

Quebec Region First Nations
Regional Longitudinal
Health Survey
2002



Tobacco Report





**COMMISSION DE LA SANTÉ ET DES SERVICES SOCIAUX
DES PREMIÈRES NATIONS DU QUÉBEC ET DU LABRADOR**
**FIRST NATION OF QUEBEC AND LABRADOR
HEALTH AND SOCIAL SERVICES COMMISSION**

CSSSPNQL/FNQLHSSC 250, Place Chef Michel-Laveau, Wendake (Québec) G0A 4V0
Téléphone/Telephone: (418) 842-1540 Télécopieur/Fax: (418) 842-7045
www.cssspnql.com

© 2006

All rights reserved. This document may not be reproduced, in part or entirely, without the FNQLHSSC's written consent.

Illustrated by: Martin Aubry

Printed by : Les Copies de la Capitale inc.

This document is printed on 100% recycled paper. It is also available in French on the FNQLHSSC web site (www.cssspnql.com)

ISBN: 0-9781634-1-9



Preface

The FNQLHSSC research team is proud to present its report on Tobacco use as part of the *First Nations Regional Longitudinal Health Survey 2002*.

Planning for this second wave of the survey began in 2000 in all ten Canadian provinces. The data collection finally got underway in 2002, after several years of planning and negotiations with regard to funding. Twenty-three communities in the Quebec region, along with three urban centres (Montreal, Quebec City and Val-d'Or) took part in the survey. More than 4,000 survey interviews were held with children, adolescent and adult respondents.

Following the completion of the data collection phase in 2003, the FNQLHSSC research team began working on the regional report. Three years full of challenges and enriching experiences spanned the time between the end of the data collection in the communities in Quebec region and the publication of the regional report.

As you will note, three reports have resulted from this research project. The first focuses on the health and well-being of the First Nations members who live in the communities. The second concentrates on those who live in urban centres away from the communities, while the third deals with smoking among the First Nations.

The FNQLHSSC was very pleased with the interest and enthusiasm demonstrated by the members of the communities. We achieved an outstanding participation rate of 85.5% of the target population! This result may be explained, in part, by the uniqueness of the survey, which was conducted in its entirety by First Nations through a holistic approach encompassing many health determinants.

This survey is also longitudinal in nature. In other words, it is conducted at specific intervals every few years over a defined period to track the changes that affect the health and well-being of the members of the participating First Nations.

The FNQLHSSC strongly hopes that the experience gained through the second wave of this unique survey will usher in a new era for community research among First Nations. Indeed, it has opened up new vistas in the research sector and as such, constitutes a model for First Nations control of research which allows for the demonstration of scientifically and culturally validated data.

This regional report is a source of valuable information which will help us to better understand the overall state of health of Quebec First Nations members and to identify the priorities that we must focus on in the months ahead in order to improve the health and well-being of individuals, families, communities and Nations.

In the following pages, you will find a portrait describing the health of our First Nations members in 2002. The FNQLHSSC believes that a more in-depth examination which integrates a cultural approach covering all the results presented here is necessary if we are to accurately target and guide future interventions. The FNQLHSSC therefore recommends to the leaders and decision-makers at the community and regional levels that such an exercise be undertaken to broaden the interpretation of the results presented here. This report is not an end in itself, but rather a tool that provides a window into the health and well-being of our First Nations brothers and sisters in the Quebec region (excluding the Cree and the Inuit).

We hope you enjoy your reading!



Acknowledgements

The FNQLHSSC expresses its gratitude to all the Chiefs who, on behalf of their communities, accepted the invitation to participate in this survey. Special thanks go to the communities' Health Directors for taking up this challenge with us and for their trust and collaboration throughout the survey, as well as to the managers of the health facilities, who opened their doors to us for the collection of data.

We also wish to thank all the survey interviewers – our ambassadors who played a front-line role in the survey – and all the community members who gave their time to take part.

The members of the Quebec First Nations Regional Research Committee also come in for special praise. We are grateful to them for the guidance and advice they gave us throughout the project.

Our thanks also go to the First Nations organizations which, along with the Quebec City Native Friendship Centre, collaborated with us in the preparation and conducting of the survey.

We gratefully acknowledge the assistance we received from the research team at the First Nations Centre of the National Aboriginal Health Organization. Its members helped us to develop our regional methodology and procedures for the survey, and shared their knowledge with the FNQLHSSC research team.

Finally, we wish to thank the FNQLHSSC staff and research team for their invaluable support and expertise, which have ensured the successful completion of this vast project.

To one and all, megwetch for the support, trust and understanding you have shown throughout the project.

Nancy Gros-Louis McHugh
Research Technical Coordinator

Table of Contents

Section 1: Introduction	1
1.1. Survey Objectives.....	3
1.2. Ownership, Control, Access and Possession (OCAP).....	4
1.3. Methodology	5
1.3.1. Total Population.....	5
1.3.2. Designated Population	5
1.3.3. Designated Sample	5
1.3.4. Cluster Sampling	5
1.3.5. Stratified Sample	7
1.3.6. Final Sample	8
1.4. Data Collection	8
1.4.1. Selection and training of interviewers	8
1.4.2. Data entry, processing and analysis tools	8
1.4.3. Interpretation session	9
1.4.4. Questionnaire.....	9
1.5. Research limitations.....	11
1.5.1. Sampling method of the part on First Nations members living on community	12
1.5.2. Data collection.....	12
1.5.2.1. Language and translation	12
1.5.2.2. Interviewer turnover.....	13
1.5.2.3. Errors due to the respondent	13
1.5.2.4. Errors due to the questionnaire.....	13
1.5.3. Data analysis and reports.....	14
1.5.3.1. Training.....	14
1.5.3.2. Turnover	14
1.6. Important Notes for Readers	14
Section 2: Smoking among First Nations adults	17
2.1. Prevalence and general trends.....	19
2.1.1. Distribution of adult smokers by age.....	19
2.1.2. Prevalence of smoking by age group.....	20
2.2. Consumption patterns.....	22
2.2.1. Consumption patterns by age group	22
2.2.2. Consumption patterns by sex	23
2.2.3. Consumption patterns by sex and age group	23
2.3. Adult non-smokers and ex-smokers.....	23
2.3.1. Ages of adult ex-smokers.....	24
2.4. Ages when adults began smoking	26
2.4.1. Ages when adults began smoking, by sex	26
2.5. Quitting smoking.....	26
2.5.1. Number of attempts to quit smoking	26
2.5.2. Reasons given for quitting smoking.....	27
2.5.3. Methods used to quit smoking.....	27
2.6. Exposure to second-hand smoke	28
2.6.1. Environment and second-hand smoke.....	28
2.6.2. Overall exposure to second-hand smoke	28
2.6.3. Quantity of cigarettes smoked and type of environment.....	28

2.7. Smoking and state of health	29
2.7.1. Prevalence of smoking and state of health	29
2.7.2. State of health and consumption patterns	29
2.7.3. Smoking and health problems	30
2.7.4. Smoking and health problems, by age group	30
2.8. Smoking and lifestyle	31
2.8.1. Food and nutrition	31
2.8.2. Alcohol consumption	32
2.8.3. Treatment for alcohol abuse	33
2.8.4. Drug use	33
2.8.5. Treatment for drug abuse	33
2.8.6. Smoking and physical activity	34
2.8.7. Smoking and traditional activities	34
2.9. Smoking and education	34
2.9.1. Smoking and high school completion	34
2.10. Smoking and community geographic location	35
2.11. Smoking and community size	35
2.12. Smoking, by Nation	36
2.13. Smoking and income	36
2.14. Smoking and well-being	37
2.14.1. Smoking and suicide	38

Section 3: Smoking among First Nations adolescents..... 39

3.1. Prevalence of smoking	41
3.1.1. Ages of adolescent smokers	41
3.1.2. Sex of adolescent smokers	41
3.2. Adolescents' consumption patterns	42
3.2.1. Frequency of consumption	42
3.2.2. Number of cigarettes smoked per day	42
3.2.3. Consumption patterns, by sex	42
3.2.4. Consumption patterns, by age	42
3.3. Ages at which adolescents began smoking	43
3.3.1. Start of smoking	43
3.4. Quitting smoking	43
3.5. Exposure to second-hand smoke	44
3.5.1. Prevalence of smoking and exposure to second-hand smoke	44
3.5.2. Number of cigarettes smoked daily and exposure to second-hand smoke	44
3.6. Smoking and state of health	45
3.6.1. Smoking and perceptions of state of health	45
3.6.2. Smoking and health problems	45
3.7. Smoking and lifestyle	45
3.7.1. Smoking and diet	45
3.7.2. Smoking and alcohol consumption	45
3.7.3. Smoking and drug use	46
3.7.4. Smoking and physical activity	47
3.7.5. Smoking and traditional activities	47
3.8. Smoking and education	48
3.9. Smoking and community geographic isolation	48
3.10. Smoking and community size	49
3.11. Smoking, by Nation	50
3.12. Smoking and well-being	50
3.12.1. Emotional, mental, physical and spiritual balance	50

3.12.2. Self-esteem	50
3.12.3. Smoking, suicide and depression	51
Section 4: Children's exposure to tobacco smoke	53
4.1. General situation	55
4.2. Children's exposure to tobacco smoke, by level of community geographic isolation	55
4.3. Children's exposure to tobacco smoke, by community size	56
4.4. Children's exposure to tobacco smoke, by Nation	56
4.5. Children's health and smoking by mothers during pregnancy	56
4.5.1. Children's health problems and smoking among parents or guardians	57
4.5.2. Smoking and breastfeeding	57
4.6. Income, social situation and smoking among parents and guardians	58
Section 5: Summary and conclusion	61
Section 6: Recommendations	65
Bibliography	70
Personnel involved in the FNRLHS – Quebec Region	72

List of Graphs, Table and Map

Introduction	3
Graph 1: Longitudinal evolution of the FNRLHS.....	3
Table 1: Selection of participating communities.....	6
Map 1: Nations participating in the 2002-2003 wave of the FNRLHS: Quebec region	7
Smoking among First Nations adults.....	19
Graph 2: Evolution of the prevalence of smoking among First Nations adults in Canada (Canada FN) and in the Quebec region (FNQL)	19
Graph 3: Adult smokers, by age (1)	19
Graph 4: Adult smokers, by age (2)	20
Graph 5: Prevalence of smoking, by age group (1)	20
Graph 6: Prevalence of smoking, by age group (2)	21
Graph 7: Age of smokers, by sex (1)	21
Graph 8: Age of smokers, by sex (2)	21
Graph 9: Adult smokers' consumption patterns, by age group.....	22
Graph 10: Number of cigarettes smoked each day by daily smokers, by age group.....	22
Graph 11: Number of cigarettes smoked each day by daily smokers, by sex	23
Graph 12: Adults smokers vs non-smokers (ex-smokers and those who have never smoked)	24
Graph 13: Distribution of adult ex-smokers, by age (1)	24
Graph 14: Distribution of adult ex-smokers, by age (2)	25
Graph 15: Proportions of non smokers (ex-smokers and persons who have never smoked), by age group (1).....	25
Graph 16: Proportions of non-smokers (ex-smokers and persons who have never smoked), by age group (2).....	25
Graph 17: Ages when adults began smoking	26
Graph 18: Attempts by adult smokers to quit smoking in the 12 months preceding the survey.....	27
Graph 19: Reasons given for quitting smoking, by age group	27
Graph 20: Smoking status, by household environment (smoking or non-smoking).....	28
Graph 21: Number of cigarettes smoked, by household environment (smoking or non-smoking)	29
Graph 22: Perceptions of health among persons with health problems, by smoking status.....	30
Graph 23: Smoking status of persons with health problems, by age group	30
Graph 24: Smoking status of persons with respiratory or cardiovascular problems	31
Graph 25: Smoking status, by perceived quality of diet.....	31
Graph 26: Frequency of consumption of five or more glasses of alcohol on a single occasion, by smoking status.....	32
Graph 27: Smoking status of adults who used drugs in the 12 months preceding the survey.....	33
Graph 28: Smoking status of adults who have undergone treatment for drug abuse.....	33
Graph 29: Smokers with or without high school diplomas, by age group	34
Graph 30: Proportions of smokers, by community zone.....	35
Graph 31: Proportions of smokers, by Nation.....	36
Graph 32: Proportions of smokers, by household income	37
Graph 33: Proportions of smokers, by individual income.....	37
Graph 34: Percentages of smokers, by emotional, mental, physical and spiritual balance.....	38
Graph 35: Percentages of smokers among adults who have considered or have not considered committing suicide at some point in their life	38
Graph 36: Percentages of smokers among adults who have attempted suicide at some point in their lives.....	38

Smoking among First Nations adolescents.....	41
Graph 37: Proportions of smokers and non-smokers among First Nations adolescents	41
Graph 38: Proportions of adolescent smokers, by age group	41
Graph 39: Prevalence of smoking, by sex and age group.....	42
Graph 40: Number of cigarettes smoked, by sex.....	42
Graph 41: Ages when all adolescent smokers began smoking, by age group	43
Graph 42: Number of attempts to quit smoking among adolescents (12 months preceding survey).....	44
Graph 43: Number of cigarettes smoked daily, by type of environment	44
Graph 44: Perceptions of state of health, by smoking status	45
Graph 45: Balanced diet, by smoking status	45
Graph 46: Distribution of alcohol users, by smoking status and age group	46
Graph 47: Consumption of 5 or more drinks on a single occasion, by smoking status.....	46
Graph 48: Drug users, by smoking status and age group	47
Graph 49: Smoking status, by level of physical activity	47
Graph 50: Feelings about school, by smoking status.....	48
Graph 51: Smoking status of adolescents, by level of community isolation	49
Graph 52: Proportions of adolescent smokers, by Nation.....	50
Graph 53: Smoking status of adolescents who have considered or attempted suicide	51
Children's exposure to tobacco smoke	55
Graph 54: Homes that offer a smoke-free environment, by geographic zone.....	55
Graph 55: Other household members who smoked during the pregnancy, by geographic zone.....	56
Graph 56: Mothers who smoked during pregnancy, by Nation.....	56
Graph 57: Proportions of parents or guardians who consider their children to be in excellent health, according to smoking by mothers during pregnancy.....	57
Graph 58: Proportions of breastfed children, according to smoking by mothers during pregnancy	58
Graph 59: Proportions of mothers who smoked during pregnancy, by annual household income.....	58
Graph 60: Proportions of mothers who smoked during pregnancy, by schooling level.....	58

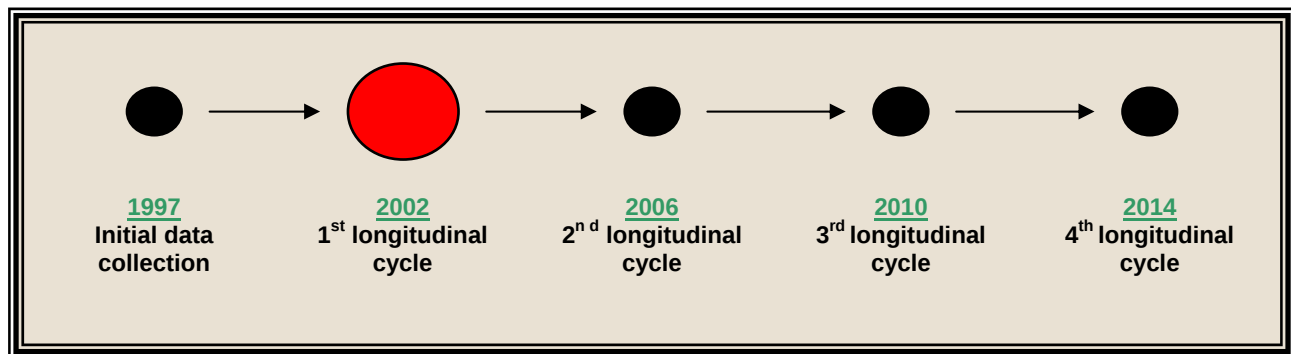
Section 1: Introduction

Introduction

Rooted in a holistic vision, the First Nations Regional Longitudinal Health Survey (FNRLHS) for the Quebec region provides an overall portrait of Quebec First Nations' health, including descriptive and statistical information about the various health issues and the specific socio-cultural context of these groups. The survey's results accordingly identify problems and progress in holistic health. This survey marks the second phase of a First Nations health research project for which the governance, research methodology and coordination come for the first time under the full responsibility of First Nations authorities.

In 1997, the Chiefs Health Committee and the Assembly of First Nations (AFN) decided, in response to the need for information on First Nations health, to make the FNRLHS a quadrennial survey, i.e., one based on four-year cycles running until 2014, as illustrated by the following graph:

Graph 1: Longitudinal evolution of the FNRLHS



The 2002 wave of the FNRLHS was coordinated nationally by the First Nations Centre (FNC) at the National Aboriginal Health Organization (NAHO). Ten regional First Nations organizations conducted and supervised all aspects of the survey for their respective regions. The First Nations of Quebec and Labrador Health and Social Services Commission (FNQLHSSC) oversaw the survey in the Quebec region.

1.1. Survey Objectives

The three questionnaires created for the survey (one each for adults, adolescents and children) were designed to meet the following specific objectives:

- “Obtain information about demographic characteristics that could affect the state of health of First Nations members living in Quebec.
- Obtain information about the state of health of First Nations members living in Quebec.
- Obtain information about factors affecting the well-being of First Nations members living in Quebec.
- Obtain information about the lifestyle habits of First Nations members living in Quebec.
- Obtain information about the perceptions of health services held by First Nations members living in Quebec.¹
- Obtain the most relevant information possible concerning the various problems encountered by the First Nations communities in Quebec.²

¹ FNQLHSSC, 1999, p. 4

² The term 'community' is used in place of 'reserve,' which has a negative connotation.

- 
- Achieve all of the above objectives for each age group covered by this survey: children, adolescents and adults.

1.2. Ownership, Control, Access and Possession (OCAP)

This project is based on the principles of OCAP (Ownership, Control, Access and Possession), as implemented by the First Nations in Canada. The FNRLHS Steering Committee elaborated the first three principles in 1998, with the 'Possession' principle added at a later date. This set of ethical rules constitutes the expression of First Nations' self-determination in research and information creation and management. The following definitions set out these concepts more clearly:

“Ownership

Ownership refers to the relationship of a First Nations community to its cultural knowledge/data/information. The principle states that a community or group owns information collectively in the same way that an individual owns his personal information. It is distinct from stewardship. The stewardship or care taking of data or information by an institution that is accountable to the group is a mechanism through which ownership may be asserted.

Control

The aspirations and rights of First Nations Peoples to maintain and regain control of all aspects of their lives and institutions extend to research, information and data. The principle of control asserts that First Nations Peoples, their communities and representative bodies are within their rights in seeking to control all aspects of research and information management processes which impact them. First Nations control of research can include all stages of a particular research project – from conception to completion. The principle extends to the control of resources and review processes, the formulation of conceptual frameworks, data management and so on.

Access

First Nations Peoples must have access to information and data about themselves and their communities, regardless of where it is currently held. The principle also refers to the right of First Nations communities and organizations to manage the information that concerns them as a group and make decisions regarding access to their collective information. This may be achieved, in practice, through standardized, formal protocols.

Possession

While ownership identifies the relationship between people and their data in principle, possession or stewardship is more literal. Although not a condition of ownership per se, possession (of data) is a mechanism by which ownership can be asserted and protected. When data owned by one party is in the possession of another, there is a risk of breach or misuse. This is particularly important when trust is lacking between the owner and possessor.

Most importantly, OCAP is forward-looking and pro-active. It opens up new avenues for the expression of self-determination and self-governance in the areas of research and information and provides a measure of hope for positive change.”³

It is the application of OCAP that primarily distinguishes the FNRLHS from other First Nations surveys.

³ NAHO, 2004

A national ethics review concluded that the survey respects the privacy of the respondents. Also, the use of consent forms contributed a great deal to the principle of voluntary participation. All aspects related to the data protection protocols are based on agreements and methods specific to First Nations. Publication of the FNRLHS data aims for maximum dissemination to ensure that the First Nations can make the greatest possible use of it, while at the same time protecting each community's information. Lastly, publication is subject to the approval of the First Nations authorities at each level (national, regional and local).

1.3. Methodology

Descriptive in nature, the survey consists in studying a representative sample of the population by means of a written questionnaire administered in the form of a directed interview. This method was chosen for budgetary, technical and ethical reasons:

Modest costs because the survey is based on a sample, not on the entire population under study.

Respect of respondents' confidentiality and gathering of information on certain subjects that for ethical reasons cannot be directly observed.

Rapid and easy to administer.

Possibility of standardizing information, thus making analyses and comparisons easier.

1.3.1. Total Population

The total population is defined as the entire population in the survey universe. For purposes of the FNRLHS, it includes all Quebec First Nations members living in the Quebec region. A census conducted by Indian and Northern Affairs Canada (INAC) in 2001 established that there were 63,315 First Nations members living in ten different Nations in Quebec. Of that number, 44,274 were living on community, while 19,041 were living off community.

1.3.2. Designated Population

The designated population is made up of the members of the total population who present certain characteristics. For the FNRLHS, the designated population includes all on-community First Nations members, excluding the Cree, the Inuit, and the Mohawks of Kahnawake, who did not participate in the survey.⁴ The rule stipulating that only on-community persons were to be included in the designated population did not apply in the case of the Malecites of Viger. In 2001 only two members of this Nation lived on community. The designated population thus includes off-community Malecites. On the basis of the total population that was established, a designated population of 27,330 First Nations members living in the communities of nine Nations was identified.

1.3.3. Designated Sample

A two-stage sample was constructed for the FNRLHS in the Quebec region. The first stage involved the use of cluster sampling to select the participating communities for each Nation. The second stage involved carrying out non-proportional stratified sampling for each cluster that was established.

1.3.4. Cluster Sampling

To produce a representative sample of the participating communities, we categorized them according to demographic size, as follows: large (1,500 inhabitants or more), medium (301 to 1,499 inhabitants) and small (300 inhabitants or less).

