RESEARCH

Commercial tobacco exposure in First Nations, Inuit and Métis in Ontario: results from population-based health surveys and implications for cancer control

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ABSTRACT

The lack of comprehensive health data is a significant barrier to better understanding and reducing the risk of chronic diseases among First Nations, Inuit and Métis people in Ontario. This study estimates commercial tobacco exposure (cigarette smoking and second-hand smoke) in First Nations (on- and off-reserve), Inuit and Métis in comparison to non-Aboriginal Ontarians using three health surveys. We measured age-standardized prevalence using the First Nations Regional Health Survey Phase 2 (for First Nations on-reserve), Canadian Community Health Survey (for First Nations off-reserve, Métis and non-Aboriginal Ontarians) and the Aboriginal Peoples Survey (for Inuit). A higher proportion of First Nation men, women and adolescents on- and off-reserve smoked compared to their non-Aboriginal counterparts. Métis adults and adolescents were more likely to smoke than non-Aboriginal adults and adolescents. Métis adolescents were more likely to be regularly exposed to second-hand smoke than non-Aboriginal adolescents, both at home and in public places. Inuit adults had a higher prevalence of current smoking and a higher prevalence of regular second-hand smoke exposure at home. The high prevalence of cigarette smoking and second-hand smoke exposure suggests that First Nations, Inuit and Métis people may experience a greater future burden of cancer and other chronic diseases related to smoking. Differences in survey questions and methodology, and the lack of ethnic identifiers in most Canadian health databases limit our understanding of cancer burden and other health outcomes in these populations. Knowledge-sharing and relationship building between First Nations, Inuit and Métis organizations, researchers and data custodians are essential to ensure appropriate data governance, meet health needs and further cancer control activities, including prevention.

KEYWORDS: commercial tobacco exposure; population health survey; cancer control; Ontario tobacco exposure and cancer

Citation: Cawley C, Mazereeuw MV, Jamal S, Sheppard AJ, Marrett LD (2018) Commercial tobacco exposure in First Nations, Inuit and Métis in Ontario: results from population-based health surveys and implications for cancer control. Cancer Health Disparities 2:e1-e12. doi:10.9777/chd.2018.10002

INTRODUCTION

First Nations, Inuit and Métis are the three Indigenous peoples of Canada.(Government of Canada, 1982) There are more Indigenous people living in Ontario than any other province or territory in the country, numbering 374,395 people, or about 3 percent of the provincial population (Statistics Canada, 2017). First Nations, Inuit and Métis are not a cultural group, but rather distinct, peoples whose existing aboriginal and treaty rights were recognized and affirmed by the Constitution (Government of Canada, 1982). The arrival of Europeans and resulting policies of assimilation, such as the residential school system and the current Indian Act (applying specifically to First Nations), continue to extensively impact First Nations, Inuit and Métis peoples' ways of life and all aspects of their health.

First Nations represent the largest of the three groups named in Canada's Constitution Act of 1982. There are approximately 236,680 First Nations in Ontario, of whom 94,312 live on-reserve or on Crown lands (Indigenous and Northern Affairs Canada, 2014. http://www.aadnc-aandc.gc.ca/eng/1429798605785/1429798785836#tbc1303). The genesis of the Métis culture and nation dates back to the 1600s, when European settlers first came into contact with local Indigenous communities. Early unions between these predominantly male fur trading European settlers and local First Nations women led to the emergence of a new and highly distinctive Aboriginal people with a unique identity. Ontario has the largest Métis population in Canada, with 120,585 people, or 20.5 percent of all Métis (Statistics Canada, 2017). The word Inuit means "the people" in the most commonly used Inuit language of Inuktitut (Indigenous and Northern Affairs Canada). Inuit are culturally similar Indigenous Peoples who have lived throughout the Arctic for thousands of years (Public History Inc., 2008). Inuit in Ontario constitute a small but fast-growing population. About 65,025 people in Canada (3,860 in Ontario) identified as being Inuit. Over one-quarter (27 percent) of self-identifying Inuit in Canada live in southern Canada, outside of Inuit Nunangat (the Inuit homeland made up of four regions stretching across much of the Canadian Arctic) (Statistics Canada, 2017).

Table 1. First Nations, Métis and Inuit populations in Ontario (2016 census).

