Health and Health-Related Behaviours among Young People

Newfoundland and Labrador Report

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OUTLINE

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1 INTRODUCTION

Knowledge about young people's health-related attitudes and behaviours and the factors that influence them is critical for informing the development of effective health education and school health promotion policy, programs and practice. The Social Program Evaluation Group (SPEG) at Queen's University, Faculty of Education has been collecting national data on these issues every four years from students aged 11 to 15 (Grades 6 through 10) through the Health Behaviour in School-aged Children (HBSC) study since 1990. The purpose of the HBSC study is to gain insight about and increase our understanding of young people's health, well-being and health behaviours within their social contexts.

There are over 40 HBSC participating countries and regions, in Europe, North America, and Israel. The HBSC researchers come from a variety of disciplines and theoretical perspectives. The Canadian HBSC team is based at Queen's University, with co-investigators from the University of New Brunswick, McGill University, the University of British Columbia, and the University of Waterloo. The team includes researchers from the areas of community health and epidemiology, education, psychology, educational psychology, kinesiology, nursing, and public health and health systems. HBSC is sponsored by the World Health Organization (WHO), funded nationally by the Public Health Agency of Canada and Health Canada, and supported by the Pan-Canadian Joint Consortium for School Health (JCSH).

The primary purpose of the HBSC study in Canada is to contribute to a better understanding of school-aged young people's health and well-being and to inform education and health policy programs at the provincial/territorial, national and international levels. The HBSC study collects data that enables researchers, policy-makers and practitioners to gain insights into young people's health-related attitudes and behaviours and to examine the inrelationships among health behaviours and between health behaviours and contextual factors.

The objectives of the HBSC network are consistent with this primary purpose and have been developed over the 30-year course of the study through collaboration between Canadian and HBSC international researchers and policymakers:

- to initiate and sustain national and international research on health behaviour, health and well-being and their social and physical contexts in school-aged children
- to contribute to theoretical, conceptual, and methodological development in specific areas of adolescent health research
- to contribute to the knowledge base in these research areas
- to monitor and to compare health and health behaviours and social and physical contexts of school-aged children in member countries through the collection of relevant data
- to disseminate findings to the relevant audiences including researchers, health and education policy makers, health promotion practitioners, teachers, parents and young people
- to develop partnerships with relevant external agencies in relation to adolescent health to support the development of health promotion with school-aged children. This occurs at provincial/territorial, national and international levels.
- to promote and support the establishment of national expertise on health behaviour and on the social and environmental contexts of health in school-aged children
- to establish and strengthen a multidisciplinary international network of experts in this field

- to provide an international source of expertise and intelligence on adolescent health for public health and health education

The national 2014 HBSC sample is comprised of more than 30,000 students. The survey was administered to students in classes in all 13 Canadian provinces and territories. The 2014 survey was the second cycle of data collection under which the nationally representative sample was expanded to include representative samples at the provincial and territorial level for most provinces and territories. In Newfoundland and Labrador and most other school jurisdictions, school classes were selected through stratified systematic sampling. The survey administration in Newfoundland and Labrador was carried out by classroom teachers under a set of guidelines provided by the research team.

The results are presented for 4 groups, Grade 6-8 males, Grade 6-8 females, Grade 9 and 10 males, and Grade 9 and 10 females. Significant differences between groups are identified through the Z-test for Proportions-Independent Groups with a 95% confidence interval.

DEMOGRAPHICS

Table 1 details the sample size for the HBSC study. There were 1,280 Grade 6-8 and 837 Grade 9-10 Newfoundland and Labrador students (2,117 total) who took part in the study. As with the rest of the country, more Grade 6-8 students than Grade 9-10 students participated. At the Grade 9-10 level, more females took part than males.

TABLE 1 Breakdown of the sample, by grade and gender

	Males	Females	Total
Grades 6 to 8			
Newfoundland	653	627	1,280
Canada	7,359	7,606	14,965
Grades 9 and 10			
Newfoundland	386	451	837
Canada	6,403	6,524	12,927

FAMILY STRUCTURE

A slightly lower percentage of Grade 6-8 students in NL reported living with both of their parents compared to Grade 6-8 students in the rest of Canada, while the reverse was true for Grade 9-10 students.