The initial selection of participating communities was carried out by means of cluster sampling, with one community considered the equivalent of one cluster. All of the large communities were automatically included in the sample. The medium and small communities were then randomly selected. Any communities that declined to take part in the survey were replaced by ones that were not part of the initial selection. The

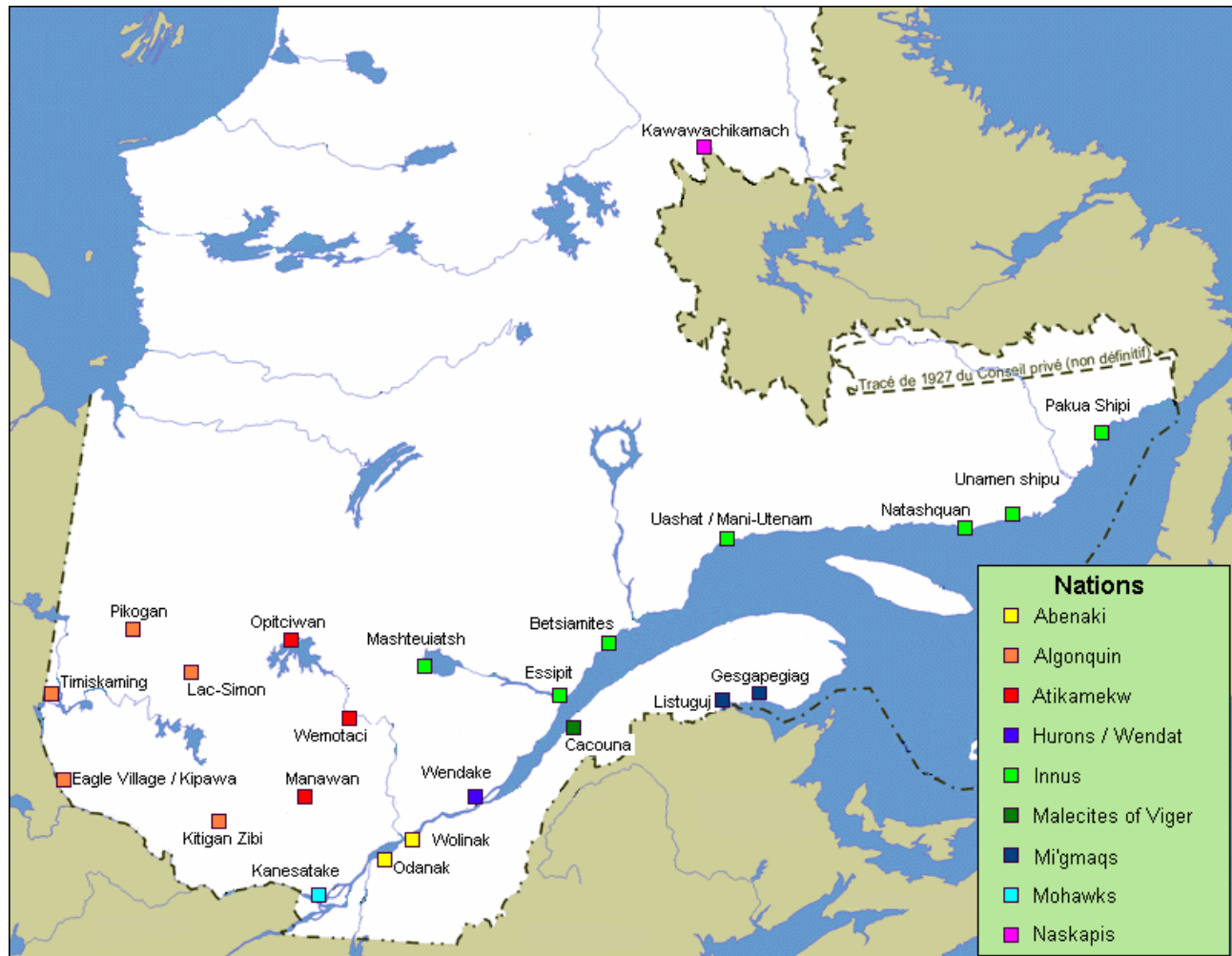
⁴ The results for the Mohawk Nation are for Kanesatake only because Kahnawake decided not to take part in the survey and Akwesasne is in the Ontario region.

following table describes the selection of the participating communities and the map below shows the distribution of the Nations and communities that are participating in the FNRLHS.

Table 1: Selection of participating communities

Nation	Community	Part of initial selection	Replacement community	Final selection
Abenaki	Odanak	X		X
	Wôlinak	X		X
Algonquin	Barriere Lake		X	
	Eagle Village-Kipawa	X		X
	Kitigan Zibi	X		X
	Lac Simon	X		X
	Long Point		X	
	Pikogan	X		X
	Timiskaming		X	X
Atikamekw	Manawan	X		X
	Opitciwan	X		X
	Wemotaci		X	X
Huron/Wendat	Wendake	X		X
Innu	Betsiamites	X		X
	Ekuanitshit		X	
	Essipit		X	X
	Mashteuiatsh	X		X
	Matimekush		X	
	Natashquan		X	X
	Pakua Shipi	X		X
	Uashat Mak Mani-Utenam	X		X
	Unamen Shipu	X		X
Malecite of Viger				X
Mi'gmaq	Gesgapegiag	X		X
	Listuguj	X		X
Mohawk	Kanesatake	X		X
	Kahnawake	X		
Naskapi	Kawawachikamach	X		X

Map 1: Nations participating in the 2002 wave of the FNRLHS: Quebec region



1.3.5. Stratified Sample

Initially, a non-proportional stratified sample according to age group and sex was constructed for each selected community in order to represent the designated population. The sample was designed in such a way as to ensure that each of these strata met the following criteria:

- A confidence level of 95%: Confidence level is an indicator of the level of certainty in arriving at an estimate that encompasses the average value for the population stratum.
- A proportion of 20%: Proportion in the sample is an unbiased estimator of a real proportion in the population. For the FNRLHS, this means that if we observe a phenomenon in 20% of the persons making up a sample stratum, we must be able to say without bias that this phenomenon is present in 20% of the population stratum.
- A coefficient of variation not exceeding 40%: Coefficient of variation is a percentage measure of the distribution of observations around the average value of the sample.
- A margin of error ranging from + 8% to - 8%: Margin of error refers to the margin by which the true result in the population may vary from the sample result. For example, if 40% of persons in a stratum are seen to live in apartments, with a margin of error at plus or minus 8%, the proportion for this population can vary between 32% and 48%.

Unfortunately, the sampling plan that was established proved too costly for the available funding. The scope was therefore adjusted by applying the above-mentioned characteristics to a sample that was stratified



according to Nation, community size, age group and sex. Despite these efforts to rectify the situation, the representativeness of the revised strata still suffered. Thus, to obtain an acceptable level of representativeness for the smaller communities, they were combined with the medium ones. The population is therefore stratified into two sizes (large and medium/small) rather than three (large, medium and small).

Respondents were selected from lists of members of the participating communities. From these lists, a sample and a list of replacement respondents were created for each stratum, in simple random manner. Persons who were selected but declined to take part were replaced by persons on the replacement list.

1.3.6. Final Sample

Although a designated sample is relatively easy to construct, very rarely will all of the persons included in it agree to participate in the survey. Thus, the final sample for a survey almost never includes as many participants as there were in the designated sample that was initially established. A total of 1,949 adults, 798 teenagers and 1,038 children made up the final sample for the FNRLHS.

As we saw earlier, standards were set for our sample, i.e., confidence level of 95% and proportion of 20%. The confidence interval for the children's sample was 2.3%.

1.4. Data Collection

1.4.1. Selection and training of interviewers

As mentioned above, the FNRLHS stands out from other surveys, due in particular to the involvement of First Nations members in every stage of its completion. In keeping with this principle of involvement, the FNQLHSSC gave priority to using First Nations members as interviewers. The FNQLHSSC first asked the Directors of health centres or clinics in each participating community to recruit potential interviewers. It then hired, on a contract basis, the persons who had been recommended and considered as being the most competent for fulfilling the various duties necessary for conducting the interviews. Hiring First Nations members living in the communities presented certain advantages – each interviewer's knowledge of the community and its language of use was invaluable for ensuring better quality in the data obtained. Their knowledge helped to limit problems in interpretation and in respondents' understanding of certain concepts that were difficult to translate. It is important also to note here that respondents demonstrate more trust when a person from their own community administers a questionnaire than when it is administered by a non-Aboriginal person they have never met before.

All of the selected interviewers had to sign an oath of secrecy before a commissioner of oaths and attended three days of training, which was held in Quebec City from September 30 to October 2, 2002. This training, provided by the FNQLHSSC, covered the following topics:

- History of the FNRLHS
- Sampling
- Consent to divulge information and data protection
- Interview techniques
- Methods for dealing with various situations that could arise during interviews
- Use of laptop computers to administer computerized questionnaires
- Record-keeping, sending of materials and production of short reports

When required, training was given in the participating communities to new interviewers who had been hired to replace ones who resigned during the data collection process.

1.4.2. Data entry, processing and analysis tools

All of the interviews conducted for FNRLHS 2002-2003 in the Quebec region were computer-assisted. Each interviewer was provided with a laptop computer containing the child, adolescent and adult questionnaires.

These computerized questionnaires were created on Lotus Notes under the supervision of the FNC (NAHO). Every questionnaire completed by the interviewers was automatically encrypted and inaccessible to any person, thereby ensuring the confidentiality of the respondents' answers. After each day's work, the interviewers uploaded the completed interviews from their laptops to the regional server of the FNQLHSSC. Once all the interviews were completed, the regional data were decrypted and transferred to a Microsoft Excel file, under the supervision of the FNQLHSSC, in order to serve as a raw database. This database was put onto a CD-ROM and sent to the FNC for standardization with the databases sent by the other regions (a step necessary for the national analysis) and for cleaning with SAS (Statistic Analysis System) and SPSS (Statistical Package for Social Sciences) softwares. When these steps were completed, the FNC sent the cleaned data to the FNQLHSSC's research sector, which carried out the data analysis using SPSS and Microsoft Excel.

1.4.3. Interpretation session

The FNQLHSSC held an interpretation session on June 15, 2005 at the Clarion Hotel in Quebec City. The purpose of this exercise was primarily to discuss the preliminary results with persons delegated by the health centres in all of the participating Nations. These persons were required to be familiar with the health problems in their communities. The meeting was held as a roundtable discussion during which the participants gave their opinions and ideas concerning the various problems raised by the survey. The main themes covered were:

- Traditional medicine
- Health care (overall)
- Nutrition
- Medical illnesses and problems
- Home care
- Non-Insured Health Benefits (NIHB)
- Foetal alcohol syndrome/Foetal alcohol effect (FAS/FAE)
- Women's health
- Obesity
- Birth rate
- Holistic health
- Traditional cultural events
- Spirituality
- Religion
- Aboriginal languages

The interpretation session proved to be highly constructive by giving the communities an opportunity to contribute to the results interpretation stage of the FNRLHS. Its other benefits included allowing the FNQLHSSC research team to consider, from various perspectives, several problems that had not been explored. Lastly, it clearly showed that working in collaboration with the communities is an important step for ensuring the success of the survey.

1.4.4. Questionnaire

The questionnaires were designed using a holistic approach that covered not just the health of First Nations members but also all aspects that can influence it. Further to dealing with health overall, the survey's questionnaires were elaborated to take account of the First Nations' cultural context and priorities. The Quebec region added a regional component for the adolescent and adult questionnaires. As mentioned above, the three questionnaires were computerized to facilitate the work of the interviewers.

Questionnaire for children (0 to 11 years old)

The children's questionnaire was completed in the form of a guided interview. Interviewers spoke to parents or guardians, who answered by proxy for their children. Child respondents were designated in random fashion. The questionnaire took about 35 minutes to complete and was made up of questions on the following topics:

- 
- Household/family composition
 - Parental education
 - Child's education – level, performance, Aboriginal Head Start
 - Height, weight – at birth and currently
 - Breastfeeding
 - Smoking – exposure to second-hand smoke (foetal, at home)
 - Language – comprehension, use, interest
 - Food and nutrition
 - Activities – physical, social, after school
 - Health conditions, illnesses (length of treatment and effects)
 - Injuries
 - Disabilities, limitations
 - Health care access – Non-Insured Health Benefits
 - Dental health, baby bottle tooth decay
 - Traditional culture – importance, learning
 - Emotional and social well-being
 - Child care
 - Residential school (parents, grandparents)

Questionnaire for adolescents (12 to 17)

The adolescent questionnaire was self-administered, i.e., it was completed directly by the respondents. They answered the questions on a laptop computer and were assisted by the interviewers, who gave clarifications as needed. The questionnaire, which took approximately 35 to 45 minutes to complete, covered the following topics:

National Component

- Household/family composition
- Education – level, performance, personal goals
- Language – comprehension, use
- Food and nutrition
- Activities – physical, social
- Height, weight, satisfaction level
- Diabetes – type, treatment
- Condition of health, illnesses (duration, treatment, effects)
- Injuries
- Dental care
- Smoking, alcohol, drugs
- Sexuality
- Preventative health practices
- Personal well-being, support and mental health
- Suicidal ideation, attempts
- After-school activities
- Traditional culture – importance, learning
- Residential schools (parents, grandparents)

Regional Component

Education, career goals and dreams for the future

Adult Questionnaire

The adult questionnaire was administered as a directed interview in which the respondent answered questions asked by the interviewer who guided him/her throughout the process (approximately one hour). The adult questionnaire covered the following topics:

National Component

- Demographics
- Languages – comprehension, use
- Education
- Employment
- Income and income sources
- Household – composition and income
- Housing – condition, crowding, mould
- Water quality
- Services – telephone, water, smoke detector, Internet, etc.
- Height, weight
- Condition of health, illnesses (duration, treatment, effects)
- Diabetes – type, treatment, effects
- Physical injuries
- Dental care
- Disabilities, limitations
- Physical activity
- Food and nutrition
- Home care – use, needs
- Health services - use, access, Non-Insured Health Benefits
- Traditional medicine, healers
- Smoking, alcohol, drugs – use, cessation, treatment
- HIV/AIDS, STDs and sexuality
- Pregnancy, fertility
- Preventative health practices
- Well-being, support and mental health
- Suicidal ideation and attempts
- Residential schools – impacts
- Community well-being
- Culture, spirituality and religion
- Community development

Regional Component

- Education
- Means of transportation and security
- Lifestyle and social problems
- Gambling and lotteries

1.5. Research limitations

A survey of the magnitude of the FNRLHS is not immune from constraints, obstacles and bias that can alter the validity of the results and the general progress of the research. Fully aware of these actual and potential sources of errors, the research team who conducted the FNRLHS in the Quebec Region took them into account in the results analysis and interpretation, as well as in the production of this report. The Quebec Region, and all of the regions that took part in the FNRLHS at the national level, have had to respond to common and specific challenges at each major phase of the Survey. This Section aims to document the bias



and potential sources of errors inherent to the research context specific to the Survey⁵⁶ for each major phase, which are: the sampling, data collection and analysis of the information collected.

Publishing this section on the FNRLHS limitations bears witness to a concern for transparency throughout the whole research process, but mostly for a desire to share the knowledge acquired and the know-how developed in the course of the survey. The FNRLHS' next waves and the future research work will benefit from this tool to improve the emergent process of research by and for First Nations.

1.5.1. Sampling method of the part on First Nations members living on community

The Survey's sampling plan for First Nations members living on community was developed based on the parameters for the production of probability samplings. The number of informants to be included in the various sampling strata (Nation, community size, age group and sex) was calculated based on the 1999 Indian Register, a register maintained by the Department of Indian and Northern Affairs Canada. This register establishes the number of First Nations members living in Indian reserves or on Crown land. The persons who can eventually be selected in the sample have been selected on a random basis in each stratum based on the community band lists.

The sampling plan developed⁷ for the data collection included obtaining valid statistical data for each participating community. However, this sampling plan turned out to be too costly for the funding available. Adjustments were therefore made in order to have specific characteristics of the sample (level of trust, proportion in the sample, coefficient of variation and margin of error⁸) apply to a stratified sample based on the Nation, community size, age group and sex. Despite these efforts to rectify the situation, the representativeness of the revised strata was problematic and had to be readjusted⁹.

In addition to these constraints, as it is the case with a significant proportion of statistical surveys on Aboriginal populations¹⁰, the final sample does not correspond to the target sample in two out of the three age groups. Notwithstanding the additional interviews conducted in certain strata of the final sample, the Quebec Region achieved 85.5% of its initial objective in terms of sampling, which means responses from 1,949 adults, 798 adolescents and 1,038 children. However, if one considers the number of additional interviews carried out with adults, the total participation rate reaches 113.2%. Among the causes that explain the gap between the target sample and the final sample among children and adolescents, the significant turnover of interviewers in the communities during the data collection that lasted 15 months was identified. This turnover resulted in less time devoted to the data collection in communities, mainly because each new interviewer had to be trained for data collection within the context of this survey. The acquisition of experience and, therefore, the interviewers' efficiency were limited by the significant turnover. Moreover, the respondents in various strata of the sample could, in some cases, be difficult to reach if very few people corresponded to the respondent profile targeted in the communities or if there was a high rate of people who refused to participate.

1.5.2. Data collection

1.5.2.1. Language and translation

Because of limited funding, the consent forms in English and in French that were systematically used could not be provided to potential respondents in their mother language. However, all the interviewers selected were fluent in the First Nations language used in the community where they were affected, in addition to being fluent in English or French. Therefore they could help the respondents understand the forms. However, it is possible that consent forms were misunderstood or misinterpreted by some informants, and that might have made them refuse to participate or resulted in forms being signed without a complete understanding of the content.

⁵ For a summary of the research methodology, please refer to the « Methodology » section of this report. For a detailed description of the FNRLHS methodology, please consult the "Methodology Report".

⁶ In addition to the process review conducted internally by the FNQLHSSC research team, this section is based on the Harvard Project on American Indian Economic Development Report mandated by the First Nations Information and Governance Committee, a Standing Committee of the Chiefs Committee on Health and the First Nations Centre in the National Aboriginal Health Organization.

⁷ For details, please consult the Methodology Report

⁸ For details, please consult the Methodology Report

⁹ For details, please consult the Methodology Report

¹⁰ Please consult the report quoted in Note 2

The management and handling of consent forms also had an impact on the number of informants whose responses could be included in the analysis. Several forms that were not filled out correctly or included irregularities had to be rejected as well as the interviews with those respondents.

Another linguistic obstacle – once again caused by limited funding – occurred with the survey questionnaires, which were only available in French or in English. A question to respondents allowed us to calculate the proportion of those for whom a translation was necessary: 27.9% of respondents indicated that a translation of the questions was necessary. The interviewer acted as translator in almost all cases. The necessity to translate, the various ways of translating or the difficulty to translate certain concepts into an Aboriginal language might have influenced the way questions were understood, or might have resulted in non-responses to certain questions or even the refusal to answer the questionnaire.

1.5.2.2. Interviewer turnover

The turnover of interviewers also resulted in a multiplication of the ways to conduct the interview, which may have generated variations in the quality of the data collection. On these two last points, however, one should note that the cultural context in which the survey took place favoured the use of interviewers from the same community as the interviewee. It is important to remember that hiring contractual First Nations staff living in the community under study offers two advantages. First, the knowledge of the environment and the language used may limit the interpretation and comprehension problems of certain concepts that are difficult to translate. Second, the respondents' level of trust may also be higher when the questionnaire is administered by a member of the same community than by a non-Aboriginal stranger. However, hiring this staff may have as disadvantages that respondents are concerned about a potential breach of privacy because of the close links between community members and the interpretation of the respondent's answers based on the knowledge the interviewer has of the respondent. The situation involving the least risks was therefore privileged, which was to hire local interviewers.

1.5.2.3. Errors due to the respondent

Regarding the errors due to the respondent, it is possible that some respondents might have skewed some answers either voluntarily or not. A number of factors may explain this. The questionnaire included questions that might have induced some errors due to the social desirability, which consists in giving answers that one believes to be “good” on the social level (those “expected” socially). These errors usually occur in the case of questions that address more sensitive issues. The questionnaire used for this survey includes several of these questions, which is hard to avoid when a survey aims to document various items related to the health of individuals in a holistic approach.

Errors due to the non-response also occurred during the course of the survey process. In several cases, respondents gave incomplete answers or simply did not answer, which inevitably alters the results.

1.5.2.4. Errors due to the questionnaire

Although they were developed with thoroughness and a true concern to be adapted to the multiple situations experienced by First Nations members, the questions developed for the FNRLHS entail errors that might have biased the answers. Essentially these errors are choices of answers with non-mutually exclusive categories or incomplete choices of answers that did not cover the range of possible answers.

Furthermore, some questions in the questionnaire are open to interpretation and may therefore influence the respondent's answers. For example, in one question, respondents are asked whether they have ever “thought about suicide”. In addition to being a sensitive issue, “thought about suicide” probably does not mean the same thing for each respondent. One can assume that for some people, thinking about suicide means to “reflect upon the suicide issue”, while for others it means to “have suicidal thoughts”. Answers might therefore have been inspired by the respondents' various perceptions of the vocabulary used to address this issue. Moreover, when questions were not clearly understood, the interviewer could give additional explanations. However, the interviewers' training did not include assimilating clear and consistent indications to be transmitted to the informants concerning each question.



1.5.3. Data analysis and reports

1.5.3.1. Training

The FNQLHSSC research team took over the analysis of the data stemming from the First Nations of the Quebec Region as well as the production of the various reports corresponding to the region. The innovative nature of the survey and the specificity of the survey population involved significant methodology and conceptual innovations to carry out the FNRLHS. Although the FNQLHSSC research team is comprised of staff trained in social research, additional training of the staff on the research issues, survey methods as well as various health indicators specific to First Nations would have facilitated the results analysis and interpretation. But the limited financial context did not allow the FNQLHSSC research team's various analysts and writers to access occasional and additional training that remain rare and expensive.

1.5.3.2. Turnover

The FNQLHSSC research team grew at the same time as this cycle of the FNRLHS was carried out. The hiring of staff was therefore adapted to the needs identified over the months and years during which the 2002 Survey was conducted. As with the situation that prevailed among interviewers, the turnover of staff, particularly research assistants, had a certain impact on the conduct of the survey. In addition to slowing down the production of various reports, this turnover also might have hindered the follow-up of certain important files and tasks in the context of this survey. It should be noted, for example, that files were transferred from one employee to another, who in turn lacked resources to invest the required amount of time.

1.6. Important Notes for Readers

Statistics followed by an asterisk (*) have a high sampling variability (coefficient of variation between 16.6% and 33.3%). They must be interpreted with caution.

Statistics followed by the number sign (#) were not included because of a too high sampling variability (coefficient of variation at 33.3% or higher).

The sampling variability for the Malecite Nation was too high, making it impossible to perform even the slightest cross-tabulation involving Malecites. This explains why they are not included in the tables and graphs presenting the results per nation.

The expression "First Nations population" is used in this report to indicate the designated First Nations population in Quebec, excluding the Cree, the Inuit, the Innu of Labrador, and the Mohawks (apart from members living in Kanesatake, which is included).

Community zone system

The following system was developed by INAC to categorize First Nations communities' levels of geographical remoteness:

Zone 1: Located within 50 km of the nearest service centre* with year-round access

Zone 2: Located between 50 km and 350 km from the nearest service centre with year-round access

Zone 3: Located over 350 km from the nearest service centre with year-round access

Zone 4: No year-round access to a service centre

Community size

Small: Between 0 and 300 inhabitants

Medium: Between 301 and 1,499 inhabitants

Large: 1,500 inhabitants or more.

* Nearest community providing access to suppliers, banks and government services.

The results for small and medium communities, as well as those for zone 3 and 4 communities, have been combined, because taken individually they do not provide statistically significant results.

Lastly, all results were cross-tabulated according to age, sex, Nation, and community size and zone. Influences exerted by education, most commonly used language, civil status and income were also studied when their cross-tabulation appeared to be of value. Results providing no statistically-valid differences are excluded from this report, and to shorten the text we exclude all cross-tabulations that do not present statistical value.

