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NUNAVIK 2017

SUBSTANCE USE

QANUILIRPITAA? 2017

Nunavik Inuit Health Survey



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In memory of Audrey Flemming and Linda Shipaluk.

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1

BACKGROUND OF THE QANUILIRPITAA? 2017 HEALTH SURVEY

The *Qanuilirpitaa?* 2017 Health Survey is a major population health survey conducted in Nunavik that involved the collection, analysis and dissemination of information on the health status of Nunavimmiut. The last health survey conducted prior to it in Nunavik dated from 2004. Since then, no other surveys providing updated information on the health of this population had been carried out. Thus, in February 2014, the Board of Directors of the Nunavik Regional Board of Health and Social Services (NRBHSS) unanimously adopted a resolution to conduct a new health survey in all 14 Nunavik communities, in support of the Strategic Regional Plan.

The general objective of the 2017 health survey was to provide an up-to-date portrait of the health status of Nunavimmiut. It was also aimed at assessing trends and following up on the health and health determinants of adult participants since 2004, as well as evaluating the health status of Nunavik youth. This health survey has strived to move beyond traditional survey approaches so as to nurture the research capabilities and skills of Inuit and support the development and empowerment of communities.

Qanuilirpitaa? 2017 included four different components: 1) an adult component to document the mental and physical health status of adults in 2017 and follow up on the adult cohort of 2004; 2) a youth component to establish a new cohort of Nunavimmiut aged 16 to 30 years old and to document their mental and physical health status; 3) a community component to establish the health profiles and assets of communities in a participatory research approach; and 4) a community mobilization project aimed at mobilizing communities and fostering their development.

This health survey relied on a high degree of partnership within Nunavik (Nunavik Regional Board of Health and Social Services (NRBHSS), Makivik Corporation, Kativik Regional Government (KRG), Kativik Ilisarniliriniq (KI), Avataq Cultural Institute, Qarjuit Youth Council, Inuulitsivik Health Centre, Ungava Tulattavik Health Centre), as well as

between Nunavik, the Institut national de santé publique du Québec (INSPQ) and academic researchers from three Canadian universities: Université Laval, McGill University and Trent University. This approach followed the OCAP principles of Ownership, Control, Access and Possession (First Nations Information Governance Centre, 2007).¹ It also emphasized the following values and principles: empowerment and self-determination, respect, value, relevance and usefulness, trust, transparency, engagement, scientific rigour and a realistic approach.

TARGET POPULATION

The survey target population was all permanent Nunavik residents aged 16 years and over. Persons living full time in public institutions were not included in the survey. The most up-to-date beneficiaries register of all Inuit living in Nunavik, provided by the Makivik Corporation in spring 2017, was used to construct the main survey frame. According to this register, the population of Nunavik was 12 488 inhabitants spread out in 14 communities. This register allowed respondents to be selected on the basis of age, sex and coast of residence (Hudson coast and Ungava coast).

SURVEY FRAME

The survey used a stratified proportional model to select respondents. Stratification was conducted based on communities and age groups, given that one of the main objectives of the survey was to provide estimates for two subpopulations aged, respectively, 16 to 30 years and 31 years and over. In order to obtain precise estimates, the targeted sample size was 1 000 respondents in each age group. Assuming a 50% response rate, nearly 4 000 people were required to obtain the necessary sample size. From this pool, the number of individuals recruited from each

1. OCAP® is a registered trademark of the First Nations Information Governance Centre (FNIGC).

community was proportionate to population size and took into account the number of days that the survey team would remain in each community – a situation that imposed constraints on the number of participants that could be seen. Within each stratum, participants were randomly selected from the beneficiaries register. However, the individuals from the 2004 cohort, all 31 years old and over (representing approximately 700 individuals), were automatically included in the initial sample.

DATA COLLECTION

Data were collected from August 19, 2017 to October 5, 2017 in the 14 villages. The villages were reached by the *Amundsen*, a Canadian Coast Guard Icebreaker, and participants were invited on board the ship for data collection purposes.

Two recruitment teams travelled from one community to another before the ship's arrival. An Inuk assistant in each community helped: identify, contact and transport (if necessary) each participant; inform participants about the sampling and study procedures; obtain informed consent from participants (video) and fill in the identification sheet and sociodemographic questionnaire.

Data collection procedures for the survey included questionnaires, as well as clinical measurements. The survey duration was about four hours for each wave of participants, including their transportation to and from the ship. Unfortunately, this time frame was sometimes insufficient to complete the data collection process. This survey received ethical approval by the Comité d'éthique de la recherche du Centre Hospitalier Universitaire de Québec – Université Laval.

Aboard the ship, the survey questionnaires were administered by interviewers, many of whom were Inuit. Face-to-face interviews were conducted using a computer-assisted interviewing tool. If there were problems with the laptop connections, paper-form questionnaires were filled out. The questionnaires were administered in Inuktitut, English or French, according to the preference of the participants. Interviewers received training in administering the questionnaires prior to the start of the survey. The questionnaires were divided into five blocks: psychosocial interview (blocks 1 and 3), physical health and food security interview (block 2), food frequency questionnaire (block 4), and sociodemographic interview (block 5).

The survey also included a clinical component, with tests to document aspects of physical health, sampling of biological specimens (such as blood, oropharyngeal swabs, urine, stool, and vaginal swabs), spirometry, and an oral clinical exam. These sessions were supervised by a team comprised of nurses, respiratory therapists, dentists, dental hygienists and assistants, and laboratory technicians.

PARTICIPATION

There were a total of 1 326 participants, including 574 Nunavimmiut aged 16 to 30 years old and 752 Nunavimmiut aged 31 years and over, for total response rates of 30.7% and 41.5%, respectively. The participants' distribution between the two coasts (Ungava and Hudson) was similar. The distribution of men and women was unequal, with twice as many women (873) than men (453) participating in the survey. If the results obtained from this sample are to be inferred to the target population, survey weights must be used.

Overall, as compared to the 2004 survey, the response rate (i.e., the rate of participants over the total number of individuals on the sampling list) was lower than expected, especially among young people. This includes the refusal rate and especially a low contact rate. Several reasons might explain the low response rate, including the short time period available to contact individuals prior to the ship's arrival in the community and non-contact due to people being outside of the community or on the land. Nevertheless, among the individuals that were contacted (n = 1 661), the participation rate was satisfactory with an internal participation rate of 79.7%. More details on the collection, processing and analysis of the data are given in the Methodological Report (Hamel, Hamel et Gagnon, 2020).

2 INTRODUCTION

Healthy lifestyles, which involve exposing oneself to diversified nutrition, practicing physical activity frequently, and nurturing satisfying relationships with friends and family, is paramount to decreasing the risk of presenting health problems (Loef & Walach, 2012). Both physical and mental health can be negatively affected by substance use, which is defined as the consumption of psychoactive substances (tobacco, alcohol, cannabis, and other drugs), no matter how they are consumed (through drinking, smoking, vaping, chewing, injecting, etc.). Substance misuse occurs when a pattern of use is inconsistent with legal or medical guidelines and is frequently associated with adverse physical, psychological, social or legal consequences for the user, even in the absence of any use disorder (World Health Organization, 2019a). Substance misuse is of particular concern for young and middle-aged adults as it is associated with many leading causes of mortality and morbidity among these age groups, including unintentional injury, suicide, cancer and heart disease (Ray, 2017). Indeed, in 2012, substance use was estimated to be responsible for one fifth of all deaths in Canada (Patra, Taylor, Rehm, & Baliunas, 2007). In addition to the adverse effects on physical and mental health, substance use has long been recognized as having major psychosocial consequences, such as relationship instability, interpersonal violence, educational problems, and employment and financial difficulties (World Health Organization. Programme on Substance Abuse, 1993).

In Nunavik, substance abuse is influenced by several factors, such as dealing with conditions of overcrowding, unemployment, and rapid cultural, economic, social and environmental changes. Loss of community members to suicide, injuries and accidents means that communities regularly experience crisis and grief. The long-term, intergenerational effects of residential schooling and other traumas also contribute to substance misuse (Cameron, 2011).

The *Qanuippitaa? 2004* survey revealed a high prevalence of tobacco, alcohol and cannabis use among Nunavimmiut. Indeed, 70% of Nunavimmiut reported daily smoking in 2004. Binge drinking (five drinks or more on a single occasion) was also widespread with close to nine out of ten Nunavimmiut having drunk heavily at least once in the year prior to the survey. Cannabis was the drug most frequently used, with 60% of the population reporting marijuana or hashish use during the 12 months preceding *Qanuippitaa? 2004* (Muckle, Boucher & Laflamme, 2007).

The goal of this report is to describe the occurrence of tobacco, alcohol and drug use in Nunavik in relation to certain sociodemographic and sociocultural characteristics. It is divided into four sections presenting the results of the *Qanuillirpita? 2017* Health Survey regarding, respectively, tobacco products use, alcohol consumption, drug use, and harm perception of substance use behaviours.

3 METHODOLOGICAL ASPECTS

A questionnaire (in Inuktitut or English) was used in the *Qanuilirpitaa? 2017 Health Survey* to gather information on tobacco products, alcohol and drug use (see Appendix A for the list of questions). Participants were interviewed by a trained interviewer who administered the questionnaire using computer-assisted interviewing software.

Tobacco products use was documented mainly for cigarette smoking, which is the most common form of tobacco use worldwide. Taking into account the reported frequency of smoking in the year preceding the survey, participants were classified according to their current smoking status: daily smokers, occasional smokers (smoked in the past 12 months, but not daily) and non-smokers (former smokers and lifetime abstainers). Tobacco smoking initiation, number of cigarettes smoked daily and smoking cessation were also documented.

Frequency of alcohol consumption was assessed for the year preceding the survey: monthly drinking (drank alcohol at least once a month), occasional drinking (drank less than once a month), former drinking (drank in one's lifetime but not in the previous year) and abstention (never drank alcohol). Binge drinking was defined for both men and women as having had five or more drinks on a single occasion (same evening, same party, etc.) in the year preceding the survey. A standard drink was defined as one bottle or can of beer, one glass of wine or wine cooler, one shooter or one cocktail with 1½ ounces of liquor.

The CAGE questionnaire (Ewing, 1984) was integrated into the *Qanuilirpitaa? 2017* survey questionnaire to assess potential problem drinking. This instrument is composed of four questions: "Have you ever felt that you should cut down on your drinking?"; "Have people ever annoyed you by criticizing your drinking (such as, partner, children, boss, co-workers of friends)?"; "Have you ever felt bad or guilty about your drinking?"; "Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?". The questions are rated on a dichotomous yes/no scale and the CAGE total score is the count of affirmative answers. The CAGE is a widely used screening instrument for detecting potential alcohol abuse and alcohol dependence (Fiellin, Reid, & O'Connor, 2000). A CAGE total score of 2 or higher is not equivalent to a

diagnosis of alcoholism, but it may be a sign of problem alcohol consumption that puts an individual at risk of having negative impacts on their daily life. As with the *Qanuippitaa? 2004* survey, a CAGE score using the cut-off of 3 or higher was also used to represent the variability in the severity of problems related to alcohol consumption.

Lifetime drug use (any drug) as well as lifetime solvent use were also documented. Cannabis use was assessed for the year preceding the survey, with the following classification: daily use, regular use (more than once a month, but not daily), occasional use (less than once a month), abstinence (no cannabis use). Problems related to drug abuse were assessed by the DAST-10 screening tool. Derived from the DAST screening tool, the DAST-10 consists of 10 questions concerning involvement with drugs, excluding alcohol and tobacco, in the past 12 months (Skinner, 1982). This tool has been used and validated in many settings (hospital, primary care, self-assessment) and in many populations (Yudko, Lozhkina, & Fouts, 2007). In the present survey sample, the DAST-10 had a moderate internal consistency (Cronbach $\alpha = 0.60$), which is lower than what is usually reported (around 0.90) (Yudko et al., 2007). DAST-10 scores are usually interpreted using 5 categories based on the degree of problems related to drug abuse: no problems, low level, moderate level, substantial level and severe level. However, due to the distribution of the scores in the sample, the low to severe levels were combined to create a dichotomous variable of potential problems related to drug abuse (no problems/low to severe level).

Finally, harm perception of regular and occasional cigarette smoking was documented on a 4-level scale (no risk/slight risk/moderate risk/great risk) using a question from the Canadian Student Tobacco, Alcohol and Drugs Survey: "How much do you think people risk harming themselves when they smoke cigarettes on a regular basis?" (Statistics Canada, 2015). Harm perception of regular cannabis use was also documented on a 4-level scale (no risk/slight risk/moderate risk/great risk) using a question from the Canadian Student Tobacco, Alcohol and Drugs Survey: "How much do you think people risk harming themselves when they smoke weed, marijuana or cannabis on a regular basis?" (Statistics Canada, 2015).

The analyses presented in this thematic report include cross-tabulations by sex (men/women), coastal region (Hudson/Ungava),² age group (16 to 30/31 to 54/55 years and over), marital status (single/married or common law/separated, divorced or widowed), education (elementary school or less/secondary school not completed/secondary school or higher), employment (employed/not employed),³ annual personal income (less than \$20 000/\$20 000 or more), and community size (large/small).⁴ Also, given that rapid changes in behaviours and attitudes with regard to substance use occur in youth, the younger age group (16 to 30 years old) was divided, for some analyses, into individuals 16 to 20 years old and those 21 to 30 years old.

To integrate cultural specificities that may influence substance use, associations with several sociocultural indicators were examined (Table 1). Additional information on these sociocultural indicators as well as the related list of questions can be found in the Sociocultural Determinants of Health and Wellness Thematic Report.

