Tobacco use and misuse among Indigenous children and youth in Canada

Radha Jetty

Canadian Paediatric Society, First Nations, Inuit and Métis Health Committee, Ottawa, Ontario

Correspondence: Canadian Paediatric Society, 100-2305 St. Laurent Blvd, Ottawa, Ontario K1G 4J8.
E-mail info@cps.ca, website: www.cps.ca

Abstract

While tobacco is sacred in many Indigenous cultures, the recreational misuse of commercial tobacco is highly addictive and harmful. Tobacco misuse is the leading preventable cause of premature death in the world. Smoking rates among Canadian Indigenous youth are at least three times higher than for their non-Aboriginal peers, an alarming statistic on many levels. The tolls on health from extensive tobacco use range from disproportionately high individual mortality and morbidity to heavy socioeconomic burdens on Indigenous communities. Paediatric health care providers are uniquely positioned to collaborate with community stakeholders to prevent and treat tobacco misuse in young people and their families, while understanding the cultural value of tobacco for many Indigenous peoples. Targeted interventions can positively impact length and quality of life, improve overall health and decrease the immense social and human costs of tobacco misuse.

Keywords: Aboriginal; Children; Indigenous; Smoking; Tobacco; Youth

TERMINOLOGY

The term ‘tobacco misuse’ encompasses the recreational use of cigarettes, cigarillos, pipes, chewing tobacco, snuff and electronic cigarettes, but not the traditional use of tobacco by Indigenous groups for medicinal and ceremonial purposes.

There is debate about which term should be used to collectively refer to First Nations, Inuit and Métis peoples. The authors acknowledge that these populations are distinct but also recognize that there are similarities in their circumstances and health outcomes. Whenever possible, specific data are reported for individual populations. For this position statement, the word ‘Indigenous’ is used synonymously with ‘Aboriginal’ to address all three groups.

THE TRADITIONAL USE OF TOBACCO

Sacred tobacco use and the recreational use of commercial tobacco, especially cigarette smoking, have separate purposes and functions.

The medicinal and ceremonial use of tobacco by First Nations peoples predates European contact. Tobacco is offered up and ceremonially burned to establish a direct link with the spiritual world. With the traditional use of tobacco, inhalation is minimal (1). By contrast, the recreational use of commercial tobacco, which involves inhaling the smoke of commercial products having a high content of nicotine and toxic additives, is addictive and harmful. First Nations Elders maintain that using tobacco recreationally is disrespectful of tradition. The Assembly of First Nations promotes traditional tobacco, Nicotiana rustica, for ceremonial use, not commercial tobaccos, such as cigarettes (2). The use of commercial tobacco for ceremonial purposes would send a confusing message to children and youth.

PREVALENCE

In Canada in 2012, 11% of youth 15 to 19 years of age were current smokers (3). Smoking rates in Canadian Indigenous youth remain alarming, but in 2012 they were 31% in Métis youth, 33% in First Nations youth and 56% in Inuit youth (4,5). In Nunavut, the rate rises to 65%. The overall smoking rate among Canadian youth has decreased, from 25% in 1985 to 11% in 2012, but a similar decline has not been seen among Canada’s Indigenous youth, especially in girls, which indicates a widening gap in health-related behaviours (3,5,6). Despite increasing rates of quit attempts, smoking rates remain significantly higher in Indigenous youth than in their non-Indigenous peers (7).

RISK FACTORS

Early age of smoking initiation

The average Canadian Indigenous person initiates smoking at age 12, several years earlier than other Canadians (who on average begin to smoke at age 19) (3,5,6). A younger age of onset is associated with a higher risk for nicotine addiction (8,9).
Access to tobacco and modelling by parents and peers
The influence of parents and peers is a primary factor causing children and youth to start smoking. Young people are particularly influenced by people around them and cannot access legal tobacco products unless an older individual purchases products for them. Research conducted collaboratively with Aboriginal teen focus groups in interior British Columbia revealed that family played an important role in teen smoking initiation (10). The Youth Smoking Survey found that 82% of smokers in grades 6 to 9 reported obtaining their cigarettes from friends, family members or other social sources (11). Easy access to cigarettes and having a best friend who smokes are two powerful predictors that a young person will start smoking (6). By contrast, a supportive home environment (smoke-free, with emotional and social supports) is significant for preventing Indigenous youth from starting to smoke (5,6,12).