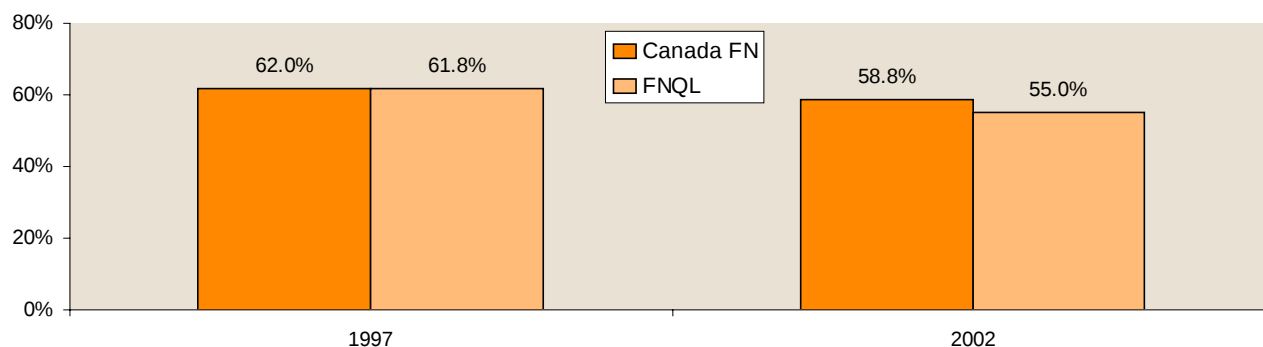
Section 2: Smoking among First Nations adults

Smoking among First Nations adults

2.1. Prevalence and general trends

Smoking among First Nations adults in the Quebec region has diminished since 1997, but it remains at a high level. The 1997 FNIRHS report indicated a prevalence of smoking at 61.8%,¹¹ whereas the 2002-2003 survey indicates that 55.0% of adults smoke, giving a reduction of 6.8% in five years. The variation for all First Nations in Canada is less pronounced; 62.0% of adults smoked in 1997, versus 58.8% in 2002 (reduction of 3.2%¹²).

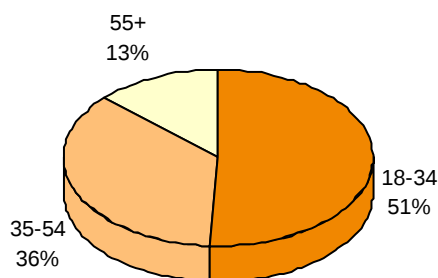
Graph 2: Evolution of the prevalence of smoking among First Nations adults in Canada (Canada FN) and in the Quebec region (FNQL)



2.1.1. Distribution of adult smokers by age

When we look at the ages of First Nations adult smokers, we find that smoking is particularly prevalent among younger adults. In the overall adult smoker population, 20.9% of 18-24 year-olds, 14.8% of 25-29 year-olds and 15.2% of 30-34 year-olds reported that they smoked. In all, 50.8% of adult smokers are younger than 35. The 35-54 age group accounts for 36.0% of smokers, while adults 55 and older account for 13.2%. The following graphs present the distribution of adult smokers according to two different types of age categorization.

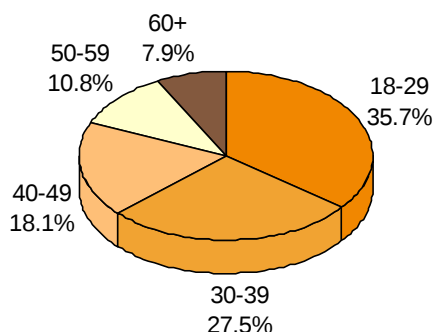
Graph 3: Adult smokers, by age (1)



¹¹ FNQLHSSC, 1999, Regional Health Survey – Analysis and Interpretation Report: Quebec Region, p. 37

¹² The survey showed that there is no significant statistical difference between the proportions of men and women smokers among the First Nations adult population in the Quebec region.

Graph 4: Adult smokers, by age (2)

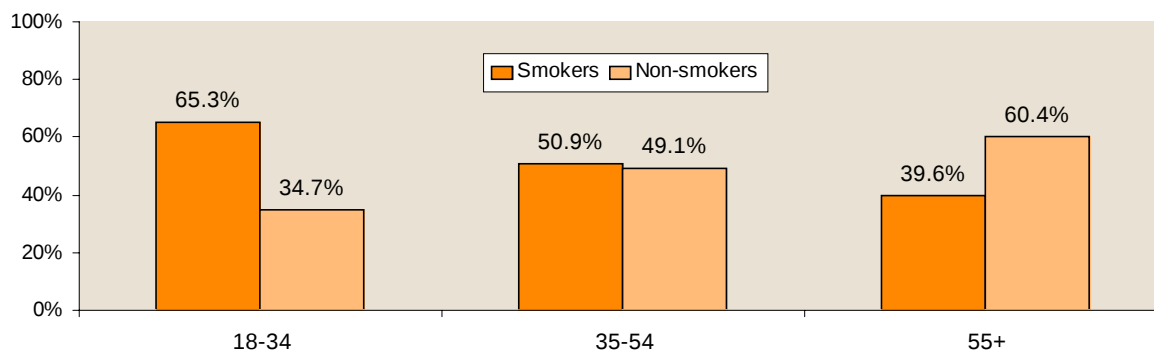


We note that the difference between the proportions of men and women smokers is not statistically significant when we consider smoking alone, that is, without including other variables. Thus, we cannot immediately say who of men or women smoke more.

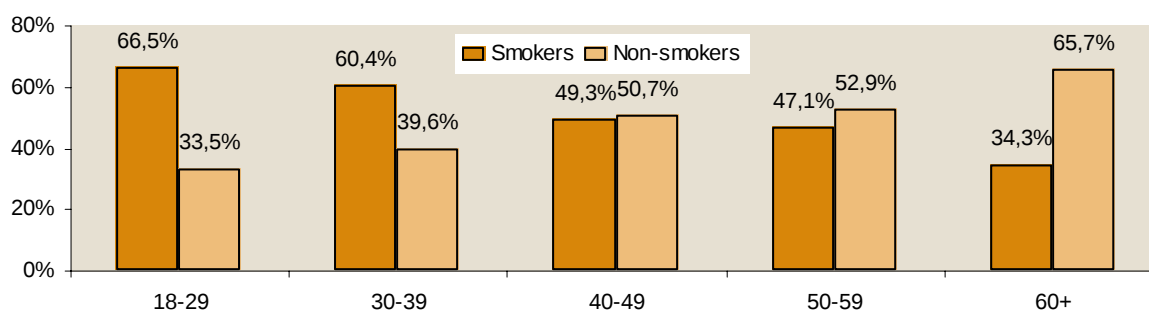
2.1.2. Prevalence of smoking by age group

The statistics concerning the age groups are also quite revealing when the variables being analyzed are approached differently, i.e., when we consider the proportion of smokers in each age group. According to these parameters, we find that 65.3% of 18-34 year-olds smoke, 50.9% of 35-54 year-olds smoke and 36.6% of adults 55 and older smoke. Using age groups based on ten-year intervals, we find the highest proportion of smokers among the 18-29 year-olds (66.5%). The proportion of smokers then gradually decreases in succeeding age groups: 30-39 (60.4%), 40-49 (49.3%), 50-59 (47.1%), and 60 and older (34.3%). To summarize, the youngest adults smoke more than the oldest ones.

Graph 5: Prevalence of smoking, by age group (1)

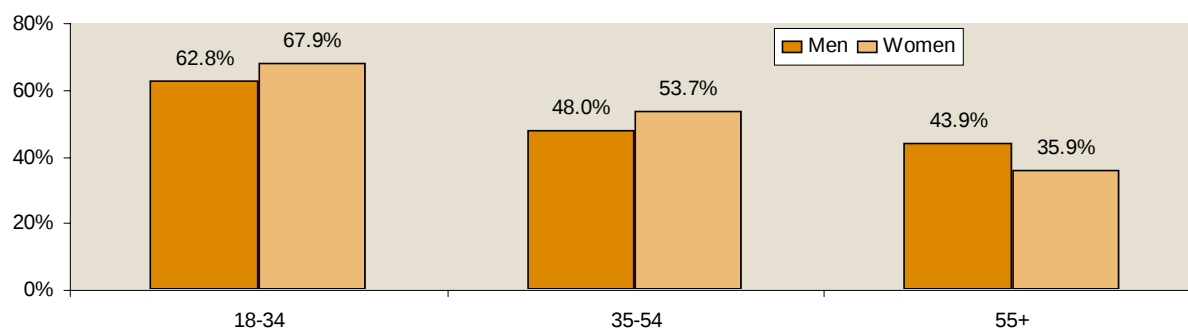


Graph 6: Prevalence of smoking, by age group (2)

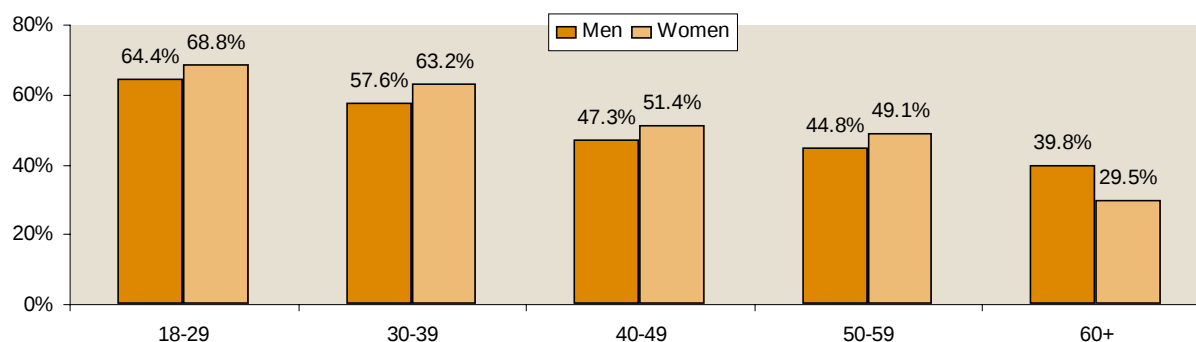


There is no significant difference in the proportions of men and women smokers when age groups are not taken into account. However, distributing smokers by sex according to two different age categorizations brings out a statistic worth noting. Higher proportions of women than men smoke in all age groups, excluding the two categorizations used for older persons (55 and older, and 60 and older). The difference between the sexes is about 5.0% for each age group. But in the oldest age groups used for Elders, women smoke significantly less than men (8.0% less for the 55 and older age group, and 10.3% less for the 60 and older age group). The following graphs summarize these observations for the two types of age categorization.

Graph 7: Age of smokers, by sex (1)



Graph 8: Age of smokers, by sex (2)

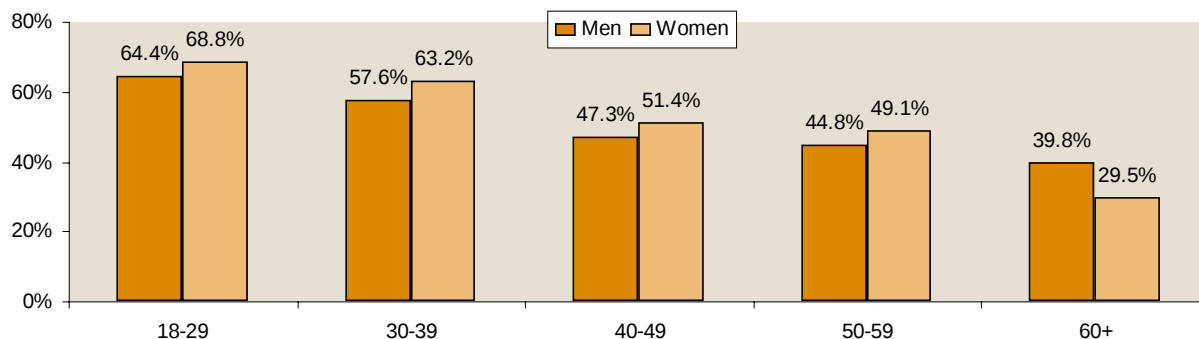


2.2. Consumption patterns

2.2.1. Consumption patterns by age group

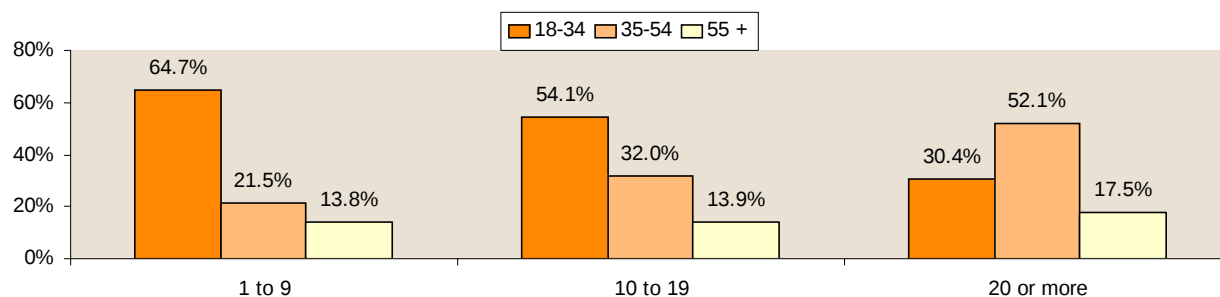
The survey revealed that a high majority of adult smokers smoke every day. Indeed, nearly 78% of adult smokers aged 18 to 54 do so. No significant difference is found between the two age groups making up this category (18-34 and 35-54). As for adult smokers 55 and older, we find that 89.9% of them smoke every day. Finally, there is no statistically significant difference between the sexes among adult smokers who smoke every day.

Graph 9: Adult smokers' consumption patterns, by age group



Looking at adult smokers' consumption of cigarettes by age group allows us to sharpen the focus in our picture of smoking in the First Nations. The previous graph showed a strong similarity between younger and older adults with regard to proportions of occasional and daily smokers. But the following graph indicates an important difference between daily smokers in these two age categories in terms of the number of cigarettes smoked daily. Younger adults (18-34) account for 64.9% of persons who smoke 1 to 9 cigarettes a day. This same age group accounts for 54.1% and 30.4% respectively of persons who smoke 10 to 19 cigarettes daily and 20 or more cigarettes daily. Conversely, the 35-54 year-olds account for 21.5% of persons who smoke 1 to 9 cigarettes a day and for 32.0% of those who smoke 10 to 19 a day. They also make up the majority of persons who smoke 20 or more cigarettes a day (52.1%).

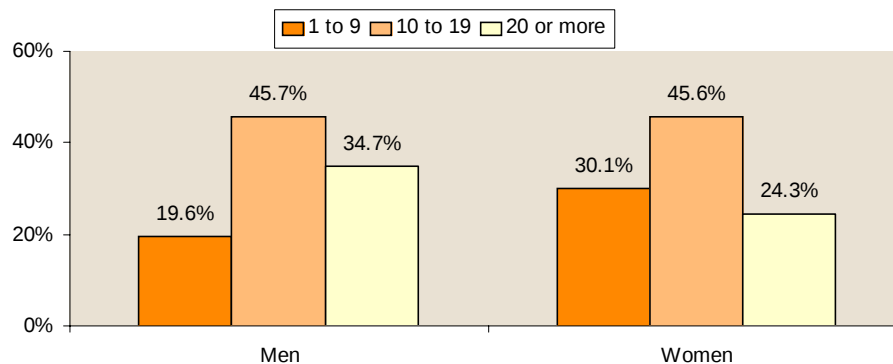
Graph 10: Number of cigarettes smoked each day by daily smokers, by age group



2.2.2. Consumption patterns by sex

We also note differences in the number of cigarettes smoked daily by men and women. The following graph presents the differences between men and women smokers who reported that they smoke every day. This graph shows that the former tend to smoke more cigarettes each day than the latter. Given the 1.7% margin of error for the sampling in this survey, we cannot identify a significant statistical difference between the proportions of men and women who smoke an average of 10 to 19 cigarettes a day.

Graph 11: Number of cigarettes smoked each day by daily smokers, by sex



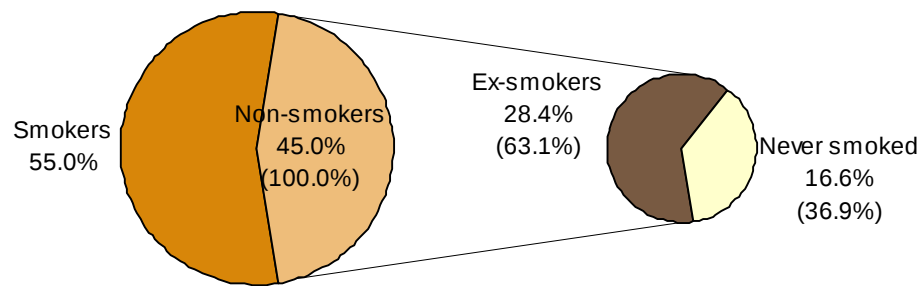
2.2.3. Consumption patterns by sex and age group

Combining the results of the two previous graphs provides us with more nuanced results allowing us to identify similarities and differences regarding consumption of cigarettes by age group. In the 18-34 age group, the main difference between men and women involves persons who smoke 1 to 9 cigarettes a day, with women smoking this amount at a proportion 15.4% higher than men (40.4% vs 25.0%). However, the level of consumption of 10 to 19 cigarettes per day is the same for men and women in this age group. In the 35-54 age group, a higher proportion of men smoke 20 cigarettes or more a day than women (50.0% vs 38.1%). 38.7% of men in this age group (5.0% less than the proportion of women) smoke 10 to 19 cigarettes a day. Turning to Elders, we do not find a statistically significant difference between proportions of men and women who smoke 20 cigarettes or more a day (close to 35.0% for each sex). On the other hand, a significantly higher proportion of men in this age group smoke between 10 and 19 cigarettes a day (48.6% vs 36.6% of women).

2.3. Adult non-smokers and ex-smokers

In 2002, 45.0% of First Nations members in Quebec reported that they did not smoke. However, 63.1% of non-smokers are ex-smokers. The following graph illustrates this important detail.

Graph 12: Adults smokers vs non-smokers (ex-smokers and those who have never smoked)



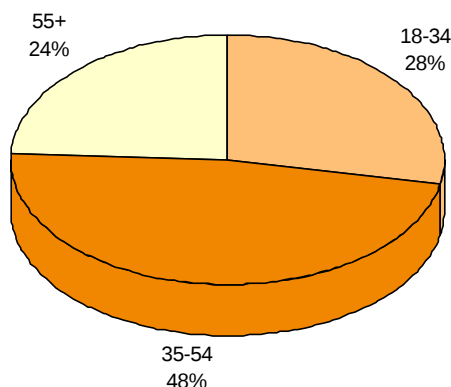
Note: The figures in brackets () correspond to proportions of the total of non-smokers only.

Considering the total population that participated in the survey, 28.4% of adults in the First Nations communities in the Quebec region are ex-smokers (63.9% of non-smokers). In adding this proportion to the 55.0% of smokers in the same population, the survey shows that at the time of the survey, 83.4% of the adult population was smoking or had previously smoked, while 16.6% had never smoked.

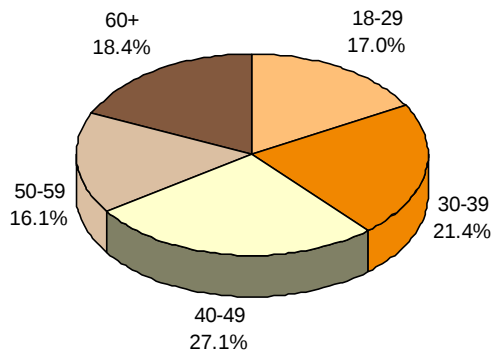
2.3.1. Ages of adult ex-smokers

Following are the proportions of ex-smokers among the adult population of the First Nations in the Quebec region by age group: 18-24 (28.1%), 35-54 (47.6%) and adults 55 and older (24.3%). The following two graphs describe the distribution of ex-smokers according to two different types of age categorization.

Graph 13: Distribution of adult ex-smokers, by age (1)

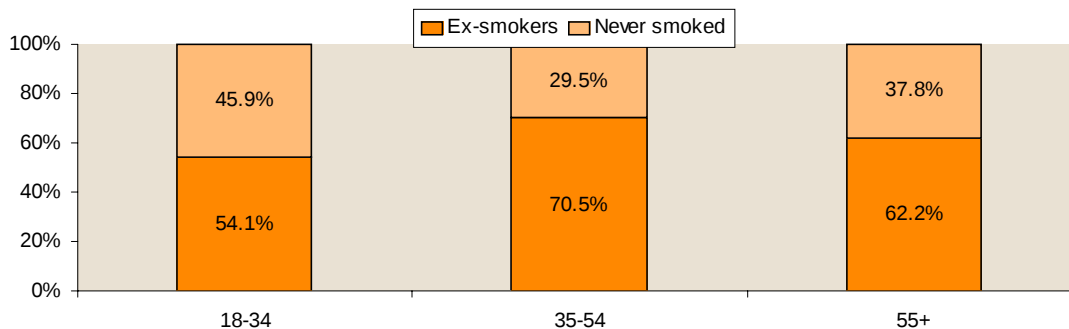


Graph 14: Distribution of adult ex-smokers, by age (2)

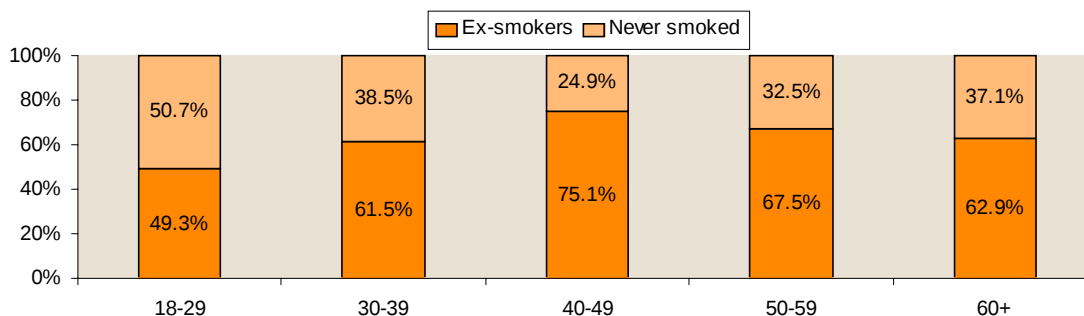


Using more restricted age groups allows us to identify persons aged 40 to 49 as presenting the highest proportion of ex-smokers (27.1%). This same age category also has the highest percentage of ex-smokers among persons who reported being non-smokers in comparison with the other age groups. The following graph shows that 75.1% of non-smokers aged 40 to 49 are ex-smokers. By comparison, the 30-39 year-olds and the 18-29 year-olds respectively account for 61.5% and 49.3% of ex-smokers among non-smokers.

Graph 15: Proportions of non smokers (ex-smokers and persons who have never smoked), by age group (1)



Graph 16: Proportions of non-smokers (ex-smokers and persons who have never smoked), by age group (2)

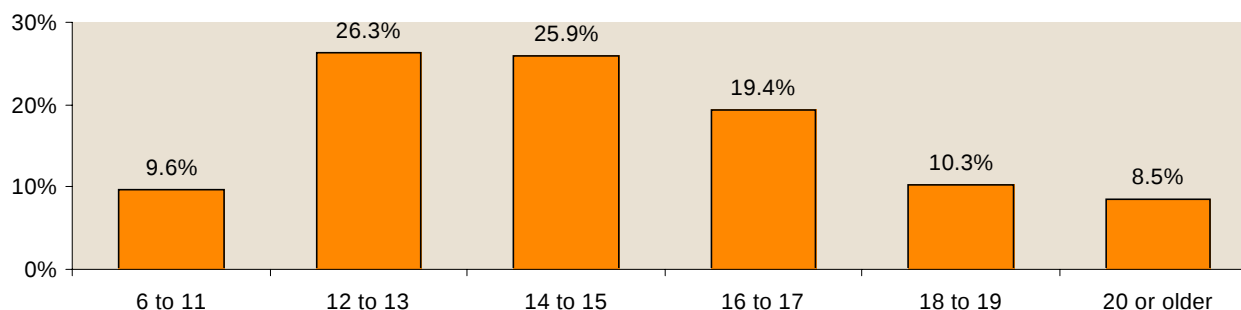


Note: The difference between the sexes with regard to smoking is extremely small and is not statistically significant. This indicates that practically as many men as women are smokers, ex-smokers or persons who have never smoked, regardless of the age category.