Table 1 Sociocultural indicators

CULTURAL IDENTITY	Thirteen statements asking about the importance of Inuit values and identity (e.g., perceived connection among community members, adherence to cultural values) Likert scale: 1-Strongly agree to 5-Strongly disagree; Comparisons: high cultural identity (top 30 percentiles) vs. other
FREQUENCY OF GOING ON THE LAND	“From the Spring until now, how often did you go on the land?” Likert scale: 1-Never, 2-Occasionally, 3-Often; Comparisons: Often vs. Occasionally or Never
FOUR TYPES OF SOCIAL SUPPORT	6 questions. Frequency of four types of social support: <ul style="list-style-type: none"> > positive interactions: “Have someone to have a good time with” > emotional support: “Have someone to talk to if I feel troubled or need emotional support”, “Have someone to count on when I need advice”, “Have someone to listen when I need to talk” > tangible support for transportation to health services: “Have someone to take me to the doctor or another health professional if needed” > love and affection: “Have someone who shows me love and affection” Likert scale: 1-All of the time to 5-Never; Comparisons: number of types present (All or Most of the time (for the item or for all three items) vs. other answers)

Table 1 Sociocultural indicators (*continued*)

FAMILY COHESION	6 questions: 5 from the Brief Family Relationship Scale questionnaire + one adapted to Inuit culture. In my close family,...”there is a feeling of togetherness”, “we really help and support each other”, “we really get along well with each other”, “we spend a lot of time doing things together at home”, “we spend a lot of time doing things together on the land”, “I am proud to be a part of my family” Likert scale: 1-Very true to 3-Not true; Comparisons: high family cohesion (top 30 percentiles) vs. other
COMMUNITY COHESION	4 questions on people’s perception of social cohesion in the community: “There is a feeling of togetherness or closeness”, “People help others”, “People can be trusted”, “I feel like I belong” Likert scale: 1-Strongly agree to 5-Strongly disagree; Comparisons: high community cohesion (top 30 percentiles) vs. other
INVOLVEMENT IN COMMUNITY ACTIVITIES	Frequency of involvement in two types of community activities: “Participation in cultural, community or sports events such as festivals, dances, feasts or Inuit games”, “Volunteered for a group, an organization or community event such as a rescue team, church group, feasts, spring clean-up” Likert scale: 1-Always to 5-Never; Comparisons: Always or Often vs. Sometimes, Rarely or Never
PARTICIPATION IN HEALING AND WELLNESS ACTIVITIES	“In the past 12 months, have you taken part in any activities to promote your own healing or wellness?” Yes/No answer
SEDENTARY TIME	“During the last 7 days, how much time did you spend sitting on a week day?”; Comparisons: > 7 hours vs. ≤ 7 hours

Comparison tests were performed with a global chi-square test for categorical variables to find out if any proportion was different across categories. In the presence of a significant result ($p < 0.05$), two-by-two comparisons were performed to further identify statistically significant differences between categories. These tests involved the construction of a Wald statistic based on the difference between the logit transformations of the estimated proportions. Only significant differences at the 5% threshold are reported in the text and all other tested factors found to be non-related are presented in the tables in Appendix B. Significant differences between categories are denoted in the tables and figures using superscripts. All data analyses for this thematic report were done using SAS software, Version 9.4 (SAS Institute Inc., Cary, NC, USA).

Limitations. Only bivariate analyses were performed to describe associations with selected socioeconomic and sociocultural indicators. These analyses do not take into consideration possible confounding or interaction effects. Consequently, these results should be interpreted with caution.

Accuracy of estimates. The data used in this report come from a sample and are thus subject to a certain degree of error. Following the guidelines of the Institut de la Statistique du Québec (ISQ), coefficients of variation (CV) were used to quantify the accuracy of estimates. Estimates with a CV between 15% and 25% are accompanied by a * to indicate that they should be interpreted carefully, while estimates with a CV greater than 25% are presented with a ** and are shown for information purposes only.

4 RESULTS

This section reports the prevalence of substance use and misuse for the Nunavik population aged 16 years and older, according to sociodemographic and selected sociocultural factors.⁵

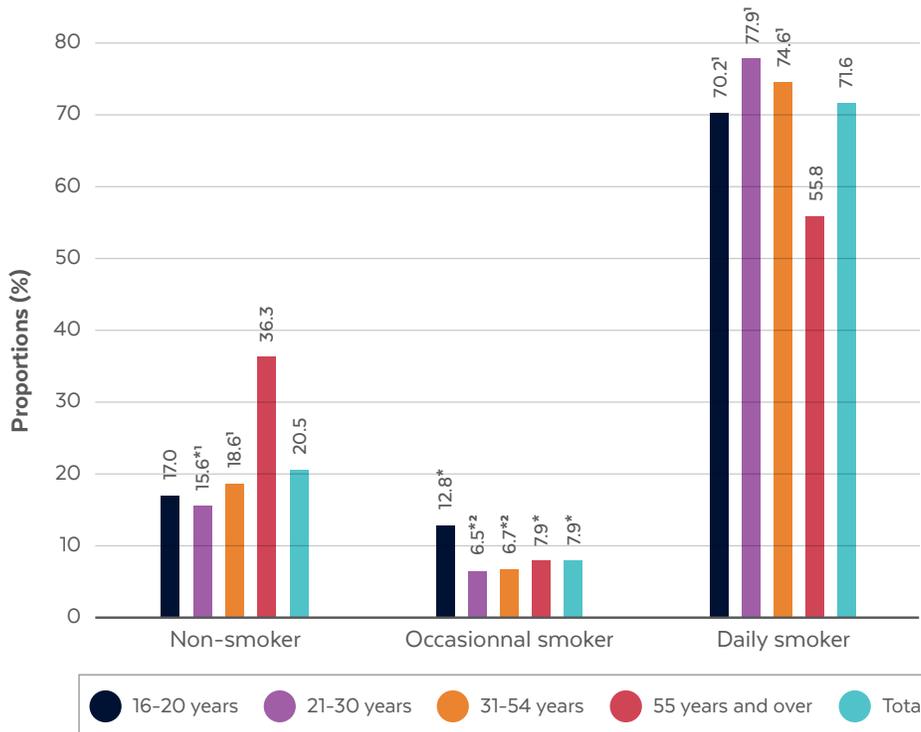
4.1 TOBACCO PRODUCTS

The World Health Organisation identifies tobacco smoking as the leading cause of death, illness and impoverishment in the world (World Health Organization, 2019b). In addition to the direct consequences of smoking for the smoker, there is the issue of second-hand smoke, which is smoke produced by burning any tobacco product. Such smoke also has its share of negative consequences ranging from cardiovascular and respiratory diseases to pregnancy complications and low birth weight (World Health Organization, 2019b). While all tobacco smoking causes adverse health effects, an early age of initiation and a large number of cigarettes smoked daily are well-established health risk factors. Thus, an early age of initiation is associated with a higher risk of nicotine addiction (Centers for Disease Control and Prevention, 2014; Wong, 2006), while the number of cigarettes smoked daily is directly associated with lung function and respiratory symptoms (Higenbottam, Shipley, Clark, & Rose, 1980). Different environmental and individual factors affect quitting success; however, counselling and medication can more than double the success of smoking cessation (World Health Organization, 2019b). Electronic cigarettes are a relatively new tobacco product that has gained in popularity in Canada in recent years, with youth and young adults being more likely to have tried them at least once (Reid et al., 2019).

4.1.1 Smoking prevalence

Tobacco smoking is widespread in Nunavik communities: Seventy-two percent (72%) of Nunavimmiut aged 16 years and over reported smoking daily and 8%*, occasionally (i.e., they had smoked in the year preceding the survey, but not daily). One-fifth (20%) of Nunavik's population did not smoke in the year preceding the survey, with 10% being former smokers and 10% abstainers. No differences were observed in tobacco smoking between men and women, regardless of smoking status (daily smokers, occasional smokers or non-smokers) (Table 2). With regard to age-related differences, although daily smoking was very frequent in all age groups, the proportion of daily smokers was lower among people aged 55 and over than among those in other age groups (Figure 1).

Figure 1 Smoking status during the year preceding the survey according to age (%), population aged 16 years and over, Nunavik, 2017



NOTES

1. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut aged 55 years and over.
 2. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

The proportions of smokers according to sociodemographic characteristics are presented in Table 2. Daily smoking was more frequent on the Hudson coast than the Ungava coast. In addition, single people were more likely to smoke daily than those who were in a relationship or those who were separated, divorced or widowed. Nunavimmiut with a lower income were also more likely to smoke on a daily basis. No differences in tobacco use were observed

according to employment or community size. The prevalence of smoking was similar in 2017 to what was observed in 2004 (Figure 2). However, the prevalence of daily smoking among Nunavimmiut aged 16 to 20 years old was lower in 2017 than in 2004 (70% vs. 85% in 2004) and higher among those aged 55 years and over (56% vs. 38% in 2004).

Table 2 Tobacco smoking status for the year preceding the survey and electronic cigarette use by sociodemographic characteristics (%), population aged 16 years and over, Nunavik, 2017

	Tobacco smoking status			Electronic cigarette
	Daily	Occasional	Non-smoker	
Total	71.6	7.9	20.5	12.2
Sex				
Men	69.2	8.5*	22.3	15.5 ¹
Women	73.8	7.3	18.9	8.8
Age group				
16-20 years	70.2 ³	12.8*	17.0 ^{*3}	23.7 ³
21-30 years	77.9 ³	6.5 ^{*2}	15.6 ^{*3}	15.2 ^{2,3}
31-54 years	74.6 ³	6.7 ^{*2}	18.6 ³	8.8 ^{*2,4}
55 years and older	55.8	7.9*	36.3	3.8 ^{**}
Coast				
Hudson	77.5 ¹	5.7 ^{*1}	16.8 ¹	10.8
Ungava	63.9	10.8	25.3	14.0
Marital status				
Single	76.9	9.2	14.0	17.9
Married or common law	68.2 ⁵	7.1*	24.7 ⁵	8.8 ⁵
Separated, divorced or widowed	65.0 ⁵	5.7 ^{**}	29.3 ^{*5}	NP
Education				
Elementary school or less	65.2 ⁶	8.4 ^{**}	26.4 ^{*6}	6.7 ^{**}
Secondary school not completed	75.5	8.0	16.5	12.4
Secondary school or higher	67.2 ⁶	7.9*	24.9 ⁶	14.4
Employment				
Employed	70.0	8.8	21.2	12.5
Not employed	74.5	6.4*	19.2	10.9
Income				
Less than \$20 000	75.9 ¹	8.1*	15.9 ¹	14.7
\$20 000 or more	64.8	7.8*	27.4	10.6
Community size				
Large	71.9	7.7	20.4	11.5
Small	71.2	8.2	20.6	13.2

NOTES

Coloured cells indicate statistically significant comparisons.

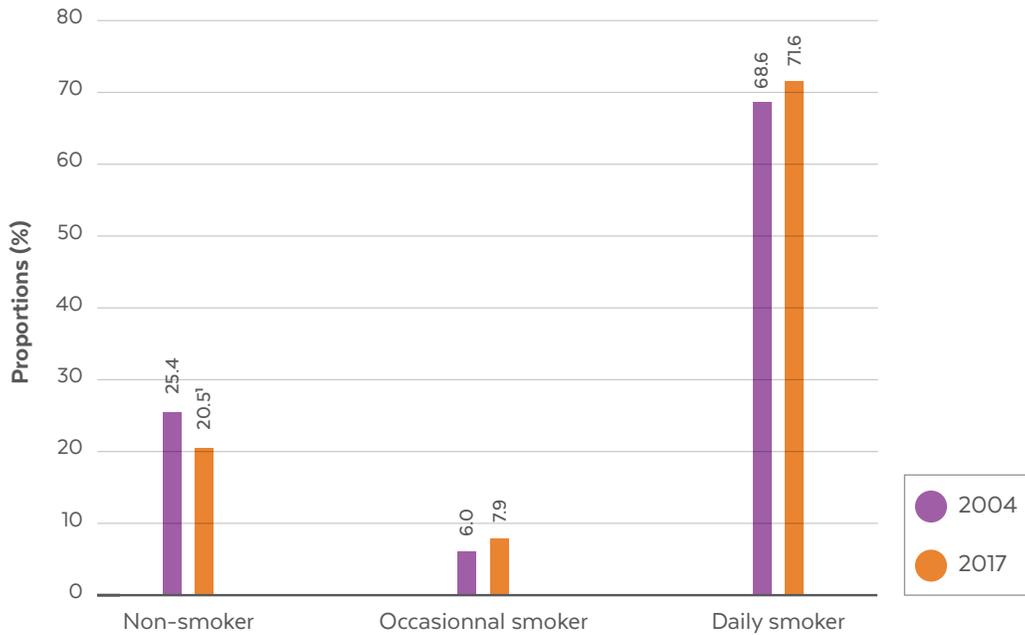
1. Statistically significant difference observed using the 5% threshold compared to the other group.
2. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
3. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
4. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
5. Statistically significant difference observed using the 5% threshold compared to single Nunavimmiut.
6. Statistically significant difference observed using the 5% threshold compared to people who did not complete secondary school.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

NP: Data not presented due to small number of respondents.

Figure 2 Smoking status in the year preceding the survey among Nunavimmiut, *Qanuippitaa?* 2004 and *Qanuillirpita?* 2017 surveys



NOTE

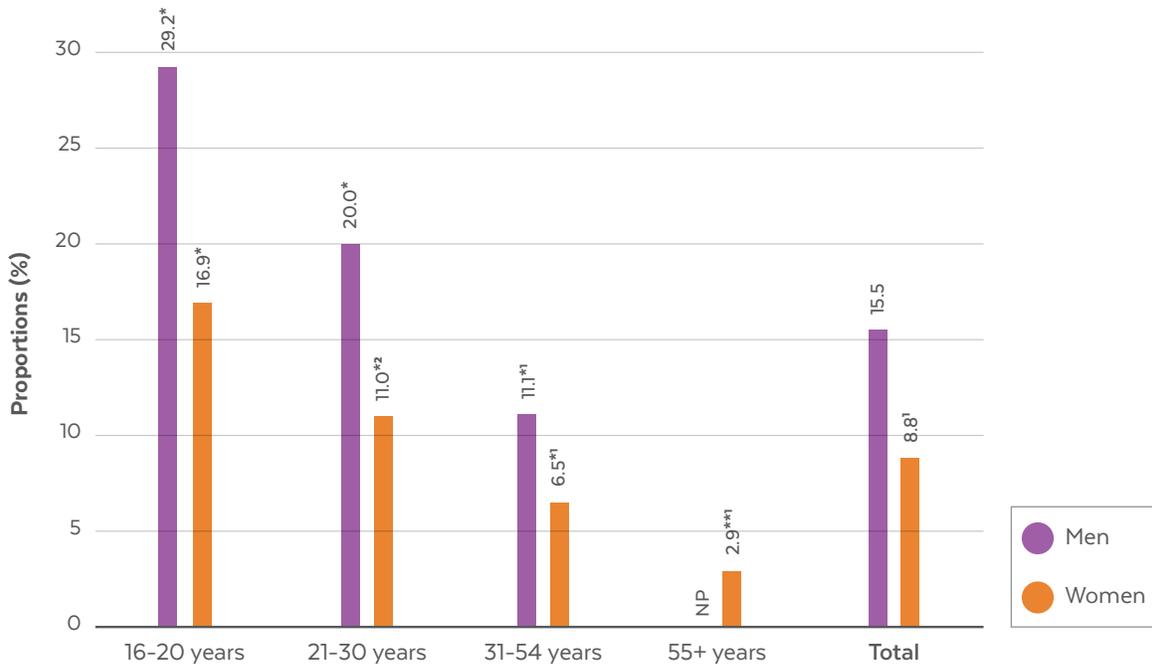
1. Statistically significant difference observed using the 5% threshold compared to 2004.