	First Nations	Métis	Inuit
Population			
Total	236,680	120,585	3,860
Male	112,835 (48%)	59,015 (49%)	1,830 (47%)
Female	123,845 (52%)	61,570 (51%)	2,025 (53%)
Age			
0-14	61,590 (26%)	23,775 (20%)	1,165 (30%)
15-24	41,410 (18%)	19,250 (16%)	695 (18%)
25-34	32,800 (14%)	16,490 (14%)	600 (16%)
35-44	29,365 (12%)	15,765 (13%)	410 (11%)
45-54	31,375 (13%)	18,030 (15%)	495 (13%)
55-64	23,825 (10%)	15,905 (13%)	310 (8%)
65+	16,320 (7%)	11,365 (9%)	180 (5%)

Source: Statistics Canada (2017). 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016155.

Studying the prevalence of behavioural risk factors for cancer using routine, population-based health surveys where respondents are asked about their Indigenous (referred to as 'Aboriginal' by Statistics Canada) identity offers a timely approach to determining how and where prevention resources can be most effectively directed to reduce the future burden of disease. Using commercial tobacco products (in particular, smoking cigarettes) is known to account for more cases of cancer than any other known risk factor western populations (U.S. Department of Health and Human Services, 2004). In Ontario, about 15 percent of all new cancer cases (and 71 percent of lung cancer cases specifically) are attributable to cigarette smoking (Cancer Care Ontario, 2014).

To many First Nations and Métis peoples, tobacco is a plant that has cultural, ceremonial and/or spiritual significance. For example, it is commonly held in the left hand during prayer or ceremony, and is often given to Elders and Traditional Knowledge Keepers as a sign of respect (Chiefs of Ontario and Cancer Care Ontario, 2016). Tobacco holds no traditional significance to Inuit, and was first introduced in Arctic communities by European traders. The use of commercial tobacco (e.g., smoking cigarettes or cigars, chewing tobacco or snuff) has no connection to the historical or traditional uses of tobacco among First Nations and Métis (Tobacco Has No Place Here).

In Ontario, tobacco policy is legislated by the provincial government. The Smoke Free Ontario Act regulates where cigarettes cannot be smoked (e.g., schools, hospitals, restaurants) or sold, and enforces a minimum age of 19 for such purchases (Government of Ontario, 2017). Under federal legislation, First Nations people living on reserves (land held by the Crown for the "use and benefit of [First Nations] (Government of Canada, 1982)) are exempt from provincial laws, and create and enforce their own tobacco policies within their jurisdictions. Individual First Nations councils can pass by-laws to regulate smoking in their communities.

The objectives of this study were to (a) develop indicators of commercial tobacco exposure as a risk factor for cancer for First Nations (living on- and off-reserve), Inuit and Métis people in Ontario using data available from three population-based health surveys; and (b) compare the prevalence estimates for First Nations, Inuit and Métis with those of the non-Aboriginal population in Ontario.

MATERIALS AND METHODS

Data Sources

The Canadian Community Health Survey (CCHS) is a population-based survey of the Canadian population aged 12 years and over living in all provinces and territories, excluding individuals living on First Nations reserves and Crown lands, institutional residents, full-time members of the Canadian Forces and residents of some remote regions (Statistics Canada, 2007-2013). Respondents are asked whether they are an Aboriginal person, and if so whether they are First Nations, Inuit or Métis. Non-Aboriginal Ontarians were defined as respondents to the CCHS who did not self-identify as Aboriginal or who identified as Aboriginal but were born outside of Canada, the U.S., Germany or Greenland (in survey years prior to 2011).[1]

The Regional Health Survey (RHS) is the only First Nations-governed national health survey that collects health-related information about First Nations people living on-reserve aged 12 years and over (First Nations Information Governance Centre, 2013). The RHS Phase 2 was a single survey completed between the spring of 2008 and the fall of 2010 in 24 of the 133 First Nations communities (reserves) in Ontario. The RHS includes an adult survey for respondents aged 18

[1]As of 2011, the CCHS restricted the question about Aboriginal identity to those born in Canada, the United States, Germany or Greenland. To be consistent, we classified respondents in 2007 to 2010 as non-Aboriginal if they identified as Aboriginal and reported being born outside one of these four countries.

and older and a youth survey for those aged 12 to 17.