TABLE 2 Family structure (%)

	Grades 6 to 8		Grades 9 and 10	
	NL	**Canada**	**NL**	**Canada**
Living with both parents	70	73	70	68
Living with mother and partner	7	5	9	7
Living with father and partner	1	1	2	2
Living with mother only	15	14	14	15
Living with father only	2	3	2	4
Other	6	4	3	4

Outline of Report

This report presents key findings from the 2014 cycle of the HBSC survey in Newfoundland and Labrador (NL), and includes chapters on the following topics:

- Contextual Influences
- Mental Health
- Health Promoting Behaviours
- Health Risk Behaviours

2 CONTEXTUAL INFLUENCES

Home

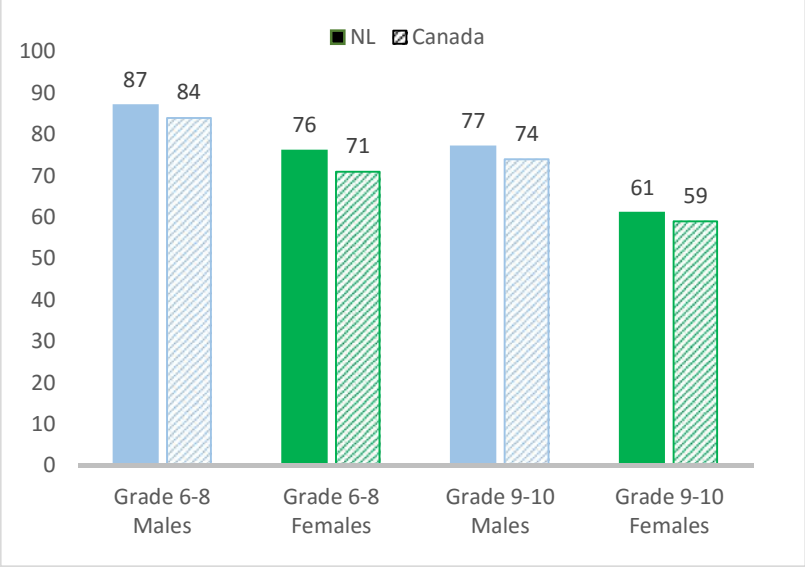
Familial relationships play a significant role in socialization and in influencing young people's actions, values, and beliefs (Parke & Buriel, 2006). Having strong parental relationships has been linked to better physical well-being (Inchley, Todd, Bryce, & Currie, 2001; Mazur, Scheidt, Overpeck, Harel, & Molcho, 2001), decreased substance use (Bremner, Burnett, Nunney, Ravat, & Mistral, 2011; Cavalca et al., 2013; Osgood et al., 2013), better mental health (Leone Ray, & Evans, 2013), and lowered likelihood of youth suicide (Borowsky, Ireland, & Resnick, 2001).

Although peers significantly influence adolescents' risk-taking behaviours such as smoking and substance use (Cavalca et al., 2013; Osgood et al., 2013; Simons-Morton & Chen, 2006), there is an inextricable connection between parents and adolescent risk-taking behaviours (Bremner et al., 2011). Moreover, parents who have strong relationships with their children can buffer the influence peers have on health risk behaviours (Bremner et al., 2011).

PARENTS ARE UNDERSTANDING

For both NL and the rest of Canada, younger students reported their parents as being more understanding than did older students. Males were more likely to report understanding parents than were females. Students in NL were more likely to report their parents as understanding than were students in the rest of Canada.

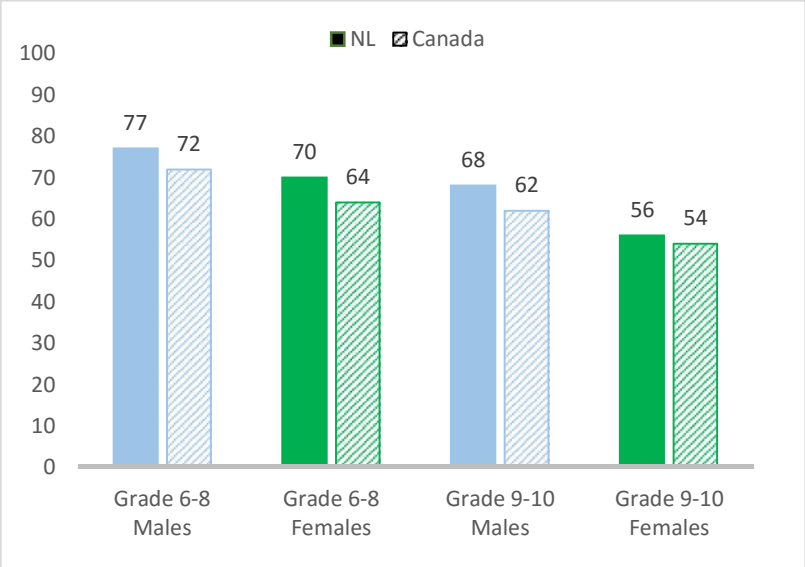
FIGURE 1 **Students who reported that they were understood by their parents, by grade and gender (%)**



