



YOUTH SMOKING

in the NWT:

A Descriptive Summary of Smoking Behaviour
among Grades 5 to 9 Students

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Executive Summary

Preface

The 2006 NWT School Tobacco Survey was made possible with assistance from participating Grades 5 to 9 students, teachers and schools, the Department of Education, Culture and Employment and the Regional Education Authorities.

The last report on youth and adolescent tobacco use was published in 2004. The major finding of the report was that youth tobacco use continues to be a large public health and social problem in the NWT, with prevalence well above the Canadian average. The aim of this report is to present a descriptive summary of select findings from the 2006 NWT School Tobacco Survey, comparing them with findings from previous surveys. The survey is a school-wide census, as all schools and students in Grades 5 to 9 were encouraged to participate in the tobacco monitoring initiative. Out of 3,408 enrolled students, 2,777 (81.5%) NWT students completed the survey.

It is important to monitor trends and patterns of youth smoking behaviour in order to aid in curbing the initiation of smoking at a young age. If youth do not start smoking at a young age, then it is more unlikely they will take up smoking, as they become older. This report represents an important part of ongoing efforts to monitor youth smoking behaviour in the NWT. Below is a list of the key findings from the report.

Key Findings

- Overall, the report shows a number of positive results. The prevalence of youth smoking declined considerably between 1982 and 2006. However, despite widespread declines in the prevalence of youth smoking among most population groups and the positive findings of many of the tobacco-related indicators, there is still much room for improvement in the NWT, if levels are to approach those observed in the rest of Canada. A common pattern found throughout the report was that Aboriginal youth, particularly youth in Small Communities are at the highest risk of taking up smoking.



Smoking Behaviour

- Over the past 25 years, fewer youth have tried smoking or currently smoke. Current smoking (daily and occasional smokers) declined from 23.5% in 1982 to 11.7% by 2006. Since 1999, the proportion of current smokers declined by 21.5% or from 14.9% in 1999 to 11.7% by 2006. Most other population groups also experienced a sharp decline in the proportion who tried smoking and are current smokers. However, in Small Communities, youth smoking continues to be a large problem, as the prevalence changed little over the past 25 years.
- The likelihood of smoking tends to increase with age, as older youth were over three times more likely than younger youth to smoke. Typically, female youth are more likely to start smoking at a younger age. Likewise, Aboriginal youth were almost five times more likely than Non-Aboriginal youth to smoke. Smoking also varied by community type. Youth in Small Communities were three times more likely and youth in Regional Centres were only slightly more likely than youth in Yellowknife to smoke cigarettes.
- The majority of youth smokers are not daily or hardcore-smokers. They are at an early stage of smoking, where most are beginner and/or non-daily smokers. For instance, 1.5% of youth were daily smokers, while 3.1% were non-daily smokers and the largest proportion of 7.1% were beginner or experimental smokers. As such, occasional smoking appears to be more of a problem than daily smoking among youth in the NWT.

Social Influences

- In the NWT, youth are at a high risk of smoking because a large proportion are exposed to influential people who smoke around them on a regular basis. Over a third of youth (37%) reported that they have at least one close friend who was a current smoker. In addition, the majority of youth (58%) also reported that at least one of their parents smoked. Further, over a third reported that at least one person regularly smoked inside their home (38%) and that they rode in a car while someone was smoking during the past week (38%).
- Exposure to second-hand smoke can be considered a social influence because youth not only have the potential to be exposed directly to second-hand smoke, but the constant exposure to people smoking around them may have a strong normalizing effect on their own behaviour.

- A common pattern found with all of the above social and environmental risk factors is that youth in Regional Centres and especially in Small Communities, Aboriginal youth and current and former smokers were all more likely to report that at least one of their close friends and/or their parent(s) smoked or they were exposed to second hand smoke at home and/or in a vehicle.
- There appears to be a strong association between social and environmental factors and youth smoking behaviour. Despite significant group differences, the influence of these factors on youth smoking appears to be quite strong regardless of age, gender, ethnicity or community type. For instance, youth with at least one parent who smoked were three times more likely, youth exposed to second-hand smoke at home were over twice as likely and youth exposed to second-hand smoke in a vehicle were three times more likely than unexposed youth to smoke cigarettes.

Tobacco Access

- The majority of never smokers (63%) indicated that it would be difficult to gain access to cigarettes if they wanted to smoke. However, this means that over a third of students (37%) indicated that it would be easy to obtain cigarettes. The perceived ease of access to tobacco tends to increase with age, where older non-smoking youth were over twice as likely as younger non-smoking youth to report that it would be easy to obtain cigarettes.
- Although it is against the law to sell cigarettes to minors, almost a quarter of youth who currently smoke (23%) attempted to purchase cigarettes in the past 12 months. In terms of the total student population, this only amounts to a small proportion of youth (2.5%). Of the current smokers who attempted to buy cigarettes, the majority reported that they were not asked their age (69%), were not asked for ID (84%) and were not refused the sale of cigarettes (74%). This pattern indicates that most youth who attempted to purchase cigarettes may have been successful.
- Although a modest proportion of current smokers attempted to purchase cigarettes from a store in the past year, the vast majority indicated that they usually obtain cigarettes from social sources (91%). Friends were the most common source of cigarettes (37%), followed by buying cigarettes from others (22%), asking someone to buy cigarettes for them (20%) and obtaining them from family members (12%).

Tobacco-Related Education and Prevention

- Tobacco awareness programs are undertaken on a school-wide basis with the intent of educating all students about the adverse effects of tobacco use. Almost all students in the NWT reported that they had received some type of smoking-related education during the past school year (96%). The most common tobacco-related topic was on second-hand smoke (89%), followed closely by the health effects of smoking (88%), say no and resist influences to smoke (83%), reasons youth smoke (77%) and how tobacco companies target youth in their marketing campaigns (70%).
- Although the vast majority of NWT students received some type of smoking-related education, the topics covered varied by community type. In all cases, youth in Small Communities were slightly less likely than youth in Yellowknife to have received education on any of the tobacco-related topics.
- The Don't Be a Butthead Campaign is an anti-smoking program targeting youth. The overall goal of the program is to encourage youth to remain smoke free throughout their lives. Messages of the Don't Be a Butthead Campaign appear to be reaching most Grade 5 to 9 students. The majority of never smokers (69%) indicated that the campaign helped them decide not to smoke. Further, 37% of current smokers reported that the campaign helped them smoke less, while 21% of ever smokers (current and former smokers) indicated that it helped them quit. In addition, 33% of youth indicated that they talked about smoking with family/friends, while 44% reported that they filled in and mailed a Don't Be a Butthead commitment form. Only 20% of students indicated that they did nothing because of the campaign.
- Older youth tend to be less influenced by the campaign and were twice as likely as younger youth to report that the campaign had no effect. Although older youth appear to be less influenced by the program, the differences were not that large and there appears to be some positive outcomes among all ages.

Beliefs and Attitudes

- It is important to know if youth retain tobacco-related information that they receive in school. Generally, the majority of youth have a good knowledge base about tobacco-related issues.
- Only 22% of youth believed that 'people had to smoke for many years before it damages health', 77% believed that there is a 'health risk from an occasional cigarette', 31% thought that 'smoking helps people relax', 23 % thought 'that smokers could quit anytime', 13% indicated 'that smoking helps people stay slim', 38% believed 'that quitting smoking reduces health damage even after many years of smoking', 77% indicated 'that tobacco smoke can be harmful to the health of non smokers' and 20% thought that 'people who smoke have more friends'. To some extent, youth in Regional Centres and particularly in Small Communities appear to be less knowledgeable about smoking.
- The majority of students thought that other youth started smoking because they think 'smoking is cool' (62%) and their 'friends smoke' (59%). Many students also thought that youth started smoking because the 'popular kids smoke' (47%), 'out of curiosity' (46%), their 'parent(s) smoke' (37%), 'smoking is relaxing' (33%) and their 'siblings smoke' (27%). Fewer students believed that youth began smoking 'for something to do' (21%), 'to lose weight or stay slim' (16%) and because 'smoking is not allowed' (14%).

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1. Introduction

The first NWT School Tobacco Survey (NWTSTS) was conducted in 1982. Since then, five other surveys have been completed to monitor youth smoking behaviour and related issues. The NWTSTS is conducted approximately every four to five years with the latest survey completed in 2006. The NWT School Tobacco Survey is very unique, as it is the only school-wide census on tobacco use and related behaviours in Canada. Some key objectives of the NWTSTS include: (1) determine the prevalence and patterns youth tobacco use in the NWT; (2) identify risk factors related to youth tobacco use; (3) measure youth beliefs and knowledge about health effects of tobacco use; and (4) provide baseline data for future evaluations of youth anti-smoking campaigns.

In August 2006, an agreement was reached between the Departments of Health and Social Services, Education, Culture and Employment and the Regional Education Authorities to carry out the sixth cycle of the survey. In turn, the Department of Health and Social Services contracted the NWT Bureau of Statistics to carry out the survey and create the data files for analysis. The 2006 NWT School Tobacco Survey represents an important ongoing effort to monitor youth tobacco use in the NWT.

1.1 Objective of the Report

A primary objective of this report is to provide information about the trends and patterns of youth smoking behaviour in the NWT. An additional objective is to provide continuous access to comparable prevalence data against which changes in tobacco use can be monitored over time. Although the focus of the report is on the results from the 2006 NWT School Tobacco Survey, data was also utilized from surveys conducted since 1982¹. Analyzing the trends in prevalence from 1982 to 2006 will provide insight into the long-term patterns of youth smoking behaviour and the programs designed to prevent youth smoking. This report focuses on exploring patterns or differences that are meaningful for program planning purposes.

1.2 Organization of the Report

The report is divided into seven chapters. Chapter 2 presents an overview of survey design and other methodological issues, Chapter 3 presents information about the prevalence and trends in youth smoking behaviour for different population subgroups, Chapter 4 looks at social influences of youth smoking, Chapter 5 examines youth access to tobacco products, Chapter 6 provides a profile of tobacco-related education and prevention programs and Chapter 7 describes general beliefs about health and smoking.

¹ All data used in this report are taken from the following surveys: 1982 NWT School Tobacco Survey, 1987 NWT School Tobacco Survey, 1993 NWT School Tobacco Survey, 1999 NWT School Tobacco Survey, 2002 NWT School Tobacco Survey and 2006 NWT School Tobacco Survey.

2. Methods

This section describes the methods used for the design and analysis of the 2006 NWT School Tobacco Survey. It includes the major characteristics of the survey design, sample design, sample size and analytical issues such as weighting, partial non-response, sampling error and reliability, definition of smoking behaviour, significance testing and a description of the demographic indicators used throughout the report. The methods of the survey are relevant to a general understanding of the following chapters.

2.1 Survey Design

The target population of the 2006 NWT School Tobacco Survey was students in Grades 5 through 9 from all schools in the NWT. The NWTSTS is a school-wide census, as all schools and students in Grades 5 to 9 are encouraged to participate in the tobacco monitoring initiative. The NWT Bureau of Statistics conducted survey operations and data processing on behalf of the Department of Health and Social Services with assistance from the Department of Education, Culture and Employment, the District Education Councils/Authorities and schools throughout the NWT. The Department of Education, Culture and Employment provided student enrolment data and the District Education Councils/Authorities provided administrative data on school populations.

In 2002, the Department of Health and Social Services and the Bureau of Statistics modified the survey instrument to make it comparable with the National Youth Smoking Survey. The major changes in the survey instrument included the addition of questions relating to the smoking behaviour of parents and friends, beliefs and knowledge about smoking, access to tobacco and tobacco-related education programs. The same instrument was used in the 2006 survey with the exception of some modifications made to the wording of questionnaire items².

2.2 Sample Design

As all NWT schools agreed to participate in the survey, the Bureau of Statistics mailed out the survey instrument in October of 2006. Prior to delivery of the survey instrument to NWT schools, the Deputy Minister of Education, Culture and Employment approved the survey. Following ministerial approval, Regional Education Authorities were also asked for their support of the survey. Upon approval by the Regional Education Authorities, the survey instrument was mailed to individual principals with instructions for teachers.

² The modification of questionnaire items introduces the issue of comparability between the 2002 and 2006 surveys. Many of the attitudinal questions are not directly comparable between the two surveys.

Teachers were given a covering letter that explained the purpose of the survey and instructions on the administration of the survey as well as information about the meaning of the survey questions. During administration of the survey, teachers advised students that all answers were confidential and not to write their name on the questionnaire. Students completed the questionnaire between October and December of 2006. Refer to the NWT Bureau of Statistics for methodological information from previous surveys.

2.3 Sample Size

Table 2.1.1 shows the response rates of the 2006 NWT School Tobacco Survey by Regional Education Authority. Out of 3,408 enrolled students, 2,777 NWT students completed the survey. This gives an overall response rate of 81.5%, where the response rates of the Regional Education Authorities ranged from a low of 70.9% in the Dehcho Education Authority to a high of 84.6% in the South Slave Authority. Refer to the NWT Bureau of Statistics for response rates from previous surveys.

Figure 2.1.1 Response Rates by Regional Education Authority, 2006 NWT School Tobacco Survey

Education Authority	Enrolments	Completed Forms	Response Rate
NWT	3,408	2,777	81.5
Beaufort Delta	600	472	78.7
Sahtu	268	200	74.6
Dehcho	220	156	70.9
South Slave	615	520	84.6
Tlcho	270	225	83.3
Yellowknife Area	1,435	1,204	83.9

Source: NWT Bureau of Statistics.

2.4 Weighting

As not every student participated in the survey for one reason or another, the NWT Bureau of Statistics weighted the data to represent the entire NWT Grades 5 to 9 population (i.e. 10 to 14 year olds)³. In this case, weighting compensates for total non-response. Total non-response was handled by applying weights to the students who volunteered to participate in the survey to compensate for those who did not participate. Population estimates used for weighting were based on total student enrolment for each Regional Education Authority. Table 1 in the Appendix shows the weighted sample size of each survey when weights are applied to the data.

³ Note that the 1982 and 1987 School Tobacco Surveys were not weighted. As such, population values may have been slightly higher if weights were applied to account for total non-response (i.e. weighting tends to increase the prevalence). However, the application of weights in later surveys does not change the prevalence measures to any great extent (i.e. only within a few decimal places). As such, the overall trends and conclusions drawn by comparing the unweighted and weighted data would probably be the same as if all surveys were weighted.

2.5 Sampling Error and Reliability of Estimates

In a population census, standard errors should equal zero because the entire population is included. As such, any point estimate should yield the 'true' population value. However, not all students participated in the survey and thus, some error and bias probably exist when trying to estimate the true population values. Although selection of cases was not based on probability sampling (i.e. no random selection), standard errors were estimated on the assumption that the sample was drawn randomly.

Standard errors are used to estimate the coefficient of variation (CV). The CV is the most common measure of reliability and provides an indication of how well the estimate obtained from the sample represents the true population value. According to Statistics Canada's guidelines on reliability, an estimate with a CV less than 16.5% is a reliable estimate of the population value. Prevalence estimates based on a small number of respondents may not provide reliable estimates of population values. In this situation, sampling variability tends to range from moderate to high and the CV will reflect the disparity. CVs that fall between 16.5% and 33.3% will have moderate sampling variability. These values are published, but flagged to caution readers (denoted with ^E in the graphs and tables). Additionally, an estimate may have a CV above 33.3%, which indicates high sampling variability. These values should not be published (denoted with ^F in the graphs and tables). This report adheres to the above guidelines.