Cross-tabulations between sociocultural factors and smoking status are presented in Table A (Appendix B). Being involved in community activities was associated with a lower proportion of daily smoking (68% vs. 74% for a lower level of involvement). Also, Nunavimmiut reporting higher levels of social cohesion were more likely to be daily smokers (76% vs. 69% for a lower level of cohesion). No significant difference was found with other sociocultural factors.

Electronic cigarettes. Twelve percent (12%) of Nunavimmiut reported having used or tried an electronic cigarette in the past 12 months; the prevalence was higher among men (16% vs. 9% for women; Figure 3). The proportion of

electronic cigarette use gradually decreased with age, in both men and women, with significantly higher proportions being observed in younger people (16 to 20 years old and 21 to 30 years old) compared to those aged 31 to 54 years and 55 years and over (Table 2). Single Nunavimmiut were more likely to have used or tried an electronic cigarette than those in a relationship. For cross-tabulations with other sociodemographic variables, see Table 2. The association between electronic cigarette use and tobacco smoking was also examined: current smokers (daily or occasional) were more likely to have used an electronic cigarette than non-smokers (14% vs. 7%).

Figure 3 Electronic cigarette use in the past year (%) according to age and sex, population aged 16 years and over, Nunavik, 2017



NOTES

Data not available due to the small number of respondents for men in the 55 and over age group.

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.

2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

NP: Data not presented due to small number of respondents.

4.1.2 Initiation to cigarette smoking

Age at first cigarette. More than three quarters of current and former tobacco smokers smoked their first cigarette before the age of 16 (78%). Women were more likely than men (57% vs. 50% for men) to smoke their first cigarette at an early age (13 years old and younger; Table 3). Nunavimmiut under 55 years old were more likely to have

had their first cigarette at the age of 13 or younger than those aged 55 years and over. Hudson coast residents were more likely to start smoking at 13 years of age or younger than Ungava coast residents. Current daily smokers were more likely to have had their first cigarette at 13 years of age or younger than occasional smokers and former smokers (Table 3).

Table 3 Age at first cigarette by sex, age group and coast (%), current and former smokers aged 16 years and over, Nunavik, 2017

	13 years and under	14 to 15 years	16 years and over
Total	53.6	24.7	21.7
Sex			
Men	50.2 ¹	23.6	26.3 ¹
Women	56.8	25.9	17.3
Age group			
Men			
16-20 years	55.8 ³	29.6*	14.5**
21-30 years	52.9 ³	27.8*	19.3** ³
31-54 years	52.3 ³	17.6* ²	30.1 ²
55 years and over	34.5*	25.3	40.2 ²
Women			
16-20 years	64.2 ³	27.0	8.8**
21-30 years	62.5 ³	24.9	12.6* ³
31-54 years	57.7 ³	24.9	17.4 ²
55 years and over	33.2	29.6*	37.2 ²
Community size			
Large	54.9	23.2	21.9
Small	51.7	26.8	21.4
Coast			
Hudson	59.7 ¹	20.6 ¹	19.7 ¹
Ungava	45.3	30.4	24.4
Current smoking status			
Daily	55.9	24.3	19.7
Occasional	42.2 ⁴	28.0*	29.9* ⁴
Former	45.4 ⁴	25.2	29.4 ⁴

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to the other group.
2. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
3. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
4. Statistically significant difference observed using the 5% threshold compared to daily smokers.

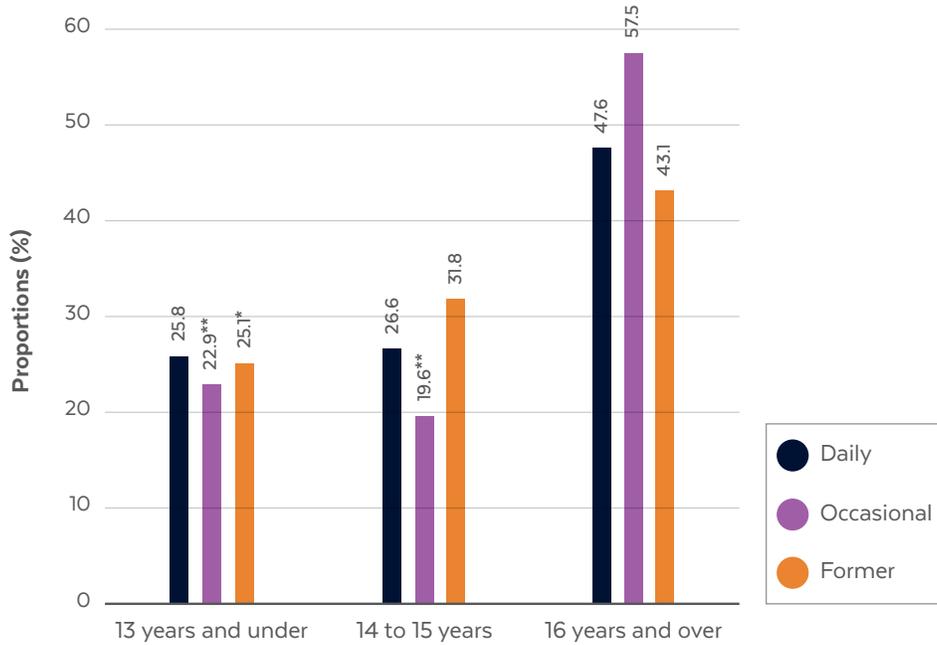
* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Starting age for daily smoking. Daily smoking in Nunavik starts early in life: a quarter of current and former smokers started to smoke daily before 14 years of age (Figure 4). Among people who smoked daily at some point in their

lifetime, women were more likely than men to start daily tobacco smoking before 14 years of age (28% vs. 22% for men), as were residents of the Hudson coast (30% vs. 19% for the Ungava coast).

Figure 4 Starting age of daily smoking according to smoking status (%), current and former smokers aged 16 years and over, Nunavik, 2017



NOTES

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

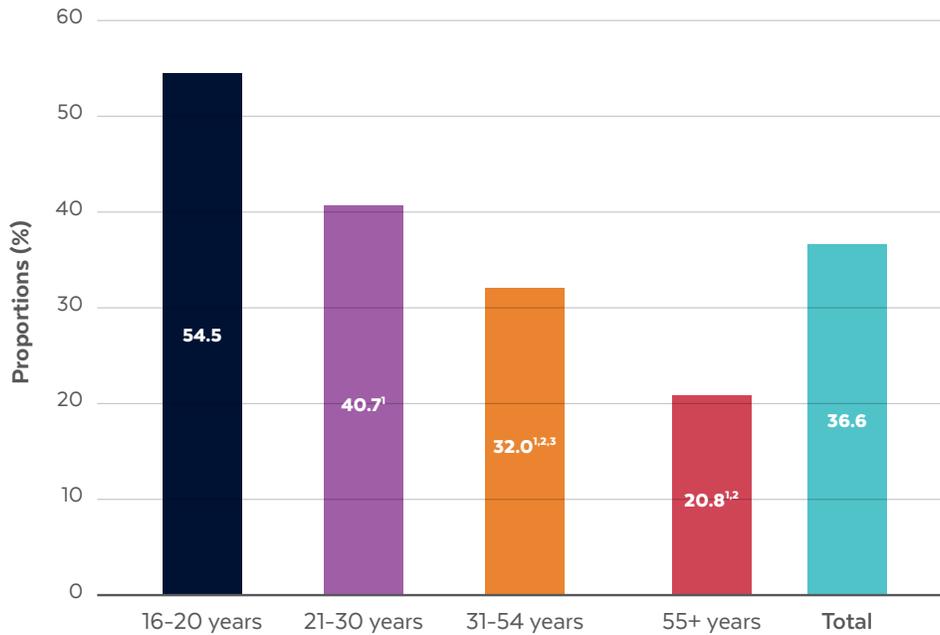
4.1.3 Number of cigarettes smoked

On average, daily smokers reported smoking 13 cigarettes per day in the year preceding the survey. Nearly half of daily smokers (48%) smoked 10 cigarettes or less per day, 41% between 11 and 24 cigarettes daily and one in 10 (11%) more than 24 cigarettes per day. On average, men reported smoking more cigarettes per day than women (15 vs. 12 cigarettes for women). The majority of women who smoke daily reported smoking less than 10 cigarettes a day (58%). Nunavimmiut aged 16 to 20 and 21 to 30 smoked fewer cigarettes per day (mean = 11 and 12 cigarettes, respectively) compared to those aged 31 to 54 years (mean = 15 cigarettes) and those aged 55 years and over (mean = 14 cigarettes). All cross-tabulations with sociodemographic variables are presented in Table B (Appendix B).

4.1.4 Smoking cessation

Among current smokers, 37% reported having tried to quit smoking during at least 24 hours in the year preceding the survey, with occasional smokers being more likely to have tried to quit (59%) than daily smokers (35%). Among current smokers, youth aged 16 to 20 years old were the most likely to have tried to quit smoking. In fact, the likelihood of having tried to quit smoking in the past year appears to be decreasing with age (Figure 5). Smokers residing on the Ungava coast were more likely to have tried to quit than residents of the Hudson coast (43% vs. 32%). No differences were observed according to sex, marital status, education, employment, income or community size, or between 2004 and 2017 (data not shown).

Figure 5 Current daily and occasional smokers who had stopped smoking for at least 24 hours in the 12 months preceding the survey (%), by age, Nunavik, 2017



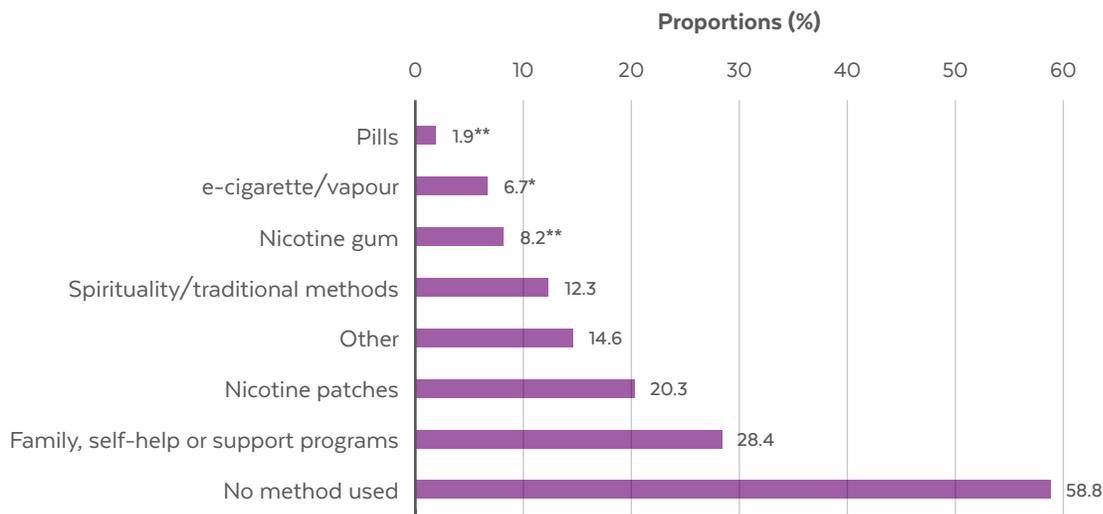
NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
2. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
3. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.

Most Nunavimmiut did not use any specific method when they tried to quit smoking (59%; Figure 6). When looking for help, most turned to family, support programs or

spiritual/traditional methods. One in five Nunavimmiut tried nicotine replacement therapy to quit smoking (29%).

Figure 6 Methods used to try to quit smoking in the year preceding the survey (%), current and former smokers aged 16 years and over, Nunavik, 2017



NOTES

- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.
- ** The coefficient of variation is greater than 25%. The proportion is shown for information only.

4.1.5 Second-hand smoke

Exposure to tobacco smoke in the living environment – home, car, outside gatherings – is known as second-hand smoking or passive smoking. This survey assessed second-hand smoke in the home, including in furnace rooms, close to open windows, under kitchen vents and in certain rooms. Such smoke is the main source of exposure to tobacco smoke in Nunavik communities.

Indoor smoking. About one third (29%) of smokers reported smoking indoors. Men were more likely to smoke indoors than women (34% vs. 25%). Single Nunavimmiut compared to those in a relationship (35% vs. 25%) and those with lower income (33% vs. 24% for an income of \$20 000 or more) were more likely to smoke indoors, as were residents of the Ungava coast (35% vs. 26% for the Hudson coast). No differences were observed according to age, education, employment or community size. All cross-tabulations with sociodemographic variables are presented in Table C (Appendix B).

Passive smoking at home. More than a quarter (27%) of Nunavimmiut had been exposed to second-hand smoke in their home more than once a week in the year preceding the survey. An additional 11% had been exposed less than once a week. The majority of Nunavimmiut lived in smoke-free homes (62%), with women being more likely to do so than men (68% vs. 55%). Among women, those aged 21 to 30 and 31 to 54 years of age were more likely to live in smoke-free homes than women aged 55 and over (76% and 69% vs. 57%). Nunavimmiut who were married or in a common-law relationship were more likely to live in smoke-free homes than single and separated, divorced or widowed individuals (69% vs. 55% and 48%). Those with a lower income were more likely to be exposed more than once a week than those with a higher income (35% vs. 19%). Nunavimmiut from large communities were more likely to be living in smoke-free homes than those from small communities (65% vs. 58%). No differences were observed according to age or between coasts. All cross-tabulations with sociodemographic variables are presented in Table C (Appendix B).