TALKING TO PARENTS ABOUT PROBLEMS

Similarly, younger students and males were more likely to indicate that they could talk to their family about problems, regardless of location, compared to older students and females. With the exception of Grade 9-10 females, students in NL were more likely to report that they could talk to their family about problems than were students in the rest of Canada.

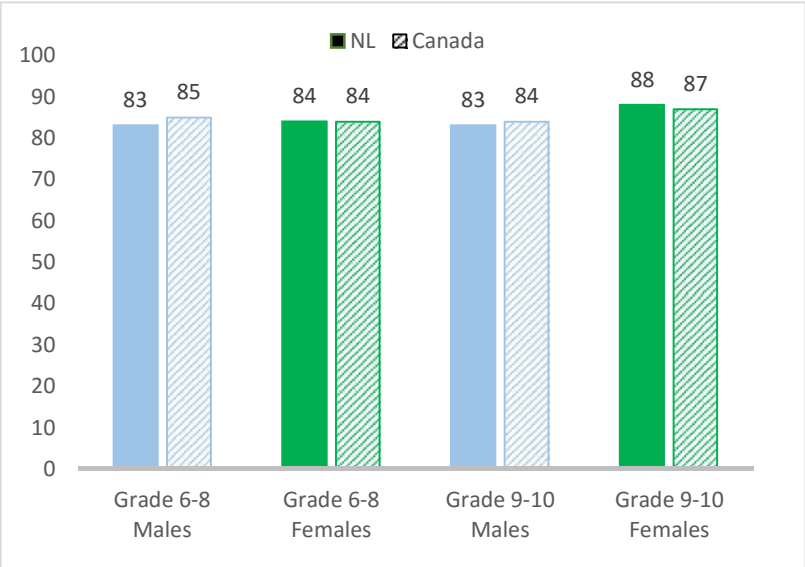
FIGURE 2 **Students who reported that they could talk about their problems with their families, by grade and gender (%)**



COMPUTER OWNERSHIP

There were minimal geographic and gender differences regarding family computer ownership. Younger females were less likely to report that their family owned two or more computers than were older females. Responses of male students were unrelated to grade level.

FIGURE 3 **Students who reported their family owned 2 or more computers, by grade and gender (%)**



School

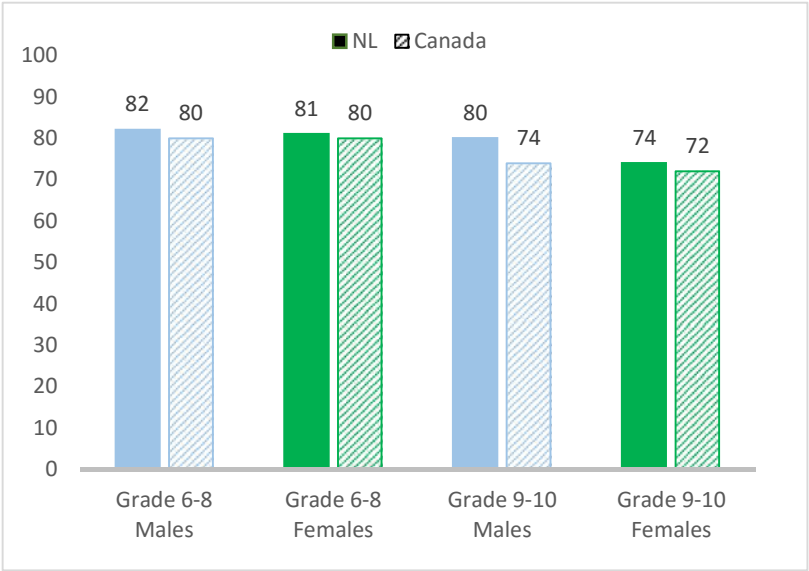
Traditionally, schools are viewed as being important for students' academic success, but they also significantly influence adolescent development and social-emotional health and well-being (Anderman, 2002; Kidger, Araya, Donovan, & Gunnell, 2012; McLaughlin, 2008; Wells, Barlow, & Stewart-Brown, 2003). Often, schools and school communities set out to promote students' health and well-being through the curriculum, the physical environment, and the school's climate (Weare, 2000).