High rates of household crowding, coupled with high overall smoking rates in Indigenous homes, lead to high numbers of in-home smokers and the normalization of smoking behaviours, thus increasing the likelihood of exposed children and youth becoming smokers themselves (13).

Other addictions and mental health problems
Tobacco use is associated with other addictive behaviours, such as higher levels of alcohol consumption and gambling, both of which are more prevalent in Indigenous youth than in their non-Indigenous peers (6,14).

Mental health problems are also a significant risk factor for addictions. Young people with higher depression scores are at greater risk for smoking. Low self-esteem, stress, boredom and low academic achievement all affect the initiation of tobacco use in Indigenous children and youth (15). A study of Saskatoon First Nations youth found that not having a happy home life and suicide ideation were independent risk indicators for smoking. This finding may be especially significant in areas like Nunavut, where suicide rates are up to 11 times higher than the national average (12).

Recognizing and addressing the roles of emotional trauma and colonization in the development of addictions will be crucial to reducing rates of tobacco addiction among Indigenous peoples.

Unemployment and poverty
Smoking is more prevalent among the poor and the unemployed. The unemployment rate for Aboriginal people is high, at 13.9% compared with 8.1% for non-Aboriginal people. Furthermore, there is a 30% median income gap between Aboriginal people and other Canadians (5).

THE HEALTH TOLLS OF TOBACCO USE
Exposure in utero
Smoking during pregnancy increases the risk of perinatal mortality, preterm birth, low birth weight, congenital abnormalities such as gastroschisis, and sudden infant death syndrome (SIDS). Smoking is also associated with decreased breast milk volumes and shorter breastfeeding durations. It also increases the risk of behavioural problems and reduced academic achievement in children. All of these issues are more prevalent in the Indigenous, compared with the general population (9,16).

In Nunavut, 60% to 80% of pregnant women report smoking in pregnancy, a rate five times higher than the Canadian average. Nunavut also has the highest rates of preterm births and low-birth-weight infants in Canada (15). In a study in Northern Quebec, 92% of women reported smoking during pregnancy (17). A study in Manitoba found that 61% of Aboriginal women smoked during pregnancy, versus 26% of non-Aboriginal women (18,19).

Exposure during childhood
In Canada, Indigenous children are involuntarily exposed to environmental tobacco smoke at home and in cars more often than young Canadians overall (37.3% versus 19% and 51.0% versus 30.3%, respectively) (16). As a result, they are at increased risk for respiratory illnesses, ear infections, SIDS, cancer, neurocognitive deficits and behavioural problems (11). A study of indoor air quality in Nunavut revealed that reduced ventilation and overcrowding were strongly associated with lower respiratory tract infection rates. Smokers were present in 94% of these households and nicotine levels exceeded average levels in one-quarter of the dwellings under study (20).

Exposure to tobacco smoke, especially from a parent, is associated with increased prevalence of otitis media, a significant preventable cause of childhood hearing loss (13). Indigenous children worldwide have the highest prevalence of otitis media and hearing loss, with some northern Indigenous communities experiencing otitis media rates as high as 40 times those found in the urban south (21). Moreover, second-hand smoking exposure significantly increases the risk for childhood invasive meningococcal disease (22).

Canadian Indigenous populations experience infant mortality rates that are three times higher than for non-Indigenous, with SIDS reported as a leading cause (23). Researchers have established that sufficient evidence is now available to infer a causal relationship between exposure to second-hand smoke and sudden infant death syndrome. Co-sleeping, high rates of infection and low breastfeeding rates are also contributory, but smoking likely plays a significant role (8).

Cancer, cardiovascular disease and type II diabetes
Indigenous populations in North America are exhibiting an increased prevalence of cancer, cardiovascular disease and type II diabetes, believed to be related to the adoption of Western lifestyles and habits, including cigarette smoking. A study in Northwestern Ontario found an association between high rates of cigarette smoking in Aboriginal adolescents 15 to 19 years of age, high blood pressure and high homocysteine levels, both indicators for an early-onset effect (24).