2.6 Partial Non-Response

Partial non-response occurs when a respondent did not answer a question or could not recall the requested information. Partial non-response can either be included or excluded when estimating prevalence measures. In this report, partial non-responses were excluded when prevalence measures were calculated. When non-responses are excluded from estimations, an assumption is made about the responses that may have been provided. In this case, we assume that the missing responses follow the same distribution, as students who provided complete answers to the questions. In the 2006 survey, most indicators have a relatively low non-response rate. For instance, the non-response rate for 'daily amount smoked in the last 30 days' was 2%, while the other indicators that make up smoking status had a non-response rate of around 1%. For the social indicators in Chapter 4, the 'number of friends who smoke' was also around 2%, while the other indicators had a non-response rate of around 1%. In Chapters 4 through 7, the attitudinal and education indicators had non-response rates of around 2%.

2.7 Significance Tests

In this report, two types of significance tests were used. In Chapter 3, a Chi-square test for trend in a binomial proportion and a linear trend test for means were used. These tests check for significant upward or downward trends over time. The binomial trend test was used to check for significant trends in youth who tried smoking and smoking status by age, gender, ethnicity and community type between 1982 and 2006. The linear trend test was used to check for significant trends in the average age that a current smoker started smoking weekly and the average number of cigarettes per day among daily smokers. The binomial trend test uses the Chi-square test of significance, while the linear trend test uses the T-test to determine significant trends.

The second test examined for group differences in the smoking-related indicators by age, sex, ethnicity and community type. A simple Z-test between two binomial proportions was used to check for significant group differences in the variable of interest. Population group differences were only compared using data from the 2006 NWT School Tobacco Survey, as these patterns tend to remain stable over time. In addition, a reference group was chosen as the basis of comparison for each of the indicators (denoted with † in the graphs and tables). This method helps to convey differences more clearly within the population groups. In all tests, an alpha level of .05 ($p < .05$) was used to determine whether trends over time or differences between groups were significant (denoted with * in the graphs and tables). Note that as this report provides a descriptive summary of youth smoking behaviour in the NWT, casual interpretations should not be drawn from any significant trends or group differences described throughout the report.

2.8 Definition of Smoking Behaviour

Table 2.8.1 shows the old and new definitions of smoking status from the NWT School Tobacco Surveys. In prior surveys, the old definition was a simple typology with three categories, while the new definition contains a more detailed typology with seven categories. The new definition adds the categories 'experimental' (beginner) smoker and former smoker - past experimenter, former daily and non-daily smokers. These experimental stages are an important addition because the majority of youth smokers are not daily or 'hardcore' smokers. They are at the beginning stages of smoking, where most are experimental and/or occasional smokers. In this report, 'daily' and 'non-daily' smokers are combined to form a broad 'current' smoker category. It is necessary to use the broad category because contingency tables of the new definition of smoking status by demographic indicators lead to small cell sizes and unreliable estimates. In addition, past experimenters are combined with former daily and non-daily former smokers because the latter two categories only make up a small proportion of former smokers at the young ages.

The prevalence of 'current' smoking based on the new definition was slightly lower than the prevalence estimate based on the old definition. The main reason for the difference is that the new definition has numerical and temporal criteria for classification into one of the smoking categories (e.g. smoked a whole cigarette, smoked 100 cigarettes and smoked in past 30 days). For the most part, however, smoking status was classified correctly between the old and new definitions. The most common misclassifications occurred when non-daily smokers under the old definition were assigned as 'former' or 'never' smokers under the new definition and 'never' smokers under the old definition were assigned as 'occasional' or 'beginner' smokers under the new one⁴.

Figure 2.8.1 Definitions of new and old smoking status indicators from the NWT School Tobacco Survey.

Category	New Definition (2002, 2006)	Old Definition (1982-2006)
Daily	Smoked 100+ cigarettes and smoked every day in past 30 days.	Smoked every day
Non-Daily	Smoked 100+ cigarettes and smoked in past 30 days.	Smoked every other day
Beginner	Smoked < 100 cigarettes and smoked in past 30 days.	N/A
Past Experimenter	Smoked < 100 cigarettes and did not smoke in the past 30 days	N/A
Past Experimenter	Smoked 100+ cigarettes, did not smoke in the past 30 days, but smoked for at least seven days in the past.	N/A
Former Daily	Smoked 100+ cigarettes, did not smoke in the past 30 days, and never smoked every day for at least seven days in a row.	N/A
Former Occasional	Smoked 100+ cigarettes, did not smoke in the past 30 days, and never smoked every day for at least seven days in a row.	N/A
Never	Never smoked a whole cigarette, but may have taken a few puffs.	Did not smoke, but may have smoked at one time.

N/A: Not Applicable

⁴ Most of these disagreements probably occurred because of inconsistent and/or incomplete responses. For instance, some youth responded 'occasionally' to how 'often they smoke cigarettes', but responded that they did not smoke when asked how much they 'smoked in the past 30 days' and vice versa.

Since part of the objective of this report is to compare smoking trends over time, the old definition had to be used for temporal comparisons because it was available in all surveys. However, the new definition also contains important information used in later chapters. Thus, it was necessary to adjust the old and new definitions to make them consistent for the entire report. Inconsistencies or incomplete responses were adjusted by using the response patterns of students who answered the questions, which determine smoking status and other related smoking issues. The adjusted prevalence falls somewhere between the initial values generated by the unadjusted old and new definitions. Generally, the adjusted proportion of current smokers is the same in the old and new definitions⁵. The old definition (current and never smokers) is used to compare youth smoking prevalence over time (Chapter 3), while the new definition (current, former and never smokers) is used when examining social influences, attitudes and beliefs in Chapters 4 through 7.

2.9 Demographic Indicators

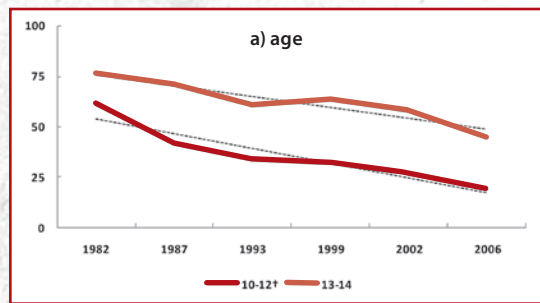
The tobacco related variables are presented by age, sex, ethnicity and community type when possible. Table 2.9.1 gives a description of the demographic indicators used throughout the report.

Table 2.9.1 Demographic indicators used throughout the NWT School Tobacco Report

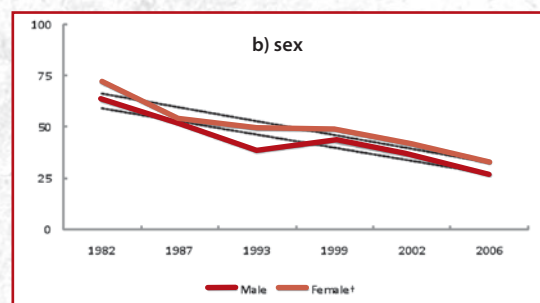
Demographics	Categories of the Indicators
Age	10 to 14 year olds; 10 to 12 year olds; 13 to 14 year olds
Sex	Males; Females
Ethnicity	Aboriginal; Non-Aboriginal
Community Type	Yellowknife – Yellowknife, Detah and N'Dilo; Regional Centres - Hay River, Fort Smith and Inuvik; Small Communities – (All other Communities in the NWT)

⁵ Although the prevalence of current smoking is the same between the two definitions, the proportion of daily and occasional smokers will be different. Again, the reason for the difference is that the newer definition has a numerical and temporal criterion for inclusion. These differences were not adjusted. As a result, daily smoking will be more conservative or lower, while the percentage of non-daily smokers will be higher than in the old definition.

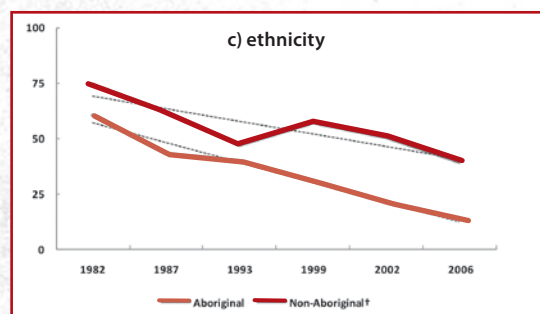
Proportion of 10 to 14 year olds who ever tried smoking by a) age; b) sex; c) ethnicity and d) community type, NWT 1982 – 2006



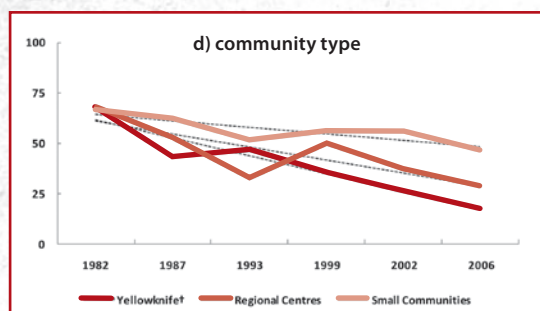
The proportion of 10 to 12 year olds (61.4% to 18.8%) and 13 to 14 year olds (76.3% to 44.9%) who ever tried smoking declined significantly over the past 25 years. As expected, older youth are much more likely to have tried smoking than younger children.



The proportion of male (63.3% to 26.5%) and female (71.8% to 32.6%) youth who ever tried smoking declined significantly over the past 25 years. Despite these declines, females were slightly more likely to have tried smoking.



The proportion of Aboriginal (74.4% to 39.5%) and Non-Aboriginal (60.5% to 13.5%) youth who ever tried smoking declined significantly between 1982 and 2006. Although there have been declines for both groups, Aboriginal youth are much more likely to have tried smoking.



The proportion of youth who tried smoking declined significantly in Yellowknife (67.7% to 17.6%), the Regional Centres (68.3% to 28.8%) and in the Small Communities (66.7% to 46.3%) over the past 25 years. However, the largest declines occurred in Yellowknife and the Regional Centres.

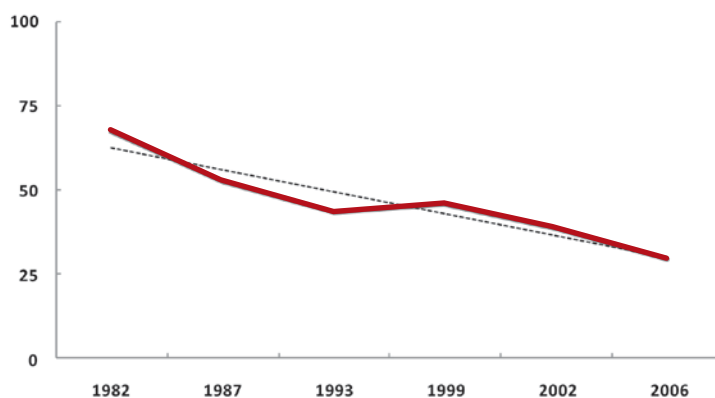
3. Smoking Behaviour

This section describes the general trends of youth smoking in the NWT, which includes measures such as, ever tried smoking, smoking status, some general characteristics of youth smoking and smokeless tobacco. Youth smoking may be difficult to measure accurately for many reasons. In a survey situation, youth might not answer questions truthfully, take the survey seriously and/or fully comprehend the questions. These types of biases may lead to a higher tendency of some students to provide inconsistent responses to the survey questions. In addition, youth smoking has increasingly become a socially unacceptable activity. As such, some respondents may have been unwilling to report tobacco use and others may have a tendency to provide socially acceptable answers by concealing or exaggerating their behaviour. Given the sensitive nature of the topic, estimates of prevalence in the population may be underreported.

3.1 Ever Tried Smoking

Grades 5 to 9 students were asked if they had ever tried smoking, even if it was just a few puffs. Figure 3.1.1 shows the overall trend in the proportion of youth in the NWT who tried smoking between 1982 and 2006 (refer to Table 2 in the Appendix for all demographic trends). Trend lines (dotted line) are shown in the graphs throughout the chapter to give a clear picture of the changes over time. Overall, it appears that fewer youth have tried smoking over the past 25 years. The proportion of 10 to 14 year olds who tried smoking declined from 67.5% to 29.6% between 1982 and 2006. Students who never tried smoking were also asked if they seriously thought about trying to smoke. The proportion is quite low, as only 11.2% of youth who never tried smoking seriously thought about smoking a cigarette at some point.

Figure 3.1.1 Proportion of youth aged 10 to 14 years who ever tried smoking, NWT 1982 – 2006.



The proportion of youth who tried smoking also declined sharply for each of the population groups. For 10 to 12 year olds, the proportion declined from 61.4% to 18.8%, while for 13 to 14 year olds the prevalence declined from 76.3% to 44.9% between 1982 and 2006. Male (63.3% to 26.5%) and female youth (71.8% to 32.6%) also experienced large declines, as did Aboriginal (74.4% to 39.5%) and Non-Aboriginal youth (60.5% to 13.5%). In Yellowknife, the prevalence declined from 67.7% to 17.6%, while in the Regional Centres it declined from 68.3% to 28.8% and in the Small Communities it declined from 66.7% to 46.3% between 1982 and 2006.

Figure 3.1.2 Group differences in the proportion youth aged 10 to 14 years who tried smoking, NWT 2006.

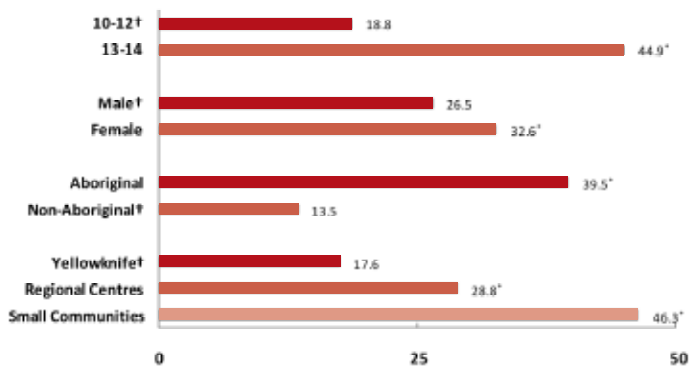
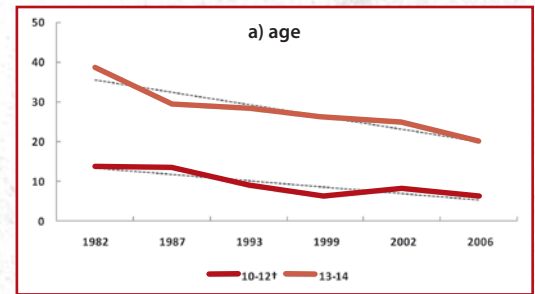
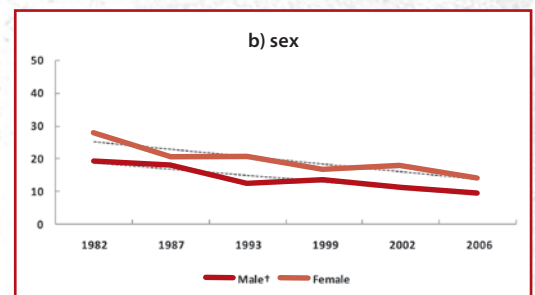


Figure 3.1.2 shows the group differences in the proportion of youth aged 10 to 14 years who tried smoking (refer to Table 2 in the Appendix as a complement to Figure 3.1.2). Despite the widespread declines in the proportion of youth who tried smoking, there are apparent differences between the population subgroups. The likelihood of trying smoking tends to increase with age. In the NWT, older youth (13 to 14 year olds) were over twice as likely as younger youth (10 to 12 year olds) to have tried smoking at some point (44.9.% vs. 18.8%). Trying smoking also differs by gender, ethnicity and community type. Females were more likely than males (32.6% vs. 26.5%) and Aboriginal youth were almost three times as likely as Non-Aboriginal youth to have tried smoking (39.5% vs. 13.5%). Youth in the Small Communities were two and a half times and those in Regional Centres were more likely than youth in Yellowknife to have tried smoking at least once (46.3%, 28.8% vs. 17.6%).