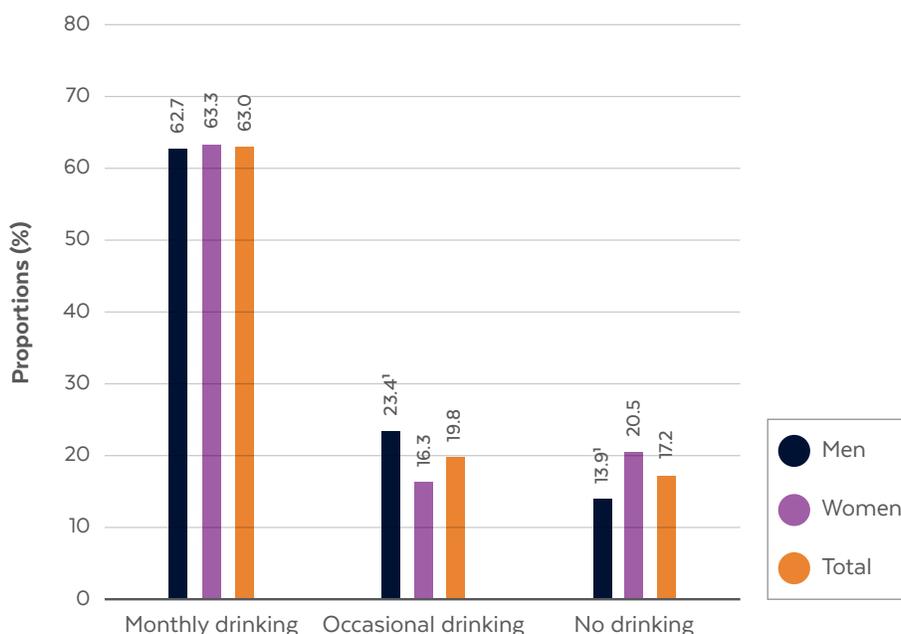
4.2 ALCOHOL

Alcohol is the most commonly used psychoactive substance in Canada. Many Canadians associate drinking with pleasurable social events, celebrations and milestones, but the use of alcohol is also associated with many health and social adverse effects (Chief Public Health Officer of Canada, 2015). While the consumption of any amount of alcohol is associated with risks in certain circumstances, drinking patterns are crucial in reducing the health impacts of alcohol use (Chief Public Health Officer of Canada, 2015). The frequency and amount of alcohol consumed are key factors to consider. Binge drinking – the consumption of a large amount of alcohol in a single/short period of time – not only causes short-term adverse effects such as a hangover and passing out, but is also associated with long-term adverse outcomes such as alcohol dependence, lower academic achievement and less favourable employment (Jennison, 2004).

4.2.1 Prevalence of alcohol use

The majority of Nunavimmiut reported drinking alcohol in the year preceding the survey (83%). Most of them had drunk alcohol either less than three times a month (43%) or between one and six times a week (35%). A majority of Nunavimmiut (63%) who had drunk alcohol in the year prior to the survey reported drinking on a monthly basis (i.e., had drunk alcohol at least once a month in the year preceding the survey). One in five (20%) reported drinking occasionally (i.e., drinking less than once a month; Figure 7) and 5% on a daily basis (data not shown). While monthly drinking was equally prevalent for both sexes, men were more likely to report occasional drinking than women, and women were more likely to report no drinking in the previous year than men (Figure 7). Finally, 17% percent of Nunavimmiut reported not drinking in the year preceding the survey. Of that proportion, 13% were former drinkers and 4% lifetime abstainers.

Figure 7 Drinking status in the year preceding the survey by sex (%), population aged 16 years and over, Nunavik, 2017



NOTES

Monthly drinking: drank alcohol at least once a month in the year preceding the survey. **Occasional drinking:** drank alcohol in the year preceding the survey, but less than once a month. **No drinking:** reported not drinking alcohol in the year preceding the survey.

1. Statistically significant difference observed using the 5% threshold compared to women.

Table 4 Drinking status according to sociodemographic characteristics (%), population aged 16 years and over, Nunavik, 2017

	Monthly	Occasional	No drinking
Total	63.3	19.8	17.2
Sex			
Men	62.7	23.4 ¹	13.9 ¹
Women	63.3	16.3	20.5
Age group			
16-20 years	58.7	25.9	15.4 ^{*3}
21-30 years	70.5 ^{2,3}	18.5	10.9 ^{*3}
31-54 years	69.4 ^{2,3}	17.9 ²	12.7 ³
55 years and over	40.3 ²	20.4	39.3
Marital status			
Single	64.1	21.0	14.9
Married or common law	62.6	19.4	18.0
Separated, divorced or widowed	57.1	16.0 ^{**}	27.0 [*]



Table 4 Drinking status according to sociodemographic characteristics (%), population aged 16 years and over, Nunavik, 2017 (continued)

	Monthly	Occasional	No drinking
Education			
Elementary school or less	47.2	23.6*	29.2
Secondary school not completed	65.9 ⁴	18.3	15.7 ⁴
Secondary school or higher	65.3 ⁴	21.8	12.9 ⁴
Employment			
Employed	67.5 ¹	18.2	14.3 ¹
Not employed	53.5	23.4	23.1
Income			
Less than \$20 000	60.5 ¹	21.5	18.0
\$20 000 or more	67.9	17.6	14.6
Community size			
Large	66.9 ¹	18.1	15.0 ¹
Small	57.6	22.2	20.2
Coast			
Hudson	61.0	22.4 ¹	16.6
Ungava	65.5	16.5	18.0

NOTES

Monthly drinking: drank alcohol at least once a month in the year preceding the survey. **Occasional drinking:** drank alcohol in the year preceding the survey, but less than once a month. **No drinking:** reported not drinking alcohol in the year preceding the survey.

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to the other group.
2. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
3. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
4. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had completed elementary school or less.

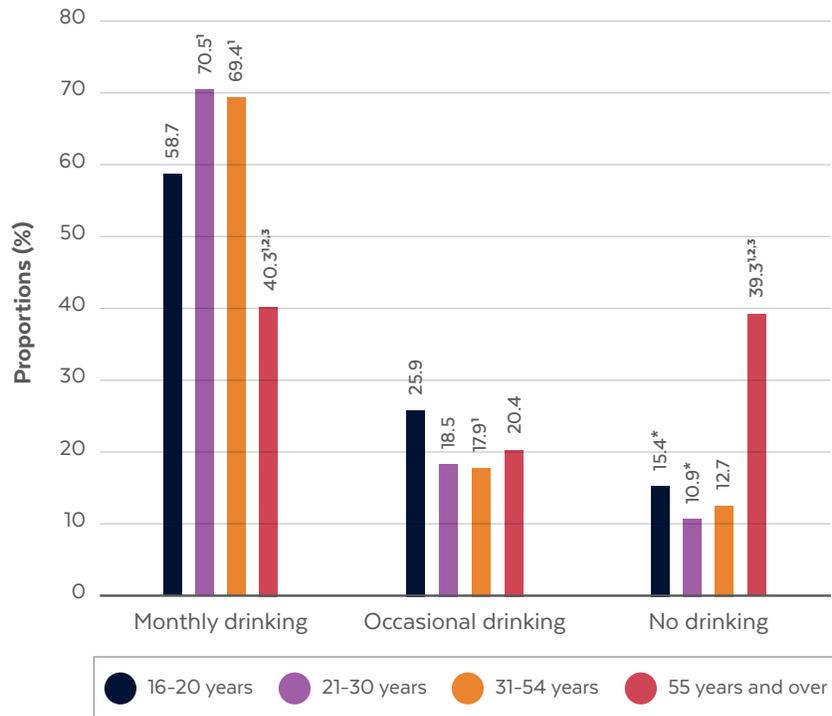
* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Monthly alcohol use. Nunavimmiut aged 16 to 20 years old were less likely to report monthly drinking than those aged 21 to 30 and 31 to 54 years old (59% vs. 71% and 69%, respectively). Nunavimmiut aged 21 to 30 and 31 to 54 years old were more likely to report monthly drinking than those aged 55 years and over (71% and 69% vs. 40%, respectively) (Figure 8). Those who had attended elementary school (completed or not) were less likely to report monthly drinking than those who had attended

secondary school and those who had completed secondary school or post-secondary studies (47%, 66% and 65%, respectively). People with an annual income of \$20 000 or more (68% vs. 61% for those with an annual income under \$20 000) and those residing in a large community (67% vs. 58% for those residing in a small community) were more likely to report monthly drinking. No differences were observed according to sex, marital status or coast of residence for monthly drinking (Table 4).

Figure 8 Drinking status by age (%), population aged 16 years and over, Nunavik, 2017



NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
 3. Statistically significant difference observed using the 5% threshold compared to the 31-54 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

Monthly alcohol use was more common in 2017 than in 2004, for both men and women (Table 5). Furthermore, it was more frequent in 2017 than in 2004 for individuals aged 21 years and over, but not for those who were younger (16 to 20 years old). The difference in monthly alcohol use

between coasts observed in 2004 was no longer present in 2017, due to the important increase in the proportion of monthly drinking on the Hudson coast between the two surveys (Table 5).

Table 5 Monthly drinking in the year preceding the survey according to sex, age group and coast (%), population aged 16 years and over, Nunavik, 2004 and 2017

	2004	2017
Total	49.0	63.0 ¹
Sex		
Men	52.2	62.7 ¹
Women	45.6	63.3 ¹
Age group		
16-20 years	58.2	58.7
21-30 years	59.5	70.5 ¹
31-54 years	49.8	69.4 ¹
55 years and over	23.0*	40.3 ¹
Coast		
Hudson	40.2	61.0 ¹
Ungava	61.2	65.5

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to 2004.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

More active Nunavimmiut (reporting sitting 7 hours or less per day) were less likely to report monthly drinking (58%) than those less active (more than 7 hours sitting per day; 72%). Nunavimmiut going on the land often were less likely to report monthly drinking (59%) than those going occasionally or never (67%). All cross-tabulations with sociocultural indicators are presented in Table D (Appendix B).

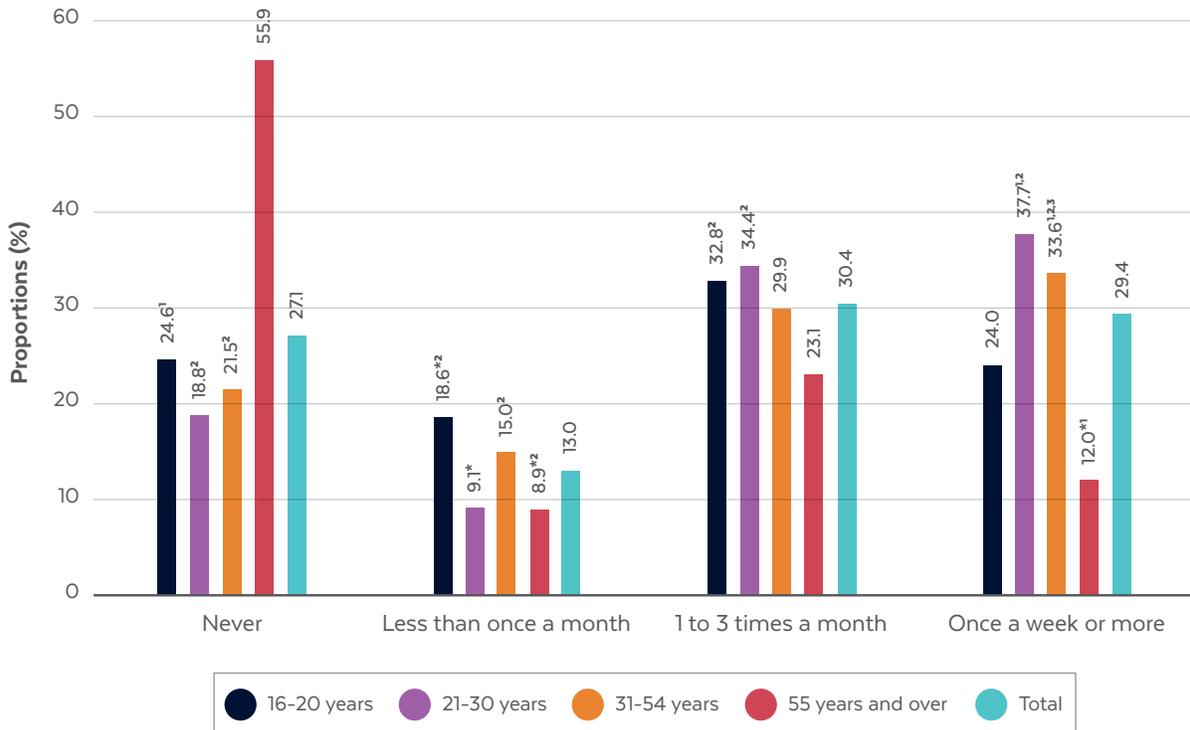
No drinking. Women were more likely to report not drinking than men (21% vs. 14% for men). Nunavimmiut aged 55 and over were more likely to report not drinking than any other age group (Figure 8). Nunavimmiut having attended elementary school (completed or not) were more likely to report not drinking than those who had attended secondary school (completed or not) and those who had completed secondary school or higher (29% vs. 16% and 13%, respectively). Nunavimmiut employed at the time of the survey were less likely to report not drinking (14% vs. 23% for those not employed), as were those from large

communities (15% vs. 20% for small communities). No differences were observed according to marital status, annual income or coast of residence. Cross-tabulations between drinking status and sociodemographic variables are presented in Table 4.

4.2.2 Binge drinking

Nearly three quarters (73%) of Nunavimmiut reported at least one episode of binge drinking (5 drinks or more in one occasion) in the year preceding the survey. Three out of ten Nunavimmiut (29%) reported weekly binge drinking (at least one binge drinking episode a week in the year preceding the survey). Nunavimmiut aged 16 to 20 years old were less likely than adults aged 21 to 54 to binge drink at least once a week; and those aged 55 and over were less likely to binge drink than adults aged 21 to 54 years old (Figure 9).

Figure 9 Binge drinking episodes during the 12 months preceding the survey by age group (%), population aged 16 years and over, Nunavik, 2017



NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
 3. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

Regarding sociodemographic characteristics, weekly binge drinking was more prevalent among people who had attended secondary school and those who had completed secondary school or higher, as well as among people who

were currently employed and those from large communities. No differences were observed according to sex, income or coast of residence. All cross-tabulations with sociodemographic factors are presented in Table 6.

Table 6 Prevalence of weekly binge drinking and problem drinking by sociodemographic characteristics (%), population aged 16 years and over, Nunavik, 2017

	Weekly binge drinking	CAGE score of 2 or more ¹
Total	29.4	68.5
Sex		
Men	28.9	64.0
Women	29.9	73.4 ²
Age group		
16-20 years	24.0	56.3
21-30 years	37.7 ^{3,4}	72.4 ^{3,4}
31-54 years	33.6 ^{3,4}	74.7 ^{3,4}
55 years and over	12.0 ^{*3}	55.5
Marital status		
Single	32.1	67.0
Married or common law	27.2	69.0
Separated, divorced or widowed	30.7 [*]	75.0
Education		
Elementary school or less	18.7 [*]	62.1
Secondary school not completed	30.9 ⁵	69.5
Secondary school or higher	30.6 ⁵	69.4
Employment		
Employed	33.4 ²	71.0 ²
Not employed	20.7	63.2
Income		
Less than \$20 000	27.0	66.1
\$20 000 or more	31.2	68.2
Community size		
Large	34.3 ²	65.9 ²
Small	22.8	72.2
Coast		
Hudson	28.3	65.6 ²
Ungava	30.9	72.3

NOTES

Coloured cells indicate statistically significant comparisons.

1. Among only those who had drunk alcohol in the year preceding the survey.
2. Statistically significant difference observed using the 5% threshold compared to the other group.
3. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
4. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

The frequency of binge drinking episodes did not appear to vary according to sociocultural indicators, as presented in Table D (Appendix B).