Data for Inuit living in Ontario were obtained from the 2012 edition of the Aboriginal Peoples Survey (APS). The APS, administered by Statistics Canada, is a national survey of First Nations (off-reserve), Métis and Inuit aged six years and over and its sample is drawn from individuals who reported Aboriginal identity on the 2011 National Household Survey (Statistics Canada, 2016). The APS includes fewer health-related variables than the CCHS, but the CCHS has poorer coverage of the Inuit, particularly in southern Canada. Even after combining multiple survey cycles, the number of Inuit respondents captured by the CCHS was too small to report estimates with certainty.

First Nations

Data for First Nations people living on reserve were obtained from the Ontario portion of Phase 2 (2008/10) of the RHS. On-reserve First Nations people were defined as respondents to the RHS who were on the band/membership list of one of the 24 communities selected for participation in the RHS Phase 2 (Chiefs of Ontario, 2012). Data for First Nations people living off-reserve and non-Aboriginal Ontarians were obtained from the Ontario portion of the CCHS administered by Statistics Canada. Seven annual waves of the CCHS (2007–2013) were combined due to the consistency of the Aboriginal identity questions used during this time period. Off-reserve First Nations people were defined as respondents to the CCHS who self-identified as either First Nations only or as both First Nations and Inuit and were born in Canada, the United States, Germany or Greenland.[2]

[2] As of 2011, the CCHS restricted the question about Aboriginal identity to those born in Canada, the United States, Germany or Greenland. To be consistent, we classified respondents in 2007 to 2010 as non-Aboriginal if they identified as Aboriginal and reported being born outside one of these four countries.

The prevalence of current smoking in First Nations adults living on- and off-reserve, and non-Aboriginal adults in Ontario, was defined as the proportion of respondents aged 20 years and older who reported smoking cigarettes daily or occasionally. The CCHS and RHS had equivalent questions and response options on the subject of cigarette smoking. The prevalence of second-hand smoke exposure in First Nations adults and adolescents and non-Aboriginal adults and adolescents was defined as the proportion of non-smokers who reported being exposed to second-hand smoke in their home, in a vehicle or in a public place every day or almost every day. The prevalence of second-hand smoke exposure among First Nations people living on-reserve could not be estimated, as relevant questions were not included in the RHS.

Métis

Data for Métis people living in Ontario and non-Aboriginal Ontarians were obtained from the Ontario portion of the CCHS cycles 2007–2014. Métis people were defined as respondents to the CCHS who were born in Canada, the U.S., Germany or Greenland, and self-identified as Métis only or as Métis in combination with any other Aboriginal identity (i.e., First Nation or Inuit). The prevalence of current smoking in Métis adults and non-Aboriginal adults was defined as the proportion of adults aged 20 years and older who report smoking cigarettes daily or occasionally. The prevalence of second-hand smoke exposure in Métis adults and adolescents and non-Aboriginal adults and adolescents was defined as the proportion of non-smokers who reported being exposed to second-hand smoke in their home, in a vehicle or in a public place every day or almost every day.

Inuit

Inuit living in Ontario were defined as respondents of the APS who identified as Inuit and reported residing in Ontario at the time of the 2011 National

Household Survey. Due to small numbers of Inuit respondents to the APS in Ontario, Inuit living in southern Canada more broadly (outside of the traditional Inuit homeland of Inuit Nunangat (Inuit Tapiriit Kanatami, 2008)) were used as a proxy for Inuit living in Ontario for some indicators. The APS includes a variable that indicates whether a respondent lives in one of the four constituent regions of Inuit Nunangat (Nunatsiavut in Labrador, Nunavik in northern Quebec, the territory of Nunavut, or Inuvialuit in the Northwest territories) or outside of Inuit Nunangat. A study of cancer risk factors among Inuit demonstrated that prevalence estimates for Inuit in Ontario are largely similar to those of Inuit living outside Nunangat, across indicators of cancer risk (Tungasuvvingat Inuit and Cancer Care Ontario, 2017).

The prevalence of current smoking in Inuit adults, and non-Aboriginal adults in Ontario, was defined as the proportion of respondents aged 20 years and older who reported smoking cigarettes daily or occasionally. The CCHS and APS had equivalent questions and response options on the subject of smoking. Second-hand smoke exposure could not be reported for Inuit living in Ontario due to small sample size.