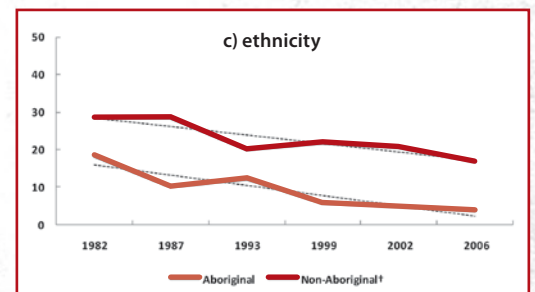
Prevalence of current smoking among 10 to 14 year olds by a) age; b) sex; c) ethnicity and d) community type, NWT 1982 – 2006



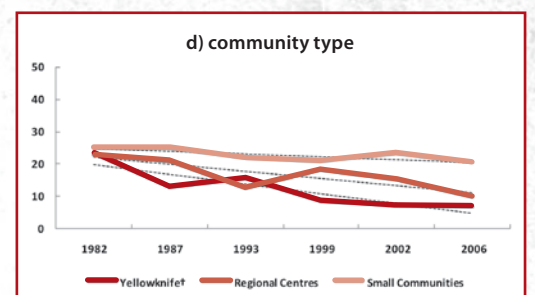
The prevalence of smoking declined among 10 to 12 year olds (13.6% to 5.9%) and 13 to 14 year olds (38.5% to 19.8%). As expected, older youth are much more likely to smoke than younger children.



Youth smoking declined significantly among both males (19.1% to 9.4%) and females (27.9% to 13.9%) over the past 25 years. Despite these declines, females continue to be more likely to smoke at a younger age.



The prevalence of smoking declined significantly among both Aboriginal (28.6% to 16.8%) and Non-Aboriginal (18.4% to 3.5%) youth. Although rates have declined for both groups, Aboriginal youth are much more likely to currently smoke cigarettes.

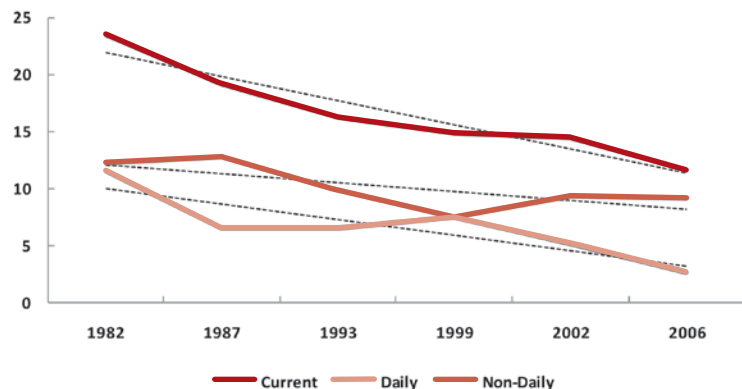


Interestingly, youth smoking rates were similar in the communities in 1982. After 1982, youth smoking rates declined significantly in Yellowknife (23.1% to 6.6%) and in the Regional Centres (22.9% to 9.5%). However, the prevalence of youth smoking in the small communities changed little over the past 25 years.

3.2 Current Smoking Status

The old definition of smoking status is used to compare the prevalence of youth smoking in the NWT between 1982 and 2006 (see also section 2.8)⁶. Figure 3.2.1 shows the prevalence of youth smoking in the NWT over the past 25 years (refer to Table 3 in the Appendix for all demographic trends). Overall, there was a steady decline in the prevalence of youth smoking between 1982 and 2006. Current smoking declined from 23.5% in 1982 to 11.7% by 2006 or a decline of 50.2% over the past 25 years. Since 1999, the proportion of current smokers declined by 21.5% or from 14.9% to 11.7% by 2006. Although the trend is not as clear among daily and non-daily smokers, the prevalence of both types of smoking also declined. The proportion of daily smokers declined from 11.5% to 2.5%, while the proportion of non-daily smokers decreased slightly from 12.2% in 1982 to 9.1% by 2006. Since 1999, daily smoking decreased by 66.2% or from 7.4% to 2.5% in 2006, while it appears that non-daily smoking increased. It appears that occasional smoking is more of a problem than daily smoking among youth in the NWT. However, the odd pattern in the data (i.e. overlapping of daily and non-daily smokers in 1999) could also suggest a statistical artefact (i.e. a consequence of measurement error).

Figure 3.2.1 Prevalence of smoking among youth aged 10 to 14 years, NWT 1982 – 2006.



The prevalence of smoking also declined significantly by age, sex, ethnicity and community type. For 10 to 12 year olds, prevalence decreased from 13.6% to 5.9% and from 38.5% to 19.8% among 13 to 14 year olds. Prevalence of smoking also declined among male and female youth, where the prevalence declined from 19.1% to 9.4% among males and from 27.9% to 13.9% among females.

⁶The old definition of smoking status is used in this chapter to allow for the comparison of temporal trends. Smoking status is defined as: *Regular (Daily) Smoker* - Respondent smoked cigarettes every day; *Occasional (Non-Daily) smoker* - Respondent smoked cigarettes, but not every day; *Current smoker* - Regular and occasional smokers; *Non-smoker* - Does not smoke cigarettes. This category includes those who never smoked and those who may have smoked at one time.

For Aboriginal youth, current smoking declined from 28.6% to 16.8%, while the proportion of smokers declined from 18.4% to 3.5% among Non-Aboriginal youth. At the regional level, Yellowknife and the Regional Centres experienced declines in youth smoking, while the Small Communities show little change over the past 25 years. In Yellowknife, the prevalence of youth smoking declined from 23.1% to 6.6%, while in the Regional Centres smoking declined from 22.9% to 9.5 % between 1982 and 2006. These declines coincide with the declines observed in the proportion of youth who ever tried smoking.

Figure 3.2.2 Group differences in the prevalence of smoking among youth aged 10 to 14 years, NWT 2006.

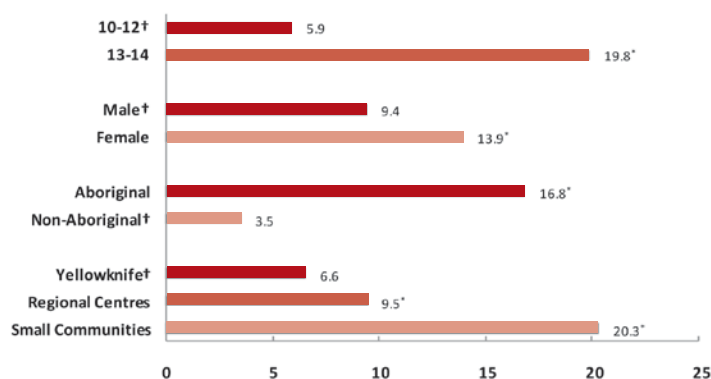
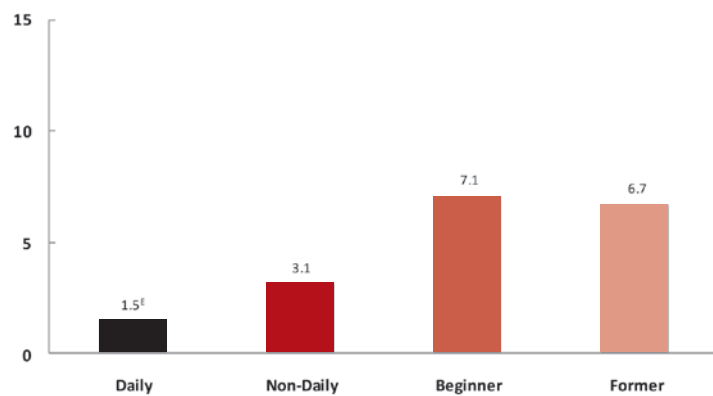


Figure 3.2.2 shows the group differences in the prevalence of youth smoking among NWT students (refer to Table 3 in the Appendix as a complement to Figure 3.2.2). The likelihood of smoking tends to increase with age, as older youth probably have more opportunities, access and exposure to cigarettes from older peers and in the high school context. As such, 13 to 14 year olds were over three times more likely than 10 to 12 year olds to currently smoke (19.8% vs. 5.9%). Smoking prevalence also differs significantly by gender and ethnicity. Typically, females are more likely than males to take up smoking at a younger age. Not surprisingly, female youth were slightly more likely than males to be current smokers (13.9% vs. 9.4%). Likewise, Aboriginal youth were almost 5 times more likely than Non-Aboriginals to currently smoke (16.8% vs. 3.5%). Smoking also varied significantly by community type, where youth in both the Regional Centres and especially Small Communities were more likely than youth in Yellowknife to smoke cigarettes. Youth from Small Communities were three times more likely to smoke, while youth from Regional Centres were only slightly more likely than youth in Yellowknife to smoke (20.3%, 9.5% vs. 6.6%).

3.3 General Characteristics of Youth Smokers

The new definition of smoking status provides a more detailed typology of the youth smoker (see also section 2.8)⁷. Although the prevalence of current smoking is the same between the old and new definitions, the proportion of daily and occasional smokers will be different (see also figure 3.2.1 and Table 3 in the Appendix). As mentioned earlier, the majority of youth smokers are not daily or hardcore smokers. They are at the beginning stages of smoking, where most are beginner and/or non-daily smokers. Figure 3.3.1 shows the type of smoker among current smokers aged 10 to 14 years based on the new definition of smoking status.

Figure 3.3.1 Type of youth smoker aged 10 to 14 years based on the new definition of smoking status, NWT 2006.



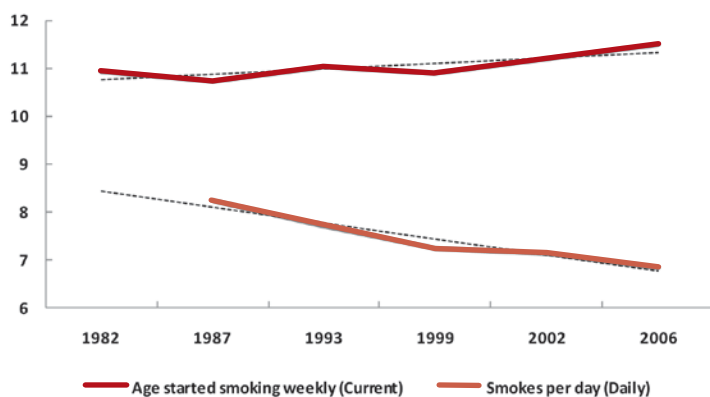
According to the new definition of smoking status, 1.5% of youth were classified as daily smokers, while under the old definition, 2.2% of youth were classified as daily smokers. Additionally, 3.1% of youth would fall under the non-daily or occasional category, while 7.1% were classified as beginner or experimental smokers. When these categories are combined, 10.2% of youth were classified as non-daily or occasional smokers. Non-daily and beginner smokers are not distinguishable under the old definition. Under the old definition, 9.5% of youth were classified as non-daily or occasional smokers.

The former category consists of past experimenters, former daily and non-daily smokers. As mentioned previously, most former smokers are past experimenters, while former daily and non-daily smokers only make up a small portion of the former smoking typology at the young ages. Around 6.7% of youth in

⁷The new or international definition of youth smoking status: *Daily smoker* - smoked 100+ cigarettes and smoked every day in past 30 days; *Non-daily smoker* - smoked 100+ cigarettes and smoked 1 to 29 days in past 30 days; *Experimental smoker (beginner)* - smoked 1 to 99 cigarettes and smoked in past 30 days; *Past experimenter* - smoked between 1 and 99 cigarettes, but has not smoked in the past 30 days; *Former daily smoker* - smoked 100+ cigarettes, did not smoke in the past 30 days, but smoked for at least seven days in the past; *Former occasional smoker* - smoked 100+ cigarettes, did not smoke in the past 30 days, and never smoked every day for at least seven days in a row; *Never Smoker* - never smoked a whole cigarette, but may have taken a few puffs.

the NWT were categorized as former smokers⁸. It is important to monitor former smokers because youth in this category are probably at a higher risk of smoking in the future. The reason is that the new definition classifies youth as former smokers when they have not smoked in the past 30 days. Given that the majority of youth smokers are occasional smokers, it may be realistic to assume that some of these youth will smoke again.

Figure 3.3.2 Age youth started smoking weekly (current smokers) and average number of smokes per day (daily smokers), NWT 1982 - 2006.



In the 2006 survey, youth who reported that they tried smoking were asked at what age they first tried smoking (refer to Table 4 in the Appendix). On average, youth were around 10.3 years old when they tried their first cigarette. Youth who smoked a whole cigarette were also asked their age in the 1982, 2002 and 2006 surveys. Although it is difficult to determine whether an upward trend exists, it appears that youth are becoming older when they smoked their first whole cigarette. The average age appears to have increased from 9.5 in 1982 to 11.0 years in 2006.

Current smokers were asked at what age they started smoking at least once per week and daily smokers were asked how many cigarettes they smoked per day. Figure 3.3.2 shows the average age that current smokers began smoking weekly and the average number of smokes consumed per day among daily smokers. Generally, both averages have been changing over time. It appears that youth in the NWT are becoming smokers at a slightly older age than in the past. The average age that youth began to smoke weekly increased from 10.9 years to 11.5 years over the past 25 years. Conversely, daily smokers were smoking less than youth in the past. On average, the number of smokes per day declined from 8.2 to 6.8 cigarettes per day between 1987 and 2006. There were no significant group differences in any of the above characteristics.

⁸ This category is not directly comparable to the former smoking category that can be derived from the old definition.

3.4 Smokeless Tobacco

Grades 5 to 9 students were asked if they had ever tried smokeless tobacco and whether they currently used smokeless tobacco. Smokeless tobacco is available in two forms. Chewing tobacco is a leafy form of tobacco sold in pouches available in shredded, twisted, or bricked tobacco leaves. Users place the 'chew' between their cheek and gum for up to several hours at a time. Snuff is finely ground or shredded tobacco and often comes in teabag-like pouches. Typically, the user places a pinch between the lower lip or cheek and the gum or it can be snorted through the nose. Chewing tobacco and snuff were combined to form the category of smokeless tobacco due to the small number of users in recent times.

Figure 3.4.1 Proportion of youth aged 10 to 14 years who tried smokeless tobacco and who are current users, NWT 1982 – 2006.

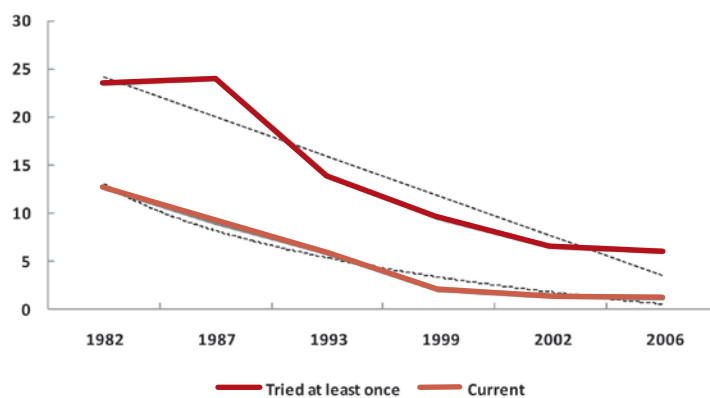


Figure 3.3.1 shows the proportion of NWT students who tried smokeless tobacco at least once and the proportion who are current users. Similar to the trends observed in cigarette smoking, the prevalence of smokeless tobacco also dropped significantly over the past 25 years. Overall, it appears that fewer youth have tried smokeless tobacco in recent times. The proportion of 10 to 14 year olds who tried smokeless tobacco declined from 23.5% to 5.9% between 1982 and 2006. This represents a decline of 75.0% over the past 25 years. Likewise, the proportion of youth who currently reported using smokeless tobacco also declined significantly between 1982 and 2006. The proportion of current smokeless tobacco users declined from 12.6% to 1.1% or a decline of 91.2% over the past 25 years. Most of the decline took place between 1982 and 1999 (12.6% to 1.9%). After 1999, the rate of decline slowed considerably, although the proportion of youth who reported using smokeless tobacco continued to decline slightly into 2006.