Weekly binge drinking was more prevalent in 2017 (29%) compared to 2004 (18%). A higher prevalence was seen in both sexes, among residents of the Hudson coast and among adults aged 21 to 54 years old (Table 7).

Table 7 Prevalence of weekly binge drinking by sex, age group and coast (%), population aged 16 and over, Nunavik, 2004 and 2017

	2004	2017
Total	18.0	29.4 ¹
Sex		
Men	18.7	28.9 ¹
Women	17.3	29.9 ¹
Age group		
16-20 years	21.5	24.0
21-30 years	22.8	37.7 ¹
31-54 years	19.2	33.6 ¹
55 years and over	4.7 ^{**}	12.0 [*]
Coast		
Hudson	10.7	28.5 ¹
Ungava	27.8	30.9

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to 2004.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

4.2.3 Potential problem drinking

Problem drinking is often defined in terms of adverse consequences on the person's family, social life and professional activities. The CAGE is a screening tool composed of four questions to identify people with a potential drinking problem. In *Qanuilirpitaa? 2017*, most of

those who reported drinking in the year preceding the survey felt they should reduce their consumption and expressed guilt about their drinking. Nearly half of Nunavimmiut (46%) who had drunk alcohol in the year preceding the survey reported being annoyed by people's criticism of their drinking (Table 8).

Table 8 Perception of alcohol use among people who drank in the past year: items of the CAGE screening tool (% yes) by sex, population aged 16 years and over, Nunavik, 2017

	Men	Women	Total
Ever felt that you should cut down on your drinking	69.3	75.4	72.2
Ever been annoyed by people criticizing your drinking	41.7 ¹	51.0	46.1
Ever felt bad or guilty about your drinking	57.2 ¹	72.0	64.3
Ever had a drink first thing in the morning to steady your nerves or get rid of a hangover	34.6	32.9	33.8

NOTES

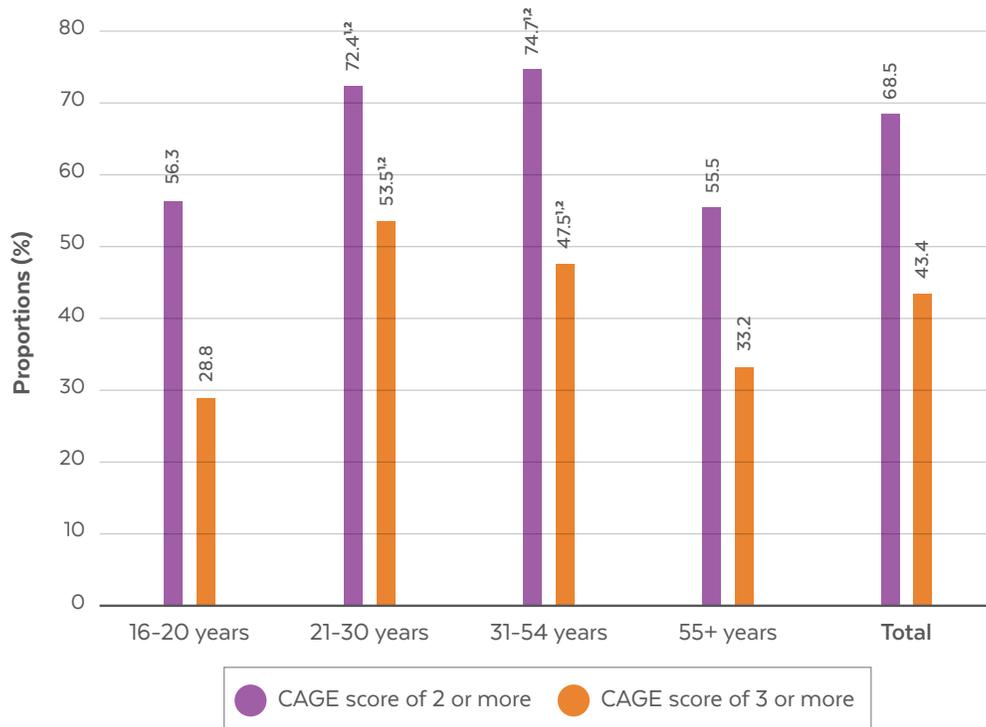
Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed between men and women using the 5% threshold.

Problem drinking. Using a standard cut-off score of two (CAGE), a high proportion (69%) of people who had used alcohol in the year preceding the survey were considered at risk of having had problem drinking in their life. According to that measure, women were more likely to be at risk of problem drinking than men (Table 6). Nunavimmiut aged between 21 and 54 were more likely to be at risk of problem drinking than those under 20 years old or aged 55 years

and over (Figure 10). Nunavimmiut employed at the time of the survey were also more likely to report problem drinking than those not employed. Nunavimmiut living in large communities and those living on the Hudson coast were less likely to be at risk. No differences were observed according to sex, marital status and annual income. All cross-tabulations with sociodemographic factors are presented in Table 6.

Figure 10 Prevalence of potential problem drinking among people who had drunk alcohol in the year preceding the survey (%) by age group, Nunavik, 2017



NOTES

- 1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
- 2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.
- ** The coefficient of variation is greater than 25%. The proportion is shown for information only.

The proportion of Nunavimmiut who had drunk alcohol in the year prior to the survey and were at risk of problems related to their alcohol consumption was significantly higher in 2017 than in 2004, based on the same

questionnaire. The increase in proportions between the two survey periods was observed among both men and women, Nunavimmiut aged between 21 and 54 years old and Nunavimmiut on both coasts (Table 9).

Table 9 Prevalence of potential problem drinking (CAGE of 2 or more) among people who had drunk alcohol in the year preceding the survey by sex, age group and coast (%), Nunavik, 2004 and 2017

	2004	2017
Total	49.6	67.9 ¹
Sex		
Men	46.9	63.6 ¹
Women	52.5	72.1 ¹
Age group		
16-20 years	45.4	56.3
21-30 years	53.9	72.4 ¹
31-54 years	53.2	74.7 ¹
55 years and over	37.8*	55.5
Coast		
Hudson	40.9	64.9 ¹
Ungava	59.2	71.9 ¹

NOTES

Coloured cells indicate statistically significant comparisons.

Proportions for comparison between 2004 and 2017 are age-adjusted.

1. Statistically significant difference observed using the 5% threshold compared to 2004.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

Nunavimmiut reporting more social support (three or four types) were more likely to be at risk of potential problem drinking (76% vs. 67%). All cross-tabulations with sociocultural factors are presented in Table D, Appendix B.

Nunavimmiut with a score of 3 or 4 on the CAGE scale represented more than a third of those who had drunk alcohol in the past year (43%). Cross-tabulations with sociodemographic and sociocultural indicators yielded results similar to those obtained with the cut-off of two or more (data not shown).

4.3 DRUG USE

Drug use is the consumption of any psychoactive substance, excluding alcohol and tobacco, by any means (ingesting, smoking, vaping, injecting, etc.). Drugs have many short- and long-term effects, largely depending on the substance consumed, how it is consumed and the quantity consumed. The short-term effects of many drugs consist of changes in wakefulness/dizziness, heart rate and mood as well as overdose in the most extreme cases (National Institute on Drug Abuse, 2017). Long-term effects include heart and lung diseases, cancer, mental illness and addiction. The indirect consequences of drug use are present in many dimensions of life, including academic achievement, employment, relationships and involvement with the justice system (National Institute on

Drug Abuse, 2017). Cannabis use is associated with lower cognitive abilities (judgment, attention, memory) and increased frequency of mental health conditions (depression, anxiety, psychotic symptoms) (Gouvernement du Québec, 2019). When smoked, cannabis exposes the user to numerous harmful substances, including carcinogens. Cannabis smoke can also aggravate respiratory diseases (Gouvernement du Québec, 2019). Frequent cannabis use is associated with adverse health outcomes and risk of addiction, particularly among people 30 years old and under. Injection drug and opioid use is associated with skin infections (abscesses), HIV and hepatitis C infections, more frequent hospitalizations, overdoses and death (Binswanger et al., 2008; Palepu et al., 2001).

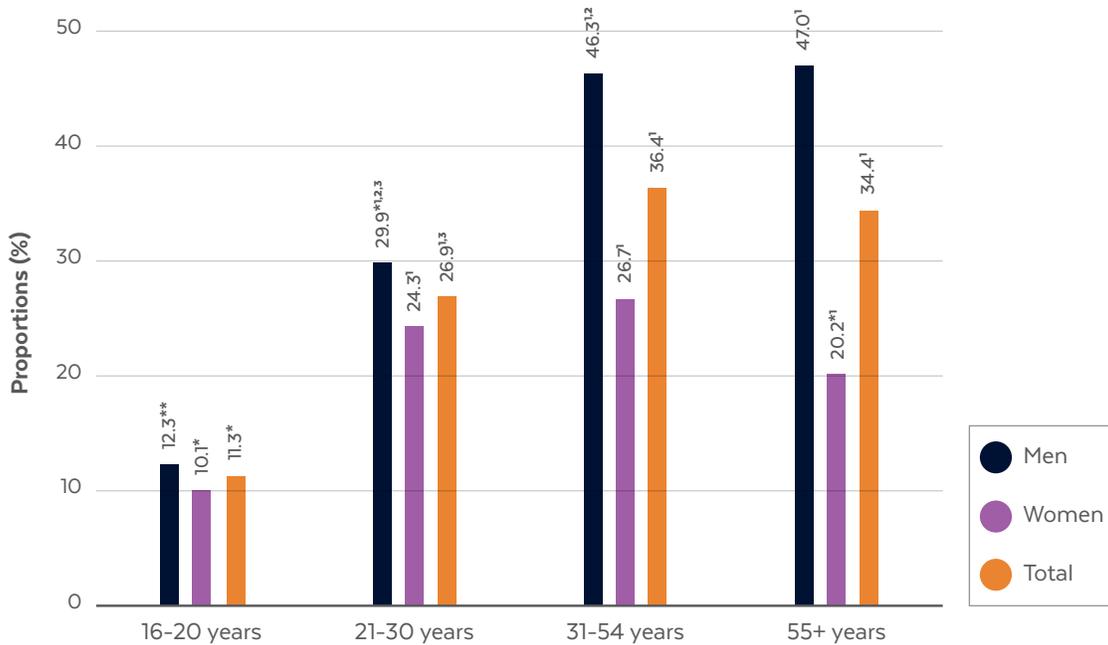
4.3.1 Prevalence of lifetime drug use

About 85% of Nunavimmiut have used drugs (psychoactive substances, excluding alcohol and tobacco) at one point in their lifetime and a greater prevalence was observed in men (89% vs. 81% for women). Men aged between 21 and 54 years old were more likely to have used drugs in their lifetime compared to men aged 16 to 20 and 55 and over. Women aged 55 and over were less likely to have used drugs in their lifetime compared to younger women (68% vs. more than 80% for younger women) (Table E, Appendix B). Nunavimmiut who had attended or completed elementary school were less likely to have used drugs in their lifetime (75%) than those who had attended but not

completed secondary school (86%) and those who had completed secondary school or higher (89%). Those with an annual income of \$20 000 or more were more likely to have used drugs in their life than those with an income under \$20 000 (88% vs. 82%). All cross-tabulations with sociodemographic factors are presented in Table E (Appendix B).

Lifetime use of solvents (glue, gasoline or propane) was reported by 29% of Nunavimmiut. The proportion was higher among men (36%) than women (22%). Differences in lifetime solvent use according to age were observed: individuals aged 20 and under were less likely to report any solvent use than those aged 21 years and over (Figure 11). Nunavimmiut with a lower income (less than \$20 000) were less likely to have used solvent in their life (25%) than those with a higher income (33%), as were residents of the Ungava coast (22%) compared to those from the Hudson coast (35%) (Table E, Appendix B).

Figure 11 Prevalence of lifetime glue, gasoline, propane or other solvent use by sex and age group (%), population aged 16 years and over, Nunavik, 2017



NOTES

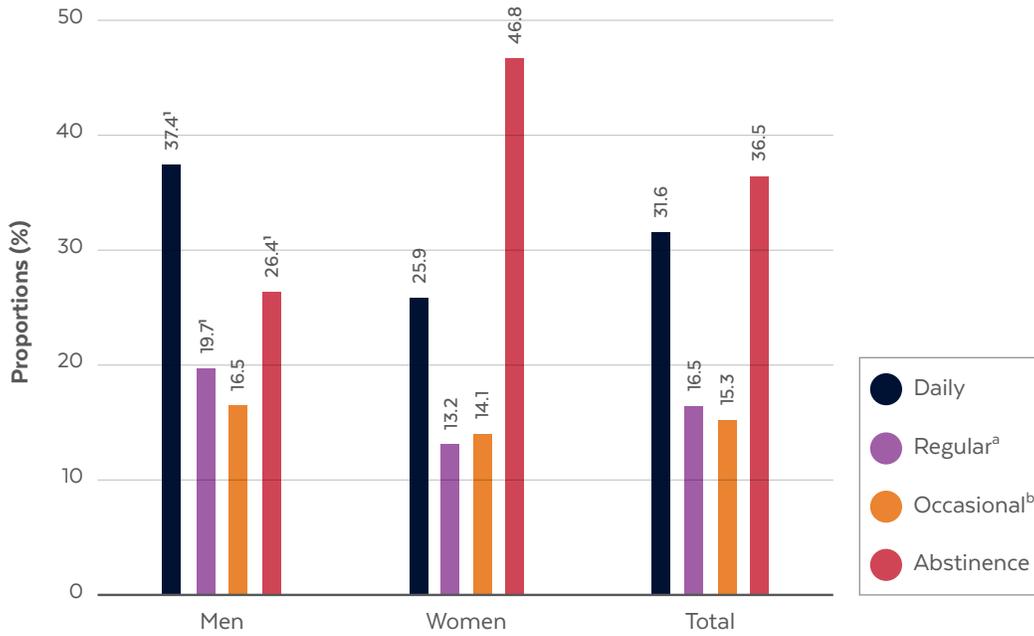
1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
 3. Statistically significant difference observed using the 5% threshold compared to the 31-54 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.
 ** The coefficient of variation is greater than 25%. The proportion is shown for information only.

4.3.2 Cannabis use

Cannabis was the drug most frequently consumed, with 63% of the population having used it in the year preceding the survey. One third of Nunavimmiut reported daily use of cannabis, with men being significantly more likely to report daily cannabis use than women (Figure 12). Men and women under 21 years old were more likely to report daily cannabis use as were single people compared to people who were married or in a common-law relationship.

Individuals who had attended but not completed secondary school were more likely to report daily cannabis use when compared to those who had completed secondary school. This was also the case of individuals with a lower income. A greater proportion of residents of the Hudson coast declared daily cannabis use compared to those of the Ungava coast. In addition, cannabis use during the past year was more frequent in small communities than in large ones. All cross-tabulations with sociodemographic factors are presented in Table 10.