Analysis

Sampling weights assigned by Statistics Canada (for the CCHS and APS) or the First Nations Information Governance Centre (for the RHS) were used for all estimates. First Nations and Métis estimates (and non-Aboriginal estimates for comparison) were age-standardized using the 2006 Ontario Aboriginal identity population. Inuit estimates (and non-Aboriginal estimates for comparison) were age-standardized using the Inuit identity population in Canada outside Inuit Nunangat (the traditional Inuit homeland in northern Canada) in the 2006 census. We used bootstrapping techniques, with the appropriate multiplicative factor (Fay adjustment) in the case of Inuit analyses, to calculate the coefficient of variation (CV) and 95% confidence intervals (CIs). Estimates with a CV ranging from 16% to 33% were flagged to be interpreted with caution (Statistics Canada). Two percentages were determined to be statistically significant if the 95 percent confidence intervals of the two estimates did not overlap.

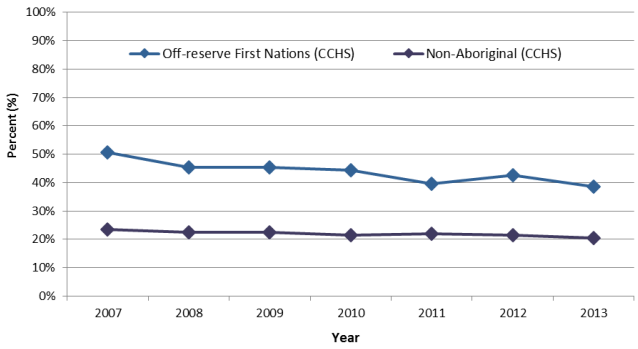
Where possible, results were reported by age group, sex and educational attainment. Respondents ages 12 to 19 were considered to be adolescents, except for in First Nations analyses, as the RHS youth survey was limited to respondents ages 12 to 17. Highest reported level of attained education was classified into three categories: less than secondary school graduation, secondary school graduation or some post-secondary school, and post-secondary graduation. Only respondents aged 25 years and older were included in education analyses.

RESULTS

First Nations

The RHS included 1500 First Nations adults and 600 First Nations adolescents living on-reserve, while the CCHS (2007 to 2013) included 2119 First Nations adults and 376 adolescents living off-reserve, and 123 105 non-Aboriginal adults and 11 636 adolescents in Ontario. First Nations adults living on-reserve (50 percent of men and 49 percent of women) and off-reserve (44 percent of men and 41 percent of women) had a significantly higher prevalence of current smoking than non-Aboriginal adults (26 percent of men and 18 percent of women). First Nations adolescents (both sexes combined) living on-reserve (30 percent) and off-reserve (14 percent) were also significantly more likely to smoke cigarettes compared to non-Aboriginal adolescents (4 percent). The prevalence of smoking significantly declined from 2007 to 2013 for off-reserve First Nations and for non-Aboriginal adults. The proportion of off-reserve First Nations adults who reported smoking decreased from 51 percent in 2007 to 39 percent

in 2013 (Figure 1). No time trend data were available for on-reserve First Nations adults, as the RHS Phase 2 was a one-time survey in the time period of interest.



Source: Canadian Community Health Survey (CCHS), 2007–2013 (Statistics Canada)

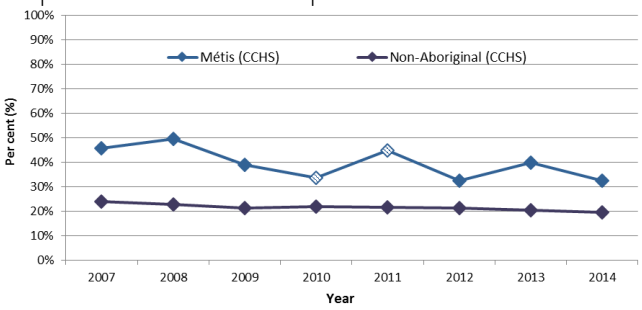
Figure 1. Percentage of First Nations and Non-Aboriginal adults (age 20+) who were current smokers, by year, 2007–2013, Ontario.

First Nations adults (both on- and off-reserve) with less than secondary education were significantly more likely to smoke than those with a post-secondary degree. The prevalence of cigarette smoking was significantly higher among First Nations adults living on- and off-reserve for all levels of education.

Non-smoking First Nations adults living off-reserve (18 percent) were more likely to be exposed to second-hand smoke in their home or vehicle than non-smoking non-Aboriginal adults (8 percent). Similar percentages of non-smoking First Nations and non-Aboriginal adults were regularly exposed to second-hand smoke in public.