Along with cardiovascular disease, cancer is a leading cause of death in the Indigenous population (8). Canadian Inuit have the highest rates of lung cancer in the world (25).

Deaths caused by tobacco misuse
For long-time smokers, the chance of dying from smoking-related causes, either directly or indirectly, is one in two. Long-time smokers lose an average of 22 years of life. Among First Nations young adults, the risk of premature death from smoking-related causes has been shown to be as high as 50% (26). Among British Columbia’s First Nations populations, up to 8.3% of infant deaths were found to be potentially preventable if smoking were eliminated from households, compared with 1.4% of all Canadian infant deaths (6).

Health care and societal costs
The Canadian Centre on Substance Abuse estimated that the direct health care costs related to tobacco misuse were over $4.3 billion annually (27). The high rates of addiction and poverty in Indigenous communities that are exacerbated when smokers divert funds to buy tobacco have far-reaching consequences for society as well as for individuals (lost productivity being just one example).

WHAT WORKS IN PREVENTING AND TREATING TOBACCO MISUSE BY INDIGENOUS YOUTH?
Strategies that target the individual
Having health care providers who inquire about individual tobacco use and provide strong messaging at clinic visits around abstinence may help to prevent children and youth from starting to smoke. Counselling has been shown to be effective in the treatment of adolescent smokers. However, much more research in this area is needed. The ‘5As’ model for behaviour change provides a sequence of evidence-based clinician and office practice behaviours (Ask, Advise, Assess, Assist, Arrange) that can be applied in primary care settings to address smoking prevention and cessation (28,29).
Nicotine replacement therapies (NRTs), such as transdermal patches and nicotine gums, are recommended only for regular smokers. Bupropion and varenicline are safe and effective in adults but should be used with caution in adolescents (30). The Canadian Paediatric Society’s Adolescent Health Committee has published specific guidance on promoting smoking cessation and preventing smoking initiation in this age group (31,32).

It is especially difficult for Indigenous youth to stop smoking when their parents or siblings smoke, and Indigenous youth have indicated that family support is an important factor in encouraging them to quit using tobacco (6). It may be more effective for health care providers to address smoking in the whole family context, with focus on counselling parents about the harmful effects of environmental tobacco smoke exposure and providing them with smoking cessation resources and treatment. Most parents who smoke (85%) consider it acceptable for their child’s paediatrician to prescribe an NRT for them, but few do so (16).

In view of the high smoking rates during pregnancy among Indigenous, especially Inuit, women, prescribing pharmacotherapies for women in pregnancy for whom counselling has been ineffective may have important benefits as a harm reduction strategy (33,34).

Health care providers should be aware of the Non-Insured Health Benefits Program (NIHB). The federal health coverage plan for eligible First Nations and Inuit peoples (but not Métis) provides drug coverage for all smoking cessation pharmacotherapy agents (35).

However, First Nations smokers appear to use NRTs less often than other Canadian smokers, even when they are highly motivated to quit, a finding probably related to the underutilization of physician services and a generally greater unwillingness to use drug therapy. Use of these agents would increase if the need for a physician prescription was eliminated and efforts were made to increase awareness of their effectiveness (6).

Health care providers should become familiar with local cessation supports available to or targeting Indigenous smokers, such as telephone quit-lines, community cessation groups, mentorship by Elders or healing spiritual or cultural practices. One should not assume that all Indigenous young people want programming specific to their Indigenous traditions. However, a holistic approach that addresses psychosocial and socioeconomic factors, such as unemployment, housing, domestic violence, other addictions, mental health problems and past trauma, are more likely to reduce tobacco use in this population (34). It is essential that comorbid mental health problems, such as depression, anxiety and post-traumatic stress disorder, be identified and treated at the same time.

Higher quit rates have been demonstrated for Indigenous smokers using quit-lines compared with the general population. Quit-lines are cost-effective and can reach a large proportion of smokers (6). A national project is underway to make quit-lines available in all provinces and territories, with a special effort to include Inuit and First Nations smokers (36).

Physical activity builds resiliency among Indigenous youth (37), and participation in organized sport may be a protective factor against tobacco use for this population (6).