4. Social Influences

This section examines the social influences of youth smoking in the NWT. Social influences include the behaviour and actions of parents and peers that shape the child's norms, values, beliefs and lifestyle choices. It can be argued that influential people socialize the child into the role of a smoker. Another type of social influence on behaviour is exposure to second-hand smoke in the home and/or private vehicle. Exposure to second-hand smoke can be considered a social influence because youth not only have the potential to be exposed to the adverse health consequences of second-hand smoke, but constant exposure to people smoking in these contexts may have a strong normalizing effect on the child's behaviour. As such, the influence of people and contexts on childhood behaviour may be interrelated. In many cases, parents, other family members or peers are probably the ones who are smoking around children in those contexts.

4.1 Smoking Behaviour of Close Friends

The smoking status of close friends is an important indicator of childhood smoking status. This indicator, however, is subject to many methodological problems, which are not discussed in detail here⁹. People tend to make friends with others who are similar in age, gender, social class, personality, and other characteristics. For instance, youth are probably more likely to smoke if they hang around with peers who smoke, while non-smokers tend to hang around with non-smoking friends. The peer context provides a setting where smoking behaviour can be acceptable and provide opportunities for non-smoking friends to begin smoking in the belief that they will gain acceptance into the group. In sum, youth smokers tend to hang around with other smokers and it is probably unlikely that youth will smoke if none of their friends smoke cigarettes.

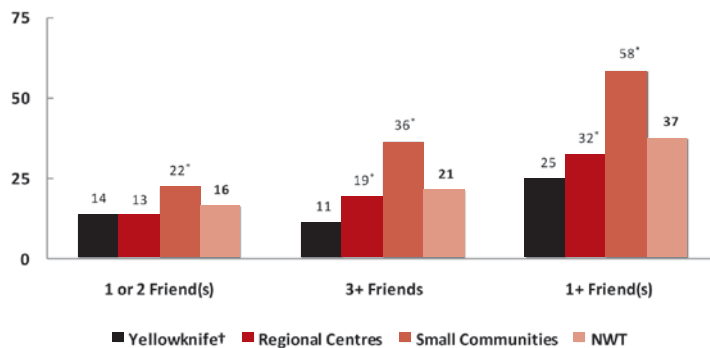
Grades 5 to 9 students were asked how many of their close friends (i.e. ones they spend the most time with) currently smoked cigarettes. Figure 4.1.1 shows the number of close friends who smoke by community type among children aged 10 to 14 years (refer to Table 5 in the Appendix for the detailed table). Overall, 37% of youth reported that they have at least one close friend who was a current smoker. In other words, the majority of youth reported that none of their close friends smoked cigarettes (63%).

⁹ Two common problems associated with the similarity of peers are selection and simultaneity bias. Selection bias occurs because individuals tend to befriend peers with similar characteristics, while simultaneity bias arises because the choice of each peer potentially influences the choice of other members of the group. Both selection and simultaneity bias can lead to inflated parameter estimates. In the 2006 NWT School Tobacco Survey, for instance, one can almost perfectly predict the smoking status of an individual when he or she has close friends who smoke. There are methods to deal with problems such as, quasi-complete separation, but they are beyond the scope of this report.



Around, 16% of youth reported that 1 or 2 of their close friends smoked, while 21% indicated that 3 or more of their close friends were current smokers.

Figure 4.1.1 Number of close friends who smoke among youth aged 10 to 14 years by community type, NWT 2006.



The likelihood of having close friends who smoke also varies significantly by community type. Youth in the Regional Centres and Small Communities were more likely than youth in Yellowknife to report that at least one of their close friends smoked (58%, 32% vs. 25%). The difference is most pronounced between Yellowknife and the Small Communities, where youth in Small Communities were over twice as likely as those in Yellowknife to have reported that at least one of their close friends was a smoker. Furthermore, youth in the Small Communities were over three times as likely as youth in Yellowknife to report that 3 or more of their close friends smoke (36% vs. 11%). This pattern is expected, as smoking rates are the highest in the Small Communities and most youth smokers tend to hang around with other youth who smoke.

Figure 4.1.2 Group differences among youth aged 10 to 14 years with at least one close friend who smokes, NWT 2006.

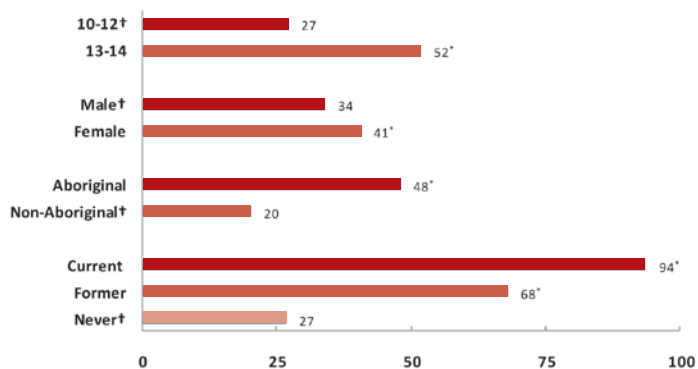


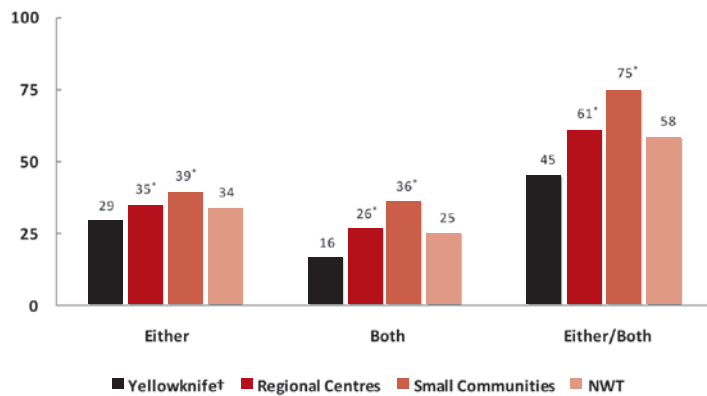
Figure 4.1.2 shows group differences in the prevalence of having at least one close friend who smokes cigarettes among youth aged 10 to 14 years (refer to Table 5 in the Appendix as a complement to Figure 4.1.2 and for significance tests of all categories). The likelihood of having a close friend who smokes tends to increase with age, where older youth were almost twice as likely as younger youth to have at least one friend who smoked (52% vs. 27%). Smoking behaviour of friends also differs by gender, ethnicity and smoking status.

Females were slightly more likely than males (41% vs. 34%) and Aboriginal youth were over twice as likely as Non-Aboriginal youth to have one or more smoking friends (48% vs. 20%). Not surprisingly, current smokers were over three times and former smokers were over twice as likely as never smokers to have at least one close friend who smoked (94%, 68% vs. 27%).

4.2 Parental Smoking Behaviour

Parental smoking status is also a strong predictor of youth smoking status, especially among younger children. Parents are the main socializing agents of their children. When a child is exposed to the smoking behaviour of their parent(s), it may seem that the habit is a normal part of life to the child. Consequently, parents who smoke without restrictions around their children may inadvertently send the wrong message about smoking by making it appear socially acceptable. In turn, these exposed children may have a higher probability of taking up smoking themselves.

Figure 4.2.1 Parental smoking status among youth aged 10 to 14 years by community type, NWT 2006.



Grades 5 to 9 students were asked whether their mother and/or father currently smoked. Figure 4.2.1 shows parental smoking status by community type among children aged 10 to 14 years (refer to Table 6 in the Appendix for the detailed table). In the NWT, the majority of youth reported that at least one of their parents smoked cigarettes. Overall, 58% of NWT students reported that at least one of their parents was a current smoker¹⁰. Approximately 34% of children reported that either their mother or father smoked, while 25% reported that both parents smoked cigarettes. The proportion of youth who reported that their parents smoked also varies significantly by community type. Youth in the Regional Centres and Small Communities were more likely than youth in Yellowknife to report that either parent was a smoker (35%, 39% vs. 29%) and that both parents smoked cigarettes (26%, 36% vs. 16%). In general, students in both the Regional Centres and Small Communities were much more likely to report that at least one of their parents was a smoker (61%, 75% vs. 45%).

¹⁰ This proportion does not reflect a measure of adult smoking prevalence in the NWT because the respondents are not independent (i.e. dependency). Many of the respondents probably had siblings who also participated in the census and thus, some parents have a chance of being counted more than once.



Figure 4.2.2 Group differences in parental smoking status among youth aged 10 to 14 years by select demographics, NWT 2006.

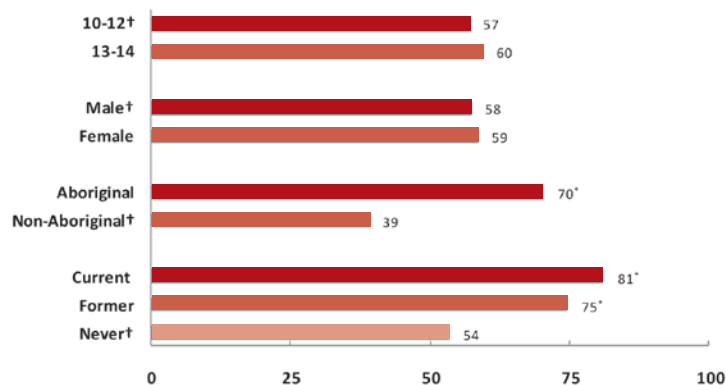
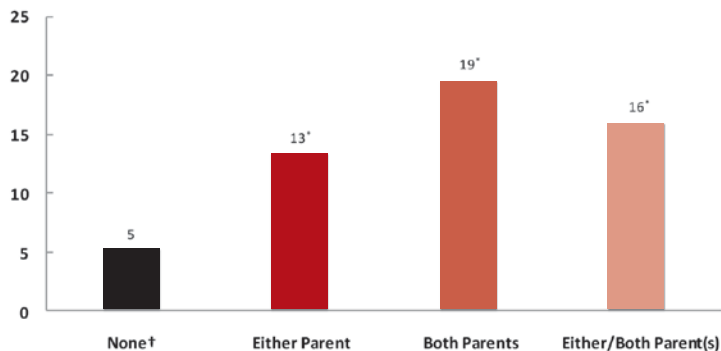


Figure 4.2.2 shows group differences in parental smoking status among children aged 10 to 14 years (refer to Table 6 in the Appendix as a complement to Figure 4.2.2 and for the significance tests of all categories). Not surprisingly, there were no significant age or gender differences in parental smoking status. However, parental smoking varies significantly by ethnicity and the smoking status of the child. Aboriginal youth were much more likely than Non-Aboriginal youth to have reported that at least one of their parents smoke cigarettes (70% vs. 39%). This pattern probably coincides with regional differences, as the majority of residents in the Small Communities are of Aboriginal descent. Likewise, current and former smokers were much more likely than never smokers to report that one or both of their parents smoked (81%, 75% vs. 54%). It should be noted, however, that 54% of never smokers also reported that at least one of their parents smoked. Parental smoking may have a large influence on youth smoking, but other factors may act as a buffer against this effect. Buffers may include peer smoking behaviour, parental restrictions on smoking around their children, access to tobacco and education programs targeting youth smoking.

Figure 4.2.3 Prevalence of current smokers aged 10 to 14 years by parental smoking status, NWT 2006.



The influence of parental smoking on youth smoking becomes apparent when examining the smoking status of the current smokers' parents (i.e. youth smoking status is treated as the dependent variable). Figure 4.2.3 shows the prevalence of current smoking among children aged 10 to 14 years by parental smoking status. Note that most parents who smoke do not have a child who smokes. However, when a parent does smoke the child is at a higher risk of taking up smoking regardless of age, gender, ethnicity or community type. Overall, if a parent did not smoke only 5% of youth were current smokers, if either parent smoked 13% were current smokers and when both parents smoked 19% of youth were current smokers.

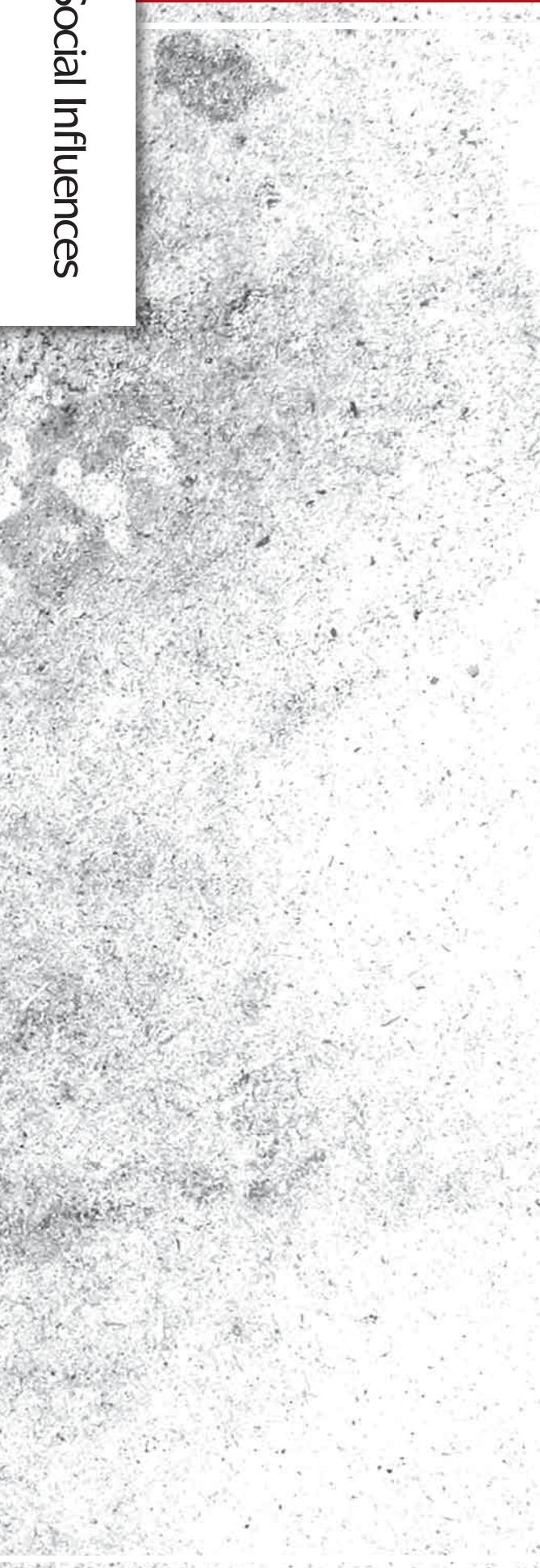
In terms of relative risk, children with at least one parent who smoked were 3.1 times as likely as those with non-smoking parents to currently smoke (16% vs. 5%). In addition, the risk of youth smoking varies significantly by whether one or both parents smoke cigarettes. If either the mother or father smoked, a child would be 2.6 times more likely to smoke than a youth without smoking parents (13% vs. 5%). There was no difference in the risk of youth smoking whether it was the mother or father who smoked. Further, when both parents smoked, a child was 3.8 times as likely as a child with non-smoking parents to currently smoke (19% vs. 5%)¹².

4.3 Exposure to Second-Hand Tobacco Smoke

Second-hand or environmental tobacco smoke (ETS) contains over 40 cancer-causing substances. Regular exposure to second-hand smoke can lead to health problems such as, an increased risk of asthma, cough, wheezing, ear infections, lower lung capacity and respiratory tract infections (bronchitis, croup, pneumonia, etc.). Young children are especially vulnerable to ETS because they have a faster breathing rate, which means they absorb more smoke. In addition, children lack the power to complain about being around smokers and are less able to leave smoke filled places by themselves. Childhood exposure to ETS and the people who smoke around them probably has a normalizing effect on smoking behaviour. In turn, regular exposure may increase the child's risk of taking up smoking and becoming addicted.