Figure 12 Prevalence of cannabis use in the 12 months preceding the survey by sex (%), population aged 16 years and over, Nunavik, 2017



NOTES

a. Regular use: more than once a month, but not daily.

b. Occasional use: less than once a month.

1. Statistically significant difference observed using the 5% threshold compared to women.

The prevalence of cannabis use in the previous year was compared between the *Qanuippitaa?* 2004 and *Qanuillirpita?* 2017 surveys. The prevalence of cannabis use among women was higher in 2017 than in 2004, but

no difference was observed among men. In addition, the proportion of Nunavimmiut reporting use was higher among people aged 55 and over in 2017 compared to 2004 (Table 11).

Table 10 Prevalence of cannabis use in the previous year by sociodemographic factors (%), population aged 16 years and over, Nunavik, 2017

	Cannabis use (% yes)	Frequency of cannabis use (%)			
		Daily	Regular ^a	Occasional ^b	Abstinence
Total	63.5	31.6	16.5	15.3	36.5
Sex					
Men	73.6 ¹	37.4 ¹	19.7 ¹	16.5	26.4 ¹
Women	53.2	25.9	13.2	14.1	46.8
Age group					
Men					
16-20 years	77.5	46.8 ^{2,3}	12.8 ^{**2}	17.9 [*]	22.5 ^{*3}
21-30 years	73.6	42.1	11.8 ^{**2}	19.6 ^{*3}	26.4 [*]
31-54 years	77.7	33.3	26.5	17.9 ^{*3}	22.3 ^{*3}
55 years and over	60.5	30.1 [*]	22.7 [*]	7.7 ^{**}	39.5
Women					
16-20 years	69.2 ^{2,3}	34.4 ^{2,3}	16.9 ^{*3}	17.9 ^{*3}	30.8 ^{2,3}
21-30 years	61.3 ^{2,3}	29.7 ³	14.8 [*]	16.8 ³	38.7 ^{2,3}
31-54 years	49.8 ³	23.2	12.9	13.7 [*]	50.2 ³
55 years and over	32.2	17.4 ^{**}	7.8 ^{**}	7.0 ^{**}	67.8
Marital status					
Single	73.7	36.8	18.0	18.9	26.3
Married or common law	56.7 ⁴	28.3 ⁴	15.4	13.1 ⁴	43.3 ⁴
Separated, divorced or widowed	52.4 ⁴	25.9 [*]	16.4 ^{**}	10.1 ^{**}	47.6 ⁴
Education					
Elementary school or less	58.4	30.0	16.2 [*]	12.2 [*]	41.6
Secondary school not completed	68.1 ⁵	36.0 ⁵	18.2	13.9 ⁵	31.9 ⁵
Secondary school or higher	57.4	24.2	13.5 [*]	19.7	42.6
Employment					
Employed	61.4	30.5	14.9	15.9	38.6
Not employed	67.4	33.6	19.4	14.3	32.6
Income					
Less than \$20 000	67.7 ¹	35.7 ¹	17.2	14.7	32.3 ¹
\$20 000 or more	59.3	27.1	16.0	16.2	40.7
Community size					
Large	60.5 ¹	32.2	15.0	13.3 ¹	39.5 ¹
Small	67.6	30.9	18.5	18.2	32.4
Coast					
Hudson	62.2	35.5 ¹	15.3	11.9 ¹	37.8
Ungava	65.1	27.2	18.1	19.8	34.9

NOTES

Coloured cells indicate statistically significant comparisons.

a. Regular use: more than once a month, but not daily.

b. Occasional use: less than once a month.

1. Statistically significant difference observed using the 5% threshold compared to the other group.

2. Statistically significant difference observed using the 5% threshold compared to the 31-54 age group.

3. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.

4. Statistically significant difference observed using the 5% threshold compared to single Nunavimmiut.

5. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had completed secondary school or higher.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Table 11 Prevalence of cannabis use in the year preceding the survey according to sex, age group and coast (%), population aged 16 years and over, Nunavik, 2004 and 2017

	2004	2017
Total	57.7	63.5 ¹
Sex		
Men	70.3	73.6
Women	44.3	53.2 ¹
Age group		
16-20 years	79.5	73.7
21-30 years	69.3	67.0
31-54 years	59.2	63.7
55 years and over	16.7*	47.2 ¹
Coast		
Hudson	57.0	62.2
Ungava	58.4	65.1 ¹

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to 2004.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

Nunavimmiut who reported higher levels of cultural identity (58% vs. 66% for lower levels) and higher social support (58% vs. 65% for lower levels) were less likely to have used cannabis in the year preceding the survey. Those who reported higher levels of family cohesion were also less likely to have used cannabis (56% vs. 67% for lower levels). Nunavimmiut who went on the land more often were less likely to have used cannabis in the year preceding the survey (59%) than those who occasionally or never went (67%). Those who always or often participated in community activities were also less likely to have used cannabis (56%) compared to those who participated less frequently (69%). All cross-tabulations with sociocultural factors are presented in Table F, Appendix B.

Abstinence. More women and more Nunavimmiut aged 55 years and over had not used cannabis in the year prior to the survey. Married and common-law partners and separated, divorced or widowed Nunavimmiut were more likely than single people to have abstained from cannabis use in the past year. Nunavimmiut who had attended but not completed secondary school and those with an annual income under \$20 000 were less likely to be abstainers. All cross-tabulations with sociodemographic factors are presented in Table 10.

4.3.3 Other drug use

A question on the non-medical use of medication was added to the *Qanuilirpitaa?* 2017 survey. About 1.7% of the population had used or tried prescribed (including opioids) or over-the-counter medication (i.e., Valium, Ativan, Xanax, Ritalin, Concerta, Dilaudid, Codeine, Oxycontin or Purple drank) in excess of the directions or for non-medical use in the year preceding the survey. This proportion should be interpreted with caution since the coefficient of variation is greater than 15%. Comparisons according to sociodemographic factors were not possible because of the low prevalence of this behaviour.

Table 12 presents the use of other drugs (excluding cannabis, solvents and non-medically used medication) in the past 12 months. Thirteen percent (13%) of Nunavimmiut reported having used other drugs in the past 12 months. Men were more likely to have used other drugs compared to women (15% vs. 10%), as well as residents living along the Ungava coast (18% vs. 8% for the Hudson coast). However, these results should be interpreted carefully given the high coefficient of variation values.

Cocaine was the most frequently used substance among “other drugs”: about 7% of the population had used it in the past 12 months. Cocaine was more frequently used among residents of the Ungava coast (11%) compared to those of the Hudson coast (4%*). Given the low prevalence of reported injection drug use in the past 12 months, it was not possible to determine the proportion of individuals who had shared needles when using injection drugs.

Table 12 Other drugs used in the past 12 months by sex (%), population aged 16 years and over, Nunavik, 2017

Drugs	Total	Men	Women
Any other drug (excluding cannabis, solvents and non-medically used medication)	12.5	15.3	9.6
Cocaine (coke, snow, crack or freebase)	7.1	7.3*	6.8
Ecstasy (E, XTC or X)	1.0**	1.4**	NP
Amphetamines/methamphetamines (speed, peanut, crystal, meth or ice)	3.8*	4.1**	3.6*
Hallucinogens (PCP, LSD, acid, mushrooms or mescaline)	0.9**	NP	0.8**
Heroin (smack, crank)	0.5**	NP	NP
Injection drugs	NP	NP	NP

NOTES

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

NP: Data not presented due to small number of respondents.

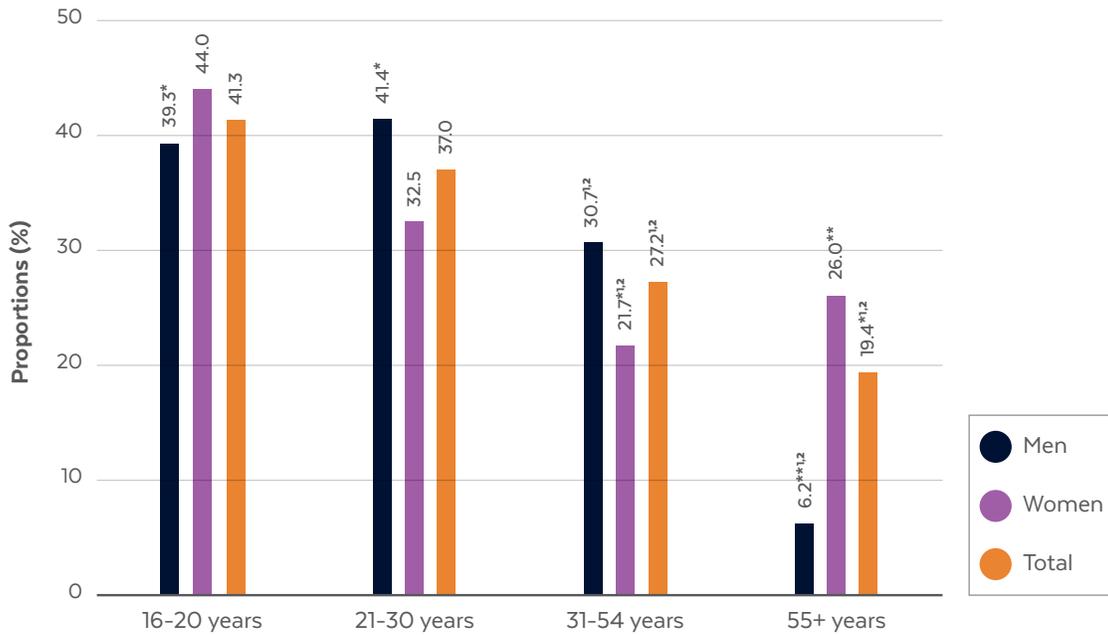
4.3.4 Potential drug abuse problem

While drug use of any kind – whether experimental, recreational or abusive – poses risks to a person’s health, it may also cause adverse consequences on the person’s family, friends and community. Such impacts are used to identify people at risk of drug abuse, as opposed to those who engage in experimental or recreational drug use. Among Nunavimmiut who had used drugs in the year prior to the survey, 79% reported being unable to stop using drugs when they wanted to and 44% felt bad or guilty about their drug use. Thirty-three percent (33%) of Nunavimmiut who had used drugs in the year preceding the survey reported friction with family members, while 14% reported neglecting their family because of their drug use. Additionally, 15% had had blackouts or flashbacks as a result of drug use, 21% had experienced withdrawal symptoms and 9% reported linked medical problems (memory loss, convulsions, bleeding).

The DAST-10 is a drug abuse screening tool composed of 10 questions (requiring a yes/no answer) relating to drug use in the year preceding the survey (see Appendix A, question 28). Participants answering yes to at least one question were considered at risk of potential drug abuse problems. Nearly one third of Nunavimmiut who had used drugs in the year preceding the survey were at risk of

potential drug abuse problems (32%). Those aged 30 years and under were at higher risk of drug abuse problems than Nunavimmiut aged 31 years of age and older (Figure 13). Nunavimmiut reporting daily cannabis use were more likely to be at risk of potential drug abuse problems (39%) than those reporting occasional use (17%***) or experimental use (18%*). Among Nunavimmiut who had consumed drugs at some point during their lifetime, single people were more likely to be at risk of potential drug abuse problems than Nunavimmiut who were married or in a common-law relationship (40% vs. 23%). Nunavimmiut who had attended elementary school or less (39%*) and those who had attended but not completed secondary school (35%) were more likely to be at risk than those who had completed secondary school or higher (22%*). The risk was higher as well among Nunavimmiut with a lower annual income (under \$20 000; 38%) compared to those with a higher income (20%). Residents of the Ungava coast were also more likely to be at risk of potential drug abuse problems (36%) than residents of the Hudson coast (28%). No differences were observed according to sex, employment or community size. Nunavimmiut reporting higher levels (top 30%) of family cohesion were less likely to be at risk of potential drug abuse problems (24% vs. 35%). All cross-tabulations with sociodemographic and sociocultural factors are presented in Table E and Table F, Appendix B.

Figure 13 Potential drug abuse problems among Nunavimmiut who had used drugs in the year preceding the survey, by age group (%), population aged 16 years and over, Nunavik, 2017



NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.
- ** The coefficient of variation is greater than 25%. The proportion is shown for information only.

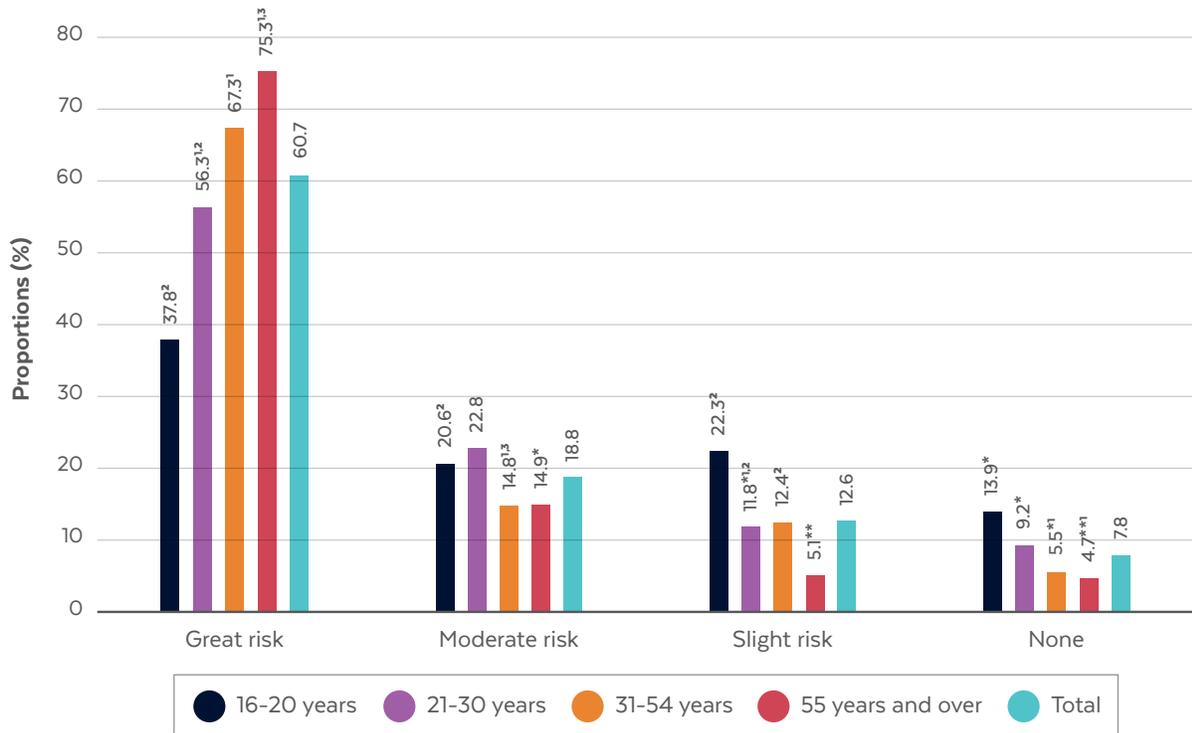
4.4 HARM PERCEPTION AND HELP SEEKING

4.4.1 Harm perception of tobacco and cannabis use

Harm perception of regular tobacco smoking. Most Nunavimmiut perceived that regular tobacco smoking poses great (61%) or moderate (19%) risks. One-fifth (13%) perceived a slight risk, and one in ten did not think regular tobacco smoking poses any risks (8%). The younger group (under 21 years old) was more likely to believe tobacco

smoking poses no risks than people aged 31 to 54 years and 55 years and over (Figure 14). The same is true of people who had attended elementary school or less (13%**) and those who had not attended or completed secondary school (13%) compared to secondary school graduates (4%*).