Students who have positive interactions and relationships with teachers and peers are less likely to engage in high-risk behaviours, which have negative effects on their health (Denny et al., 2011; Wold, Samdal, Nutbeam, & Kannas, 1998). Student engagement with school increases when teachers promote positive interactions in classrooms and mutual respect (Ryan & Patrick, 2001).

TEACHERS ACCEPT ME

With the exception of males in NL, student agreement that their teachers accepted them as they were decreased across grade level. There were no gender differences in Grade 6-8; however, older females were less likely to agree with the statement than were older males. Grade 9-10 male students in NL were more likely to agree that their teachers accepted them as they were than were Grade 9-10 males in the rest of Canada.

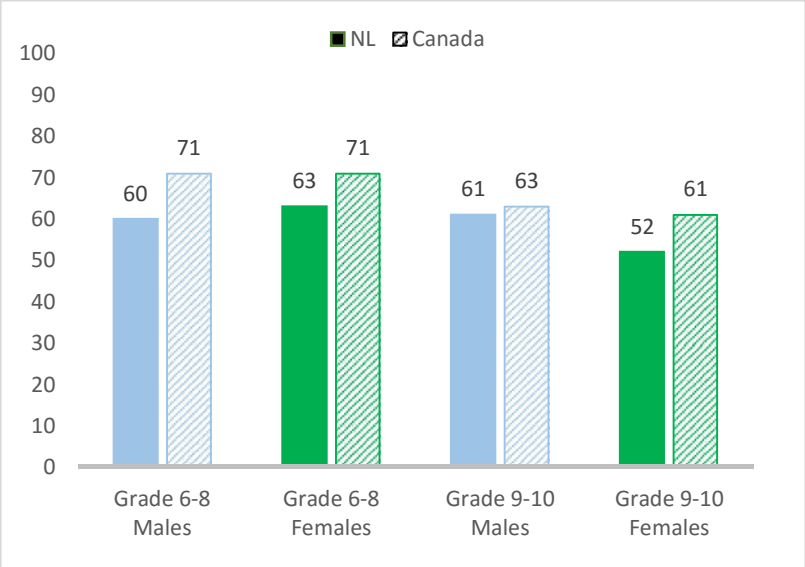
FIGURE 4 **Students who agreed or strongly agreed that their teachers accepted them as they were, by grade and gender (%)**



SCHOOL IS A NICE PLACE TO BE

With the exception of Grade 9-10 males, students in NL were less likely to report their schools as nice places to be than were students in the rest of Canada. Grade 9-10 males in NL were more likely to report that their schools were nice places to be compared to Grade 9-10 females in their province. Younger students' agreement with the statement was higher than older students' agreement, except for males in NL.

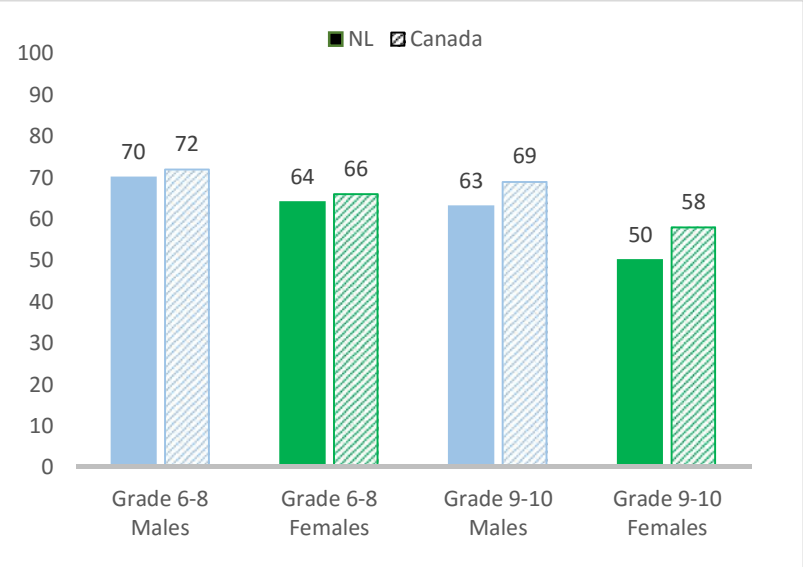
FIGURE 5 **Students who agreed or strongly agreed that their school was a nice place to be, by grade and gender (%)**