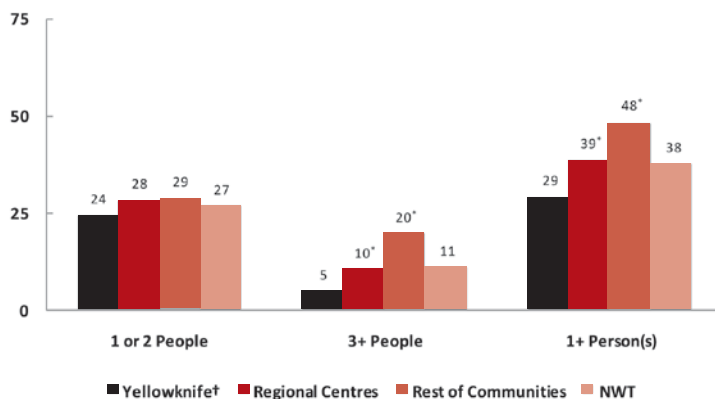
¹¹ In most tobacco studies, the odds ratio is commonly used to measure the influence of parental smoking on the smoking status of their children. In this report, a direct estimate of the relative risk is given because it provides a more accurate and conservative estimate of risk and the interpretation is straightforward. The relative risk is the probability that a member of an exposed group will develop the outcome relative to the probability that a member of an unexposed group will develop the same outcome.

¹² There is a strong association between child and parental smoking behaviour even when adjusting for the effects of potential confounding factors such as, age, gender and ethnicity. Adjusted estimates of the relative risks were obtained by log-binomial regression (not shown here).



The home is one of the main environments for exposure because children spend much of their time there and it is a primary setting where they are exposed to second-hand smoke. Another central environment for exposure is the private vehicle. It is a primary context because of the high concentration of second-hand smoke produced in vehicles. Smoking in vehicles when children are present is especially harmful to their health. This is because smoking in a small space such as, a car is approximately 23 times more toxic than smoking in a home.

Figure 4.3.1 Proportion of youth who reported that at least one person smokes regularly inside the home by community type, NWT 2006.



Grades 5 to 9 students were asked how many people smoke inside their home at least almost every day. Figure 4.3.1 shows the proportion of youth aged 10 to 14 years who reported that at least one person smoked inside the home by community type (refer to Table 7 in the Appendix for the detailed table). Overall, the majority of youth (62%) reported that no one smoked inside their homes. However, over a third of youth (38%) in the NWT reported that at least one person smoked inside their home at least almost every day. The majority of these youth (27%) reported that 1 or 2 people smoked inside, while a smaller percentage (11%) reported that 3 or more people smoked inside the home regularly.

To some extent, smoking inside the home also varies significantly by community type. Generally, youth in the Regional Centres and Small Communities were more likely than youth in Yellowknife to report that at least one person smoked regularly inside the home (48%, 39% vs. 29%). Most of the regional differences are the result of the larger number of smokers reported inside the home. There were no significant regional differences in the proportion of youth who reported that 1 or 2 people smoked in the home. However, youth in the Regional Centres were twice as likely and youth in Small Communities were four times as likely as youth in Yellowknife to report that 3 or more people smoked inside the home (20%, 10% vs. 5%). This pattern may partly reflect the larger number of people or extended family members residing in a single household, particularly in the Small Communities.

Figure 4.3.2 Group differences in the proportion of youth who reported at least one person smokes regularly inside the home, NWT 2006.

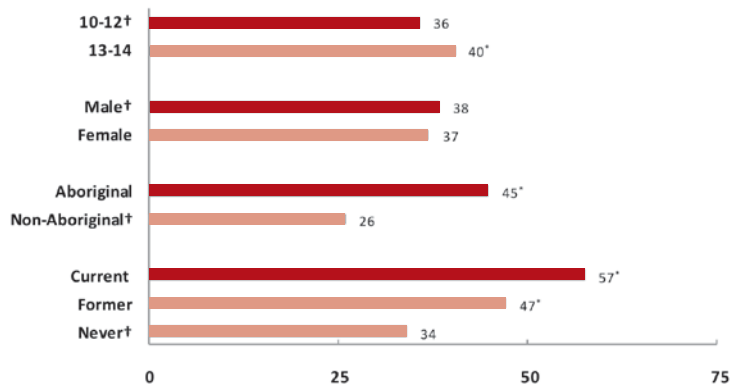
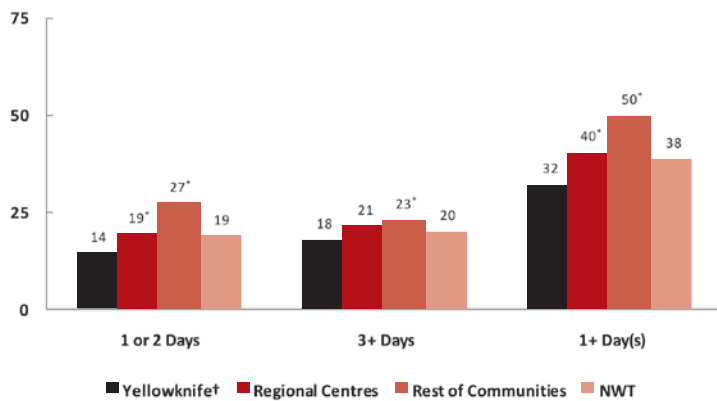
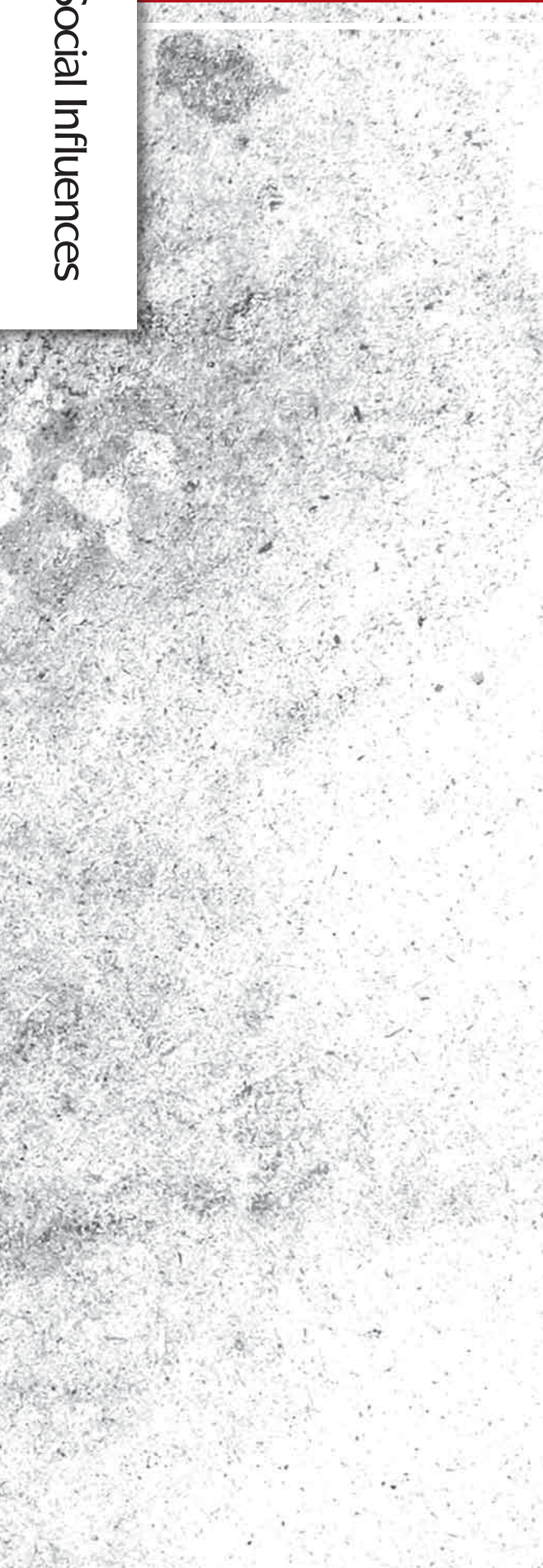


Figure 4.3.2 shows group differences in the proportion of youth who reported that at least one person smokes regularly inside the home by select demographics (refer to Table 7 in the Appendix as a complement to Figure 4.3.2 and for the significance tests of all categories). Older youth were slightly more likely than younger youth to report that they lived in a home where someone smokes at least almost daily (40% vs. 36%). Smoking inside the home also varied significantly by ethnicity and the smoking status of the child. Aboriginal youth were much more likely than Non-Aboriginal youth to have reported that at least one person smoked inside the home (45% vs. 26%). Similarly, current and former smokers were much more likely than non-smokers to report that at least one person smoked inside the home at least almost daily (57%, 47% vs. 34%).

Figure 4.3.3 Proportion of youth who rode in a vehicle while someone smoked during the past week by community type, NWT 2006.



Grade 5 to 9 students were asked how many days in the past week they rode in a vehicle, while someone was smoking. Figure 4.3.3 shows the proportion of youth who reported that they rode in a vehicle with someone who was smoking at least once during the past week by community type (refer to Table 8 in the Appendix for the detailed table). Similar to smoking inside the home, the majority of youth (62%) also indicated that no one smoked, while they were riding in a vehicle.



However, over one third (38%) reported that they rode in a car with someone who smoked at least one day during the past week. This means that many youth in the NWT are at a potential risk of being exposed to the harmful effects of second-hand smoke. Roughly the same proportion of youth, reported that they rode in a vehicle while someone was smoking on 1 or 2 days (19%) and on 3 or more days (20%) in the past week.

The proportion of youth who reported that they were exposed to second-hand smoke in a vehicle also varies by community type. Youth in both the Regional Centres and Small Communities were more likely than youth in Yellowknife to have been exposed to second-hand smoke at least once in the past week (50%, 40% vs. 32%). Most of the regional differences are the result of being exposed on 1 or 2 days during the week. Youth in the Regional Centres and Small Communities were more likely to be exposed to second-hand smoke for 1 or 2 days while riding in a car (19%, 27% vs. 14%). Although the difference is small, youth in Small Communities were also significantly more likely than youth in Yellowknife to report that they were exposed to second-hand smoke on 3 or more days in the past week (23% vs. 18%).

Figure 4.3.4 Group differences in the proportion of youth who rode in a vehicle while someone smoked during the past week, NWT 2006.

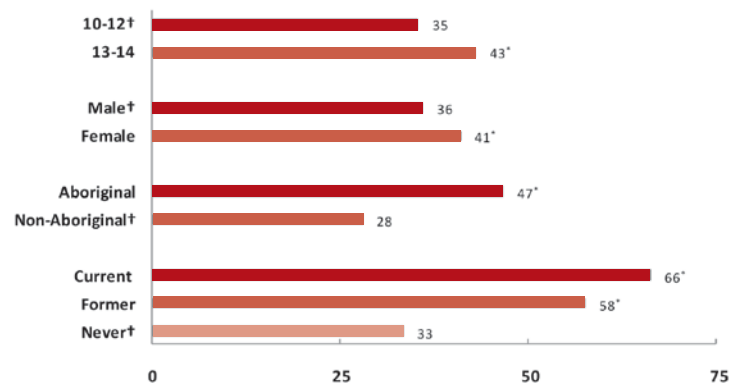
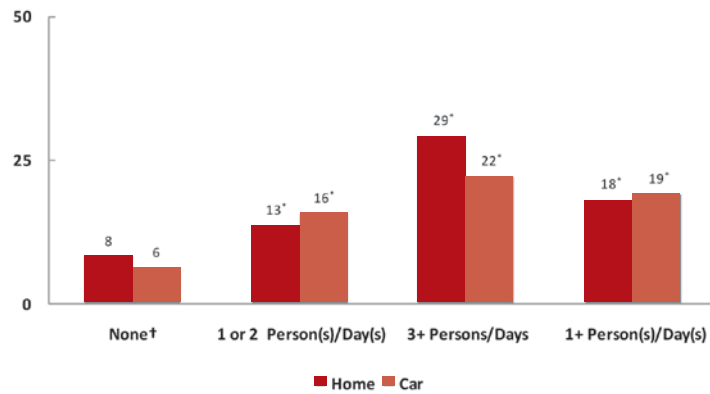


Figure 4.3.4 shows group differences in the proportion of youth who rode in a vehicle with someone who was smoking at least once in the past week (refer to Table 8 in the Appendix as a complement to Figure 4.3.4 and for the significant tests of all categories). Older youth were more likely than younger youth to be exposed to second-hand smoke while riding in a vehicle (43% vs. 35%). Exposure to second-hand smoke also differed by gender, ethnicity and smoking status. Females were slightly more likely than males (41% vs. 36%) and Aboriginal youth were more likely than Non-Aboriginal youth to have been a passenger in a vehicle while someone was smoking (47% vs. 28%). In addition, former and current smokers were much more likely than never smokers to have reported that they rode in a vehicle with someone who was smoking at least once in the past week (66%, 58% vs. 33%).

Figure 4.3.5 Prevalence of current smokers aged 10 to 14 years by exposure to second-hand smoke in the home and in a vehicle, NWT 2006.



There appears to be a strong association between exposure to second-hand smoke and youth smoking behaviour (i.e. youth smoking status is treated as the dependent variable). This effect may interact with parental smoking. In many cases, it may be the parent(s) who smoke around their children in the home and/or automobile. Figure 4.3.5 shows the prevalence of current smoking among youth by exposure to second-hand smoke in the home and vehicle. Overall, if at least one person smoked inside the home, youth were over twice as likely as youth in non-smoking households to smoke (18% vs. 8%). Similarly, children exposed to second-hand smoke in a vehicle at least one day during the week were three times more likely to smoke (19% vs. 6%).

The risk of youth smoking also tends to increase with the number of people who smoke inside the home and the number of days exposed to smoke in a vehicle. If 1 or 2 people smoked inside the home, youth were 1.7 times more likely to smoke and if 3 or more people smoked in the home, youth were 3.6 times more likely to smoke (13%, 29% vs. 8%). Likewise, youth exposed to second-hand smoke in a vehicle on 1 or 2 days in the past week were 2.6 times more likely to smoke and those exposed on 3 or more days were 3.6 more likely to smoke than unexposed children (16%, 22% vs. 6%)¹³. These effects may indicate that exposure has a dual effect on children. Exposure to second-hand smoke is not only harmful to health, but the people smoking around them may normalize smoking behaviour, which may increase the child's probability to smoke.

¹³ There is a strong association between youth smoking and exposure to second-hand smoke at home or in a car even when adjusting for the effects of potential confounding factors such as, age, gender and ethnicity. Adjusted estimates of the relative risks were obtained by log-binomial regression (not shown here).

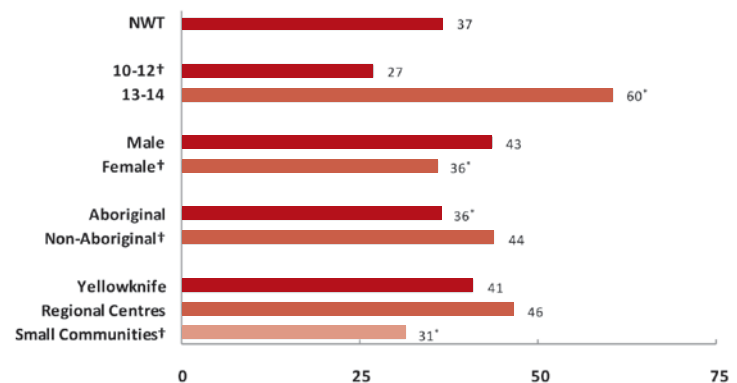
5. Tobacco Access

This section examines youth access to tobacco in the NWT, which includes a description of indicators such as, perceived ease of access, attempts to purchase cigarettes and the usual source of cigarettes. It is important to monitor youth access to tobacco for many reasons. If youth do not have access to cigarettes, then they cannot start to smoke. In turn, if youth do not start smoking at a young age, then it becomes more unlikely that they will begin smoking at a later age. In Canada, federal law makes it an offence to sell tobacco products to anyone under the age of 18. The federal law is a minimum requirement for all provinces and territories. The success of most jurisdictions in restricting tobacco sales to minors has resulted in a shift in the primary source of tobacco from retail to social sources.