Métis

The CCHS (2007 to 2014) included 1592 Métis adults and 285 Métis adolescents. There were also 135 817 non-Aboriginal adults and 17 383 adolescents surveyed in Ontario. The prevalence of current smoking was significantly higher for Métis adults (36 percent) and adolescents (16 percent) than it was for non-Aboriginal adults (21 percent) and adolescents (7 percent). The proportion of Métis adults who reported smoking decreased significantly over time (Figure 2), from 44 percent in 2007 to 32 percent in 2014.



Notes: Diagonal shading indicates high sampling variability. Interpret with caution.

Source: Canadian Community Health Survey (CCHS), 2007–2014 (Statistics Canada)

Figure 2. Percentage of Métis and Non-Aboriginal adults (age 20+) who were current smokers, by year, 2007–2014, Ontario.

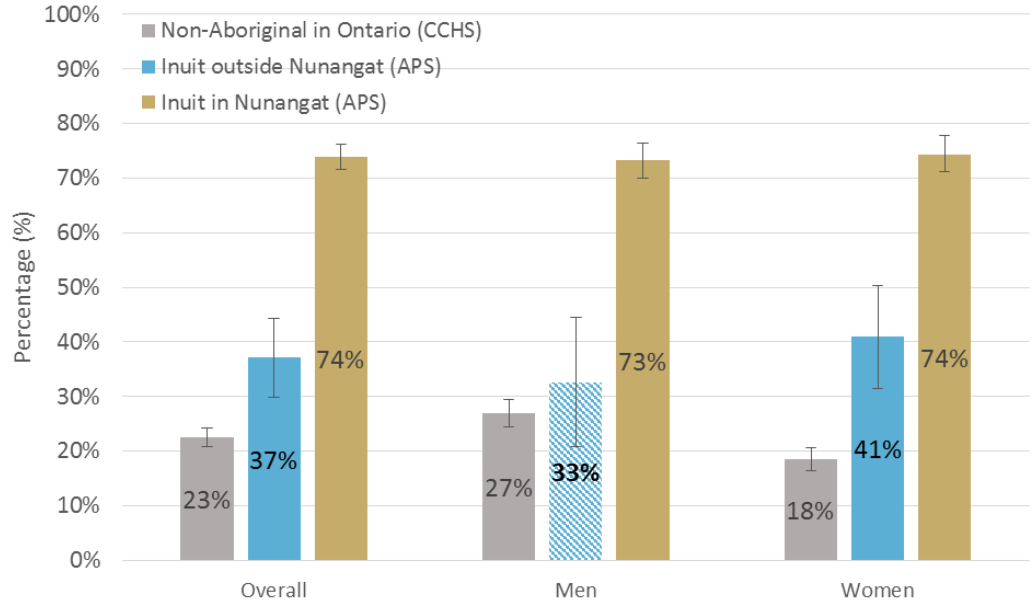
The prevalence of smoking was significantly higher for Métis adults with less than secondary education (57 percent), compared to those with a post-secondary degree (29 percent).

Non-smoking Métis adults (15 percent) were significantly more likely to be exposed to second-hand smoke in private vehicles or at home than non-smoking non-Aboriginal adults (8 percent). Second-hand smoke exposure at home or in vehicles was also significantly higher for Métis adolescents (37 percent) than for non-Aboriginal adolescents (17 percent) and Métis adults (15 percent). Métis adolescents (30 percent) were significantly more likely to be exposed to second-hand smoke in public places than Métis adults (16 percent).

Inuit

The prevalence of current smoking was higher in Inuit adults living in Ontario (34 percent) than in non-Aboriginal adults (23 percent), although not significantly. There is also high variability in the estimate for Inuit adults due to small sample sizes. Inuit living outside the traditional territories of Inuit Nunangat (i.e., living in southern Canada) were significantly more likely to smoke cigarettes, compared to non-Aboriginal adults. A significantly higher proportion of Inuit women living outside Inuit Nunangat (41 percent) than non-Aboriginal Ontario women (18 percent) smoked; among men,

33 percent of Inuit living outside Inuit Nunangat smoked, compared to 27 percent of non-Aboriginal men in Ontario (Figure 3).



Acronyms: CCHS=Canadian Community Health Survey, APS=Aboriginal Peoples Survey
Notes: Age-standardized to the 2006 Inuit population outside Nunangat.
I represents 95% confidence interval.
Diagonal shading indicates high sampling variability. Interpret with caution.
Source: Aboriginal Peoples Survey 2012 (Statistics Canada); Canadian Community Health Survey 2012 (Statistics Canada)

Figure 3. Percentage of Inuit adults in Canada and non-Aboriginal adults in Ontario (age 20+) who were current smokers, by sex, 2012.