When addressing tobacco misuse, health care providers working with Indigenous peoples must be aware of, and sensitive to, their historic mistrust of conventional medicine and the impacts of colonization on health and recovery from disease (6,38).

THE COMMUNITY

There are limited data on the effectiveness of population-based smoking cessation strategies in Indigenous communities. However, a Canada-wide environmental scan of tobacco cessation strategies for First Nations, Inuit and Métis peoples found that successful initiatives included the following components: they were culturally relevant; they involved local orientation and facilitation; they were flexible, responsive and holistic; they included facilitator training; they highlighted traditional activities, knowledge and values; they recognized contemporary lifestyles; they cooperated with existing systems and resources; they showed a high degree of respect and trust in the individuals and groups involved; and they created partnerships (37,39).

Elders in Indigenous communities represent a culturally relevant but often underused resource. Communities might consider drawing upon their wisdom and influence to help decrease tobacco exposure (6).

Efforts to address peer smoking, to de-normalize smoking and to create supportive tobacco-free environments for youth may increase the success of smoking prevention and cessation programs for young smokers (10). Culturally appropriate strategies and tools should also be translated into the language with which young people are the most comfortable (14). However, what is culturally appropriate for one Indigenous community may be less appropriate for another. Targeted examples include ‘Our Ancestors Never Smoked,’ a compilation of Inuit elders’ reflections highlighting their people’s distinct history with tobacco. A smoking prevention program that was culturally adapted for Indigenous children in Alberta and that incorporated the medicine wheel (symbolizing the spiritual, mental, emotional and physical aspects of health), was found to significantly reduce future smoking intentions when compared with standard approaches (40).

Examples of community-based practice include tool kits for schools and community centres, structured smoke-free challenges (e.g., ‘quit and win’), mass media campaigns and targeted local programs to reduce exposure to second-hand smoke (37,41). Mass-reach health communication interventions that include social media are emerging as effective means to target specific audiences, such as youth (42).

School-based quit and win challenges that reward successful student participants and validate the decision to be smoke-free have been widely implemented across Canada (37).

Smoking cessation counselling provided by telehealth videoconferencing was shown to be effective in rural and remote regions of Alberta and the Northwest Territories (36).

PUBLIC POLICY

Although the health tolls of tobacco misuse are more significant than alcohol-related costs and outcomes, there is no minimum legal age for tobacco use in Canada. The legal age to purchase cigarettes is 19 in most provinces and territories and age 18 years in Alberta, Saskatchewan, Manitoba and Quebec. However, Canadian children and youth are starting to smoke much earlier than this.

The WHO and Health Canada have advocated for and secured the passage of legislation to: ensure tobacco-free environments (e.g., smoke-free indoor and outdoor public spaces); standardize legal age limits for the use and purchase of tobacco products, including e-cigarettes; penalize the sale or supply of tobacco products to minors; eliminate unsupervised sales (e.g., through vending machines, online merchants); require health warnings on tobacco products; and ban advertisements and sponsorships by tobacco companies. Where there are penalties in place for selling or supplying tobacco to minors, there should be an extra push to strengthen and enforce those penalties as additional deterrents. The Canadian Paediatric Society has called for a ban on smoking in vehicles with occupants <16 years of age, yet many provinces and territories with the highest smoking rates have not adopted this legislation (43).

Taxation is a proven effective tobacco control strategy. Rates of tobacco use vary inversely with price, and youth are especially sensitive to price increases on cigarettes. Raising the price of cigarettes is an important determinant of youth smoking behaviour, and it is important to enforce tobacco control strategies that eliminate

• Ask about tobacco use and environmental exposure to tobacco smoke.
• Advise to quit.
• Assess willingness to quit.
• Assist with counseling, pharmacotherapy and local supportive resources.
• Arrange follow-up.

There are limited data on the effectiveness of population-based smoking cessation strategies in Indigenous communities. However, a Canada-wide
access to cheaper sources of tobacco, such as tax-free or contraband products. The 2006/2007 Youth Smoking Survey found that contraband cigarettes accounted for about 17.5% of all cigarettes smoked by adolescent daily smokers in Canada overall, and for more than 25% in the provinces of Ontario and Quebec (21,44).