5.1 Perceived Ease of Access to Cigarettes

Grades 5 to 9 students were asked whether they thought it would be 'difficult' or 'easy' to obtain cigarettes if they wanted to smoke. Figure 5.1.1 shows the overall and group prevalence in the perceived ease of access to cigarettes among never smokers aged 10 to 14 years (refer to Table 9 in the Appendix as a complement to Figure 5.1.1). Overall, the majority of youth who never smoked (63%) indicated that it would be difficult to gain access to cigarettes if they wanted to smoke. However, over a third of never smokers in the NWT (37%) indicated that it would be 'easy' to obtain cigarettes.

Figure 5.1.1 Group differences in perceived ease of access to cigarettes among never smokers aged 10 to 14 years, NWT 2006.



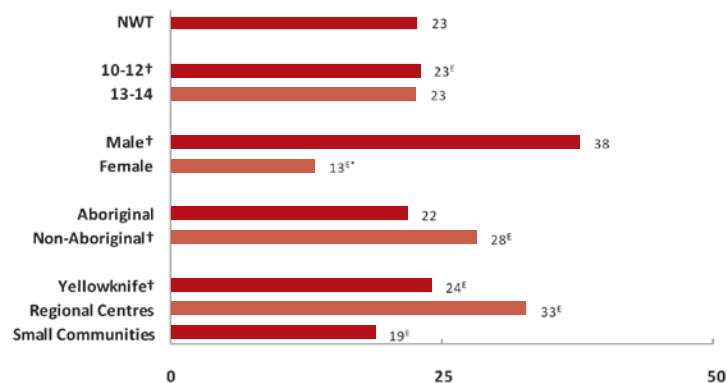
Not surprisingly, the perceived ease of access to tobacco tends to increase with age. Older youth are probably more likely to be exposed to older peers who smoke in high schools and other high-risk smoking contexts. As such, older non-smoking youth were over twice as likely as younger non-smoking youth to report that it would be easy to obtain cigarettes (60% vs. 27%).

Ease of access to cigarettes also differs by gender, ethnicity and community type. Interestingly, never smokers from the higher risk population groups (i.e. the groups with higher smoking rates) indicated that it would be harder to obtain cigarettes if they wanted to smoke. Female youth thought it would be harder than male youth (36% vs. 43%) and Aboriginal youth felt it would be harder than Non-Aboriginal youth to obtain tobacco (36% vs. 44%). In addition, non-smoking youth in the Small Communities thought it would be more difficult to obtain tobacco than youth in Yellowknife and in the Regional Centres (31% vs. 41% and 46%).

5.2 Attempts to Purchase Cigarettes

Current smokers provided responses to whether they were asked their age when buying cigarettes, asked for ID and whether they were refused the sale of cigarettes from a store in the past 12 months. Current smokers who answered 'yes' or 'no' to these questions were used to estimate the proportion who tried to purchase cigarettes in the past year. Figure 5.2.1 shows the overall and group prevalence of current smokers who attempted to purchase cigarettes from a store in the past year (refer to Table 9 in the Appendix as a complement to Figure 5.2.1). The vast majority of current smokers in the NWT (77%) did not attempt to purchase cigarettes from a store. Although it is against the law to sell cigarettes to underage youth, there are still plenty of youth attempting to buy cigarettes from stores. Almost a quarter of youth who currently smoke (23%), attempted to purchase cigarettes in the past 12 months. However, in terms of the total student population, only a small proportion of youth (2.5%) attempted to purchase cigarettes.

Figure 5.2.1 Group differences in attempts to purchase cigarettes from a store in the past year among current smokers, NWT 2006.



Of the current smokers who attempted to buy cigarettes, 32% were asked their age, 16% were asked for their ID and 26% indicated that they were refused the sale of cigarettes. When considered from a different perspective, this pattern indicates that the majority of current smokers who attempted to purchase cigarettes may have been successful. Most current smokers reported that they were not asked their age (69%), asked for their ID (84%) and refused the sale of cigarettes (74%).

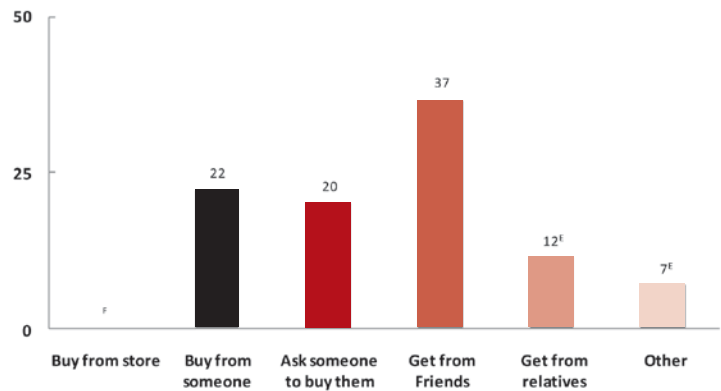


Attempts to purchase cigarettes from a store varied significantly by gender. Male smokers were almost 3 times as likely as female ones to have attempted to purchase cigarettes from a store in the past 12 months (38% vs. 13%). Similar to the perceived ease of access, current smokers from the higher risk population groups (i.e. the groups with higher smoking rates) appear to be less likely to have attempted to purchase cigarettes. Although there appears to be some differences by ethnicity and community type in attempts to buy cigarettes, the differences are not significant. This is probably due to the small numbers on which the measure was based.

5.3 Usual Source of Cigarettes

Current smokers were asked how they 'usually' obtain their cigarettes - buy them at a store, buy them from someone, asked someone to buy them, get them from friends, relatives and other sources. Although almost a quarter of current smokers attempted to purchase cigarettes from a store in the past year, the vast majority indicated that they usually obtain cigarettes from social sources. Figure 5.3.1 shows the usual source for cigarettes among current youth smokers in the NWT.

Figure 5.3.1 Usual source of cigarettes among current smokers aged 10 to 14 years, NWT 2006.



In the NWT, 91% of current smokers reported that they usually obtained cigarettes from one or more of the following - friends, buying cigarettes from others, asking someone to buy them or from family members. Friends were the most common source of cigarettes (37%), followed by buying cigarettes from others (22%), asking someone to buy them (20%), getting them from family members (12%) and other sources (7%). Of family members, parents and other relatives were the most common sources for cigarettes, while taking or stealing cigarettes from family members was the most commonly specified other source. There were no significant group differences in how current smokers usually obtained cigarettes.

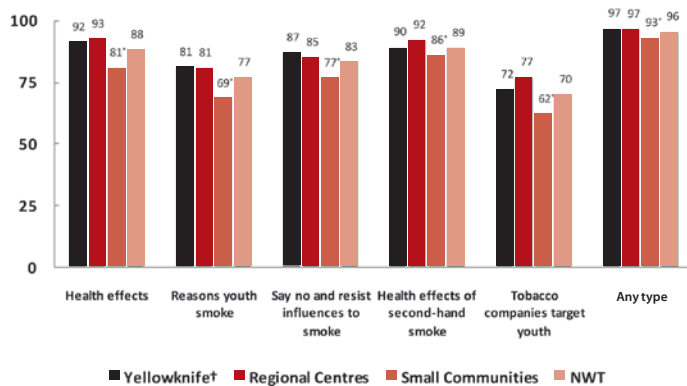
6. Tobacco-Related Education and Prevention

This section examines tobacco-related education and prevention programs (e.g. Don't be a Butthead Campaign) in the NWT. Tobacco awareness programs are undertaken on a school-wide basis with the intent of educating all students about the adverse effects of tobacco use. If youth are persuaded not to start smoking through these education programs, then there is less chance that they will take up smoking as they get older. This makes education programs important because youth tend to use this information and often refer to the adverse effects of smoking as a major reason for not smoking. Generally, these programs provide students with the required knowledge to make informed decisions when faced with opportunities to begin smoking.

6.1.1 Tobacco-Related Education

Students were asked whether they were informed on any of the following tobacco-related topics during the past school year: 'how smoking affects their health', 'reasons other youth start smoking', 'ways to say "no" to tobacco', 'ways to resist the influences to start smoking', 'how second-hand smoke affects people's health' and 'how tobacco companies target youth to smoke'. Figure 6.1.1 shows the proportion of Grades 5 to 9 students who received smoking related education in the past school year by community type (refer to Table 10 in the Appendix for the detailed table). Almost all students in the NWT reported that they had received some type of smoking-related education during the past school year (96%). The most common tobacco related topic was the health effects of second-hand smoke (89%), followed closely by the health effects of smoking (88%), say no and resist influences to smoke (83%), reasons youth smoke (77%) and how tobacco companies target youth in marketing campaigns (70%).

Figure 6.1.1 Proportion of youth who received smoking related education in their last school year by community type, NWT 2006.



Although the vast majority of NWT students received some type of tobacco-related education, the topics covered varied by community type. In all cases, youth in Small Communities were slightly less likely than youth in Yellowknife to have received education on health effects (81% vs. 92%), reasons youth smoke (69% vs. 81%), say no and resist influences to smoke (77% vs. 87%), health effects of second-hand smoke (86% vs. 90%) and how tobacco companies target youth in their marketing campaigns (62% vs. 72%). There were no significant differences between the Regional Centres and Yellowknife on any topics, with the exception of Tobacco Company marketing campaigns. Youth in Regional Centres were slightly more like to have had that topic covered in the past school year (77% vs. 72%).

Figure 6.1.2 Proportion of youth who received smoking-related education in their last school year by age, NWT 2006.

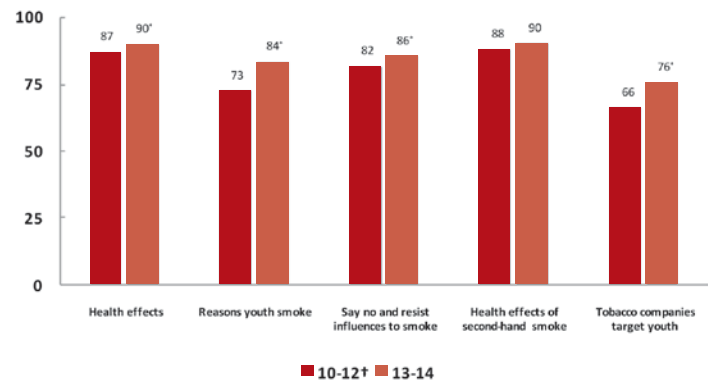


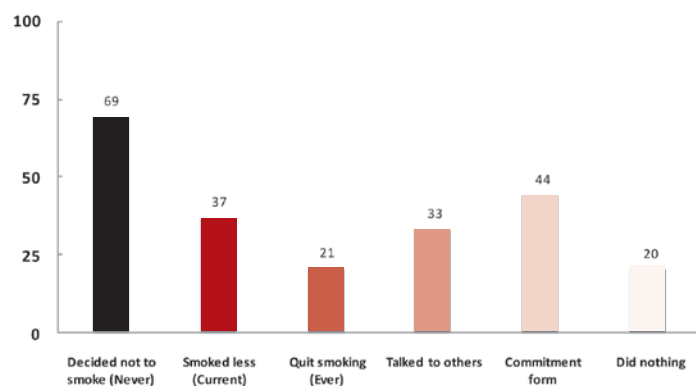
Figure 6.1.2 shows the proportion of Grades 5 to 9 students who received tobacco-related education in their last school year by age (refer to Table 10 in the Appendix as a complement to Figure 6.1.2). To some extent, smoking-related education also varied by the age and ethnicity of the respondent. With the exception of education related to health effects of second-hand smoke, older youth (13 to 14 year olds) were more likely to have received education on health effects (90% vs. 87%), reasons youth smoke (84% vs. 73%), say no and resist influences to smoke (86% vs. 82%) and how tobacco companies target youth in their marketing campaigns (76% vs. 66%). Similarly, Aboriginal youth also reported they were less likely to have received smoking-related education on those topics. This pattern probably reflects the slightly lower proportion receiving tobacco-related education in Small Communities, as the majority of those populations are of Aboriginal descent.

6.2.1 Don't Be a Butthead Campaign

The Don't Be a Butthead Campaign is an anti-smoking program targeting youth, which began in 2004. The overall goal of the program is to encourage youth to remain smoke free throughout their lives. The campaign provides youth with information about the effects of tobacco use and asks them to make a written commitment not to smoke. The commitment is made public through newspaper ads and website postings. This is the first time that information on the Don't Be a Butthead campaign was collected in the NWT Youth Tobacco Survey. As such, the 2006 data will serve as a benchmark for comparisons with data collected from future NWT Youth Tobacco Surveys.

Grades 5 to 9 students were asked if they had heard of the Don't Be a Butthead Campaign and if yes to answer yes or no to the following statements. Because of the Don't Be a Butthead Campaign I - 'decided not to smoke', 'talked to friends or relatives about not smoking', 'filled in and mailed a Don't Be a Butthead commitment form', 'smoked less', 'quit smoking' and 'didn't do anything'. Figure 6.2.1 shows the proportion of Grades 5 to 9 students who indicated that campaign helped them in some way (refer to Table 11 in the Appendix for the detailed table)¹⁴. The messages of the campaign appear to be reaching most students in the NWT. Almost all students (92%) indicated that they have heard of the campaign. However, youth in Small Communities were slightly less likely than youth in Yellowknife to have heard about the campaign (89% vs. 93%).

Figure 6.2.1 Proportion of youth who indicated that the Don't Be a Butthead Campaign helped them, NWT 2006.



¹⁴ For obvious reasons, the 'decided not to smoke' statement only included never smokers, while the 'smoked less' statement included current smokers and the 'quit smoking' statement included ever smokers (current and former smokers). The other statements included the responses of all students.

The campaign shows some positive results in influencing the decisions of youth not to smoke. In the NWT, 69% of youth who never smoked indicated that the Don't Be a Butthead campaign helped them decide not to smoke. Further, 37% of current smokers reported that the campaign helped them cut down on smoking, while 21% of ever smokers (current and former smokers) indicated it helped them quit smoking. Even though the campaign did not help the majority of current and ever smokers, the results are still promising, as these are the hardest youth to reach. In addition, 33% of youth indicated that they passed on the word by talking to friends and/or family about not smoking, while 44% reported that they filled in and mailed a Don't Be a Butthead commitment form. Only 20% of students indicated that they 'did nothing' as a result of the campaign. Looked at from a different perspective, this means that for up to 80% of youth, the campaign may have been beneficial in some way.

Figure 6.2.2 Proportion of youth who indicated that the Don't Be a Butthead Campaign helped them by age, NWT 2006.

