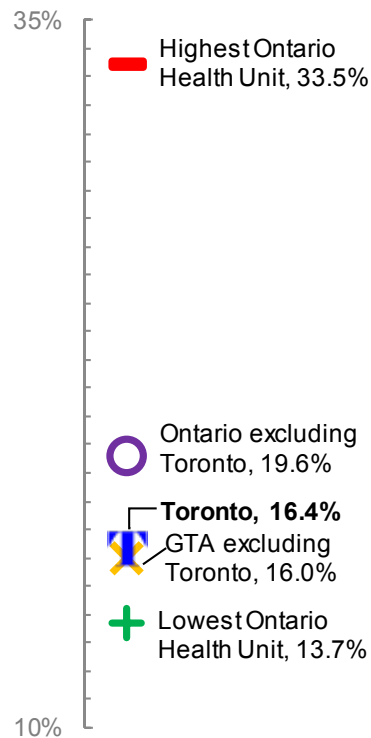
Regional Comparisons

The percent of current smokers in Toronto was significantly lower than the rest of Ontario.

Figure 2 shows the percent of current smokers in Toronto in 2013/2014 compared to the rest of Ontario (Ontario excluding Toronto), the rest of the Greater Toronto Area (GTA excluding Toronto), and the health units (HUs) in Ontario with the highest and lowest percent of current smokers.

Toronto had a significantly lower percent of current smokers than the rest of Ontario and the Ontario HU with the highest percent. Toronto's percent of current smokers was not significantly different than the rest of the GTA and the Ontario HU with the lowest percent.

Figure 2: Percent of Current Smokers, Selected Regions in Ontario, Adults Aged 20 Years and Older, 2013/2014



Data Source: see Data Notes.

Toronto Neighbourhood Comparisons

The percent of current smokers was not significantly different between any of the Toronto Public Health's Service Delivery Areas and Toronto as a whole.

Table 1 shows the percent of current smokers by Toronto Public Health's Service Delivery Areas (SDAs) for Chronic Disease and Injury Prevention for 2013/2014.

The percent of current smoking was not significantly different between any of the Toronto SDAs and Toronto as a whole.

Table 1: Percent of Current Smokers by Service Delivery Area*, Adults Aged 20 Years and Older, Toronto, 2013/2014

CDIP Service Delivery Area	%
Danforth East York	20.7
East Scarborough	S
Humber Downsview	S
Rexdale Etobicoke	17.9 ^c
Toronto Centre	18.6
West Scarborough	12.7 ^c
Willowdale Don Mills	13.8 ^c
York South Humber	18.3
Toronto	16.4

* Toronto Public Health's Service Delivery Areas for Chronic Disease and Injury Prevention (CDIP).

^c Moderately high sampling variability, interpret with caution.

S Extremely high sampling variability. Estimate suppressed.

Data Source: see Data Notes.

Socio-demographics

Socio-demographic factors such as sex, age, education, immigrant status, and ethno-racial identity were associated with significant differences in smoking amongst adults in Toronto.

Table 2 shows the percent of current smokers and daily smokers by sex in Toronto for 2013/2014.

Males were significantly more likely to be current or daily smokers than females.

Table 2: Percent of Current Smokers and Daily Smokers by Sex, Adults Aged 20 Years and Older, Toronto, 2013/2014

Sex	Current Smokers (%)	Daily Smokers (%)
Male	21.2 H	13.7 H
Female	12.0	7.7

H Significantly higher than the other sex indicating an unfavorable result for this group.

Data Source: see Data Notes.

Table 3 shows the percent of current smokers and daily smokers for three age groups in Toronto for 2013/2014.

The younger age groups (20 to 39 years and 40 to 64 years) were significantly more likely to be current or daily smokers compared to adults in the 65 years and older age group.

Table 3: Percent of Current Smokers and Daily Smokers by Age Group, Adults Aged 20 Years and Older, Toronto, 2013/2014

Age Group	Current Smokers (%)	Daily Smokers (%)
20 to 39 Years	19.9 H	12.1 H
40 to 64 Years	16.7 H	11.0 H
65 Years and Older	7.8	6.2

H Significantly higher than the age group with lowest smoking percent, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Table 4 shows the percent of current smokers and daily smokers by education level in Toronto for 2013/2014.

High school graduates were significantly more likely to be current smokers than adults with post-secondary education. Adults who had not completed high school were significantly more likely to be daily smokers than adults with post-secondary education.

Table 4: Percent of Current Smokers and Daily Smokers by Education Level, Adults Aged 20 Years and Older, Toronto, 2013/2014

Highest Education Level	Current Smokers (%)	Daily Smokers (%)
Less than High School	17.7 ^c	14.8 ^{c, H}
High School Graduate	21.9 ^H	14.1
Post-secondary Education	14.4	8.6

^H Significantly higher than the education level with lowest smoking percent, thus, indicating an unfavourable result for this group.

^c Moderately high sampling variability, interpret with caution.

Data Source: see Data Notes.

Table 5 shows the percent of current smokers and daily smokers by immigrant status in Toronto for 2013/2014.

Canadian-born adults were significantly more likely to be current or daily smokers as compared to immigrants.