Figure 14 Harm perception of regular tobacco smoking by age (% yes), population aged 16 years and over, Nunavik, 2017



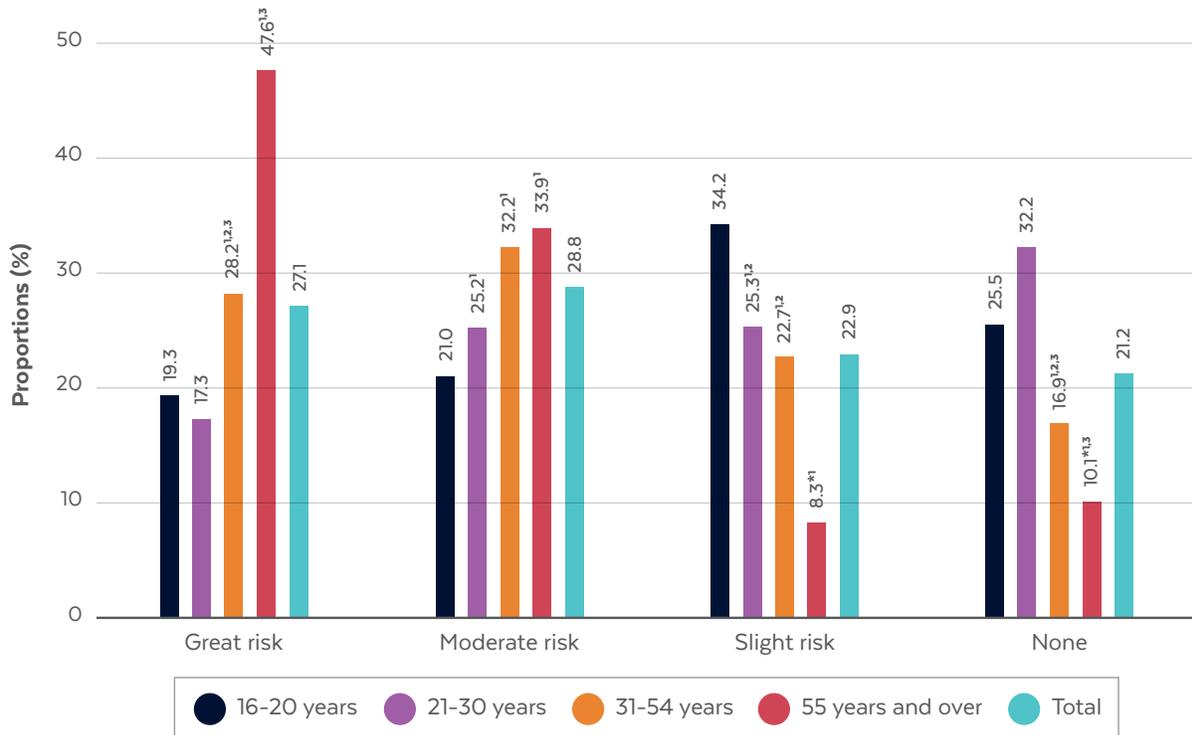
NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
 3. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.
 ** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Harm perception of cannabis smoking. The majority of Nunavimmiut believed that smoking cannabis poses a great risk (27%) or a moderate risk (29%). About one in five (21%) believed smoking cannabis poses no risk (Figure 15). Women were more likely to believe smoking cannabis poses great risk (35%) than men (19%), as were older Nunavimmiut (18% of those aged 16 to 30 years old, 28%

of those aged 31 to 54 years old and 48% of those aged 55 and over). Nearly half (48%) of those who had only attended or completed elementary school believed smoking cannabis causes great risk or harm, which is more than among people who had only attended secondary school (22%) and those who had completed secondary school or higher (29%).

Figure 15 Harm perception of regular cannabis smoking by age (% yes), population aged 16 years and over, Nunavik, 2017



NOTES

1. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
 2. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
 3. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
- * The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

4.4.2 Help or treatment for alcohol or drug use

About one out of five Nunavimmiut had sought help or treatment (including self-help groups and professionals such as doctors, nurses or counselors) for their alcohol or drug use in their lifetime (17%), with no difference being observed between men and women. Single (20%) and separated, divorced or widowed (34%*) Nunavimmiut were

more likely to have sought help or treatment than those who were married or in a common-law relationship (13%). No differences were observed according to sex, education, employment, annual income, community size or coast of residence (data not shown).

5 DISCUSSION

Nunavik has a high smoking prevalence, with more than seven out of ten Nunavimmiut reporting smoking on a daily basis (72%). In comparison, 11% of Canadians were daily smokers in 2017 (Statistics Canada, 2017). Furthermore, in contrast with a downward trend observed in the general Canadian population between 1999 and 2017 (Reid et al., 2019), the prevalence of daily tobacco smoking in Nunavik in 2017 remained unchanged relative to the *Qanuippitaa?* 2004 survey. In 2017, differences in the prevalence of daily smoking were observed according to age, with younger and mid-age Nunavimmiut being more likely to smoke tobacco than older Nunavimmiut. The high prevalence of daily smoking among youth is a concern considering the increased risk of multiple health issues associated in the long run with regular smoking (e.g., increased risk of lung cancer and chronic obstructive pulmonary disease) (Centers for Disease Control and Prevention, 1994).

Electronic cigarette use in the Nunavik population was documented for the first time in this survey. Far less popular than tobacco smoking, electronic cigarette smoking was used by 12% of Nunavik's population in the last 12 months. This is similar to electronic cigarette use in the general Canadian population, where 12% reported having used electronic cigarettes and 5% reported using them currently in 2017 (Statistics Canada, 2017). Nunavimmiut under 21 years old, as well as men in general were more likely to have used electronic cigarettes in the year preceding the survey. In keeping with the results of recent studies indicating that smoking status is associated with electronic cigarette use (Hedman et al., 2018; Jaber et al., 2018), Nunavimmiut who smoke cigarettes (daily or occasionally) were more likely to have used electronic cigarettes than non-smokers. Smoking prevention in Nunavik needs to tackle this new form of nicotine consumption.

In addition to being harmed by actively inhaling cigarette smoke, families and friends of smokers, particularly infants and children, are affected by second-hand smoke (World Health Organization, 2019b). Results from the present survey indicate that more than a quarter of Nunavimmiut were exposed to second-hand smoke every day or nearly every day. This is similar to the proportion of houses where indoor smoking was allowed at the time of the

Qanuippitaa? 2004 survey. Exposure to second-hand smoke in the home was associated with living conditions, notably with lower income and residing in large communities. This is of particular concern given the housing crisis in Nunavik, where nearly half the population lives in crowded houses (Déry & Zoungrana, 2009). Resources and guidelines have been developed to reduce exposure to second-hand smoke in the house (Health Canada, 2015). If adaptable to the Nunavik context, these guidelines could be an interesting tool to protect all members of the family, particularly children and youth.

A third of smokers in Nunavik had tried to quit smoking in the year preceding the survey. Occasional smokers were more likely to have tried to quit than daily smokers, as were younger Nunavimmiut. It is noteworthy that despite similarly high proportions of daily smokers in all age groups, Nunavimmiut aged 16 to 20 years old were more likely to have tried to quit in the year preceding the survey. Youth represent the majority of Nunavik's population. Therefore, reducing the tobacco smoking rate among youth – by limiting initiation or through cessation – is of particular importance. The impact of several types of smoking cessation campaigns targeting youth, notably social media campaigns, social environment changes and community interventions, have been studied in various populations (Lantz et al., 2000). Long-term investments, participation of community leaders and culturally appropriate interventions have been identified as key elements to produce desired changes in Indigenous populations (Zhang, Sleeper, Schwartz, & Chaiton, 2018). Most smokers did not use any specific method to quit smoking (cold turkey), but when they did, the most popular sources of help and support were family members or support programs, and spiritual or traditional methods. Nicotine replacement therapy (gum, patches) was used by less than a third of smokers trying to quit. Assistance in smoking cessation efforts is associated with increased chances of quitting successfully. The World Health Organization (WHO) has identified, in increasing order of effectiveness, many smoking cessation interventions: individual behavioural counseling, health care professional intervention/advice, group behaviour therapy and medication (nicotine replacement therapy, etc.) (World Health Organization, 2020).

Most Nunavimmiut reported drinking in the year prior to the survey (83%). In comparison, 78% of Canadians were considered drinkers in the 2017 Canadian Tobacco, Alcohol and Drugs Survey (Statistics Canada, 2017). Nunavimmiut under 21 years old and those 55 years old and over were less likely to report weekly drinking than adults aged 21 to 54. Regular alcohol use was associated with greater monetary resources (higher income and employment). People spending less time sitting and those going on the land more often were less likely to report monthly drinking. Regular alcohol use was higher in 2017 than in the *Qanuipitaa? 2004* survey for people older than 21, but not for 16–20 year olds. The difference in alcohol use between coasts observed in 2004 – a possible consequence of the higher number of communities with no local alcohol sales on the Hudson coast at the time – was no longer present in 2017. While ways to legally access alcoholic beverages have increased over the years for Nunavimmiut, bootlegging of hard liquor continues to be a concern for local authorities.

Binge drinking increases the risk of several physical adverse outcomes (e.g., damage to the liver, structural changes to the brain) (Molina & Nelson, 2018). It is also a well-established risk factor for interpersonal violence perpetration and victimization. The majority of Nunavimmiut reported at least one binge drinking episode in the year preceding the survey, with 29% reporting at least one binge drinking episode per week. The prevalence of weekly binge drinking among Nunavimmiut is higher than what was noted in the Canadian population (7%) in 2017 (Statistics Canada, 2017). Adults aged 21 to 54 reported the highest prevalence of weekly binge drinking (about a third). Nevertheless, one in four Nunavimmiut aged 16 to 20 years old also reported weekly binge drinking episodes. Previous research has shown that binge drinking is associated with enhancement motives (increased positive states or emotional experiences) among adolescent Nunavimmiut (Decaluwe, Fortin, Moisan, Muckle, & Belanger, 2019). Their access to high-percentage alcoholic beverages poses increased risks. The finding that higher social support was associated with more frequent alcohol consumption and binge drinking in Nunavik could be explained by greater access to alcohol and more opportunities to drink among individuals with a larger social circle.

Two thirds (69%) of Nunavimmiut were at risk of problem drinking. This proportion is higher than the one observed in the *Qanuipitaa? 2004* survey. Adults aged between 21 and 54 were more likely to be at risk of problem drinking. Some limitations of the CAGE screening tool should be taken into account when interpreting these results. First, items of the CAGE screening tool are evaluated on a lifetime basis. Therefore, it is possible that some individuals self-identifying as at risk of problem drinking have actually been at risk at some point in their lives but

would no longer have been considered at risk during the year prior to the survey. Second, validation studies have suggested that the CAGE screening tool may not be that useful for detecting problem drinking in populations where binge drinking is prevalent (Dhalla & Kopec, 2007). Third, the CAGE screening tool has never been validated in Inuit populations. Nevertheless, it was used in the present survey to allow comparisons with the same instrument in 2004. Interventions to reduce alcohol use have been shown to be effective in a variety of settings, from primary care to school-based programs (Hennessy & Tanner-Smith, 2015; Kaner et al., 2018). Based on Canada’s Low-Risk Alcohol Drinking Guidelines, the Let’s Be Aware campaign was designed to specifically address alcohol use in Nunavut (Canadian Centre on Substance Use and Addiction, 2018; Government of Nunavut, 2019).

More than half of the population of Nunavik reported using cannabis in the year preceding the survey. The prevalence of cannabis use among Nunavimmiut during that year was about three times higher than what was reported for the general Canadian population (15%) (Statistics Canada, 2017). The prevalence of cannabis use observed in the present survey was higher than that reported for women in *Qanuipitaa? 2004*. However, men were still more likely to use cannabis than women in 2017.

Nearly one third of Nunavimmiut had used cannabis on a daily basis during the year prior to the survey, with men and younger people being more likely to do so. The prevalence was much higher than that found in the general Canadian population for the previous three months (4% reported daily or almost daily use) (Statistics Canada, 2017). A higher level of social support was associated with a lower prevalence of cannabis use. Frequently going on the land and frequent participation in community activities were also associated with a lower prevalence of cannabis use, highlighting the importance of culturally relevant opportunities in one’s life.

About one-third (32%) of Nunavimmiut who had used drugs in the year prior to the survey were at risk of potential drug abuse problems. Nunavimmiut aged 30 and under were particularly at risk. Unsurprisingly, those reporting daily cannabis use were those with the highest proportion of potential drug abuse problems. Such problems were assessed with the Drug Abuse Screening Test (DAST), a questionnaire designed to evaluate potential abuse of any drug in the general population. The validity of the test within the Inuit population remains to be proven. Initiatives such as the Trauma-informed substance use screening and assessment tools for First Nations and Inuit peoples (EENT, 2016) could lead to the development of a questionnaire that is better suited to examining the extent of problematic substance use among Inuit, within both care settings and health surveys.

Previous research suggests that people with lower-risk use behaviours are not only protected from the adverse effects of substance use on their physical and psychological health, but they can also have a positive influence on their relatives' and friends' substance use (Andrews, Tildesley, Hops, & Li, 2002). Abstainers were found in higher proportions in specific subgroups. Women were more likely than men to abstain from alcohol and cannabis use. Older Nunavimmiut, as well as those with higher annual income, were more likely to abstain from cannabis.

While a majority of Nunavimmiut were aware of the harmful consequences of smoking tobacco or using cannabis, 10% to 20 % did not believe that regular tobacco or cannabis smoking causes harm to those who expose themselves to these substances. Young Nunavimmiut (under 30 years old) were more likely to underestimate the risks associated with tobacco or cannabis smoking. Low harm perception was associated with an increased prevalence of use, which may partly explain the high prevalence of tobacco and cannabis use among Nunavimmiut aged 30 years old and less (Strong et al., 2019). At the same time, perceptions offer a great opportunity for large audience preventive interventions (Hawkins, Johnson, Denzel, Tercyak, & Mays, 2017).