2.4. Ages when adults began smoking

Nearly 10.0% of adult smokers said they began smoking when they were children aged 11 or younger. We identified the start of adolescence as a key period for the adoption of smoking as a lifestyle habit. 26.3% of adults who were smoking at the time of the survey began smoking when they were 12 or 13, and 25.9% began when they were 14 or 15. Overall, 35.9% of adult smokers began before they were 14 and 49.0% began when they were 15 or younger. 19.4% of the other adult smokers began when they were 16 or 17 and 10.3% began when they were 18 or 19. Finally, only 8.5% began when they were 20 or older.

Graph 17: Ages when adults began smoking



2.4.1. Ages when adults began smoking, by sex

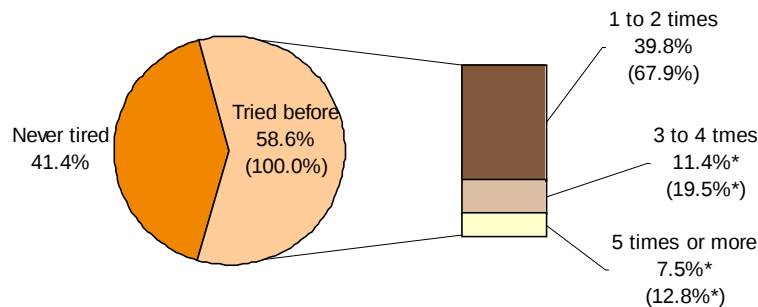
By adding the variable of sex to the previous graph, we find that adult women smokers began smoking at younger ages than men. Nearly 9.0% more women than men began smoking at the age of 12 or 13, while 5.5% more men than women began smoking at the age of 14 or 15 and 7.3% more men than women began smoking at the age of 16 or 17. The statistics for adults who began smoking when they were aged 6 to 11 and when they were aged 18 to 19 are not useable (due to the level of variability which was too high in the first case and due to the interval of confidence in the second case). The statistics concerning persons who started smoking when they were aged 20 or older present a significant difference between men and women. However, they must be interpreted with caution due to their variability. The age at which adults began smoking, when cross-tabulated with the age of smokers at the time of the survey, does not produce results that can be used in this report because their sampling variability is too high.

2.5. Quitting smoking

2.5.1. Number of attempts to quit smoking

58.6% of adults who were smoking at the time of the survey have tried at least once to quit. Among them, a strong majority (68.3%) have tried once or twice, while 20.0% have tried three or four times, and 7.5% have tried five or more times. The following graph presents these results.

Graph 18: Attempts by adult smokers to quit smoking in the 12 months preceding the survey



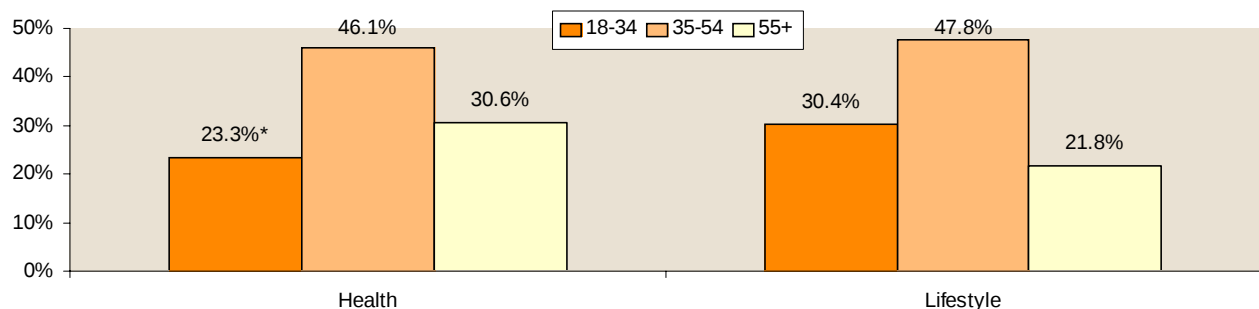
Note: The figures in brackets () correspond only to the proportions of the total number of persons who have tried to quit smoking.

There is no statistical difference between men and women regarding attempts to quit smoking. The questionnaire used for the survey did not allow us to verify the number of attempts to quit made by persons who are ex-smokers.

2.5.2. Reasons given for quitting smoking

Respondents were asked to choose, from the possible responses in the questionnaire, all the ones that represented their situation. The main reason given by ex-smokers for quitting was to adopt a healthier lifestyle (60.7% of all ex-smokers, or 63.8% of men and 57.2% of women, for a difference of 6.6% between the sexes). The age of individuals appears to be closely related to adopting a healthier lifestyle as a reason for quitting smoking. Age is also related to the second most common reason given for quitting, i.e., concern for one's overall health. The following graph gives the results for each age group:

Graph 19: Reasons given for quitting smoking, by age group



Respect of others (22.1%), impact of awareness (19.9%) and doctor's recommendation (10.0%) are the other reasons given for quitting smoking. It is impossible to compare these reasons to the ones in the above table because they present statistically non-significant percentages when we consider them in terms of sex and age.

2.5.3. Methods used to quit smoking

Cold turkey was mentioned the most often as the method used to quit smoking; 82.6% of ex-smokers gave this reason. In looking at smokers and ex-smokers combined, we find that 88.0% of 18-34 year-olds, 78.0% of 35-54 year-olds and 86.0% of Elders used the cold turkey method to quit smoking. These proportions suggest that cold turkey is considered the most effective method by First Nations members. A much smaller proportion of ex-smokers said they used nicotine patches (7.3%). The remaining proportion of ex-smokers

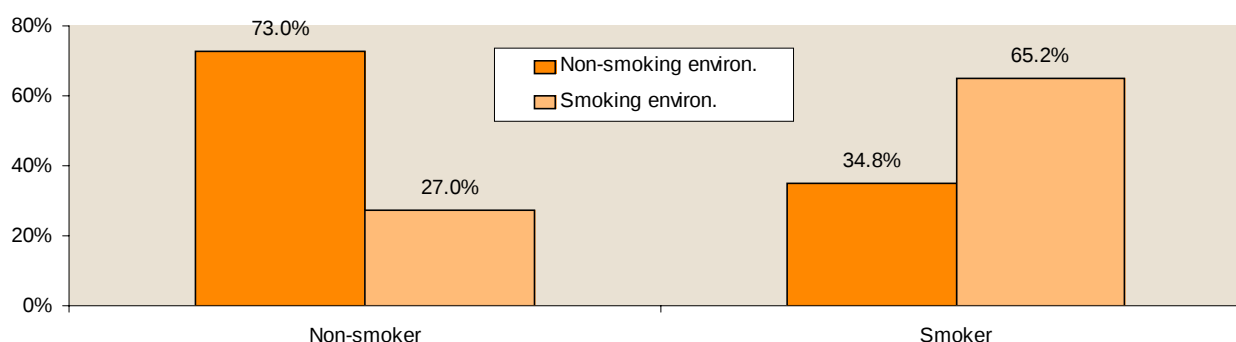
used various other methods to quit smoking. However, the relative proportions of these methods are not useable because they are statistically non significant.

2.6. Exposure to second-hand smoke

2.6.1. Environment and second-hand smoke

The effect that smoking has on health is related to more than the simple fact of smoking. Second-hand smoke is now recognized as a carcinogenic agent that has a significant impact. The questionnaire for the survey documented exposure to second-hand smoke among the members of the First Nations in the Quebec region. The survey shows that 52.0% of First Nations members live in a smoking environment. This result indicates that many non-smokers live in a smoking environment, when we consider that the proportion of non-smokers is 45.0%. Indeed, 27.0% of non-smokers live in this kind of environment and are thus exposed to second-hand smoke. Finally, 34.8% of smokers live in non-smoking households.

Graph 20: Smoking status, by household environment (smoking or non-smoking)



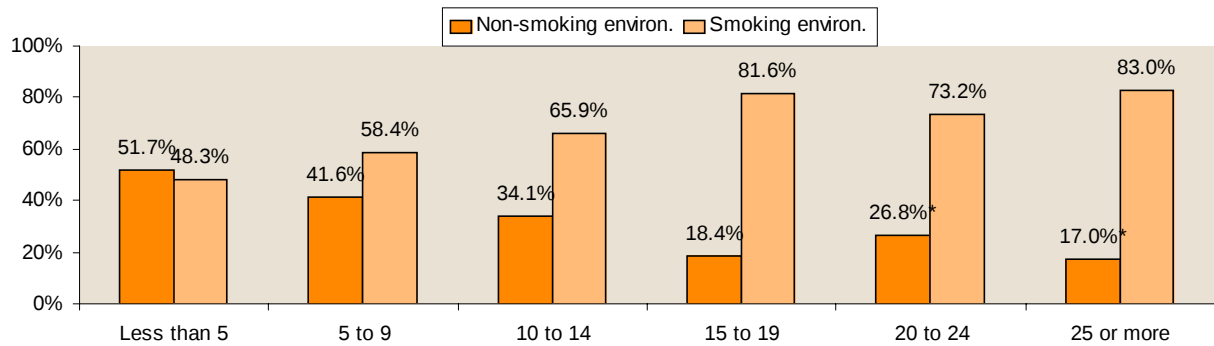
2.6.2. Overall exposure to second-hand smoke

The statistics also allow us to calculate the proportion of individuals – smokers or non-smokers – who are exposed to cigarette smoke because they or other members of their households smoke. We see that a total of 67.2% of First Nations members are exposed to cigarette smoke, i.e., 12.2% more than the total proportion of adult smokers (55.0%). This proportion is an average; it presents a wide variability among the Nations.

2.6.3. Quantity of cigarettes smoked and type of environment

The number of cigarettes smoked by daily smokers is also related to their living environment. Although almost equal proportions of daily smokers who live in smoking and non-smoking environments smoke less than 5 cigarettes a day, 83.0% of those who smoke 25 cigarettes or more each day live in smoking environments.

Graph 21: Number of cigarettes smoked, by household environment (smoking or non-smoking)



2.7. Smoking and state of health

NOTE: Caution must be used when interpreting the relation between smoking and respondents' perceptions of their state of health. The questionnaire asked respondents about their perceptions of their health in a section that did not cover smoking. It is thus possible that respondents did not consider smoking when giving their impressions about their state of health. Moreover, the information obtained by the survey was based on perceptions; it therefore cannot exactly and objectively describe the state of health of respondents.

2.7.1. Prevalence of smoking and state of health

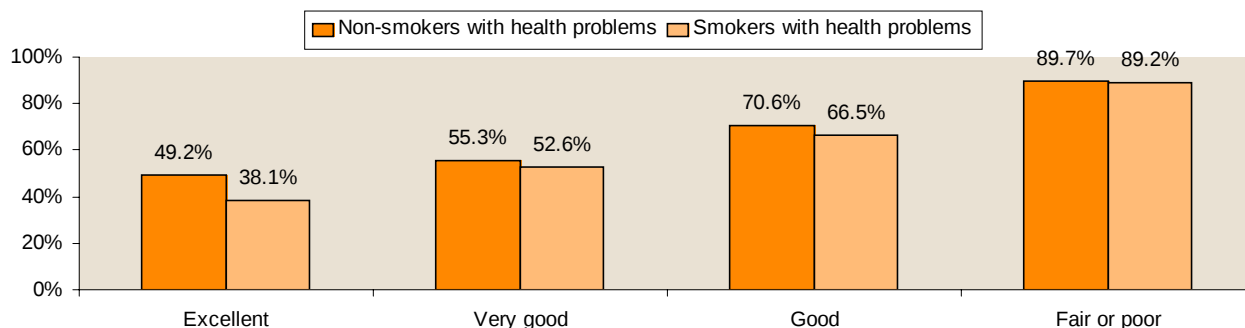
Looking at First Nations adult smokers and non-smokers together, we find that they have almost identical perceptions of their state of health. On average, 16.7% feel they are in excellent health, 31.4% feel they are in very good health and 35.7% feel they are in good health. Only the category 'Fair or poor health' presents statistically significant but still quite low differences between non-smokers and smokers (19.3% of the former indicated that they were in fair or poor health, versus 13.7% of the latter). Statistical differences are also noted for the categories 'Excellent health' and 'Poor health.' 12.6% of ex-smokers feel they are in excellent health, versus 21.6% of persons who have never smoked, while 23.0% of ex-smokers feel they are in poor health, versus 13.1% of persons who have never smoked. The other categories for perceptions of health do not present statistical differences.

2.7.2. State of health and consumption patterns

Daily and occasional smokers have practically the same perceptions of their state of health, perceptions they share with non-smokers. Furthermore, the statistics indicate that the number of cigarettes smoked daily does not influence perceptions of health.

52.6% of all persons with health problems are smokers. 60.3% of smokers thus have health problems versus 66.3% of non-smokers and 70.0% of ex-smokers. The following graph shows that there are few differences between smokers and non-smokers with health problems concerning their perceptions of their health. Smokers and non-smokers generally present equal proportions in each category for state of health. This indicates that the fact of being a smoker or not has little impact on the perceptions of First Nations regarding their state of health. Other risk factors and predispositions probably play a role in perceptions of health.

Graph 22: Perceptions of health among persons with health problems, by smoking status



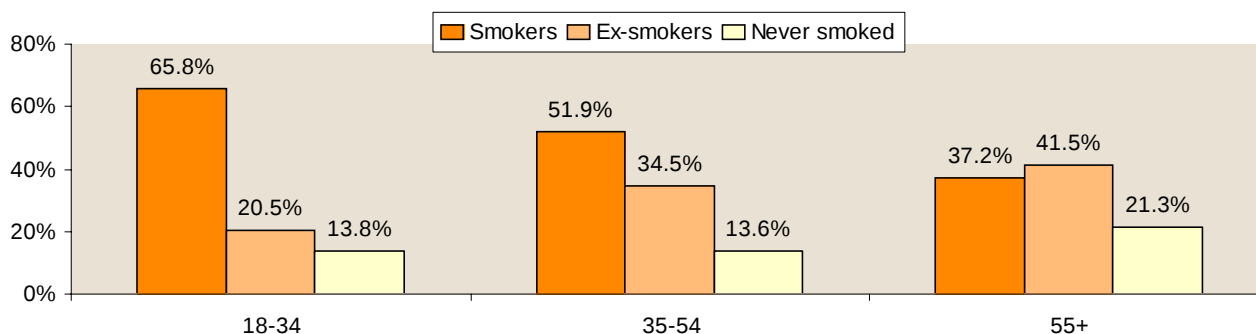
2.7.3. Smoking and health problems

60.3% of smokers indicated that they have health problems, versus 70.0% of ex-smokers and 58.9% of persons who have never smoked. These statistics do not allow us to directly correlate health problems with smoking, so we must look for other aspects that influence health, as covered by the survey. As we might expect, the results of the survey show, for example, that age is closely related to state of health; 48.0% of 18-34 year-olds reported health problems, versus 68.6% of 35-54 year-olds and 84.9% of elders.

2.7.4. Smoking and health problems, by age group

Here, we look at smoking as a function of all persons who reported having health problems, in each age group. We note that 65.8% of persons with health problems in the 18-34 age group are smokers. This proportion drops to 51.9% among 35-54 year-olds and to 37.2% among adults 55 and older. The following graph presents these observations.

Graph 23: Smoking status of persons with health problems, by age group

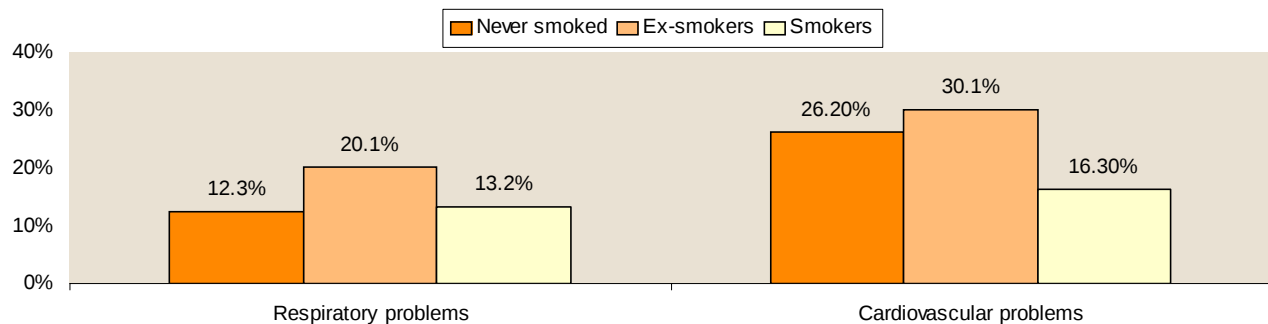


The lowest proportion of smokers among persons with health problems is found in the 55 and older age group. Of all the age groups, this one presents the highest proportion of persons with health problems (84.9%). It also presents the lowest prevalence of smoking. This suggests that as people get older, the illnesses associated with their age play a much greater role in determining their health status than smoking does. On the other hand, our observation that the proportion of ex-smokers in the 55 and older age group (twice the proportion of smokers among younger adults) leads us to believe that Elders may experience more illnesses because they used to smoke. Furthermore, Elders may have quit smoking because their health was worsening; 48.5% of Elders who quit smoking said they did so for health reasons, versus 37.0% of ex-smokers aged 35-54 and 31.0% of ex-smokers aged 18-34.

Although smoking is recognized as a risk factor that predisposes smokers to several illnesses, the data obtained through the survey do not indicate a strong relation between smoking and various illnesses, excluding respiratory and cardiovascular problems. The following graph shows the relation between smoking status and these two health problems. We see that 12.3% of non-smokers have respiratory problems, versus

20.1% of ex-smokers and 13.2% of smokers. Cardiovascular problems are more widespread in all three categories. They affect 26.6% of non-smokers, 30.1% of ex-smokers and 16.3% of smokers.

Graph 24: Smoking status of persons with respiratory or cardiovascular problems



The above graph shows that these two illnesses occur more frequently among ex-smokers, and the statistics here suggest that smoking is the cause. By distributing persons with respiratory and heart problems into age groups, we are able to refine our observations.

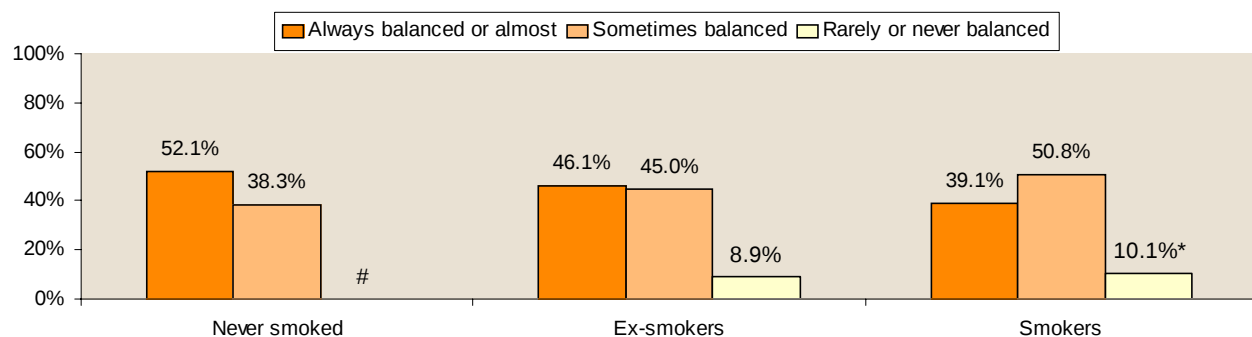
The percentage of persons with cardiovascular problems in the 35-54 age group is more than three times greater than that of persons in the youngest age group (24.6% versus less than 8.0%). The 35-54 age group also has the highest proportion of ex-smokers, who account for 70.5% of non-smokers in that age group. 49.1% of persons in the 55 and older age group have cardiovascular problems. 23.5% of persons in the same age group are affected by respiratory problems, versus half that figure in the younger age groups. Our sample does not provide valid statistics to describe the occurrence of cardiovascular and respiratory problems for the age groups according to smoking status.

2.8. Smoking and lifestyle

2.8.1. Food and nutrition

The survey also documented the eating habits of First Nations members. Inasmuch as food is related to individuals' lifestyles, it can be correlated with smoking, which is also a lifestyle indicator. The statistics show that a smaller proportion of smokers (39.1%) indicated always or almost always having a balanced diet than did ex-smokers (46.1%) and persons who have never smoked (52.1%).

Graph 25: Smoking status, by perceived quality of diet



We also note that smoking does not appear to be related to junk food consumption, which nevertheless is high. Nearly 90.0% of all individuals mentioned that they eat junk food several times a week (smokers and non-smokers combined). The poor availability and high price of fresh and healthy foods in isolated regions,

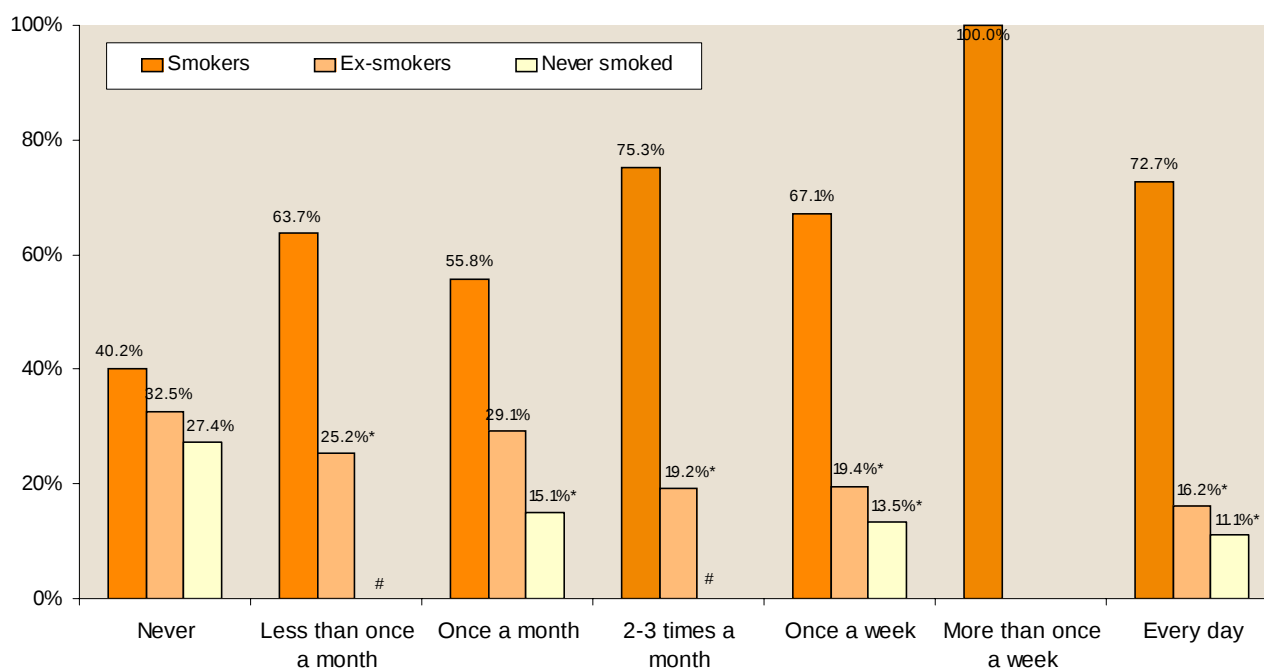
combined with the fact that the First Nations' diet is changing from one based on hunting and gathering to one based on store-bought food, has probably been a major cause of this high proportion.