Table 5: Percent of Current Smokers and Daily Smokers by Immigrant Status, Adults Aged 20 Years and Older, Toronto, 2013/2014

Immigrant Status	Current Smokers (%)	Daily Smokers (%)
Immigrant	12.3	7.7
Canadian-born	22.2 ^H	14.8 ^H

^H Significantly higher than the other immigrant status group, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Table 6 shows the percent of current smokers and daily smokers by income level in Toronto for 2013/2014.

There were no significant differences in the percent of current smokers or daily smokers amongst the three income groups.

Table 6: Percent of Current Smokers and Daily Smokers by Income Level, Adults Aged 20 Years and Older, Toronto, 2013/2014

Income Level	Current Smokers (%)	Daily Smokers (%)
Low Income	18.1	12.4
Middle Income	17.1	10.6
High income	14.2	9.0

Data Source: see Data Notes.

Table 7 shows the percent of current smokers and daily smokers by ethno-racial identity in Toronto for 2013/2014. The term "Racialized" is used here to define groups that do not identify themselves as "White". See Definitions under Data Notes for a full description of the term.

Adults of White ethno-racial identity were significantly more likely to be current or daily smokers as compared to racialized adults.

Table 7: Percent of Current Smokers and Daily Smokers by Ethno-racial Identity, Adults Aged 20 Years and Older, Toronto, 2013/2014

Ethno-racial Identity	Current Smokers (%)	Daily Smokers (%)
White	21.6 ^H	14.1 ^H
Racialized	11.1	6.8

^H Significantly higher than the other ethno-racial group, thus, indicating an unfavourable result for this group.

Data Source: see Data Notes.

Data Notes

Notes

- Significant differences were estimated using overlapping confidence intervals. Although this method is conservative ($\alpha \sim < 0.01$) and most appropriate when comparing mutually exclusive groups, it was chosen as an objective means of drawing conclusions on population-based data. Multiple comparisons performed in the analyses were not taken into consideration when choosing the level of significance to test.
- Toronto is compared to the rest of Ontario (Ontario with Toronto removed) as opposed to the Ontario total because Toronto comprises a large proportion of the Ontario population. Toronto is also compared to the rest of the GTA (Greater Toronto Area) for the same reason.
- Data used for the regional comparisons normally shows the percentage for the Ontario health units with the highest and the lowest percentage. The purpose of these comparisons is to show the percent for Toronto relative to other areas in Ontario. If data for the health unit with the lowest percent needs to be suppressed due to small numbers, the percent for the next lowest health unit with sufficient numbers is shown instead.
- The estimates in this indicator page are from self-reported data from the Canadian Community Health Survey (CCHS). Self-reported data have a number of limitations. People do not always remember their behaviours, and may under-report or over-report certain behaviours or characteristics based on their perceived social desirability. For example, people may not disclose that they are smokers if they are not proud of their habit. In addition, surveys do not always provide a representative picture of the whole population. The CCHS under-represents people of low income, people with low education, and new immigrants. If a respondent did not respond to a survey question relevant to the analysis presented, they were excluded from both the numerator and the denominator.
- Time trend analysis is based on the most recent 8 years of data. This is because the CCHS changed from a two-year release cycle to an annual release cycle starting in 2007.

Definitions

95% Confidence Interval is the range within which the true value lies, 19 times out of 20.

Cigarette Smoking is determined by survey participants' responses to two questions

1. *In your lifetime, have you ever smoked a total of 100 or more cigarettes (about 4 packs)?*
2. *At the present time, do you smoke cigarettes daily, occasionally, or not at all?*

Individuals classified as daily or occasional smokers responded 'daily' or occasional' to question 2, respectively. Current smokers are those individuals who are either daily or occasional smokers. Former smokers are individuals who have smoked more than 100 cigarettes in their lifetime, but do not smoke currently. Cigarette smoking is reported here for individuals aged 20 and older.

Immigrants are those respondents whose country of birth is outside of Canada.

Income Level is derived as three equally divided parts of the weighted population based on the respondents' adjusted household income ratios. A respondent's adjusted household income ratio is calculated using the total household income, Statistics Canada's 2013-2014 low income cut offs (LICOs), and the CCHS income adjustment factor. Approximately 30% of survey respondents included in this analysis had their income level imputed based on other socio-demographic characteristics.

Racialized is used to define groups that do not identify themselves as White, recognizing that 'races' or 'visible minorities' are socially constructed but have real consequences for individuals and communities. Ethnic origins in this category include Black, Korean, Filipino, Japanese, Chinese, South Asian, Southeast Asian, Arab, West Asian, Latin American, other racial/cultural origin, and multiple racial/cultural origins. Aboriginal respondents are not included in this category because of their unique identity, history, and experiences. They are excluded from the analysis by ethno-racial identity.

Sex defines people based on their biological characteristics, whereas gender is a socially constructed concept. From a social determinants of health perspective, certain health conditions can be associated with gender, and from a biological perspective, health conditions can be associated with sex. Although reporting based on both concepts would be preferable, the data source used here only collects information on sex, and not gender.

Sources

Canadian Community Health Survey: Canadian Community Health Survey (CCHS), 2007 to 2014. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care. Used in:

- Figures 1 and 2
- Tables 1-7

Health Surveillance Indicator: Smoking

Category: Chronic Disease

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This indicator report is part of a series that informs the ongoing assessment of Toronto's health status. For a full list of the indicators, please go to: www.toronto.ca/health