Inuit living outside Inuit Nunangat who had completed less than secondary education (60 percent) were more likely to smoke than those who had completed a post-secondary degree (21 percent). The proportion of non-smoking Inuit living outside Inuit Nunangat regularly exposed to second-hand smoke in the home (19 percent) was significantly higher than the proportion of non-Aboriginal non-smoking Ontarians exposed to second-hand smoke in the home (7 percent).

Table 2. Age-standardized prevalence (%) of commercial tobacco exposure in First Nations, Métis, and Inuit populations and corresponding 95% confidence intervals.

	First Nations and comparison population (2007-2013)			Métis and comparison population (2007-2014)		Inuit and comparison population (2012)	
	First Nations on-reserve in Ontario (RHS)	First Nations off-reserve in Ontario (CCHS)	Non-Aboriginal in Ontario (CCHS)	Métis in Ontario (CCHS)	Non-Aboriginal in Ontario (CCHS)	Inuit outside Nunangat (APS)	Non-Aboriginal in Ontario (CCHS)
Current smoking by age (years)							
Men (20+)	50% (45, 55)	44% (39, 49)	26% (25, 26)	41% (35, 46)	25% (25, 26)	33%* (21, 44)	27% (24, 29)
Women (20+)	49% (45, 54)	41% (36, 46)	18% (17, 18)	33% (28, 38)	17% (17, 18)	41% (31, 50)	18% (16, 21)
Adolescents (12-17)	30% (25, 36)	14%* (9, 19)	4% (4, 5)				
Teens (12-19)				16%* (10,21)	7% (7, 8)		
Current smoking by education (both sexes combined, adults 25+)							
Less than secondary	58% (51, 64)	60% (53, 67)	34% (33, 36)	57% (47, 67)	38% (36, 40)	60%* (44, 76)	43% (36, 51)
Secondary or some post-secondary	47% (41, 53)	41% (34, 47)	27% (26, 28)	40% (31, 48)	29% (28, 30)	50%* (31, 69)	29% (25, 32)
Post-secondary	41% (35, 46)	30% (25, 34)	16% (15, 16)	29% (25, 34)	17% (16, 17)	22%* (13, 31)	16% (15, 17)
Second-hand smoke by location (both sexes combined, adults 20+)							
Home only						19% (14, 25)	7% (6, 8)
Home and vehicle		18% (15, 21)	8% (8, 9)	15% (10, 20)	8% (8, 9)		
Public places		14% (11, 17)	12% (12, 13)	16% (12, 20)	13% (12, 13)		

DISCUSSION

Implications

First Nations, Inuit and Métis people in Ontario generally had higher rates of exposure to commercial tobacco than non-Aborigi¬nal Ontarians. The high prevalence of cigarette smoking and second-hand smoke exposure suggests that First Nations, Inuit and Métis people may expe¬rience a greater future burden of cancer and other chronic diseases related to smoking. In addition to lung cancer, smoking ciga¬rettes is an established cause of many other types of cancer including mouth and throat, stomach, colorectal, pancreas, liver, cervix, ovary, kidney and bladder, and leu¬kemia (Gandini et al., 2008). Smoking also increases the risk of many other serious health conditions, including cardiovascular disease (e.g., heart attack) and chronic respiratory diseases (e.g., COPD) (U.S. Department of Health and Human Services, 2004). Of particular concern among the findings of this study is the proportion of First Nations, Inuit and Métis adolescents who reported smoking cigarettes. Lung cancer risk is closely linked to duration of smoking (Peto, 1986). Therefore, initiating cigarette use as an adolescent can increase the total number of years a person spends smoking and their risk of developing cancer. Studies of First Nations youth show very early smoking initiation (age 12 and younger) and easy access to cigarettes (Elton-Marshall et al., 2011; Lemstra et al., 2011).