ACCEPTANCE BY CLASSMATES

Students' perceived acceptance by classmates was related to both gender and grade level, with males and younger students more likely to agree or strongly agree that they were accepted by classmates than were females and older students. Grade 9-10 students in NL were less likely to report being accepted by classmates than were Grade 9-10 students in the rest of Canada.

FIGURE 6 **Students who agreed or strongly agreed that other students accepted them as they were, by grade and gender (%)**



JOURNEY TO SCHOOL

Reports of walking to school were less frequent in NL than they were in the rest of Canada. In contrast, reported the use of private vehicles (car, motorcycle, or moped) was more frequent in NL than it was in the rest of Canada.

TABLE 3 **Primary mode of transportation to school reported by students, by grade (%)**

	Grades 6 to 8		Grades 9 and 10	
	NL	Canada	NL	Canada
walking	11	25	14	23
bicycle	3	3	2	2
bus, train, streetcar, subway or boat/ferry	52	48	46	48
car, motorcycle or moped	32	21	36	26
Other	2	4	2	2

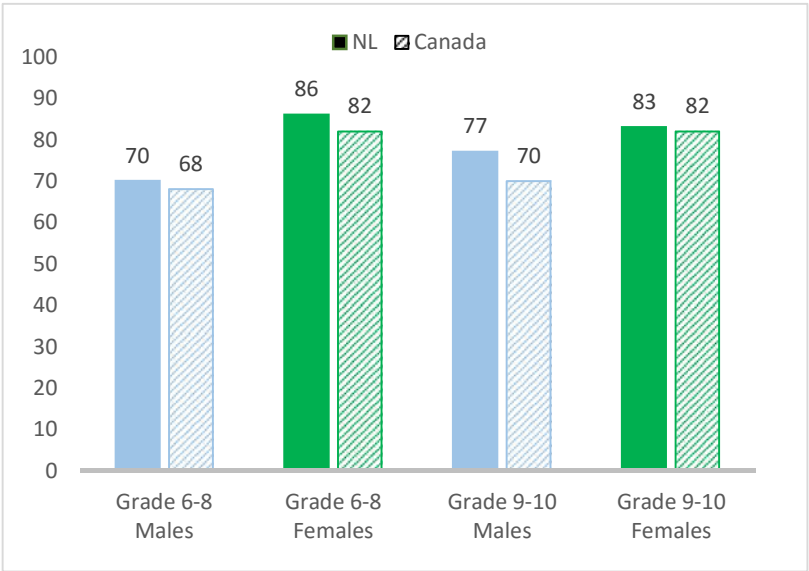
Peers

Students who feel more supported by their peers are more likely to be engaged in school and have more positive outcomes (Shin, Daly, & Vera, 2007). Peer relationships play an increasingly important role in individuals' health and well-being during adolescence, a time in which deep friendships emerge (Berndt, 20 04; Brendgen & Vitaro, 2008; Kobus, 2003). Adolescence marks a unique time period when individuals seek to establish autonomy from their parents and develop independent identities (Marion, Laursen, & Zettergren, 2013; Nickerson & Nagle, 2005; Viner et al., 2012). Therefore, the emergence of strong peer relationships is a part of normal adolescent growth and development.

CAN TALK ABOUT PROBLEMS WITH FRIENDS

Females were much more likely than males to agree or strongly agree that they could talk about their problems with their friends. In NL, Grade 9-10 males were more likely to agree or strongly agree with this statement than were Grade 6-8 males. Younger females and older males in NL were more likely to agree or strongly agree with this statement than were younger females and older males in the rest of Canada.