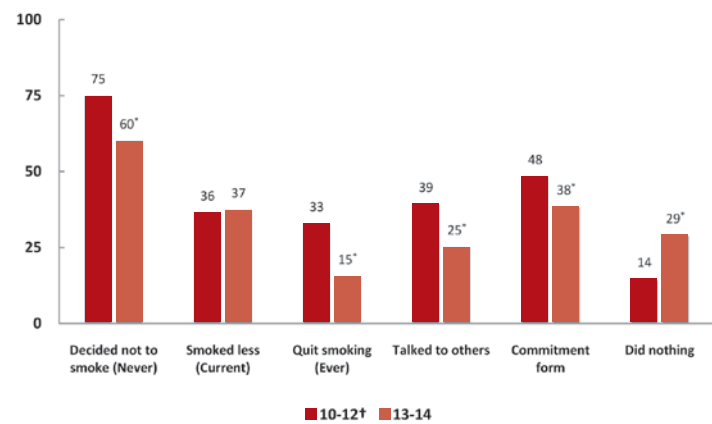


Figure 6.2.2 shows the proportion of Grades 5 to 9 students who indicated that the Don't Be a Butthead Campaign influenced them by age (refer to Table 11 in the Appendix). The influence of the campaign appears to decrease with increasing age. Among never smokers, older children were less likely than younger ones to report that the campaign influenced their decision not to smoke (60% vs. 75%). Interestingly, around the same proportion of youth smokers in both age groups indicated that the campaign influenced them to smoke less (36% and 37%). Older ever smokers were much less likely than 10 to 12 year olds to report being influenced by the campaign to quit smoking (15% vs. 33%). Similarly, older youth were less likely talk to friends or family about smoking (25% vs. 39%) and fill in and mail a Don't Be a Butthead commitment form (38% vs. 48%). Not surprisingly, 13 to 14 year olds were twice as likely as younger youth to have done nothing because of the campaign (29% vs. 14%). Although older youth appear to be less influenced by the campaign, the differences are not that large and there appears to be some positive results. Looked at in a different way, the majority of youth appeared to be influenced to some extent, as 86% of 10 to 12 year olds and 71% of 13 to 14 year olds may have done something because of the campaign.

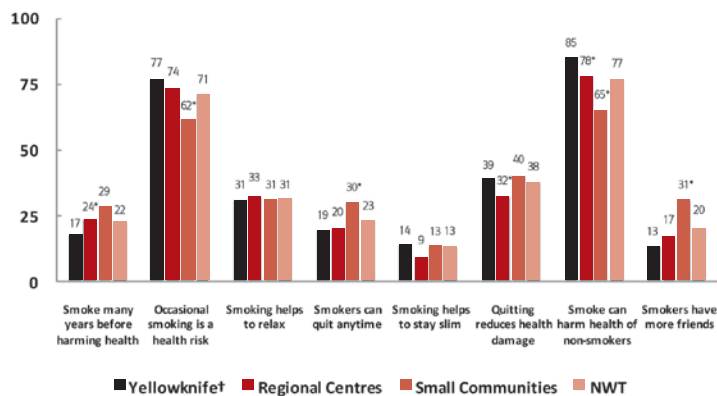
7. Beliefs and Attitudes

This section examines some general beliefs and attitudes about health and smoking and the perceived reasons why other youth start smoking. These indicators help assess the amount of knowledge that youth have gained about health and smoking behaviour. It is important to know that youth are retaining the information they receive in school. As stated in the last chapter, it is important that youth have a sound knowledge base about the facts and myths of smoking because it may help them make informed decisions when they are confronted with opportunities to smoke. If the opportunity arises, youth may be more reluctant to smoke when they have some prior knowledge about the health effects of smoking.

7.1 General Beliefs About Smoking

Grades 5 to 9 students were asked to respond 'yes' or 'no/not sure' to some general questions about smoking. The questions included - 'people have to smoke for many years before it will hurt their health', 'is there any danger to your health from an occasional cigarette', 'smoking helps people relax', 'can smokers quit anytime they want', 'does smoking help people stay slim', 'does quitting smoking reduce health damage even after many years of smoking', 'can tobacco smoke be harmful to the health of non smokers and 'do you think young people who smoke cigarettes have more friends'. Figure 7.1.1 shows the general beliefs about the health effects of smoking among youth by community type (refer to Table 12 in the Appendix for the detailed table).

Figure 7.1.1 General beliefs about smoking among students aged 10 to 14 years by community type, NWT 2006.



Generally, the majority of youth in the NWT have a good knowledge base about the health effects of smoking. Most youth provided the expected responses to the belief questions. In the NWT, only 22% of youth believed that 'people had to smoke for many years before it damages health', 77% believed that there is a 'health risk from an occasional cigarette', 31% thought that 'smoking helps people relax', 23% thought that 'smokers could quit anytime', 13% indicated that 'smoking

helps people stay slim', 38% believed that 'quitting reduces health damage even after many years of smoking', 77% indicated that 'tobacco smoke can be harmful to the health of non-smokers' and 20% thought that 'smokers have more friends'.

To some extent, beliefs about smoking differ by community type. In some cases, it appears that youth in the Regional Centres and particularly in Small Communities are less knowledgeable about smoking. Youth in the Regional Centres and Small Communities were more likely than youth in Yellowknife to believe that people have to smoke for many years before it damages health (29%, 24% vs. 17%) and less likely to believe that tobacco smoke is harmful to the health of non-smokers (65%, 78% vs. 85%). In addition, youth in Small Communities were less likely to believe that occasional smoking damages health (62% vs. 77%), more likely to believe that smokers could quit anytime (30% vs. 19%) and that smokers have more friends (31% vs. 13%). Youth in Regional Centres were less likely to believe that smoking helps people stay slim (9% vs. 14%) and quitting smoking reduces health damage even after many years of smoking (32% vs. 39%).

Figure 7.1.2 General beliefs about smoking among students aged 10 to 14 years by smoking status, NWT 2006.

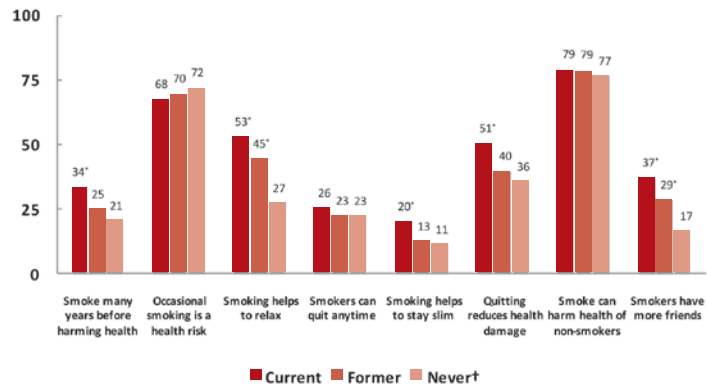


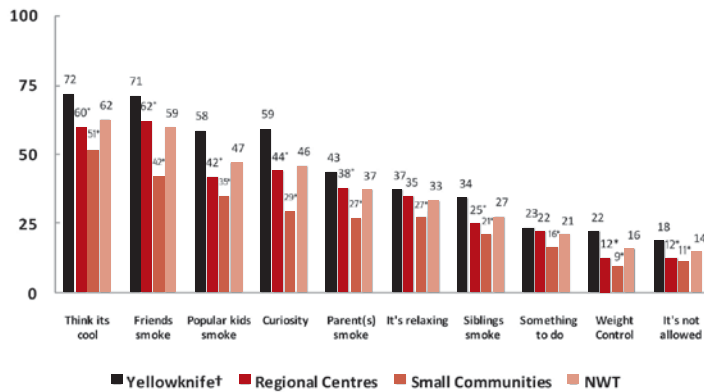
Figure 7.1.2 shows the general beliefs about smoking among students aged 10 to 14 years by smoking status (refer to Table 12 in the Appendix as a complement to Figure 7.1.2). Interestingly, current and former smokers were more likely to believe in the perceived positive aspects of smoking (e.g. relaxation, weight control, popularity) and the comforting aspects of smoking (e.g. takes many years to damage health and quitting reduces damage). Both current and former smokers were more likely to believe that smoking helps people relax (53%, 45% vs. 27%) and smokers have more friends (37%, 29% vs. 17%). In addition, current smokers were more likely than never smokers to believe that people had to smoke for many years before it damages their health (34% vs. 21%), smoking helps people stay slim (20% vs. 11%) and quitting smoking reduces health damage even after many years of smoking (51% vs. 36%).

However, the beliefs of current and former smokers were no different from never smokers for indicators such as, the effects of second-hand smoke, occasional smoking and smokers can quit anytime.

7.2 Perceived Reasons Why Youth Start Smoking

Grades 5 to 9 students were provided with a list of reasons why other youth start smoking and were asked to choose the ones that they thought were most important. The reasons why other youth started smoking included - 'their friends smoke (peer pressure)', 'parent(s) smoke', 'sibling(s) smoke', 'popular kids smoke', 'they think it's relaxing', 'out of curiosity', 'it's not allowed', 'to lose weight 'or' stay slim', 'for something to do' and 'they think it's cool'. Figure 7.2.1 shows the perceived reasons why youth start smoking among students aged 10 to 14 years by community type (refer to Table 13 in the Appendix as a complement to Figure 7.2.1).

Figure 7.2.1 Perceived reasons why youth start smoking among students aged 10 to 14 years by community type, NWT 2006.



Overall, the majority of students thought that other youth started smoking because smoking is cool (62%) and their friends smoke (59%). Many students also thought that youth started smoking because the popular kids smoke (47%), out of curiosity (46%), their parent(s) smoke (37%), smoking is relaxing (33%) and their siblings smoke (27%). Fewer students believed that youth began smoking for something to do (21%), to lose weight or stay slim (16%) and smoking is not allowed (14%). Interestingly, youth in Regional Centres and the Small Communities attributed less importance than those in Yellowknife to any of the indicators that contribute to youth smoking. For instance, youth in the Regional Centres and Small Communities were less likely to indicate that youth start smoking because smoking is cool (50% and 51% vs. 72%), their friends smoke (62% and 42% vs. 71%), the popular kids smoke (42% and 35% vs. 59%), out of curiosity (44% and 29% vs. 59%), their parent(s) smoke (38% and 27% vs. 45%) and so forth.



Figure 7.2.2 Perceived reasons why youth start smoking among students aged 10 to 14 years by ethnicity, NWT 2006.

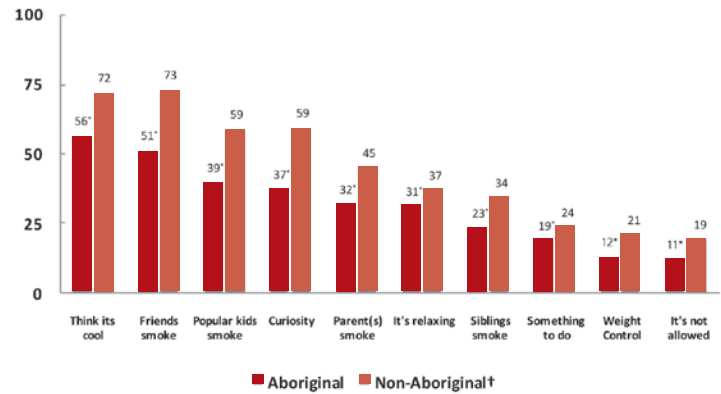


Figure 7.2.2 shows the perceived reasons why other youth start smoking by ethnicity (refer to Table 13 in the Appendix as a complement to Figure 7.2.2). Similar to the regional patterns, Aboriginal youth placed less importance than Non-Aboriginal youth on the provided reasons. As such, the regional variation probably reflects differences in the proportion of the population that are Aboriginal and Non-Aboriginal in the various communities. Aboriginal youth were less likely than Non-Aboriginal youth to believe that youth started smoking because they think smoking is cool (56% vs. 72%), their friends smoke (51% vs. 73%), the popular kids smoke (40% vs. 59%), out of curiosity (37% vs. 59%), their parent(s) smoke (32% vs. 45%) and so forth. Perhaps cultural differences account for the varying perceptions in the reasons why youth start smoking or there are other important reasons not included in the survey.

Figure 7.2.3 Perceived reasons why youth start smoking among students aged 10 to 14 years by smoking status, NWT 2006.

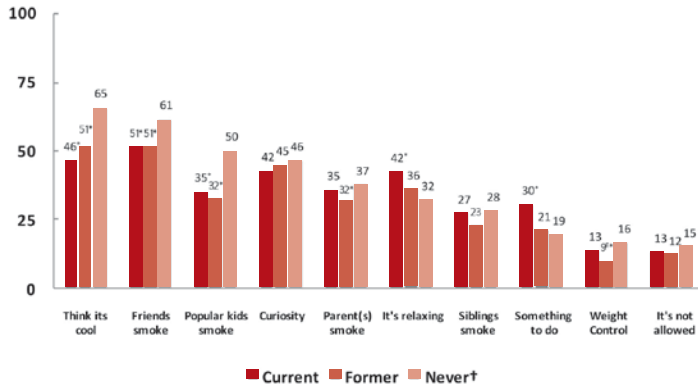


Figure 7.2.3 shows the perceived reasons why other youth their age start to smoke by smoking status. To some extent, the perceived reasons that current or former smokers gave as most important do not differ greatly from the perceived reasons of never smokers. However, there are some differences between the groups. The three most common reasons among current smokers were that youth start smoking because their friends smoke (51%) followed by they think smoking is cool (46%), smoking is relaxing (42%) and out of curiosity (42%). In contrast, never smokers thought that youth smoked because they think smoking is cool (65%), their friends smoke (61%) and the popular kids smoke (50%). In terms of significant group differences, current and former smokers were less likely than never smokers to perceive that other youth start smoking because they think smoking is cool (46% and 52% vs. 65%), their friends smoke (51% vs. 61%) and the popular kids smoke (35% and 32% vs. 50%). In addition, current smokers were more likely than never smokers to perceive that other youth start smoking because smoking is relaxing (42% vs. 32%) and for something to do (30% vs. 19%).

8. Conclusion

Overall, the report shows a number of positive results. The prevalence of youth smoking declined considerably between 1982 and 2006. Despite widespread decline in the prevalence of smoking among most population groups and positive findings of many of the tobacco-related indicators, there is still much room for improvement in the NWT, if levels are to approach those observed in the rest of Canada. A common pattern found throughout the report was that Aboriginal youth, particularly youth in Small Communities are at the highest risk of taking up smoking. The majority of youth smokers are not daily or hardcore-smokers. They are at the beginning stages of smoking, where most are beginner and/or non-daily smokers. For instance, 1.5% of youth were daily smokers, while 3.1% were non-daily smokers and the largest proportion or 7.1% were beginner or experimental smokers. As such, occasional smoking appears to be more of a problem than daily smoking among youth in the NWT. Below is a summary of the main findings of the report.

Fewer youth have tried or are currently smoking over the past 25 years. Most population groups experienced sharp declines in the proportion who tried smoking or are current smokers (daily and occasional smokers). Current smoking declined from 23.5% in 1982 to 11.7% by 2006. Since 1999, the proportion of current smokers declined by 21.5% or from 14.9% to 11.7% by 2006. In Small Communities, youth smoking continues to be a large problem, as the prevalence changed little over the past 25 years. Similar to the patterns of those who tried smoking, the likelihood of smoking tends to increase with age, as older youth were over three times more likely than younger youth to smoke. Typically, female youth are more likely than males to start smoking at a younger age. Likewise, Aboriginal youth were almost five times as likely as Non-Aboriginal youth to smoke. Smoking also varied by community type, where youth from Small Communities were three times more likely and youth from Regional Centres were only slightly more likely than youth in Yellowknife to smoke cigarettes.

In the NWT, youth are probably at a high risk because a large proportion are exposed to influential people who smoke around them on a daily basis. Over a third of youth (37%) reported that they have at least one close friend who was a current smoker. In addition, the majority of youth (58%) also reported that at least one of their parents smoked cigarettes. Further, over a third reported that at least one person regularly smoked inside their home (38%) and that they rode in a car while someone was smoking during the past week (38%). A common pattern found with all of these risk factors: youth in the Regional Centres and Small Communities, Aboriginal youth and current and former smokers were all more likely to report that at least one of their close friends and/or their parent(s) smoked or they were exposed to second-hand smoke at home and/or in a vehicle.