2.8.2. Alcohol consumption

Alcohol consumption is closely related to smoking. The results indicate that 15.6% of individuals who drank alcohol in the 12 months preceding the survey had never smoked, versus 23.6% of ex-smokers and 60.9% of smokers. The difference between smokers and non-smokers here comes to 45.3%. In addition, the survey provided information on the frequency of alcohol consumption according to smoking status. The results in this regard showed that there is a link between the frequency of alcohol consumption and smoking status.

Consumption of five or more glasses of alcohol on a single occasion was also documented by the survey. Considering that 55.0% of First Nations members smoke, the statistics indicate that more smokers drink five or more glasses of alcohol on a single occasion, in comparison with the rest of the population. The following graph shows that for most response categories regarding consumption of five or more glasses of alcohol on a single occasion (from 'never' to 'every day'), smokers form the majority in proportions exceeding 55.0%. Indeed, they account for 100.0% of all persons who indicated that they do so 'more than once a week.'

Graph 26: Frequency of consumption of five or more glasses of alcohol on a single occasion, by smoking status



NOTE: Several results in the above graph must be interpreted with caution due to their sampling variability.

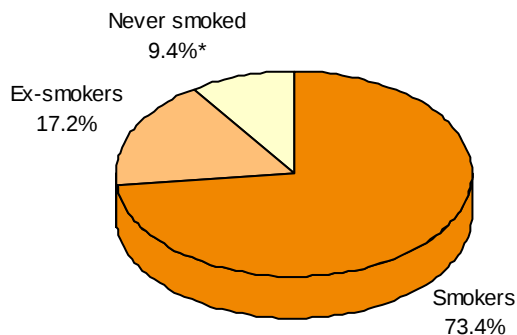
2.8.3. Treatment for alcohol abuse

Alcoholism or excessive alcohol consumption led 15.5% of First Nations adults to receive treatment for alcohol abuse. 68.2% of persons who reported receiving treatment were smokers, while 29.7% were ex-smokers. Therefore, nearly all persons who received treatment for alcohol abuse are smokers, a fact which supports the statistics indicating a correlation between alcohol consumption and smoking.

2.8.4. Drug use

36.2% of adults reported using some type of drug in the 12 months preceding the survey. Among adult drug users, 73.4% are smokers and 17.2% are ex-smokers.

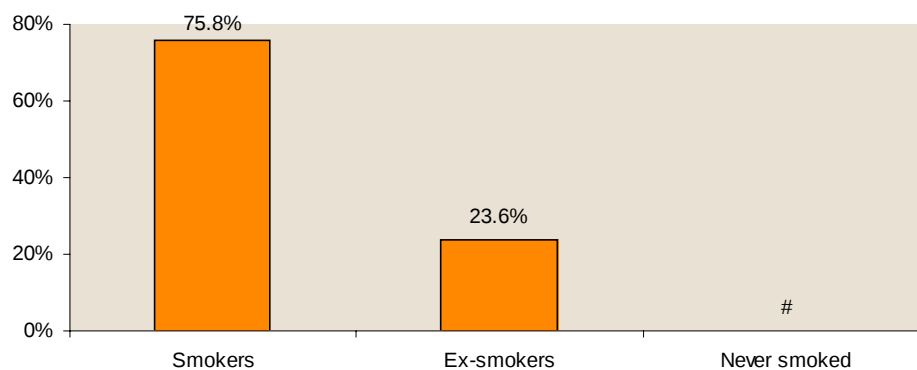
Graph 27: Smoking status of adults who used drugs in the 12 months preceding the survey



2.8.5. Treatment for drug abuse

Smoking also appears to be related to treatment for drug abuse. We see, as with treatment for alcohol abuse, that nearly 100.0% of persons who underwent treatment for drug abuse are smokers (75.8%) or ex-smokers (23.6%). Although smoking cannot constitute a reason for attending treatment centres for drug abuse, these statistics bring out the links and associations between smoking and drug use.

Graph 28: Smoking status of adults who have undergone treatment for drug abuse



26.5% of adults reported using marijuana or hashish in the 12 months preceding the survey. Because of the method of consuming them (usually by smoking), they are often associated with the use of tobacco. 37.5% of adult smokers used these drugs, versus 13.3% of ex-smokers and 13.1% of persons who have never smoked. When we consider the use of marijuana or hashish according to smoking status, we find that 77.5% of persons who used them were smokers, 14.2% were ex-smokers and 8.2% were persons who have never smoked. Whether people smoke daily or occasionally has no effect on marijuana or hashish use.

Furthermore, 22.0% of adults used drugs other than marijuana and hashish in the 12 months preceding the survey. Among these drug users, 73.5% were smokers, 18.0% were ex-smokers and 8.5% were adults who have never smoked. Occasional and daily smokers represent respectively about 20.0% and 80.0% of all

smokers; approximately the same proportions were found among occasional and daily smokers who took drugs other than marijuana or hashish in the 12 months preceding the survey. Therefore, 29.1% of daily smokers and 31.8% of occasional smokers took drugs in the year preceding the survey (the difference is not statistically significant). We can deduce that the fact of being a smoker or not is more closely related to the use of drugs, than is the fact of being an occasional or daily smoker.

2.8.6. Smoking and physical activity

Smoking among First Nations adults does not appear to be related to their levels of physical activity. A difference of just over 10% separates persons who get no physical activity from those who get extensive physical activity (11 hours or more a week). The proportions of smokers in each of these two groups are 50.1% and 62.5% respectively. The proportions of ex-smokers and persons who have never smoked follow a similar trend for each of these activity categories.

2.8.7. Smoking and traditional activities

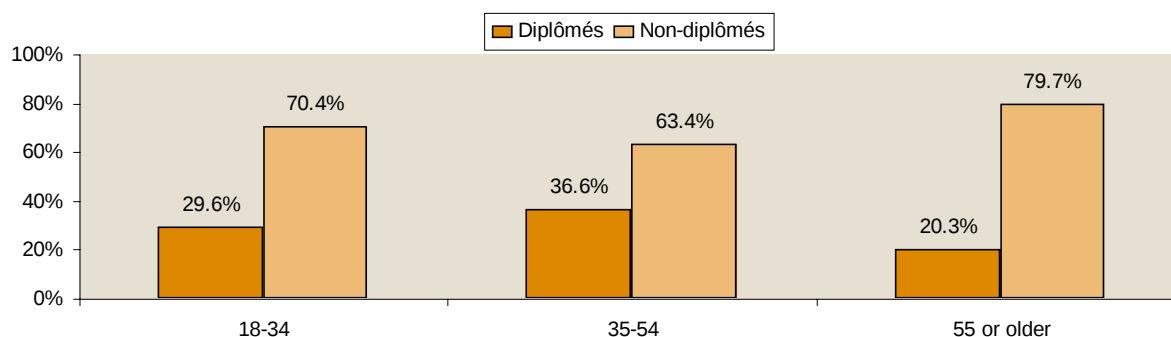
We sought to determine whether non-traditional use of tobacco is related to the practice of traditional activities, just as traditional use of tobacco is. Our observations here, based on the data obtained by the survey, are as follows: 70.8% of the total population reported taking part in traditional activities.¹³ Of these persons, 56.7% are smokers (this proportion is similar to the overall proportion of smokers in the First Nations). Furthermore, a statistically non-valid difference was seen between the percentage of smokers and non-smokers who reported taking part in a traditional activity during the 12 months preceding the survey. The two percentages are thus close to the percentages for the total population. These statistics do not allow us to correlate smoking with the practice or non-practice of traditional activities, or to verify the level of smoking during the practice of traditional activities. Finally, they do not allow us to determine whether the practice of traditional activities increases, decreases or has no effect on the prevalence of smoking.

2.9. Smoking and education

2.9.1. Smoking and high school completion

The statistics compiled throughout the survey indicate that smoking is related to the schooling level: 61.4% of persons who did not obtain high school diplomas smoke, versus 45.3% of persons who did. The proportions of smokers who did not finish high school by age group are as follows: 18-34 (70.4%), 35-54 (63.4%) and 79.7% (persons 55 and older). The following table presents these statistics:

Graph 29: Smokers with or without high school diplomas, by age group



When we consider the proportion of smokers according to the different schooling levels, we find an important difference between high school graduates and university graduates. 47.2% of the former smoke, versus 31.3% of the latter. We also note higher rates of smokers among persons who did not finish high school (59.9%) than among persons with a college or vocational diploma (56.4%).

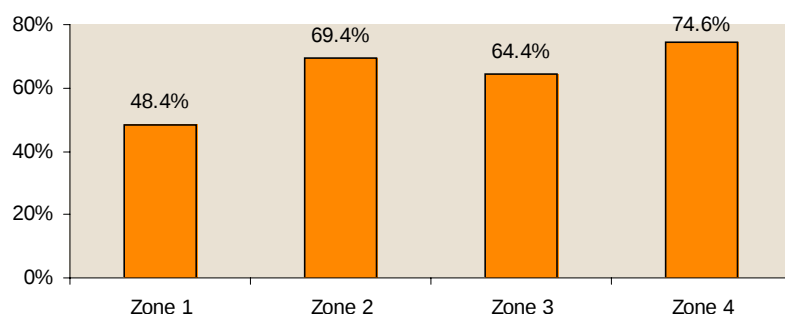
¹³ The category "Practice of traditional activities" covers all persons who indicated that they engaged in hunting, trapping, snowshoeing or canoeing in the 12 months preceding the survey.

2.10. Smoking and community geographic location

NOTE: The statistics presented in this section (2.10), in particular those referring to zones 3 and 4, are given for information purposes only. The low number of respondents from communities in these zones and the high level of variability between them regarding questions about smoking prevent us from establishing a representative portrait. Thus, the comparability of zones is highly limited.

The percentage of smokers varies according to the communities' level of geographic remoteness. Zone 1 communities present the lowest proportion of smokers, at 48.4%, while zone 4 communities present the highest proportion, at 74.6%. The following graph presents the differences among the zones:

Graph 30: Proportions of smokers, by community zone



We also find differences in the number of cigarettes smoked by zone. Zone 1 presents the lowest percentage of persons who smoke 1 to 9 cigarettes a day (35.9%), while zone 3 presents the highest percentage (55.7%). Conversely, zone 1 has the highest percentage of persons who smoke 20 or more cigarettes a day (29.1%), while less than 10.0% of smokers in zone 3 are in this category. The extremely high variability of our sample does not permit us to document distinctions that might exist regarding the age at which persons started smoking by zone, according to the same groups as those used for the total population. However, the statistics allow us to note that adult smokers in zones 2 and 3 began smoking before they were 16, in a proportion slightly higher than that of smokers in zones 1 and 4. For zones 1, 2, 3 and 4, we obtain percentages of 62.2 %, 67.5%, 68.4% and 57.0% respectively of smokers who began smoking when they were 15 or younger.

Zone 3 also stands out with regard to consumption patterns; 66.1% of smokers in zone 3 smoke every day, versus close to 80.0% of smokers in zones 1, 2 and 4.

2.11. Smoking and community size

NOTE: The statistics in this section (2.11), in particular those concerning small communities, are given for information purposes only. The high variability between the communities making up this category with regard to the questions about smoking prevents us from drawing up a representative portrait. Thus, comparability of different-sized communities is highly limited.

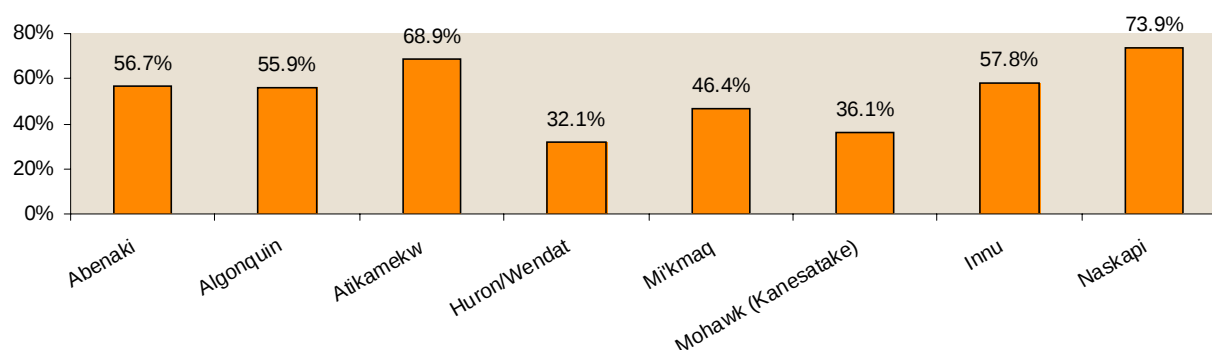
The proportions of smokers, ex-smokers and persons who have never smoked do not vary significantly, in statistical terms, among communities according to size (small, medium and large). On the other hand, there is a wide variation regarding consumption patterns; 86.0% of smokers in small communities smoke daily, versus 80.7% and 75.9% respectively in medium and large communities.

The number of cigarettes smoked per day also brings out strong differences according to community size. Zone 1 is where prevalence of tobacco use is lowest, but it is also where we find the highest proportion of smokers who smoke 20 or more cigarettes a day (29.1%). Zone 1 also has the lowest percentage of smokers who smoke 1 to 9 cigarettes a day. Conversely, 9.9% of smokers in zone 3 smoke 20 cigarettes a day or more, while 55.7% of the smokers in that zone smoke 1 to 9 cigarettes a day.

2.12. Smoking, by Nation

The statistics obtained by the survey were used to evaluate the proportion of smokers in each First Nation in the Quebec region. We must keep in mind here that the average prevalence of smoking in all Quebec First Nations is 55.0%. This average reflects very well the proportions of smokers in the Abenaki (56.7%), Algonquin (55.9%) and Innu (57.8%) Nations. But the proportions in other Nations differ greatly from this average; 32.1% of Huron/Wendat members smoke, compared to 73.9% of Naskapi members. The following graph gives the percentage of smokers by Nation:

Graph 31: Proportions of smokers, by Nation



The number of cigarettes smoked daily is also a factor that indicates a clear difference among the Nations. 70.0% of smokers in the Naskapi Nation, which has the highest prevalence of smokers, smoke 20 cigarettes or more a day (heaviest smoker category). This is nearly 25% more than the proportion seen for the Huron/Wendat, who come in second; 44.6%* of Huron/Wendat smokers smoke 20 cigarettes or more a day. Conversely, the Atikamekw Nation, which comes in second after the Naskapi Nation in terms of prevalence of smokers, presents the lowest proportion of persons who smoke 20 cigarettes or more a day (13.5%*).^14

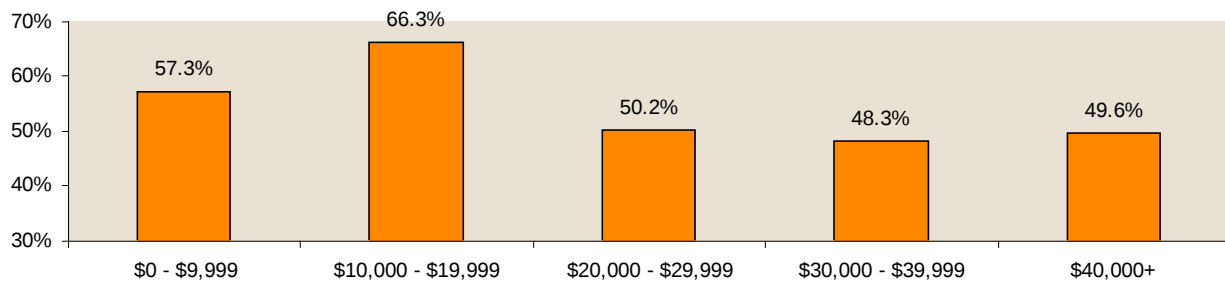
The Huron/Wendat and Innu Nations present the lowest proportions of persons in the lightest smoker category (persons who smoke 1 to 9 cigarettes daily), at 22.3%* and 28.7% respectively, while the Algonquin and Atikamekw Nations occupy the other end of the scale for this category, at 53.9% and 49.9% respectively. The proportions of persons in the other Nations who smoke 1 to 9 cigarettes daily come close to the average for this category, which is 38.5%.

2.13. Smoking and income

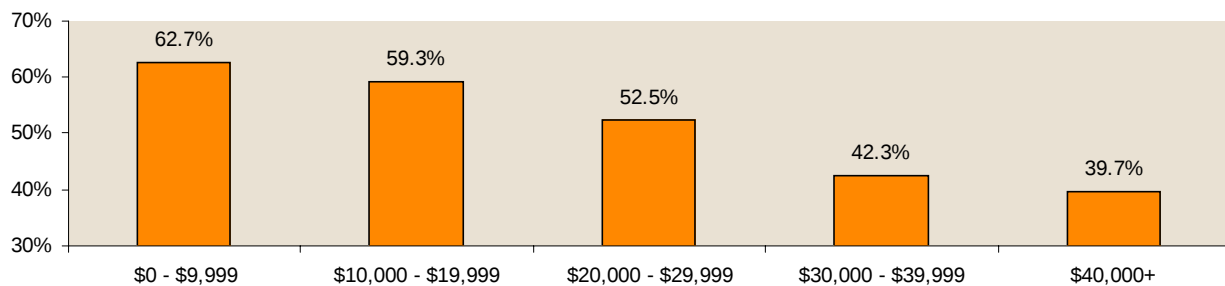
A low income level is often associated with a high prevalence of smoking. The relation between income level and smoking among First Nations is weak in terms of household income, but it is clear enough when we look at individual income. The data obtained by the survey show a strong correlation between individual income and smoking; a high percentage of smokers is found among persons whose annual income ranges from 0 to \$9,999\$, while less than 23.0% of smokers are found among persons whose annual income exceeds \$40,000. The two following graphs present the relation between income and smoking.

¹⁴ It is possible that the Algonquin and Naskapi Nations present comparable proportions. But the high sampling variability in the proportions for these Nations prevents us from confirming or refuting this hypothesis on the basis of the results that were obtained.

Graph 32: Proportions of smokers, by household income



Graph 33: Proportions of smokers, by individual income

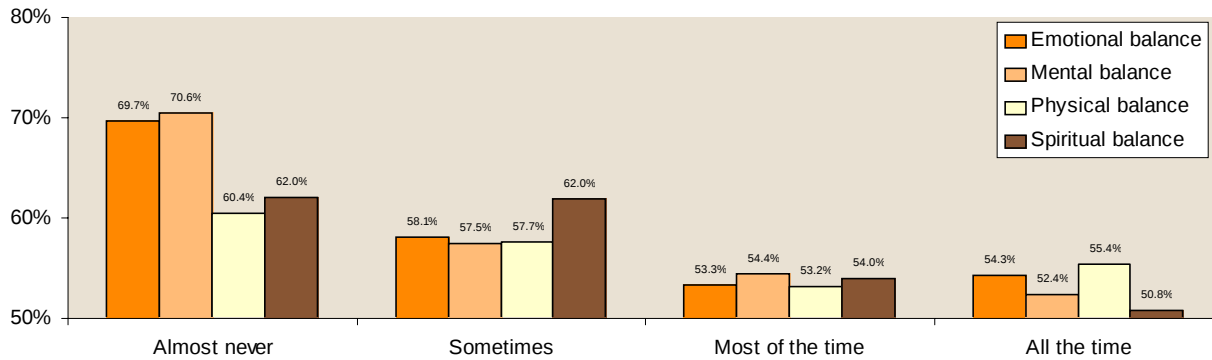


2.14. Smoking and well-being

There is a relation between the level of well-being expressed by First Nations members and the prevalence of smoking. It appears that persons who indicated that they are almost never in balance (emotional, mental, physical or spiritual) smoke more than persons who indicated that they are often or almost always in balance. For example, the former smoke at rates ranging from 60.4% to 70.2%, depending on the balance category. The persons who are almost never in mental or emotional balance are the ones who smoke the most. Conversely, those who indicated that they are always in balance smoke in proportions ranging from 50.8% to 55.4%. The lowest proportion of smokers is found among those who are always in spiritual balance, followed closely by persons who are always in mental balance (52.4%), emotional balance (54.3%) and physical balance (55.4%)¹⁵. The following graph presents the results obtained concerning the relation between smoking and the levels of balance indicated by respondents.

¹⁵ Given our margin of error, caution must be used when distinguishing between categories.

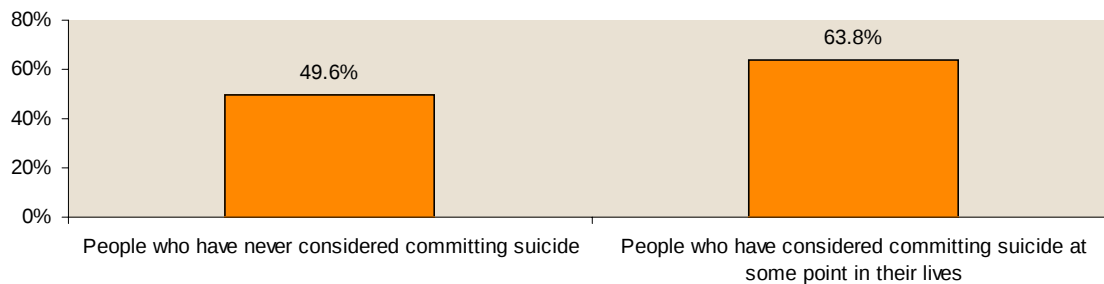
Graph 34: Percentages of smokers, by emotional, mental, physical and spiritual balance¹⁶



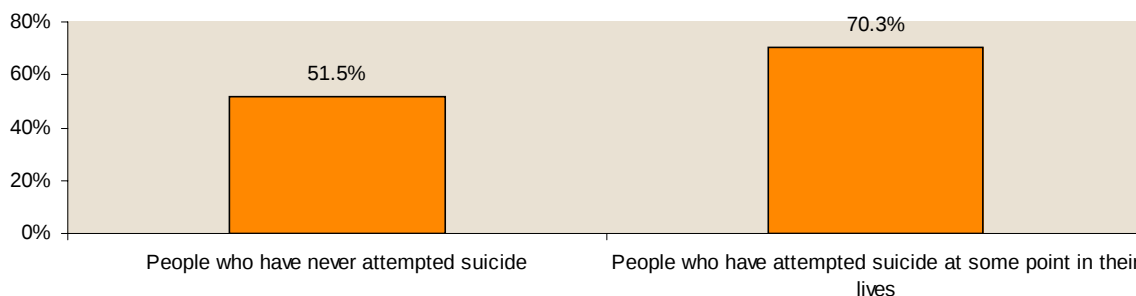
2.14.1. Smoking and suicide

The survey data indicate a link between suicide and smoking. Smokers account for 63.8% of persons who have considered committing suicide at some point in their life, and for 49.6% of persons who have never considered committing suicide. Furthermore, they account for 60.4% of persons who reported feeling depressed in the 12 months preceding the survey, and for 52.2% of persons who did not feel depressed. Finally, 70.3% of persons who indicated having attempted suicide at some point in their life smoke (the results for suicide attempts reflect only failed attempts).

Graph 35: Percentages of smokers among adults who have considered or have not considered committing suicide at some point in their life



Graph 36: Percentages of smokers among adults who have attempted suicide at some point in their lives



¹⁶ The concepts of physical, emotional, mental and spiritual balance are subjective. The questionnaire did not offer any definitions to the respondents but asked them to evaluate themselves with regard to these types of balance and to check the answer that reflected their perception.