Although few studies of cancer incidence in Indigenous populations have been conducted in Ontario (and in Canada), recent research has demonstrated increasing rates of smoking-related cancers in the First Nations population of the province. Among registered First Nations people (individuals who have status under Canada's Indian Act) in Ontario, the incidence of numerous cancers associated with tobacco exposure (including lung, colorectal and kidney cancers) is significantly higher than in the rest of the population (Chiefs of Ontario et al., 2017). Data on cancer patterns in Métis populations are even more limited. In Manitoba, the Métis population was found to have higher rates of lung cancer compared to all other Manitobans. Métis women also had higher lung cancer mortality rates than non-Aboriginal women in Canada (Tjepkema et al., 2009). There are no data available on cancer rates among Inuit living outside the traditional homeland, but studies of Inuit Nunangat and Inuit in the circumpolar region indicate lung cancer rates that are the highest in the world (Carrière et al., 2012; Circumpolar Inuit Cancer Review Working Group et al., 2008).

Data challenges

The lack of good-quality and comprehensive health data is a significant barrier to better understanding and reducing the risk of chronic diseases, including cancer, among First Nations, Inuit and Métis people in Ontario. A lack of ethnic identifiers in health administrative databases in Canada limits our understanding of the burden of cancer and health outcomes in these populations. In Ontario, the few studies that have estimated cancer incidence, mortality or survival in Indigenous populations have involved complex and costly data linkages between the Ontario Cancer Registry and registers of qualifying First Nations and Métis people (Marrett and Chaudhry, 2003; Withrow et al., 2012. http://www.metisnation.org/media/229177/mno%20cancer%20clinical%20significance%20report%20(29-mar-2012).pdf). These studies are limited in their generalizability, small population sizes (especially for Inuit) and relatively dated results; all of which convolute their ability to inform cancer control programming.

Differences in survey questions and methodology limit our ability to assess certain indicators, for instance, second-hand smoke exposure and smoking time trends for First Nations people living on-reserve. In addition, small sample sizes mean that some risk factor prevalence estimates for Inuit living in Ontario could not be reported (e.g.,

second-hand smoke exposure), and we could not stratify by the same sociodemographic factors across First Nations, Inuit and Métis populations. The need to use three different surveys (CCHS, RHS and APS), and three different time periods of observation is indicative of the challenges faced in this type of research. No one survey could be used to assess the prevalence of tobacco exposure across all three groups in Ontario. Access to data also varies by survey. The RHS is not publicly available, in keeping with the First Nations principles of OCAP™, or Ownership, Control, Access and Possession. Partnerships and knowledge-sharing between First Nations, Inuit and Métis groups, researchers and data custodians are essential to ensuring appropriate data use and governance.

Given that the CCHS, RHS and APS collect information through self-report, there may be a risk of social desirability bias, where survey respondents tend to under-report behaviours that are socially undesirable (i.e. smoking). It is unlikely that there would be a major difference in this effect across First Nations, Inuit, Métis and non-Aboriginal populations, and the effect on the relative estimates of prevalence for any given risk factor would be minimal.

What is being done in Ontario?

The Path to Prevention report, published by Cancer Care Ontario in 2015, summarizes the many organizations that are involved in chronic disease prevention activities—including tobacco control activities—specific to First Nations, Inuit and Métis populations in Ontario. The report presents four main recommendations to reduce or eliminate smoking and commercial tobacco use: develop a coordinated plan to prevent commercial tobacco use among First Nations, Inuit and Métis children and youth; establish commercial tobacco cessation programs and services in First Nations, Inuit and Métis communities; support the development of resources to address second- and third-hand smoke (residue from tobacco smoke on indoor surfaces) and support community-initiated and managed tobacco control measures, while respecting First Nations' rights. These recommendations were developed based on the knowledge and experience shared by First Nations, Inuit and Métis communities, organizations and individuals in a series of focus groups and interviews.

Building productive relationships is a strategic priority of the Aboriginal Cancer Strategy III. The Aboriginal Cancer Control Unit works closely with First Nations, Inuit, Métis and other organizations to better address their cancer issues and needs by formalizing relationships through Protocols or Memoranda of Understanding. This relationship building is key to building to kind of respect, trust and partnerships essential to further cancer control activities, including prevention.

Acknowledgements

The authors thank Michelle Rand for her assistance in reviewing the Path to Prevention content. We also thank the Aboriginal Cancer Control Unit and Aboriginal Tobacco Program of Cancer Care Ontario for their support.

Conflict of interest statement

The author has declared that no competing or conflict of interests exist. The funders had no role in study design, writing of the manuscript and decision to publish.

Authors' contributions

CC and SJ performed the data analysis. LM, AS and MM conceptualized and implemented the study. CC drafted the article, all authors critically reviewed it for important intellectual content. All authors gave final approval of the version to be published.

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