Prevention and resources for help and treatment are essential to reduce the burden that substance use poses on Nunavik individuals, families and communities. The Nunalituqait Ikajuqatigiitut (NI) Inuit Association was established in 1987 and has been focusing, for more than 30 years now, on the development of Inuit expertise and capacity in the prevention of addictions and substance abuse throughout Nunavik (Nunalituqait Ikajuqatigiitut Inuit Association). Results from *Qanuilirpitaa? 2017* showed that one Nunavimmiut out of five has sought help

or treatment for alcohol or drug use in their lifetime; however, access to such services is difficult in Nunavik. The Isuarsivik recovery centre located in Kuujjuaq, which has been offering culturally adapted rehabilitation services since 1990, can currently only accommodate a maximum number of 80 clients annually because of limited material resources (Société Makivik, Conseil jeunesse Qarjuit, 2017). The opening of a new building, scheduled for 2021, will allow the center to better answer the needs of Nunavimmiut, notably by expanding family support, on-the-land counseling and inpatient treatment. Community leaders have also started the Saquijuaq project, which is aimed at reducing the impact of substance use and strengthening resources through a community approach (Société Makivik, Conseil jeunesse Qarjuit, 2017). Such community-based and culturally appropriate interventions have been shown to be effective in reducing substance use (Zhang et al., 2018).

This report provides an updated profile of substance use in Nunavik. The *Qanuilirpitaa? 2017* survey confirms that substance use remains widespread in Nunavik. Indeed, the majority of Nunavimmiut reported having used tobacco, alcohol or cannabis in the year preceding the survey. Substance use has been and remains an important challenge for Nunavik communities: the prevalence of substance use is not lower than in the *Qanuipitaa? 2004* survey. Accordingly, the rates observed are still higher than those observed in the general Canadian population. Youth are particularly at risk because of the underestimation of harmful effects coupled with the high prevalence of substance use and the higher risk of excessive or problematic use. Further multivariate analyses are required to clearly identify the key risk and protective factors of substance use.

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- 99- ስንደብድር ስንደብድር ስንደብድር ስንደብድር ስንደብድር

3. ስንደብድር ስንደብድር ስንደብድር ስንደብድር ስንደብድር

- 4) ስንደብድር ስንደብድር ስንደብድር ስንደብድር ስንደብድር
- c) ስንደብድር ስንደብድር ስንደብድር ስንደብድር ስንደብድር

ስንደብድር ስንደብድር ስንደብድር ስንደብድር ስንደብድር

2. For those who do not smoke at all at this time

a) Have you ever smoked cigarettes?

- 1- Never smoked Go to PS - Section 3.1 - Q7
- 2- Yes, but not a whole cigarette Go to PS - Section 3.1- Q7
- 3- Yes, at least one cigarette but less than 100 cigarettes (about 4 packs) in your lifetime Go to PS - Section 3.1- Q7
- 4- Yes, at least 100 cigarettes or more (about 4 packs) in your lifetime Go to PS - Section 3.1 - Q4 and then Q5
- 99- DK/NR/R Go to PS - Section 3.1- Q7

3. For those who smoke daily

a) At what age did you smoke your first whole cigarette?

Age _____
 99- DK/NR/R

b) At what age did you begin to smoke cigarettes daily?

Age _____
 99- DK/NR/R

c) How many cigarettes do you smoke each day now?

Number of cigarettes _____
 99- DK/NR/R

Go to PS - Section 3.1 - Q5

APPENDIX B

ADDITIONAL RESULTS

Table A Tobacco smoking status by sociocultural factors (%), Nunavik, 2017

	Daily	Occasional	Non-smoker
Total	71.6	7.9	20.5
Cultural identity			
Top 30 percentiles	70.4	7.0*	22.6
Other	72.4	8.3	19.3
Frequency of going on land			
Often	68.4	8.8	22.7
Occasionally or never	73.8	7.3	18.9
Sedentary time			
7 hours or less	71.2	7.8	20.0
More than 7 hours	69.5	7.9*	22.6
Social support			
Three or four types	70.0	6.6*	23.5
None to two	71.6	8.5	19.9
Family cohesion			
Top 30 percentiles	70.0	7.6*	22.5
Other	72.2	8.1	19.7
Community cohesion			
Top 30 percentiles	76.0 ¹	6.4*	17.6
Other	69.0	8.9	22.1
Involvement in community activities			
Always or often	67.6 ¹	8.0*	24.4 ¹
Other	74.4	7.8	17.8
Participation in activities promoting healing and wellness			
Yes	67.0	10.7*	22.3
No	73.3	6.8	19.9

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to the other group.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

Table B Number of cigarettes smoked by daily smokers, by sociodemographic factors (%), population aged 16 years and over, Nunavik, 2017

	1-10	11-24	25 or more
Total	47.5	41.2	11.4
Sex			
Men	36.4 ¹	47.7 ¹	15.9 ¹
Women	58.0	35.0	7.1*
Age group			
Men			
16-20 years	56.4	32.8*	10.7**
21-30 years	49.2	34.4	16.4*
31-54 years	22.1 ²	58.9 ^{2,3}	19.1*
55 years and over	33.2 ^{2,3}	55.9 ^{2,3}	10.9**
Women			
16-20 years	67.4	23.2*	9.4**
21-30 years	62.7	31.5	5.9**
31-54 years	54.7 ³	39.4 ²	5.9**
55 years and over	44.7 ^{2,3}	44.9 ^{2,3}	10.4**
Marital status			
Single	52.4	34.5	13.1*
Married or common law	44.6 ⁴	45.0 ⁴	10.4*
Separated, divorced or widowed	32.9 ⁴	NP	NP
Education			
Elementary school or less	31.9*	50.1	18.0
Secondary school not completed	47.9	40.2	11.9
Secondary school or higher	50.5	40.8	8.7**
Employment			
Employed	49.4	40.1	10.5
Not employed	43.4	43.2	13.4*
Income			
Less than \$20 000	49.9	36.6 ¹	13.5*
\$20 000 or more	44.8	46.4	8.9*
Community size			
Large	44.0	43.0	13.0
Small	52.2	38.7	9.1*
Coast			
Hudson	41.3 ¹	45.6	13.1
Ungava	57.3	34.2	8.6*

NOTES

Coloured cells indicate statistically significant comparisons.

1. Statistically significant difference observed using the 5% threshold compared to the other group.
2. Statistically significant difference observed using the 5% threshold compared to the 16 - 20 age group.
3. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
4. Statistically significant difference observed using the 5% threshold compared to single Nunavimmiut.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

NP: Data not presented due to small number of respondents.

Table C Indoor and passive smoking in the house, by sociodemographic factors (%), population aged 16 years and over, Nunavik, 2017

	Indoor smoking ¹	Passive smoking		
		More than once a week	Once a week or less	Never
Total	29.4	27.3	10.9	61.8
Sex				
Men	34.2 ²	30.5 ²	14.3 ²	55.2 ²
Women	24.5	24.1	7.5	68.4
Age group				
Men				
16-20 years	25.2	28.7*	20.7*	50.6
21-30 years	37.4*	28.2*	12.3*	58.6
31-54 years	35.9	32.3	11.6*	56.1
55 years and over	38.5	31.7	15.0*	53.3
Women				
16-20 years	26.3	27.7 ³	6.4**	65.9
21-30 years	24.0*	17.0	7.4*	75.6 ⁴
31-54 years	21.7	25.0 ³	5.9* ⁴	69.0 ⁴
55 years and over	31.0	30.4 ⁵	12.9*	56.7
Marital status				
Single	34.9	31.9 ⁶	13.4 ⁶	54.8 ⁶
Married or common law	24.9 ⁵	22.8	8.5	68.7
Separated, divorced or widowed	30.1*	36.3* ⁶	15.9**	47.7 ⁶
Education				
Elementary school or less	32.8	44.8 ^{7,8}	17.6*	37.6 ^{7,8}
Secondary school not completed	30.0	28.6 ⁷	10.3	61.1 ⁷
Secondary school or higher	27.2	18.5	10.3*	71.2
Employment				
Employed	27.9	26.5	11.1	62.4
Not employed	31.9	29.0	10.7*	60.3
Income				
Less than \$20 000	33.0 ²	35.2 ²	9.6	55.2 ²
\$20 000 or more	24.2	18.7	12.3	68.9
Coast				
Hudson	26.3 ²	28.9	10.3	60.7
Ungava	34.8	25.2	11.7	63.1
Community size				
Large	27.6	26.5	8.9 ²	64.6 ²
Small	32.2	28.4	13.7	57.9

NOTES

Coloured cells indicate statistically significant comparisons.

1. Among current daily and occasional smokers only.
2. Statistically significant difference observed using the 5% threshold compared to the other group.
3. Statistically significant difference observed using the 5% threshold compared to the 21-30 age group.
4. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
5. Statistically significant difference observed using the 5% threshold compared to single Nunavimmiut.
6. Statistically significant difference observed using the 5% threshold compared to married or common law Nunavimmiut.
7. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had attended but not completed secondary school.
8. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had completed secondary school or higher.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Table D Monthly alcohol drinking, weekly binge drinking and potential problem drinking, by sociocultural factors (%), Nunavik, 2017

	Monthly drinking	Weekly binge drinking	Potential problem drinking ¹
Total	63.0	29.4	68.5
Cultural identity			
Top 30 percentiles	58.6	30.8	71.2
Other	64.9	29.0	67.4
Frequency of going on land			
Often	58.6 ²	27.5	69.4
Occasionally or never	66.6	31.0	67.5
Sedentary time			
7 hours or less	57.9 ²	26.9	68.7
More than 7 hours	72.4	33.3	67.2
Social support			
Three or four types	67.5	33.2	76.0 ²
None to two	61.0	27.8	66.7
Family cohesion			
Top 30 percentiles	61.4	28.2	66.0
Other	63.5	30.0	69.7
Community cohesion			
Top 30 percentiles	62.2	32.0	69.2
Other	63.5	28.2	68.4
Involvement in community activities			
Always or often	59.4	29.0	67.9
Other	65.4	29.7	68.9
Participation in healing and wellness activities			
Yes	62.2	28.5	68.0
No	63.2	29.8	68.7

NOTES

Coloured cells indicate statistically significant comparisons.

1. CAGE score of 2 or more, among Nunavimmiut who had drunk alcohol in the year preceding the survey.
2. Statistically significant difference observed using the 5% threshold compared to the other group.

Table E Lifetime drug use, lifetime glue, gasoline or other solvent use and potential drug abuse problem in the past year (%), by sociodemographic factors, population aged 16 years and over, Nunavik, 2017

	Lifetime drug use	Lifetime glue, gasoline or other solvent use	Potential drug abuse problem ¹
Total	85.0	29.3	31.8
Sex			
Men	89.2 ²	36.1 ²	32.9
Women	80.7	22.4	30.2
Age group			
Men			
16-20 years	80.8	12.3 ^{**}	39.3 ^{*4}
21-30 years	93.8 ^{3,4}	29.9 ^{*3,4,5}	41.4 ⁴
31-54 years	93.7 ^{3,4}	46.3 ^{3,4}	30.7 ⁴
55 years and over	81.9	47.0	16.2 ^{**}
Women			
16-20 years	81.1 ⁴	10.1 [*]	44.0
21-30 years	88.4 ^{3,4,5}	24.3 ³	32.5 ^{3,5}
31-54 years	80.6 ⁴	26.7 ³	21.7 [*]
55 years and over	68.4	20.2 ^{*3}	26.0 ^{**}
Marital status			
Single	84.7	27.0	40.1
Married or common law	85.9	30.7	23.4 ⁷
Separated, divorced or widowed	78.1	32.3 [*]	29.4 [*]
Education			
Elementary school or less	75.2	32.0	38.7 ^{*8}
Secondary school not completed	85.4 ⁶	30.8	35.3 ⁸
Secondary school or higher	88.7 ⁶	25.9	21.5 [*]
Employment			
Employed	86.5	30.3	29.6
Not employed	82.3	27.2	36.1
Income			
Less than \$20 000	82.4 ²	25.4 ²	38.4 ²
\$20 000 or more	88.4	33.0	19.7
Community size			
Large	84.6	27.8	32.6
Small	85.5	31.3	30.7
Coast			
Hudson	83.7	34.7 ²	28.3 ²
Ungava	86.7	22.2	36.0

NOTES

Coloured cells indicate statistically significant comparisons.

1. Among those who have used drugs in their lifetime.
2. Statistically significant difference observed using the 5% threshold compared to the other group.
3. Statistically significant difference observed using the 5% threshold compared to the 16-20 age group.
4. Statistically significant difference observed using the 5% threshold compared to the 55 and over age group.
5. Statistically significant difference observed using the 5% threshold compared to the 31-54 age group.
6. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had attended or completed elementary school only.
7. Statistically significant difference observed using the 5% threshold compared to single Nunavimmiut.
8. Statistically significant difference observed using the 5% threshold compared to Nunavimmiut who had completed secondary school or higher.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.

Table F Cannabis use and potential drug abuse problem in the past year, by sociocultural factors (%), Nunavik, 2017

	Cannabis use	Potential drug abuse problem ¹
Total	63.5	
Cultural identity		
Top 30 percentiles	58.3 ²	29.8
Other	65.9	32.6
Frequency of going on land		
Often	59.3 ²	29.7
Occasionally or never	66.8	33.1
Sedentary time		
7 hours or less	64.7	32.8
More than 7 hours	61.2	28.2
Social support		
Three or four types	58.2 ²	30.6
None to two	65.2	34.0
Family cohesion		
Top 30 percentiles	56.2 ²	24.4 ²
Other	66.7	34.5
Community cohesion		
Top 30 percentiles	64.6	29.9
Other	63.0	32.7
Involvement in community activities		
Always or often	55.7 ²	29.2
Other	68.7	33.2
Participation in healing and wellness activities		
Yes	64.3	35.5
No	63.2	29.7

NOTES

Coloured cells indicate statistically significant comparisons.

1. Among people who have used drugs in their lifetime.

2. Statistically significant difference observed using the 5% threshold compared to the other group.

* The coefficient of variation is greater than 15% and lower than or equal to 25%. The proportion should be interpreted carefully.

** The coefficient of variation is greater than 25%. The proportion is shown for information only.



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RÉGIE RÉGIONALE DE LA NUNAVIK REGIONAL
SANTÉ ET DES SERVICES BOARD OF HEALTH
SOCIAUX DU NUNAVIK AND SOCIAL SERVICES