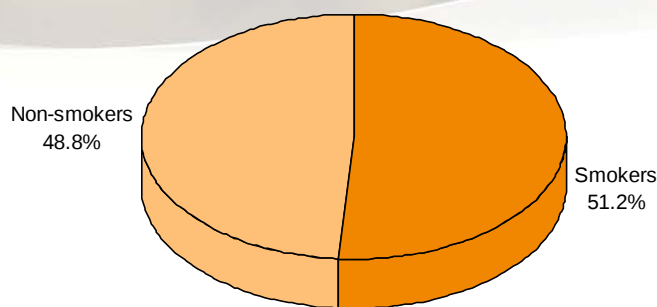
Section 3: Smoking among First Nations adolescents

Smoking among First Nations adolescents

3.1. Prevalence of smoking

The proportion of youth smokers among First Nations is slightly lower than the adult average for that same population: 51.2% of adolescents aged 12 to 17 smoke, versus an average of 55.0% of adults.

Graph 37: Proportions of smokers and non-smokers among First Nations adolescents

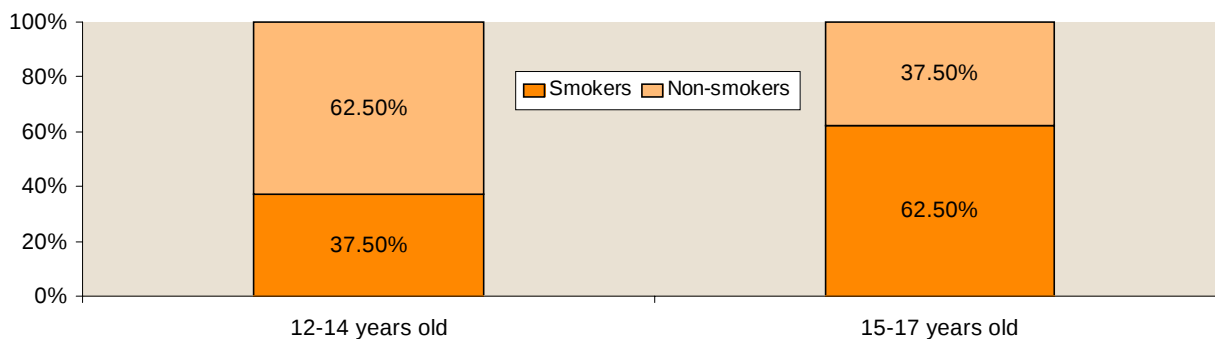


Despite their young age, a number of adolescents reported that they were ex-smokers. But the proportion of the sample who indicated this was very small and should thus be viewed with caution. The data indicate that 7.2%* of adolescents are ex-smokers, which would mean that 14.8%* of non-smokers are in fact ex-smokers.

3.1.1. Ages of adolescent smokers

The number of adolescent smokers is indicated by their distribution into age groups. Of all youths who said they smoked, 33.2% were aged 12 to 14; the rest were aged 15 to 17. Extrapolating to all representatives of each age group for all First Nations adolescents, the data allow us to calculate the proportion of smokers for each age group. Accordingly, 37.5% of adolescents aged 12 to 14 smoke, versus nearly twice as high a proportion found among the 15-17 year-olds (62.5%). The following graph presents these data.

Graph 38: Proportions of adolescent smokers, by age group¹⁷



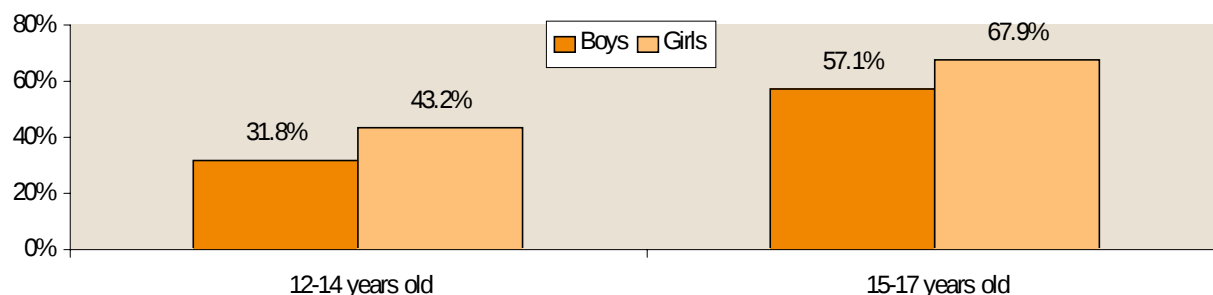
3.1.2. Sex of adolescent smokers

The survey data reveal a significant difference in the prevalence of smoking among adolescent boys and girls. Their situation is comparable to that of the non-Aboriginal population of Quebec, where the same trend has been observed. Among adolescents aged 12 to 14, 31.8% of boys smoke, versus 43.2% of girls. We find

¹⁷ This graph presents the proportion of smokers compared to non-smokers for each age group taken separately. Although the total proportion of smokers in both groups adds up to 100%, this is a coincidence and it must not be interpreted as representing the distribution of all adolescent smokers by age group. This distribution is described in the paragraph preceding the graph.

a slightly smaller but still significant gap when we turn to the 15-to-17 age group, in which 57.1% of boys smoke, versus 67.9% of girls. The graph below illustrates these differences.

Graph 39: Prevalence of smoking, by sex and age group



3.2. Adolescents' consumption patterns

3.2.1. Frequency of consumption

Between 77.7% and 89.8% of adult smokers smoke cigarettes every day, versus 66.0% of adolescent smokers. Age is not strongly related to consumption patterns. 61.3% of 12-to-14-year-old smokers smoke daily, versus 68.3% of 15-17 year-olds. Likewise, the data indicate that sex is not closely related to smoking; 62.8% of girls smoke every day, versus 68.7% of boys.

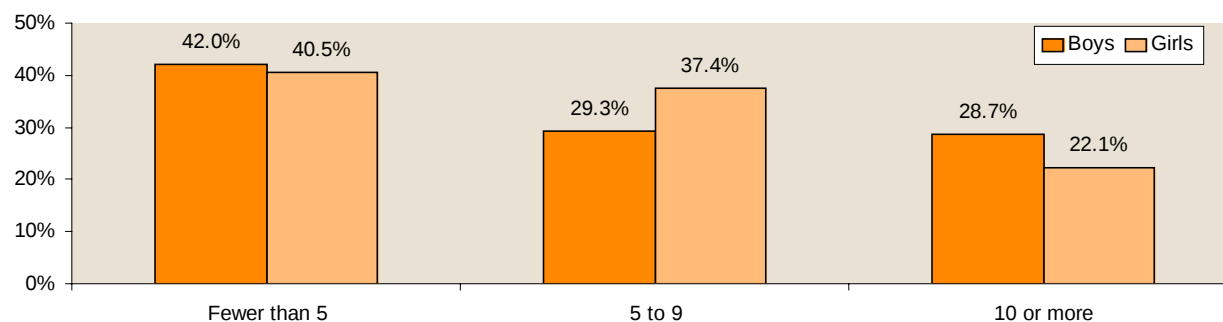
3.2.2. Number of cigarettes smoked per day

One-quarter of adolescents smoke an average of 10 cigarettes or more a day and about one-third smoke between 5 and 9 daily. 41.2% smoke fewer than 5 cigarettes a day (half of the 12-14-year-olds and just over one-third of the 15-to-17-year-olds).

3.2.3. Consumption patterns, by sex

The only significant difference between boys and girls with regard to quantities of cigarettes smoked is found in the two following categories: 5-to-9 cigarettes daily and 10-or-more cigarettes daily. Equal proportions of boys and girls smoke 5 or fewer cigarettes per day. The graph below presents the differences between boys and girls.

Graph 40: Number of cigarettes smoked, by sex



3.2.4. Consumption patterns, by age

As we might expect, the younger adolescents tend to smoke less each day. Half (50.5%) of the 12-to-14-year-old smokers smoke less than 5 cigarettes a day, while 19.7%* of them smoke 10 or more. Among the

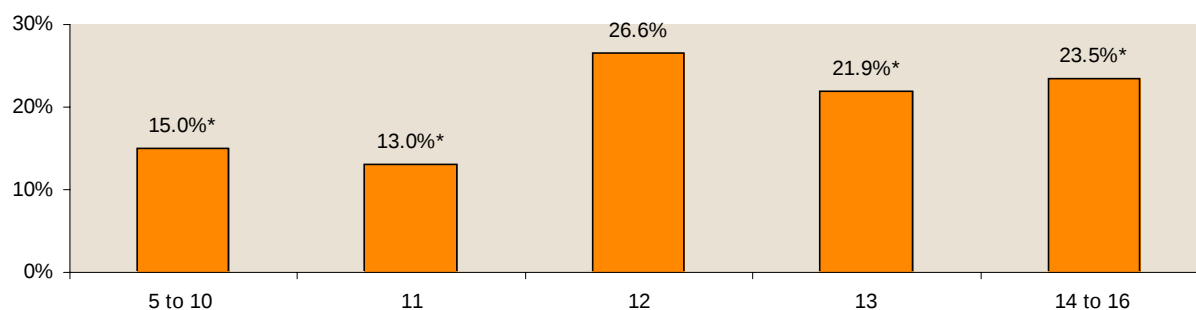
15-to-17-year-olds, 36.7% smoke fewer than 5 cigarettes a day, about the same proportion (35.5%) smoke 5 to 9, and 27.8%* smoke 10 or more.

3.3. Ages at which adolescents began smoking

3.3.1. Start of smoking

The adolescents began smoking at younger ages than the adults did. For example, 35.9% of adult smokers said they started smoking at age 13 or younger, while 76.5% of adolescent smokers reported having started at that age or younger.¹⁸ Over half of adolescent smokers (54.6%) said they began at the age of 12 or younger. The graph below presents the ages at which adolescent smokers began smoking.

Graph 41: Ages when all adolescent smokers began smoking, by age group



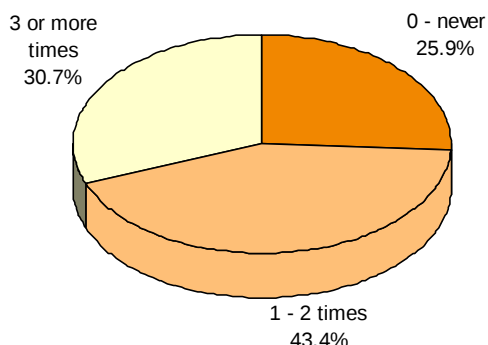
The survey data do not allow us to establish a relation between sex and the age at which adolescents began smoking. No significant statistical difference effectively distinguishes between the sexes in this regard, for any age group, apart from one exception: nearly 10.0% more boys than girls began smoking at the age of 12 (31.7%* of boys versus 22.6%* of girls). This is the age most often identified by boys, while the ages of 12 and 13 were mentioned the most often by girls, in statistically similar proportions.

3.4. Quitting smoking

The high proportion of adolescents who try to quit smoking may be an indicator of their awareness of the harmful effects that tobacco can have on their health or of a positive response to anti-smoking campaigns. When we compare the percentage of adolescents who have tried to quit (74.1% in the 12 months preceding the survey) with the percentage of youth who smoke (66.0%), the survey data suggest that actions intended to prevent adolescents from starting to smoke are less effective than campaigns that promote quitting. The following graph illustrates the number of times adolescents have tried to quit smoking:

¹⁸ Note: Since 19.1% of adults said they began smoking after the age of 17, we must use caution when comparing the ages at which adults and adolescents began smoking. If we considered only those adults who began smoking before the age of 18, the percentages for each age group under 18 would be higher. However, they still do not attain the level for the adolescents and the difference would remain statistically significant.

Graph 42: Number of attempts to quit smoking among adolescents (12 months preceding survey)



The data do not provide statistically significant proportions for the reasons that adolescents quit smoking, except for the following one: chose a healthier lifestyle. 63.7%¹⁹ of ex-smokers cited this reason.

3.5. Exposure to second-hand smoke

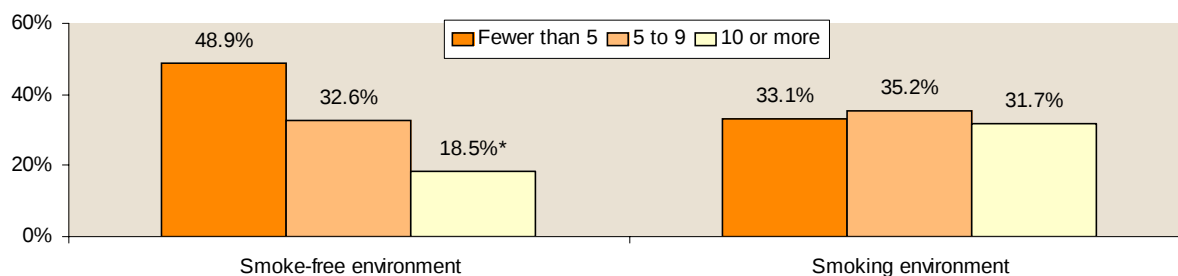
3.5.1. Prevalence of smoking and exposure to second-hand smoke

Exposure to second-hand smoke among smoking and non-smoking adolescents is similar to that of adults. Half of all adolescents reported that they live in smoking environments. However, unlike the adults, equal proportions of smoking and non-smoking adolescents live in smoking and smoke-free environments alike. Furthermore, not all adolescents living in smoking environment are smokers. When we combine adolescent smokers with adolescent non-smokers who are exposed to cigarette smoke, we find that 76.3% of all adolescents are exposed to second-hand smoke. Only 27.0% of non-smoking adults live in a smoking environment. Given that adolescents often tend to imitate their parents, the fact that nearly 50.0% of non-smoking adolescents live in a smoking environment may be considered as one of the reasons that adolescents start smoking.

3.5.2. Number of cigarettes smoked daily and exposure to second-hand smoke

We noted earlier that adult smokers living in a smoke-free environment smoke fewer cigarettes daily than do adults living in a smoking environment. Similarly, adolescent smokers living in a smoke-free environment smoke fewer cigarettes each day than do adolescent smokers living in a smoking environment. The following graph indicates, for example, that far fewer youth smoke 10 or more cigarettes per day when their living environment is smoke-free.

Graph 43: Number of cigarettes smoked daily, by type of environment



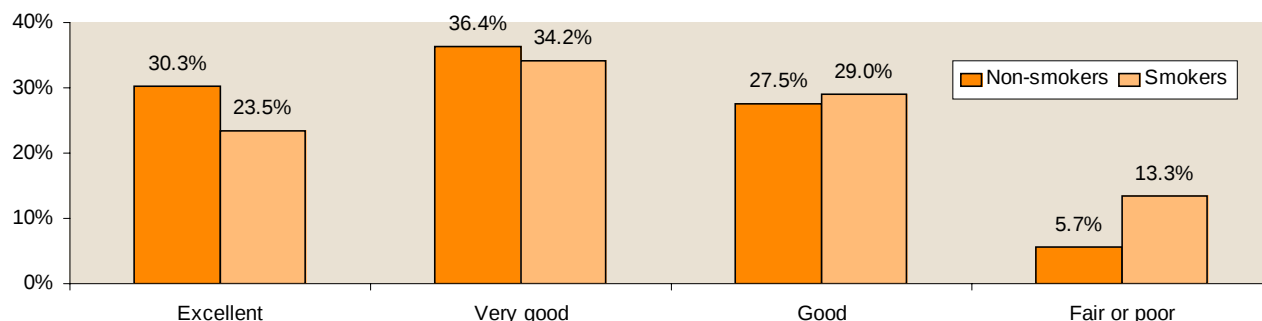
¹⁹ Although this percentage is valid for the population of ex-smokers, it is underlined because the population of ex-smoker adolescents is very low. This statistic thus presents limited validity and must be used with caution.

3.6. Smoking and state of health

3.6.1. Smoking and perceptions of state of health

Like the adults, the adolescents were asked to give their perceptions concerning their state of health. The following graph shows that the category “excellent” was cited more frequently by non-smokers than by smokers. At the other end of the scale, the category “fair or poor” was cited more than twice as often by smokers. The mid-range categories (“very good” and “good”) did not present significant differences between smokers and non-smokers. Our 1.7% margin of error leaves open the possibility that the proportions of smokers and non-smokers in both categories are the same. The following graph summarizes this information:

Graph 44: Perceptions of state of health, by smoking status



3.6.2. Smoking and health problems

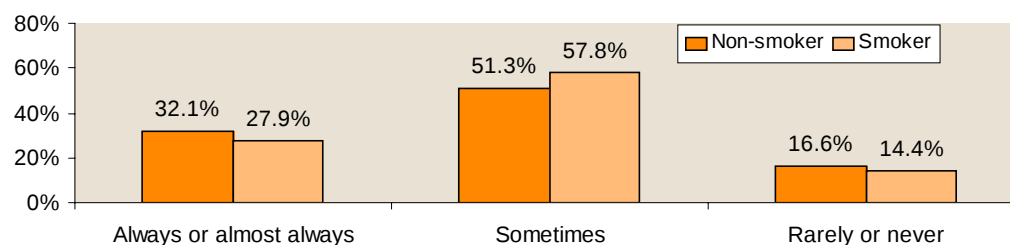
The smoking status of adolescents (smoker or non-smoker) is not related to the rate of illnesses reported for this age category. The data indicate that as many teen smokers as teen non-smokers have illnesses, including respiratory problems.

3.7. Smoking and lifestyle

3.7.1. Smoking and diet

A very small gap separates smokers from non-smokers in terms of diet quality. More smokers (32.1%) than non-smokers (27.9%) reported having a diet that is always or almost always balanced. On the other hand, slightly more smokers (57.8%) than non-smokers (51.3%) said their diet is sometimes balanced. There was no significant difference in the proportions of smokers and non-smokers who reported having a diet that is rarely or never balanced (15.0% in both cases). The following graph presents these minor differences:

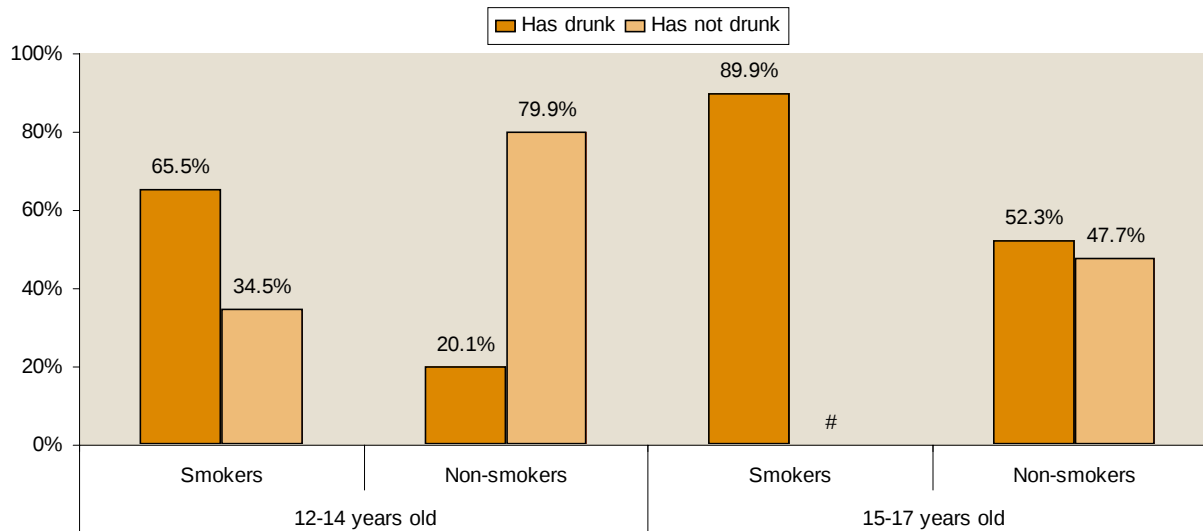
Graph 45: Balanced diet, by smoking status



3.7.2. Smoking and alcohol consumption

There appears to be a strong link between smoking and the consumption of alcohol in the 12 months preceding the survey. The following graph clearly brings out this link.

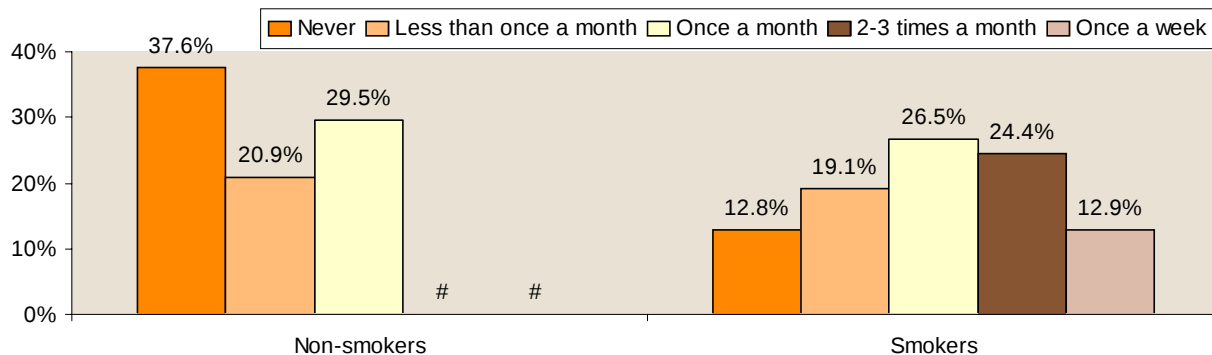
Graph 46: Distribution of alcohol users, by smoking status and age group



The data presented in the above table show that cigarette consumption was related to alcohol consumption in the 12 months preceding the survey. The 12-to-14-year-old and 15-to-17-year-old smokers alike consumed far more alcohol than their non-smoking peers. Also, far more 15-to-17-year-old smokers drank than did 12-to-14-year-olds (89.9% versus 65.5%). This means that while smoking is clearly associated with alcohol consumption, age must also be considered. The relation is stronger among older adolescents, but it is also clearly apparent among the 12-to-14-year-olds.

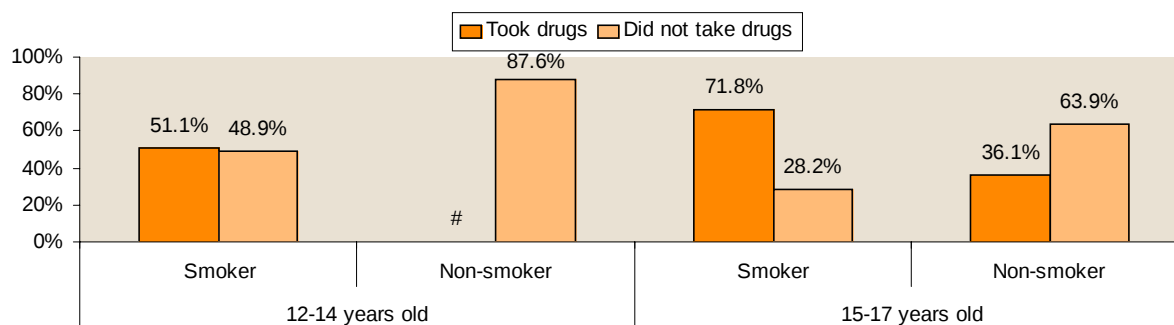
The First Nations adolescents who participated in the survey were also asked how often they consumed five or more drinks on a single occasion. This variable was also found to be related to smoking status. We noted that while as many smokers as non-smokers had five or more drinks on a single occasion once a month, many more smokers did so two or three times a month or once a week than did non-smokers (close to 40.0% of smokers for these two categories combined, versus a statistically non-significant percentage of non-smokers). The following graph summarizes these findings.