The influence of these factors on youth smoking appears to be strong regardless of ethnicity and community type. For instance, youth with at least one smoking parent were three times more likely to smoke, while youth exposed to second-hand smoke at home were over twice as likely and youth exposed to second-hand smoke in a vehicle were three times more likely than unexposed youth to smoke cigarettes.

The majority of never smokers (63%) indicated that it would be difficult to gain access to cigarettes if they wanted to smoke. However, this means that over a third of students (37%) indicated that it would be easy to obtain cigarettes. The perceived ease of access to tobacco tends to increase with age, where older non-smoking youth were over twice as likely as younger non-smoking youth to report that it would be easy to obtain cigarettes. Although it is against the law to sell cigarettes to minors, almost a quarter of youth who currently smoke (23%) attempted to purchase cigarettes in the past 12 months. In terms of the total student population, this only amounts to a small proportion of youth (2.5%). Of the current smokers who attempted to buy cigarettes, the majority reported that they were not asked their age (69%), were not asked for ID (84%) and were not refused the sale of cigarettes (74%). This pattern indicates that most youth who attempted to purchase cigarettes may have been successful. On the other hand, the vast majority of current smokers indicate that they usually obtain cigarettes from social sources (91%). Friends were the most common source of cigarettes (37%), followed by buying cigarettes from others (22%), asking someone to buy for them (20%) and getting them from family members (12%).

Tobacco-awareness programs are carried out on a school-wide basis with the intent of educating all students about the adverse effects of tobacco use. Almost all students in the NWT reported that they had received some type of smoking-related education during the past school year (96%). The most common tobacco-related topic was on the health effects of second-hand smoke (89%), followed closely by the health effects of smoking (88%), say no and resist influences to smoke (83%), reasons youth smoke (77%) and how tobacco companies target youth in their marketing campaigns (70%). Although the vast majority of NWT students received some type of smoking related education, the topics covered varied by community type. In all cases, youth in Small Communities were slightly less likely than youth in Yellowknife to have received education on any of the tobacco-related topics.

The Don't Be a Butthead Campaign is an anti-smoking program targeting youth, which began in 2004. The overall goal of the program is to encourage youth to remain smoke free throughout their lives. The messages of the campaign appear to be reaching most students. In the NWT, 69% of never smokers indicated that the campaign helped them decide not to smoke.

Further, 37% of current smokers reported that the campaign helped them smoke less, while 21% of ever smokers (current and former) indicated that it helped them quit. In addition, 33% of youth indicated that they passed on the word by talking to family/friends about smoking, while 44% reported that they filled in and mailed a Don't Be a Butthead commitment form. Only 20% of students indicated that they did nothing because of the campaign. Older youth tend to be less influenced by the campaign and were twice as likely as younger youth to report that the campaign had no effect. Although older youth appear to be less influenced by the program, the differences were not that large and there appears to be some positive outcomes among all ages.

Generally, the majority of youth have a good knowledge base about tobacco-related issues. In the NWT, only 22% of youth believed that 'people had to smoke for many years before it damages health', 77% believed that there is a 'health risk from an occasional cigarette', 31% thought that 'smoking helps people relax', 23% thought that 'smokers could quit anytime', 13% indicated that 'smoking helps people stay slim', 38% believed that 'quitting reduces health damage even after many years of smoking', 77% indicated that 'tobacco smoke can be harmful to the health of non smokers' and 20% thought that 'smokers have more friends'. To some extent, youth in the Regional Centres and particularly in the Small Communities appear to be less knowledgeable about smoking. The majority of students thought that other youth started smoking because they think 'smoking is cool' (62%) and their 'friends smoke' (59%). Many students also thought that youth started smoking because the 'popular kids smoke' (47%), 'out of curiosity' (46%), their 'parent(s) smoke' (37%), smoking is relaxing (33%) and their siblings smoke (27%). Fewer students believed that youth began smoking 'for something to do' (21%), to lose weight or stay slim (16%) and because 'smoking is not allowed' (14%).

Appendix

Table 1. Weighted^a number of Grades 5 to 9 students participating in the NWT School Tobacco Survey by select demographics, NWT 1982 - 2006

Demographics	1982	1987	1993	1999	2002	2006
NWT	2,174	1,694	3,617	3,312	3,462	3,168
10-12	1,290	1,060	2,379	1,840	2,116	1,865
13-14	884	634	1,238	1,472	1,346	1,304
Male	1,100	862	1,875	1,705	1,679	1,589
Female	1,074	832	1,742	1,607	1,783	1,579
Aboriginal	1,092	835	1,891	1,907	2,094	1,955
Non-Aboriginal	1,079	859	1,727	1,405	1,368	1,213
Yellowknife	654	603	1,480	1,378	1,447	1,383
Regional Centres	688	534	1,139	898	846	752
Small Communities	832	557	999	1,036	1,168	1,033

^a The 1982 and 1987 School Tobacco Surveys were not weighted.

Table 2. Proportion of youth aged 10 to 14 years who ever tried smoking by select demographics, NWT 1982 – 2006.

Demographics	1982	1987	1993	1999	2002	2006	Trend
NWT	67.5	52.5	43.7	45.8	38.8	29.6	*
10-12 [†]	61.4	41.5	33.3	31.8	26.6	18.8	*
13-14	76.3	71.0	60.5	63.2	58.1	44.9*	*
Male [†]	63.3	51.4	37.9	43.4	35.7	26.5	*
Female	71.8	53.7	49.4	48.4	41.7	32.6*	*
Aboriginal	74.4	62.2	47.1	57.2	50.6	39.5*	*
Non-Aboriginal [†]	60.5	43.1	40.0	30.4	20.9	13.5	*
Yellowknife [†]	67.7	43.4	46.5	35.5	26.1	17.6	*
Regional Centres	68.3	52.8	32.8	50.1	37.2	28.8*	*
Small Communities	66.7	62.0	51.3	55.9	55.8	46.3*	*

[†] Reference category - basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 3. Proportion of current¹ smokers among youth aged 10 to 14 years, NWT 1982 – 2006.

Demographics	1982	1987	1993	1999	2002 ¹⁵	2006	Trend
NWT	23.5	19.2	16.3	14.9	14.4	11.7	*
Male [†]	19.1	18.1	12.3	13.4	10.8	9.4	*
Female	27.9	20.3	20.3	16.6	17.8	13.9*	*
10-12 [†]	13.6	13.2	8.9	6.0	7.8	5.9	*
13-14	38.5	29.3	28.3	26.0	24.8	19.8*	*
Aboriginal	28.6	28.5	20.0	21.7	20.7	16.8*	*
Non-Aboriginal [†]	18.4	10.2	12.2	5.8	4.8	3.5	*
Yellowknife [†]	23.1	12.7	15.5	8.4	7.1	6.6	*
Regional Centres	22.9	20.9	12.4	18.2	15.0	9.5*	*
Small Communities	24.9	24.6	21.7	20.9	23.1	20.3*	n.s

¹ Includes daily & non-daily smokers.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level; n.s not significant.

Table 4. General Characteristics of smoking behaviour among youth aged 10 to 14 years, NWT 1982 – 2006.

Demographics	1982	1987	1993	1999	2002	2006	Trend
Age started smoking weekly (Current)	10.9	10.7	11.0	10.9	11.2	11.5	*
Smokes per day (Daily)	..	8.2	7.7	7.2	7.1	6.8	*
Age first tried smoking	..	..	..	..	..	10.3	-
Age first smoked whole cigarette	9.5	..	..	..	10.4	11.0	-

.. Data not available.

* Significant difference at the .05 level; - No significance test.

Table 5. Number of close friends who smoke among youth aged 10 to 14 years by select demographics, NWT 2006.

Demographics	None	1 or 2 Friend(s)	3 or more Friends	1 or more Friend(s)
NWT	63	16	21	37
10-12 [†]	73	15	12	27
13-14	48*	18*	33*	52*
Male [†]	66	15	19	34
Female	59*	18*	23*	41*
Aboriginal	52*	19*	29*	48*
Non-Aboriginal [†]	80	12	8	20
Yellowknife [†]	75	14	11	25
Regional Centres	68*	13	19*	32*
Small Communities	42*	22*	36*	58*
Current	6 ^E *	18	76*	94*
Former	32*	25*	43*	68*
Never [†]	73	15	11	27

^E Moderate sampling variability - interpret with caution.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 6. Parental smoking status among youth aged 10 to 14 years by select demographics, NWT 2006.

Demographics	None	Either Parent	Both Parents	Either/Both Parent(s)
NWT	42	34	25	58
10-12 [†]	43	34	23	57
13-14	40	33	27	60
Male [†]	42	34	23	58
Female	41	33	26	59
Aboriginal	30*	38*	32*	70*
Non-Aboriginal [†]	61	27	13	39
Yellowknife [†]	55	29	16	45
Regional Centres	39*	35*	26*	61*
Small Communities	25*	39*	36*	75*
Current	19*	39*	42*	81*
Former	25*	35	40*	75*
Never [†]	46	33	21	54

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

¹⁵ Estimates of youth smoking prevalence from the Summary Report: 2002 NWT Scholl Tobacco Survey are higher than the prevalence estimated for this report (17.0% vs. 14.4%). Prevalence was probably overestimated because of an error in the wording of one of the questions that make up smoking status. Instead of asking - "have you ever smoked a whole cigarette", the question was worded "have you ever smoked a cigarette". The ambiguity in the question seems to have caused confusion among many students who answered the question. It would make sense that prevalence was overestimated because youth smoking has been on a downward trend over the past 25 years.

Table 7. Proportion of 10 to 14 year olds who reported at least one person smokes regularly inside the home by select demographics, NWT 2006.

Demographics	None	1 or 2 Person(s)	3+ Persons	1+ Person(s)
NWT	62	27	11	38
10-12 [†]	64	25	11	36
13-14	60*	29*	11	40*
Male [†]	62	27	11	38
Female	63	26	11	37
Aboriginal	55*	29*	16*	45*
Non-Aboriginal [†]	74	23	3 ^E	26
Yellowknife [†]	71	24	5	29
Regional Centres	61*	28	10*	39*
Small Communities	52*	29*	20*	48*
Current	43*	30	27*	57*
Former	53*	27	20*	47*
Never [†]	66	26	8	34

^E Moderate sampling variability - interpret with caution.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 8. Proportion of 10 to 14 year olds who rode in a vehicle while someone smoked during the past week by select demographics, NWT 2006.

Demographics	None	1 or 2 Days	3+ Days	1+ Day(s)
NWT	62	26	13	38
10-12 [†]	65	18	18	35
13-14	57*	20	23*	43*
Male [†]	64	19	17	36
Female	59*	19	22*	41*
Aboriginal	53*	23*	24*	47*
Non-Aboriginal [†]	72	13	15	28
Yellowknife [†]	68	20	12	32
Regional Centres	60*	26*	15*	40*
Small Communities	50*	37*	13	50*
Current	34*	26*	40*	66*
Former	42*	28*	29*	58*
Never [†]	67	17	16	33

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 9. Perceived ease of access to cigarettes among never smokers and attempted purchase of tobacco among current smokers aged 10 to 14 years by select demographics, NWT 2006.

Demographics	Ease of Access (Never)	Purchase Attempts (Current)
NWT	37	23
10-12 [†]	27	23 ^E
13-14	60*	23
Male	43*	38*
Female [†]	36	13 ^E
Aboriginal	36*	22
Non-Aboriginal [†]	44	28 ^E
Yellowknife [†]	41	24 ^E
Regional Centres	46	33 ^E
Small Communities	31*	19 ^E

^E Moderate sampling variability - interpret with caution.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 10. Proportion of youth who received some type of smoking related education in their last school year by select demographics, NWT 2006.

Demographics	Health effects	Reasons youth smoke	Say no /resist influences to smoke	Health effects of second-hand smoke	Tobacco companies target youth	Ant type
NWT	88	77	83	89	70	96
10-12 [†]	87	73	82	88	66	95
13-14	90*	84*	86*	90	76*	96
Male	87*	75*	81*	88	69	95
Female [†]	90	80	86	90	72	97
Aboriginal	87*	74*	81*	88	68*	95
Non-Aboriginal [†]	91	82	87	90	75	97
Yellowknife [†]	92	81	87	90	72	97
Regional Centres	93	81	85	92	77*	97
Small Communities	81*	69*	77*	86*	62*	93*

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 11. Proportion of youth aged 10 to 14 years who indicated that the Don't Be a Butthead Campaign helped them by select demographics, NWT 2006.

Demographics	Heard about Butthead	Decided not to smoke ¹	Smoked less ²	Quit smoking ³	Talked to others ⁴	Commitment form ⁴	Did nothing ⁴
NWT	92	69	37	21	33	44	20
10-12 [†]	91	75	36	33	39	48	14
13-14	93	60*	37	15*	25*	38*	29*
Male [†]	92	68	31	20	30*	40*	23*
Female	92	70	41	21	36	48	18
Aboriginal	91	70	40	21	31*	40*	20
Non-Aboriginal [†]	93	68	F	20	36	51	20
Yellowknife [†]	93	70	30 ^E	16	36	47	21
Regional Centres	93	69	35 ^E	19	36	49	22
Small Communities	89*	68	40	24	27*	36*	18

^E Moderate sampling variability - interpret with caution.

^F High sampling variability - data was suppressed.

¹ Only includes never smokers.

² Only includes current smokers.

³ Only includes current and former smokers.

⁴ Includes all respondents.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 12. General beliefs about smoking among students aged 10 to 14 years by select demographics, NWT 2006.

Demographics	Smoke many years before harming health	Occasional smoking is a health risk	Smoking helps to relax	Smokers can quit anytime	Smoking helps to stay slim	Quitting reduces health damage	Smoke can harm health of non-smokers	Smokers have more friends
NWT	22	71	31	23	13	38	77	20
10-12 [†]	23	67	25	26	12	34	73	19
13-14	21	77*	41*	18*	13	43*	83*	22
Male	26*	73	31	21*	12	40	76	21
Female [†]	19	70	32	25	13	36	78	19
Aboriginal	27*	66*	32	27*	12	38	71	25*
Non-Aboriginal [†]	16	80	31	17	13	37	86*	12
Yellowknife [†]	17	77	31	19	14	39	85	13
Regional Centres	24*	74	33	20	9*	32*	78*	17
Small Communities	29*	62*	31	30*	13	40	65*	31*
Current	34*	68	53*	26	20*	51*	79	37*
Former	25	70	45*	23	13	40	79	29*
Never [†]	21	72	27	23	11	36	77	17

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

Table 13. Perceived reasons why other youth start smoking among students aged 10 to 14 years by select demographics, NWT 2006.

Demographics	Friends smoke	Parent(s) smoke	Siblings smoke	Popular kids smoke	Smoking is relaxing	Curiosity	It's not allowed	Lose weight or stay slim	Something to do	Smoking is cool
NWT	59	37	27	47	33	46	14	16	21	62
10-12 [†]	55*	35	24*	43*	32	40*	14	13*	17*	58*
13-14	63	38	30	51	34	51	15	18	24	66
Male	56	39	28	47	29	42	14	16	17	64
Female [†]	64*	33*	27	47	39*	51*	15	14	25*	60
Aboriginal	51*	32*	23*	39*	31*	37*	11*	12*	19*	56*
Non-Aboriginal [†]	73	45	34	59	37	59	19	21	24	72
Yellowknife [†]	71	43	34	58	37	59	18	22	23	72
Regional Centres	62*	38*	25*	42*	35	44*	12*	12*	22	60*
Small Communities	42*	27*	21*	35*	27*	29*	11*	9*	16*	51*
Current	51*	35	27	35*	42*	42	13	13	30*	46*
Former	51*	32	23	32*	36	45	12	9 ^E	21	51*
Never [†]	61	37	28	50	32	46	15	16	19	65

^E Moderate sampling variability - interpret with caution.

[†] Reference category- basis of comparison for the other categories.

* Significant difference at the .05 level.