To date, important national surveys such as the Canadian Tobacco Use Monitoring Survey and the Youth Smoking Survey have excluded the most high-risk regions in Canada, namely Nunavut, the Northwest Territories and Yukon. To drive future Indigenous-specific policy, national studies need to anticipate challenges and institute measures to ensure adequate data collection from regions with the highest prevalence of smokers in the country.

Community-based participatory approaches that develop tobacco prevention and cessation strategies focused on local conditions and needs are proving to be the most effective (42,45). Sustained funding is badly needed to conduct research and implement evidence-based programs.

SUMMARY

The high prevalence of tobacco use and misuse among Indigenous peoples, compared with the general population, remains a major public health challenge, with long-term implications for infants, children, youth and pregnant women who are exposed to second-hand smoke. Preventing and reducing tobacco misuse among Indigenous children and youth requires family-centred, culturally appropriate, multi-faceted approaches that are rooted in community and supported at every government level.

The following recommendations to prevent smoking initiation and promote smoking cessation among Indigenous children and youth were generated through consensus and prepared collaboratively with a number of Canadian Indigenous and non-Indigenous groups.

RECOMMENDATIONS

For health care providers

- Understand the distinction between traditional and commercial tobacco use and how such practices apply to some (not all) Canadian Indigenous groups.
- Ask about and document family smoking and exposure to tobacco smoke at all health appointments.
- Use the ‘5As’ method to provide anticipatory guidance and cessation counselling.
- Become familiar with and inform families about local smoking prevention and cessation resources. Provide in-office contact and other information regarding community and supportive programs.
- Be aware of and prescribe NRTs for regular teenage smokers. While the state of the evidence appears to be promising, it is not yet sufficient to recommend the use of bupropion and varenicline in youth. (Note that all these therapies are covered for First Nations and Inuit people by Health Canada’s Non-Insured Health Benefits Program.)
- Initiate family-centred smoking cessation interventions in accordance with your scope of practice (e.g., by prescribing pharmacotherapy for parents, as appropriate).
- Focus on tobacco use in pregnancy and consider using NRT for women who are pregnant and for whom counselling has been ineffective.
- Assess, refer and address comorbid mental health and addiction problems along with smoking cessation, as needed.
- Initiate tobacco prevention counselling earlier in Aboriginal communities because of the younger smoking initiation age.
- Be a role model: take steps to quit smoking if you are regular smoker.

For Indigenous communities and governments (federal/provincial/territorial)

- Advocate for the use of traditional tobacco (N rustica) instead of commercial tobacco (especially cigarettes) for ceremonial purposes.
- Use culturally appropriate school-based and community interventions, including social media, to target Indigenous children and youth.
- Enact and enforce a minimum legal age limit for tobacco use.
- Enact, strengthen and enforce penalties for selling and supplying tobacco products (including e-cigarettes) to minors.
- Enact and enforce indoor and outdoor smoke-free bans on non-traditional tobacco use.
- Enact and enforce legislation to ban smoking in vehicles with occupants <16 years of age.
- Eliminate the unsupervised sale of tobacco products (e.g., through vending machines and online).
- Enact and enforce measures to prevent the sale of contraband tobacco products (e.g., levy a surcharge on non-traditional tobacco to match off-reserve prices).
- Ensure that tax revenues are used for smoking prevention and cessation education and programming.
- Ensure access to tobacco cessation and prevention services for all Indigenous people.

For researchers

- Strengthen data collection about tobacco use and misuse among Indigenous communities.
- Promote community-based participatory research to evaluate and identify best practices for culturally appropriate prevention and cessation strategies for Indigenous children and youth.

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References

29. CAN-ADAPTT. Canadian Smoking Cessation Clinical Practice Guideline. Toronto: Canadian Action Network for the Advancement, Dissemination and Adoption of Tobacco Control, 2008;77(4):483–90.
41. Aboriginal-Focused Resources for Commercial Tobacco Cessation: An Environmental Scan of Resources, Programs and Tools. TEACH Project, Centre for Addiction and Mental Health STOP study, 2011.