Graph 47: Consumption of 5 or more drinks on a single occasion, by smoking status



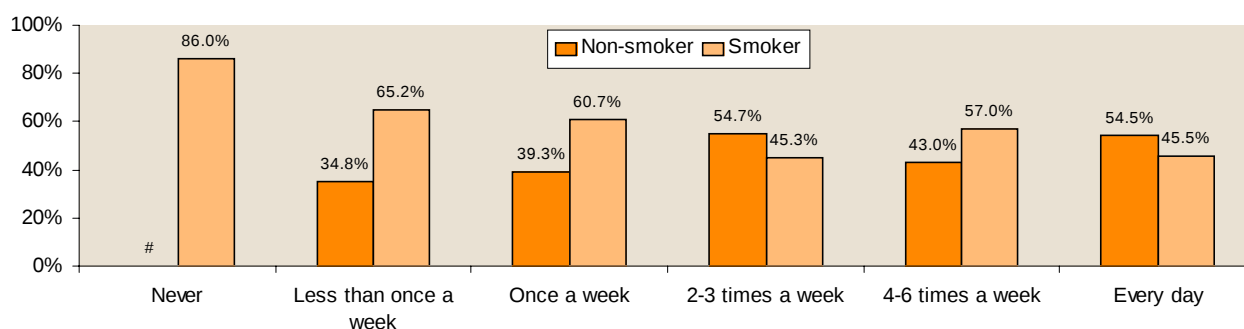
3.7.3. Smoking and drug use

Smoking and drug use appear to be related, but mainly for the 15-to-17-year-olds. In this age group, 71.8% of smokers took drugs in the 12 months preceding the survey, compared to 36.1% of non-smokers. About half (51.1%) of the 12-to-14-year-old smokers took drugs, compared to an insignificant minority of the non-smokers of this age. The graph below depicts these statistics.

Graph 48: Drug users, by smoking status and age group

3.7.4. Smoking and physical activity

According to the statistics obtained through the survey, there is no convincing relationship between smoking and the level of physical activity youth engage in, according to smoking status. However, when we compare them on the basis of frequency of physical activity, a trend can be observed. The following graph is very revealing in this regard:

Graph 49: Smoking status, by level of physical activity

In the above graph, we note a much higher proportion of smokers than non-smokers among adolescents who report lower levels of physical activity (from never to once a week). This gap narrows beginning with the 2 to 3 times a week category. Indeed, smokers come close to forming a clear majority of adolescents who engage very frequently in physical activity (4 to 6 times a week or every day).

When we consider the number of hours spent on physical activities that increase heart and breathing rates, smokers and non-smokers generally present equal proportions in each category for level of physical activity. The portrait changes somewhat when we consider the number of days per week when adolescents engage in physical activity. Here, we find that twice as many smokers (22.4%) as non-smokers (12.2%) engage in physical activity just once a week or less. A slightly higher proportion of non-smokers (24.5%) than smokers (19.3%) engage in physical activity every day.

3.7.5. Smoking and traditional activities

58.7% of adolescents said they engaged in a traditional activity²⁰ in the 12 months preceding the survey, versus 70.8% of adults. This proportion was the same for smokers and non-smokers alike, meaning we cannot establish a relation between this variable and smoking.

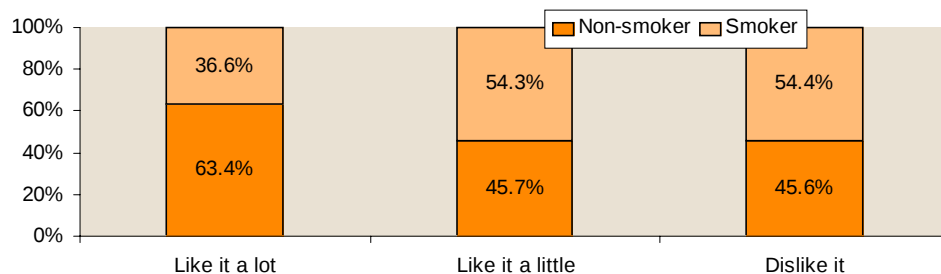
²⁰ The category "Practice of traditional activities" includes hunting, trapping, fishing, snowshoeing and canoeing in the 12 months preceding the survey

3.8. Smoking and education

7.3%* of all First Nations adolescents reported that they do not attend school. This figure presents a high sampling variability, so it should be interpreted with caution. 79.8% of all persons who do not attend school are smokers. When we examine the survey data from a different perspective, we also find that 11.6%* of adolescent smokers do not attend school, versus a statistically non-significant proportion of non-smokers. Age must be taken into consideration in the interpretation of these results since over 90.0% of adolescents who do not attend school are in the 15-to-17 age group.

In looking at feelings about school, we find that smokers account for 36.6% of adolescents who like school very much and for approximately 55.0% of adolescents in each of the two categories 'like school somewhat' and 'dislike school.' These statistics suggest that a lower prevalence of smoking is directly linked to the fact of liking school more. The following graph illustrates these statistics:

Graph 50: Feelings about school, by smoking status



Given the high percentage of adolescents in school, it is impossible to determine the relation between level of schooling with their smoking status (i.e., because they are still in school). However, one of the survey's questions dealt with academic goals. The responses to this question show that 61.9% of non-smokers would like to complete a university degree, versus 43.1% of smokers. The differences between smokers and non-smokers were less pronounced for other academic goals (high school diploma, college or occupational/technical diploma), but the smokers led in each of them.

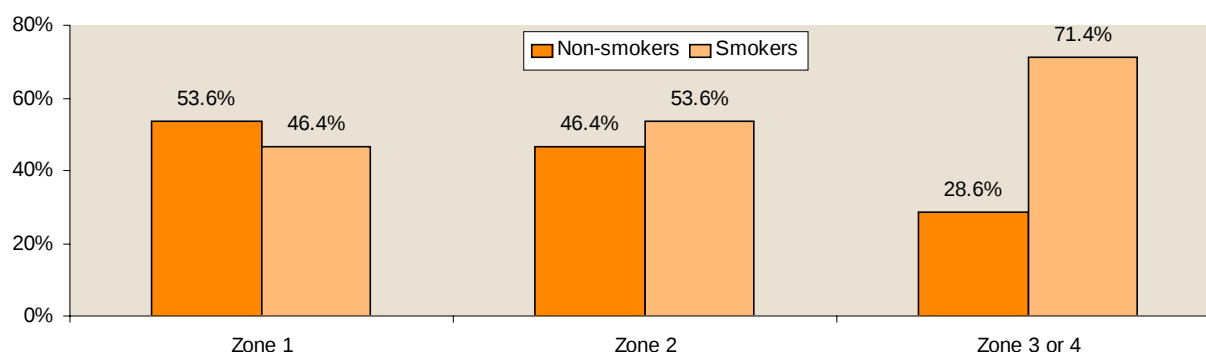
Smokers account for 67.7% of adolescents who have had to repeat a school year, and for 33.9% of those who have never had to repeat a school year. Similarly, smokers account for 61.4% of adolescents who experience learning difficulties at school, and 44.2% of those who have no such difficulties.

These results point to a relatively close relation between education and smoking. But we must not leave out the importance of other factors, such as confidence and self-esteem, which can influence the prevalence of smoking as well as academic performance and goals.

3.9. Smoking and community geographic isolation

NOTE: The statistics given in this section (3.9), especially those for zones 3 and 4, are intended for information purposes only. The small number of communities in these two zones and the high sampling variability between these zones regarding the questions about smoking prevent the establishment of an accurate representative portrait. The comparability of zones is therefore very limited.

Zone 1 has the highest proportion of adolescents. In zones 2 and 3, adolescents account for just over 20.0% of the adolescent population. Smoking profiles also differ among the zones. One apparent trend that emerged involved a link between level of community remoteness and the proportion of smokers; the more isolated the community, the greater the proportion of adolescent smokers. The following graph illustrates this trend.

Graph 51: Smoking status of adolescents, by level of community isolation

The number of cigarettes smoked by adolescent smokers does not appear to be closely related to the level of community isolation. Differences of 6.0% to 8.0% at the most were found between smokers of various quantities of cigarettes from one zone to another. The number of cigarettes smoked daily for each zone is close to that identified for all adolescent smokers (see 1.1.2).

Regarding the ages at which adolescents begin smoking, the survey revealed that in zone 1 and in zones 3 and 4 combined, most smokers begin smoking when they are 13 or younger.²¹ The reverse holds in zone 2, where 42.7% began smoking when they were 12 or younger, whereas the majority (57.3%) began when they were 13 or older.

66.2% of adolescent smokers overall smoke every day. Zones 3 and 4 present a consumption pattern of 67.5%, which comes very close to this average while the percentage is higher in zone 1 (71.5%) and lower in zone 2 (57.3%). For comparison purposes, we note that nearly 80.0% of adult smokers in zones 1, 2 and 4 smoke every day, versus 66.1% in zone 3.

3.10. Smoking and community size

NOTE: The statistics given in this section (3.10) are intended for information purposes only. The small number of communities represented in each of the different categories and the high sampling variability among these categories with regard to the questions about smoking prevent the establishment of an accurate representative portrait. The comparability of zones is thus very limited.

43.4% of the adolescents in our sample live in small or medium communities, while 56.6% live in large communities. 51.7% adolescents in small and medium communities smoke, versus 55.7% of those who live in large communities. With only a 4.0% difference in the percentage of smokers, community size is not related to smoking among youth. This finding is also valid regarding consumption patterns, since there is a difference of only 5.0% in daily and occasional smokers in the two community sizes (e.g., large vs small and medium). Daily smokers account for 70.8% of smokers in small and medium communities, and for 66.0% in large communities.

The number of cigarettes smoked each day also indicates a low correlation between community size and the quantity of cigarettes smoked. The only significant difference in this regard relates to the consumption of 10 or more cigarettes a day; 19.7% of smokers in small and medium communities smoke this amount, versus 24.0% of smokers in large communities.

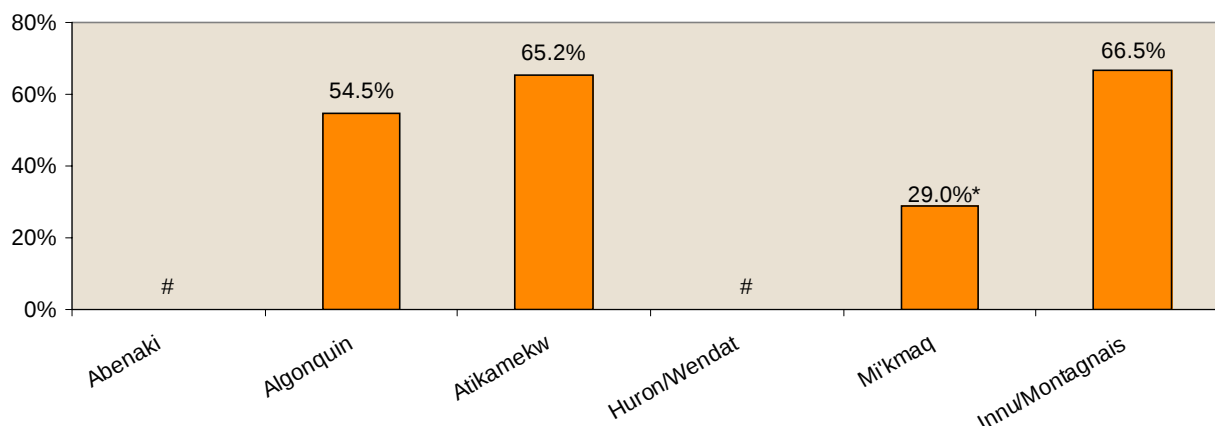
²¹ The ages were broken down into categories in order to achieve a low enough sampling variability that would allow us to consider the data as being reliable.

3.11. Smoking, by Nation

NOTE: Because of high coefficients of variation, it is impossible to produce reliable data for the adolescent population of several Nations. For this reason, the Malecite of Viger, the Mohawks and the Naskapi are excluded from the analysis in this section (3.11) of the report.

The average proportion of adolescent smokers for all Nations combined is 51.2%. But this proportion varies widely among the Nations, as illustrated by the following graph:

Graph 52: Proportions of adolescent smokers, by Nation²²



The data obtained with regard to consumption patterns are not useable because their level of variability is too high. But we can still report that the Algonquin, the Mi'kmaq and the Innu present a high percentage of daily adolescent smokers (71.4%, 72.3% and 74.3% respectively), compared to the average of 66.0% for all nations combined. At the other end of the scale, 51.3% of Atikamekw adolescents smoke daily.

3.12. Smoking and well-being

3.12.1. Emotional, mental, physical and spiritual balance

On average, 31.8% of adolescents reported having a high level of balance, while 57.8% declared an average level of balance, and 10.4%* assessed their balance to be low. A higher proportion of smokers than non-smokers deemed their balance to be high (34.9% versus 29.0%). At the same time, 54.1% of smokers and 61.2% of non-smokers reported their level of balance to be average or low. The margin of error associated with this survey prevents us from indicating that there is a statistical difference between smokers and non-smokers who report a low level of balance (around 10.0%).

3.12.2. Self-esteem

The questionnaire for adolescents included four questions on self-esteem and personal pride to measure their levels of self-esteem. Among all adolescent respondents, 73.6% reported having high self-esteem and 25.6% average self-esteem. An insignificant percentage had low self-esteem. The survey reveals a small but significant gap between smokers and non-smokers. 69.2% of smokers reported having high self-esteem, versus 78.4% of non-smokers. This gap of about 10.0% also appears in the “average” self-esteem category, but this time in favour of smokers, 29.1% of whom reported having average self-esteem versus 21.6% of non-smokers.

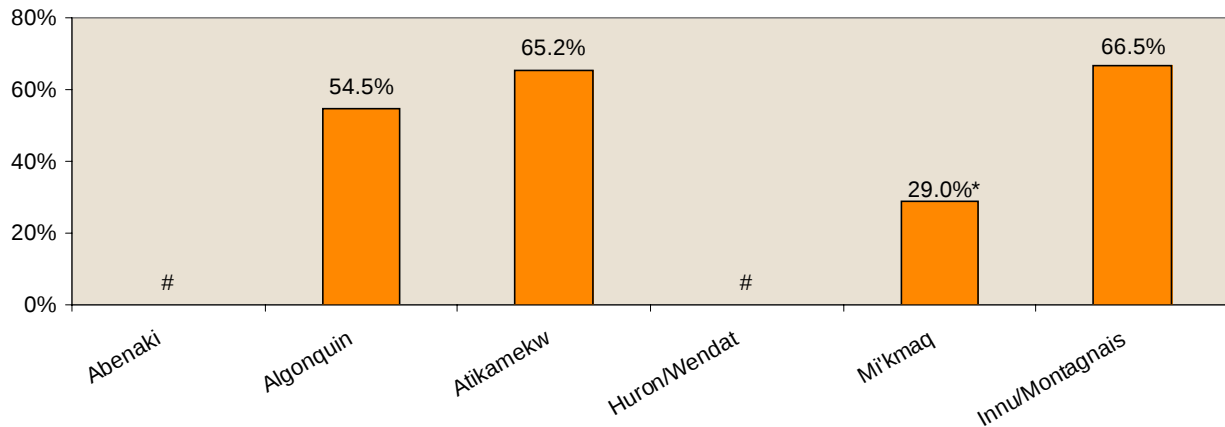
²² Further to the statistics for two Nations which are unusable due to their very high sampling variability (indicated by the # sign), four other values are marked with an asterisk to indicate valid data, which nevertheless present a high sampling variability. A great deal of caution must be used when interpreting these results.

3.12.3. Smoking, suicide and depression

34.7% of adolescents reported at the time of the survey that they had considered committing suicide at some point in their life. Among them, the majority are smokers (61.2%), while 38.8% are non-smokers.

Among adolescents who have attempted suicide, the majority once again are smokers (75.4%), while 24.6%* are non-smokers. The following graph summarizes the data related to smoking and suicide.

Graph 53: Smoking status of adolescents who have considered or attempted suicide



Finally, smokers accounted for 59.7% of adolescents who felt depressed in the year preceding the survey smoke, and for 46.1% of those who did not feel depressed.

Section 4: **Children's exposure to tobacco smoke**

Children's exposure to tobacco smoke

4.1. General situation

The survey documented young children's exposure to tobacco smoke and smoking among pregnant women. The methodology which served to obtain children's answers to the questionnaire involved the use of guided interviews. The survey interviewers presented the questions to a parent or guardian, who answered for the child. The first section dealt with smoking by the mother and other family members during her pregnancy. The parents or guardians reported that just over half of the mothers smoked during pregnancy (50.5%). The survey data also indicate that among the mothers who smoked during pregnancy, 83.8% smoked for the entire 9 months of the pregnancy. Of these, 85.2% smoked every day.

The proportion of women who smoked for only part of their pregnancy was 16.2%*. Although these results present a high sampling variability, the survey still allows us to determine that the vast majority of women who stopped smoking during their pregnancy did so during the first or second trimester. Among all women who smoked while they were pregnant, 76.1% smoked every day and 23.9% smoked occasionally.

59.0% of parents or guardians reported that another household member smoked while the mother was pregnant, whether she smoked or not. In 45.7% of the cases where the mother did not smoke at all during her pregnancy, another member of the household did. The questionnaire did not permit us to determine whether the other smokers smoked in the presence of the mother. But if all these pregnant women were exposed to the smoke of other smokers in their households, it would mean that 73.1% of all pregnant women either smoked or were exposed to second-hand smoke.

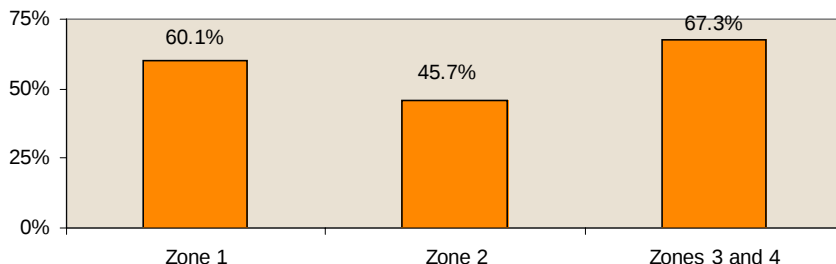
Moreover, 44.5% of parents and guardians said that their homes did not provide a smoke-free environment for the children. 62.3% of children aged 0 to 5 live in a smoke-free home, compared to 49.2% of children aged 6 to 11. Although the survey could not determine whether this drop in percentage is related to the children's age, we still note that the proportion of children living in a smoke-free environment decreases as their age increases.

4.2. Children's exposure to tobacco smoke, by level of community geographic isolation

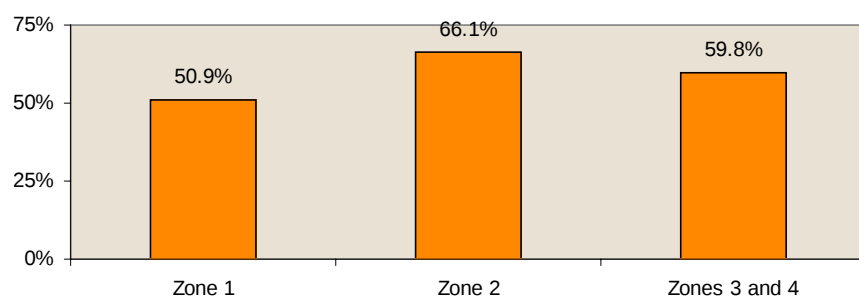
The percentage of mothers who smoked during pregnancy is lower in zone 1 than in the other zones (40.6% in zone 1, versus 59.1% in zone 2 and 62.2% in zones 3 and 4). On the other hand, a slightly higher proportion of women in zones 1 and 2 (76.5% and 79.9% respectively) smoked during pregnancy than did women in zones 3 and 4 (70.7%).

Children in zone 2 are the ones who are the most exposed to second-hand smoke. In this zone, 66.1% of the parents or guardians reported that another household member smoked during the pregnancy, and fewer than half (45.7%) said that their home offers a smoke-free environment. The two following graphs illustrate these data.

Graph 54: Homes that offer a smoke-free environment, by geographic zone



Graph 55: Other household members who smoked during the pregnancy, by geographic zone



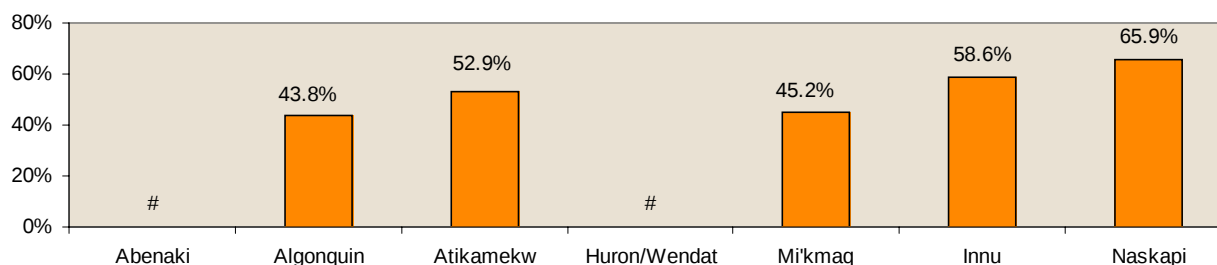
4.3. Children's exposure to tobacco smoke, by community size

A difference of less than 4.0% separates the small, medium and large communities in the proportions of children whose mothers smoked when pregnant. A difference of barely 6.0% separates the communities in the proportions of other household members who smoked during the mother's pregnancy. More children in the medium communities enjoy a smoke-free environment, however, at 61.3% compared to 50.4% and 55.0% in the small and large communities respectively.

4.4. Children's exposure to tobacco smoke, by Nation

Finally, we were able to determine that there are considerable differences among the Nations with regard to smoking by pregnant women and children's exposure to second-hand smoke. More than half of Naskapi, Innu and Atikamekw mothers smoked during pregnancy (65.7%, 58.6% and 52.9% respectively), followed by Algonquin mothers (43.8%) and Mi'kmaq mothers (45.2%). The other Nations posted percentages that are not statistically significant. Huron/Wendat mothers obtained the highest percentage (78.9%) of mothers who did not smoke at all during their pregnancy.

Graph 56: Mothers who smoked during pregnancy, by Nation

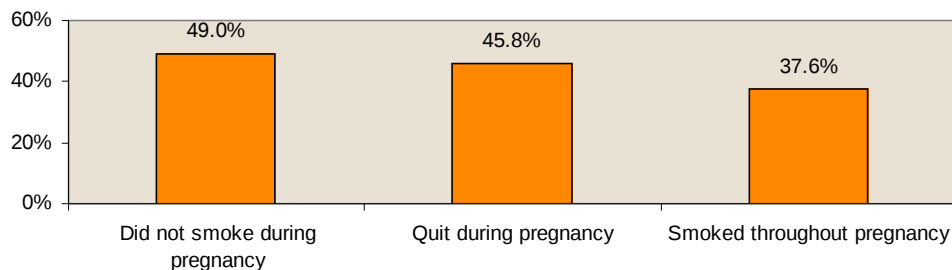


Regarding exposure to second-hand smoke, the Abenaki obtained the highest proportion of homes that do not offer a smoke-free environment for the children (60.0%), followed by the Naskapi (51.8%), the Innu (51.7%), the Atikamekw (45.2%), the Mi'kmaq (38.6%) and the Algonquin (38.3%).

4.5. Children's health and smoking by mothers during pregnancy

The children's health was reported to be excellent or very good by 44.3% and 33.3% of the parents or guardians. Just over 20.0% of parents or guardians said they consider their children's health to be good, fair or poor. The following graph presents the proportion of parents or guardians who consider their children's health to be excellent according to whether mothers smoked or not when pregnant.

Graph 57: Proportions of parents or guardians who consider their children to be in excellent health, according to smoking by mothers during pregnancy



We note an inverse relationship between the use of tobacco by mothers and perceptions of children's health; the latter improves as the former declines. Likewise, the perception of excellent health is higher than the average (44.3%) for children whose mothers did not smoke, while it is lower than the average for children whose mothers smoked throughout pregnancy.

4.5.1. Children's health problems and smoking among parents or guardians

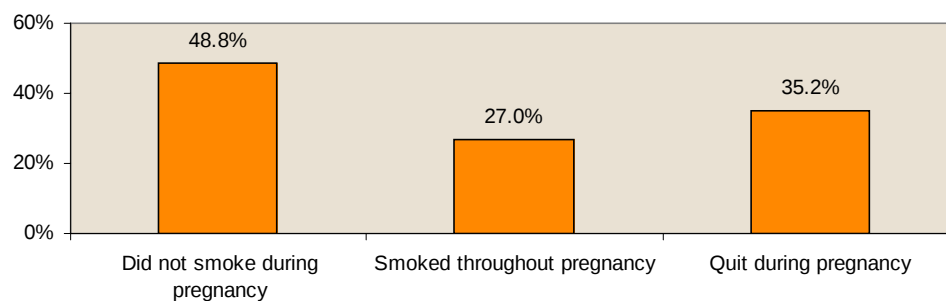
Among all the children about whom the parents or guardians provided information, 46.6% had various health problems. The survey documented the occurrence of illnesses that are fairly closely related to tobacco, such as asthma and chronic bronchitis. These two illnesses respectively affect 17.0% and 7.3%* of the children on average.

The survey data reveal that 56.7% of all children with chronic bronchitis live in a smoking environment. The relationship between environment and this illness is weak, but it is nevertheless statistically significant. On the other hand, 39.1% of all children with asthma live in a smoking environment. This proportion suggests that the influence of the environment on the development of asthma is significant. There are numerous causes of asthma, which may be present in various combinations. For example, ambient dust in communities with unpaved roads may also have an important influence on the development and severity of this illness. On the other hand, it may be that households with an asthmatic child have chosen to limit or eliminate tobacco use in the presence of the child. If this were so, the smoking or non-smoking status of the environment would not by itself explain the child's state of health; rather, the child's state of health would help to explain whether the environment was smoking or non-smoking.

4.5.2. Smoking and breastfeeding

38.7% of all First Nations children were breastfed. An interesting portrait of breastfeeding emerges when we consider the statistics on smoking among mothers during pregnancy. Equal proportions of women who did not smoke at all during pregnancy breastfed and did not breastfeed (nearly 50.0% in either case). But only 27.0% of women who smoked throughout pregnancy breastfed, while 35.2% of women who quit smoking during pregnancy breastfed.

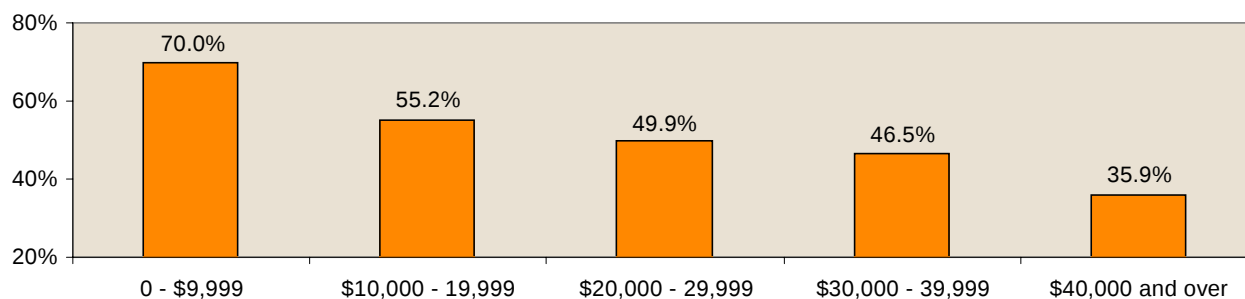
Graph 58: Proportions of breastfed children, according to smoking by mothers during pregnancy



4.6. Income, social situation and smoking among parents and guardians

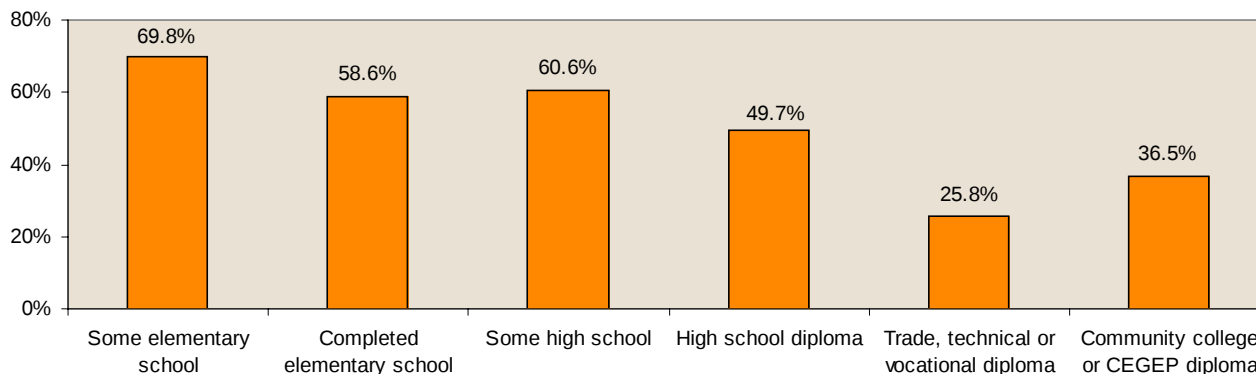
The survey data indicate that household income is related to smoking by mothers during pregnancy. Households with an annual income under \$9,999 presented the highest proportion of mothers who smoked during pregnancy (70.0%), while households with an annual income of \$40,000 or more presented the lowest proportion (35.9%).

Graph 59: Proportions of mothers who smoked during pregnancy, by annual household income



Because income is often closely related to the schooling level, the results follow the trend observed earlier concerning the relationship between women's schooling level and the percentage of women who smoke during pregnancy. As the following graph indicates, the percentage of mothers who smoked during pregnancy is the highest among those with the least education:

Graph 60: Proportions of mothers who smoked during pregnancy, by schooling level



In considering the fathers' schooling level, we find the highest proportions of mothers who smoked during pregnancy among those whose spouses did not finish elementary or high school or completed elementary school only.

The survey also reveals that the lower the household income, the more likely it is that another household member smoked while the mother was pregnant. Another household member smoked during the mother's pregnancy in 70.2% of households with an annual income under \$9,999, versus 51.5% in households with an annual income of \$40,000 or more.

Furthermore, the lower the income bracket, the smaller the proportion of children who live in a smoke-free home. 44.5% of children whose parents or guardians earn less than \$19,999 per year live in a smoke-free home, versus an average of 60.1% of children whose parents or guardians earn between \$20,000 and \$39,999 and 70.8% of children whose parents or guardians earn \$40,000 or more per year.

Section 5: Summary and conclusion

Summary and conclusion

This report has presented an overall portrait of smoking among the First Nations in the Quebec region. The results that served to establish this portrait are aptly summarized by the following data:

- 55.0% of First Nations adults and 51.2% of First Nations adolescents smoke.
- The 15-to-17 age group encompasses the highest proportion of adolescent smokers, while the highest proportion of adult smokers is found in the 18-to-34 age group. Smoking is thus especially prevalent among persons aged 15 to 34.
- The non-traditional use of tobacco is a daily habit for at least 78.0% of adult smokers and 66.0% of youth smokers.
- Young smokers (adolescents aged 15 to 17 and adults aged 18 to 34) smoke fewer cigarettes each day than adults in the older age groups, who make up the highest percentage of heavy smokers.
- Overall there is very little difference between the sexes (adolescents and adults alike) regarding prevalence of smoking, consumption patterns and quantity of cigarettes smoked daily.
- Although 45.0% of adults reported that they are non-smokers, 63.1% of them are ex-smokers. In other words, only 16.6% of all First Nations adults have never smoked.
- 49.0% of adult smokers began smoking at age 15 or younger. 56.4% of adolescent smokers reported having started when they were 12 or younger. If we include those who started smoking at age 13, the proportion rises to 76.5%.
- 9.6% of adult smokers began smoking when they were young children (aged 5 to 11), compared to 28.0% of adolescent smokers.
- 58.6% of adult smokers tried to quit in the 12 months preceding the survey, compared to 74.1% of adolescent smokers.
- Adopting a healthier lifestyle is the reason cited by the vast majority of adults and adolescents who said they had tried to quit smoking in the 12 months preceding the survey.
- 67.2% of adults and 76.3% of adolescents are exposed to cigarette smoke, either because they themselves smoke or because other household members do.
- Adult and adolescent smokers who live in non-smoking environments tend to smoke fewer cigarettes than those who live in smoking environments.
- Smoking affects the health of young adults in particular; 65.8% of 18-34 year-olds and 51.9% of 35-54 year-olds with health problems are smokers. For Elders, age is more closely related to health problems than tobacco use.
- Adult smokers generally have a less balanced diet than ex-smokers and people who have never smoked.
- Smoking is closely related to frequency of alcohol consumption and frequency of consumption of more than 5 drinks on a single occasion. Adolescents and adults who smoke are more highly represented in these two categories.
- A very strong majority of adult and adolescent (age 15 to 17) drug users are smokers.
- The majority of adolescents who never or rarely engage in physical activity are smokers.
- Among adults, there is a relationship between education and the proportion of smokers, which decreases as the schooling level increases (from high school incompleteness to university graduation). Regarding adolescents, the survey shows that those who like school are less likely to smoke than those who do not like it very much or who dislike it.
- There is a high variability in the proportion of smokers and frequency of consumption, according to community geographic isolation and size, and even more so according to Nation.
- There is clearly a close relationship between individual income and smoking. Among adults, we find that the proportion of smokers decreases as income increases; 67.2% of adults with very low incomes smoke, versus 39.7% of adults who earn \$40,000 or more.
- Among adults, a high level of well-being is associated with a lower level of smoking. Similarly, among adolescents, a high level of self-esteem is associated with a lower percentage of smokers.
- Among adolescents and adults alike, higher proportions of smokers than of non-smokers have had suicidal thoughts or have attempted suicide.



This portrait points directly to the need for anti-smoking programs (including activities in prevention, intervention and health promotion) that are adapted to the realities of the First Nations and are based on a holistic vision of health. This challenge can be met by organizations such as the FNQLHSSC and by existing Aboriginal programs such as the First Nations and Inuit Tobacco Control Strategy (FNITCS), as well as programs currently being developed. These programs deserve specific support and adequate funding in order to bring the First Nations up to a level of health equal to that enjoyed by the citizens of Quebec and Canada.

Section 6: Recommandations



Recommendations

- Considering the results of the survey on the prevalence of tobacco in First Nations communities:

and

- Considering the various health determinants that influence tobacco use among First Nations (low income, low schooling level, dropping out of school, drug and/or alcohol use, low level of physical activity, less-balanced nutrition):

- Tobacco control must become a health priority for authorities, community workers and workers, and governmental authorities.
- New tobacco cessation and prevention strategies adapted to First Nations (language, culture, literacy level), self-managed and self-administered by the communities should be developed by First Nations, thus ensuring their efficiency;
- In order to culturally adapt tobacco prevention and cessation messages, as well as health promotion messages, recurring and renewed additional financial resources must be invested by governments;
- Efficient collaboration and communication must be maintained and reinforced between communities, First Nations organizations, Aboriginal health associations and federal and provincial authorities in order to ensure the efficiency of the new tobacco prevention and cessation strategies and the health promotion strategies.

- Considering that the prevalence of tobacco is higher among First Nations than in the general population:

First Nations communities must have a fair access to the strategies offered to the general Canadian population and fair funding to carry out their own strategies. Programs must also be culturally-adapted by First Nations.

Concerning the development of human resources for tobacco control and First Nations characteristics:

- The development of human resources in the communities should become a priority in order to design and apply health education community programs in the population and to administer tobacco prevention and control strategies;
- At the community level, tobacco control committees could be created, for example. They would be in the best position to adapt the strategies to the reality of communities, thus ensuring their success.

Concerning the necessary tobacco prevention and health promotion actions and the target groups and groups most affected by tobacco:

- Considering the individuals' multiple living environments and the various groups vulnerable to tobacco:

- Prevention and health promotion actions should be carried out in various living environments, such as schools, public places, workplace, homes, etc, and target the groups most vulnerable to tobacco.

- Considering that 51.2% of adolescents smoked at the time of the survey and that more than one quarter of them started smoking during childhood (5 to 11 years old):

- Tobacco prevention and health promotion strategies should ensure these adolescents are reached directly in their living environments;

- Parental figures and youth workers should be fully involved in all the tobacco prevention and control strategies and health promotion strategies.

- Considering that a majority of pregnant women have smoked during their pregnancy or do not smoke but live in a smoking environment:

Health education strategies must target this specific population and focus on women's overall health. It would be advisable that messages be oriented towards action, be non blaming, and be disseminated directly in pregnant women's living environments.

- Considering that several ex-smokers indicated a desire for a healthy lifestyle as a reason to quit smoking:

Health promotion strategies must be maintained and reinforced in order for a greater number of people to wish for a healthy lifestyle.

Concerning second-hand smoke:

- Considering that a great proportion of smokers and non-smokers live in smoking environments and that second-hand smoke is harmful:

Measures should be implemented, maintained and reinforced to raise awareness among community members, workers and authorities on the harm and risks for their health and that of their family associated with living and working in a smoking environment.



Concerning emotional well-being:

- Considering that tobacco may be associated to a low level of emotional, mental, spiritual and physical balance:

- Psychological and psychosocial health promotion strategies should be implemented, maintained and reinforced by the communities themselves. Moreover, additional resources should be allocated to this effect;
- Efficient tobacco prevention requires the involvement of several players from various areas of health. These services should be developed and delivered by First Nations, they should meet the communities' specific needs, and they should be developed based on a holistic approach.

For future consideration:

- In order to better adapt tobacco prevention and control strategies, additional surveys carried out by First Nations should document: predisposing, enabling and reinforcing factors for the adoption of healthy lifestyle habits. These surveys could, for example, enhance the comprehension of First Nations perceptions of health.
- The current tobacco prevention and control strategies, as well as the health promotion strategies must be assessed in order to improve them and identify the obstacles to their success. Sufficient funding must allow First Nations to carry out these evaluations themselves.
- A review of community, regional and national tobacco control initiatives could be used so that new initiatives can build upon the most successful ones in certain communities. This approach, called "benchmarking", is increasingly applied to the development of programs and strategies, notably in the health sector.



Bibliography

Brant Castellano, Marlene (2004)

"Ethics of Aboriginal Research," Journal of Aboriginal Health, January 2004, 120: 98-113.

Canada (2004)

Band Classification Manual. Corporate Information Management Directorate and Information Management Branch, INAC.

Canada (2003)

A Statistical Profile on the Health of First Nations in Canada. First Nations and Inuit Health Branch, Health Canada.

Canada (2003)

Survey Methods and Practices. Social Survey Methods Division, Statistics Canada.

Canada (1999)

Statistical Report on the Health of Canadians (prepared for the Health Ministers' meeting by the Federal, Provincial and Territorial Advisory Committee on Population Health).

Elias, B. and O'Neil, J. (2004)

"The Politics of Trust and Participation: A Case Study of Building University and Community Capacity to Develop Health Information Systems in a First Nations Context," Journal of Aboriginal Health, January 2004, 120: 68-78.

FNQLHSSC (2001)

First Nations Childcare Services Regional Report. First Nations Early Childhood Sector.

FNQHLSSC (1999)

Final Report on the First Nations Regional Health Survey: Analysis and Interpretation – Quebec Region.

FNQLHSSC (1997)

Final Report on the First Nations Regional Health Survey: Data Capture – Quebec Region.

First Nations Centre of NAHO (2004)

What First Nations Think About Their Health and Health Care: Summary of Findings.

First Nations Centre of NAHO (2003)

Bringing Meaning to Numbers: Analysis, Interpretation and Dissemination of the First Nations Regional Longitudinal Health Survey 2002-2003. Technical Proposal for 2004-05 to First Nations and Inuit Health Branch.

First Nation and Inuit Regional Health Survey National Steering Committee (1999)

First Nations and Inuit Regional Health Survey: National Report.

Flaherty, D. H. (2002)

A Privacy Impact Assessment of the First Nations and Inuit Regional Longitudinal Health Survey (prepared for the First Nations Centre of the National Aboriginal Health Organization).

Gilles, A. (1994)

Éléments de méthodologie et d'analyse statistique pour les sciences sociales. McGraw-Hill: Montreal.

Goss Gilroy Inc for the FNC (2002)

Sampling plan for the First Nations and Inuit Regional Longitudinal Survey.

Lavoie, J.G. (2004)

"Governed by Contracts: The Development of Indigenous Primary Health Services in Canada, Australia and New Zealand," Journal of Aboriginal Health, January 2004, 120: 6-24.

Lemchuk-Favel, L. and Jock, R. (2004)

"Aboriginal Health Systems in Canada: Nine Case Studies," Journal of Aboriginal Health, January 2004, 120: 28-51.

Maar, M. (2004)

"Clearing the Path for Community Health Empowerment: Integrating Healthcare Services at an Aboriginal Access Centre in Rural North-Central Ontario," Journal of Aboriginal Health, January 2004, 120: 54-64.

Schnarch, B. (2004)

"Ownership, Control, Access and Possession (OCAP) or Self-Determination Applied to Research: A Critical Analysis of Contemporary First Nations Research and Some Options for First Nations Communities," Journal of Aboriginal Health, January 2004, 120: 80-95.



Personnel involved in the FNRLHS – Quebec Region

FNQLHSSC personnel

Gill, Guylaine
Executive Director

Gros-Louis, Nadine
Health Coordinator

Gros-Louis McHugh, Nancy
FNRLHS Research Coordinator

Carbonneau, Étienne
Technical Research Assistant

Côté, Mathieu-Olivier
Technical Research Assistant

Garant, Sophie
Technical Research Assistant

Petitpas, Judith
Technical Research Assistant

Carbonnell, Gary
Executive Director (1994-2005)

Dussault, Marie-Josée
FNRLHS Technical Coordinator (2000/02)

Bizier, Bruno
Technical Research Assistant (2002)

Delisle, Sara
Technical Research Assistant (2004-2006)

Dickey, Daniel
Technical Research Assistant (2003-2005)

Giguère, Karen
Technical Research Assistant (2003-2004)

Lacasse, Patrice
Technical Research Assistant (2002/03)

Mapitché, Johanne
Technical Research Assistant (2002)

Picard, Jules
Strategy and Policy Sector Coordinator
(2003-2006)

Consultants

Dr. Thibault, Jacques
Research consultant

Simon, Linda
Interviewers training consultant

Paul, Martin
Computer consultant

Tanguay, Julie
Communications consultant

Research Committee

Courtois, Gilbert
Heritage, culture and land-Masteuiash

Jourdain, Nicole
Chief-Aboriginal nurses

Lejeune, Pierre
Observer for the Crees

Martin, Carry
Native Women Association

Picard, Jules
Strategy and Policy Coordinator

Picard, Lison
Health Director-Wendake

Picard, Richard
Health Director-Wendake

Prudence, Hannis
Native Women Association

Torrie, Jill
Observer for the Crees

Whiteduck, Lionel
Health Director-Kitigan Zibi

Interviewers

Betsiamites

Ashini, Annie
Hervieux, Nina
Picard, Lauréat
St-Onge, Caroline

Eagle Village/Kipawa

Moore Fortin, Noella

Essipit

Ross, Stéphanie
Proulx, Jocelyne

Gesgapegiag

Douglas Martin

Kanesatake

Filipelli, Dina
Harding, Diane
Lamouche, Michel
Meilleur, Patricia
Nicholas, Wendy
Pilon Oke, Diane

Kawawachikamach

Shecanapish, Joseph
Uniam, Rebecca
Vachon, Sheyenne

Kitigan Zibi

Miljour, Angela
Whiteduck, Carole

Lac Simon

Aneshenapeo, Simon
Papatie, Marie-Josée
Cheezo, Shirley

Listuguj

Burnaby, Karen
Metallic, Kita
Metallic, Rose-Marie
Michel, Brandon

Malécites de Viger

Jenniss, Dave
Nicholas, Annie
Nicholas, Françoise
Perron, Diane

Manawan

Moar, Franco
Ottawa, Dorian
Ottawa, Jeffrey
Quitish, Florian

Mashteuiatsh

Benjamin Courtois, Pierrette
Benjamin, Paul
Larouche, Pierre
Launière, Annie
Raphaël, Élisabeth
Raphaël, Linda
Robertson, Nadia

Natashquan

Malec, Agnes
Mestenapeo, Lyne
Shipatawao, Dolorès
Wapistan, Estelle
Wapistan, Nicole

Odanak

Watso, Thérèse

Opitciwan

Awashish, André
Awashish, Jean-Guy
Awashish, Louise Denise
Chachaï, Maurice

Pakua Shipi

Bellefleur, Karine
Bellefleur, Martine

Pikogan

Kistabich, Maurice
Mckenzie, Jason
Mowatt, Salomon
Rankin, Steeve

Timiskaming

Chevrier, Christine
Chief, Shelley
King, Lydia
Lavigne, Daniel

Uashat / Mani-Utenam

Rock, Silvestre
Salvador, Jean-Pierre

Unamen Shipu

Mestenapeo, Cindy

Wemotaci

Boivin, Aline
Boivin, Lucie
Petiquay, Marie-Claude

Wendake

Duchesneau, Nancy
Gagné, Nathalie
Gros-Louis, Louise
Laframboise, Johanne
Picard, Thérèse
Picard, Valérie
Savard, Diane
Sioui, Sonia

Wôlinak

Deshaies, Liliane

Wemindji

Georgekish, Dorlene
Visitor, Ella

Whapmagoostui

Masty, Charlotte
Sheshamush, Virginia

Nemiscau

Brown, Lyndsay
Joly, Carolina

Sheshatshiu

Fidler, Barbara
Grégoire, Winnie
Hart, Paulette

Quebec City

Fontaine, Bernadette
McKensie, Audrey-Lise
Plante, Élise
Régis, Victoria
Riverin, Linda
Savard, Diane
Sioui, Gilbert

Montreal

Crane, Tatum
Cardoso, Tartiana
Gockey, Marie
Picard, Doreen
Crane, Brenda
Rousseau, Julie

Val d'Or

Kistabish, Oscar



**COMMISSION DE LA SANTÉ ET DES SERVICES SOCIAUX
DES PREMIÈRES NATIONS DU QUÉBEC ET DU LABRADOR**

**FIRST NATION OF QUEBEC AND LABRADOR
HEALTH AND SOCIAL SERVICES COMMISSION**

CSSSPNQL/FNQLHSSC 250, Place Chef Michel-Laveau, Wendake (Québec) G0A 4V0
Téléphone/Telephone: (418) 842-1540 Télécopieur/Fax: (418) 842-7045
www.cssspnql.com