FIGURE 7 **Students who agreed or strongly agreed that they could talk about their problems with their friends, by grade and gender (%)**



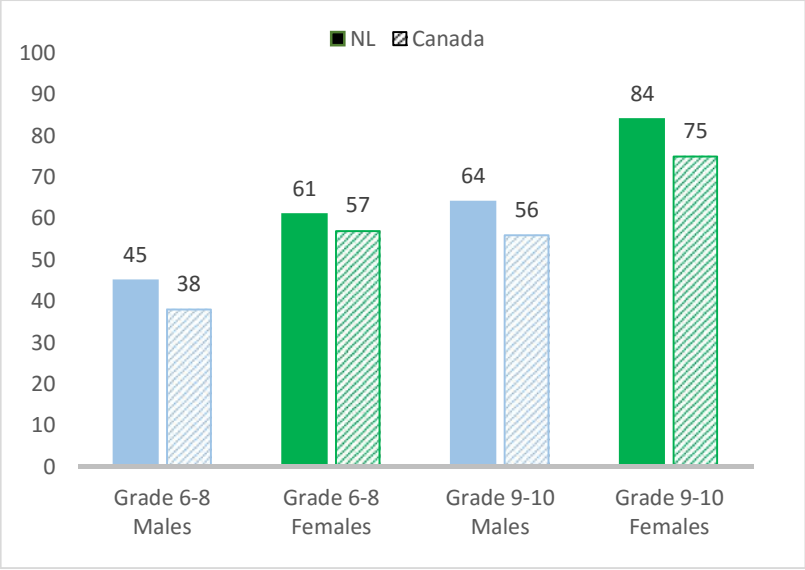
Social Media

More than ever before, Canadian youth are using social media to stay connected (Steeves, 2014). Social media offer youth opportunities for socialization and communication, enhanced learning, and access to health information (O'Keefe & Clarke-Pearson, 2011). However, such increased opportunities are accompanied by potential risks, including cyberbullying (O'Keefe & Clarke-Pearson, 2011). Cyberbullying and physical bullying can have similar repercussions, encompassing depression, anxiety, suicide, physical health problems, and fear that can lead to decreased academic success (Beran & Li, 2005; Tokunaga, 2010).

USE OF TEXTING OR SOCIAL MEDIA

Students in NL were more likely to state that they contacted their friends daily using texting/SMS or other social media than were students in the rest of Canada. Females' reported daily contact was higher than that of males. Reported daily contact with friends via texting/SMS or other social media increased greatly with grade level.

FIGURE 8 **Students who reported that they actively contacted their friends using texting/SMS or other social media (e.g., Facebook [posting on wall, not chat], MySpace, Twitter, Apps [instagram], games [Xbox], YouTube, etc.), by age and gender (%)**



Community

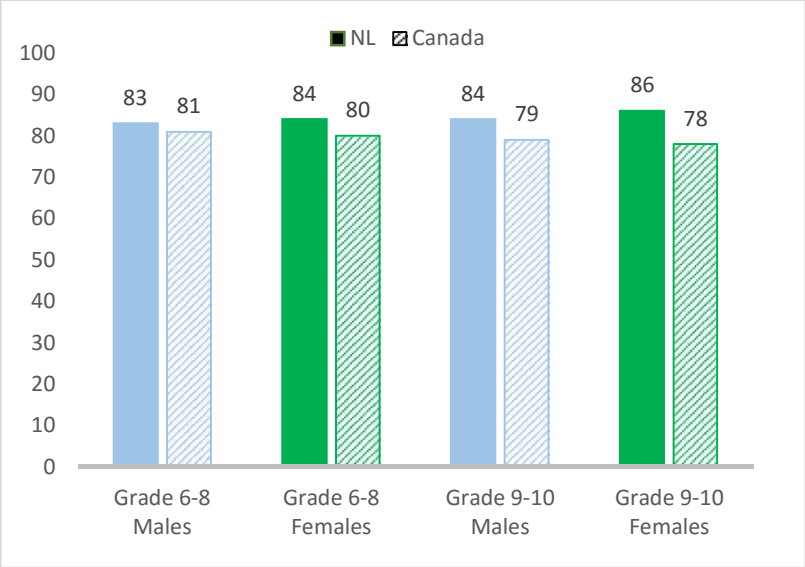
Community support continues to be associated with positive health outcomes among young people. The wider community that surrounds youth, especially in their adolescent years, becomes more critical as adolescents begin to develop their own identity separate from their family (Kowaleski-Jones & Dunifon, 2006).

Communities can provide adolescents with behavioural norms and expectations, care and support, opportunities to participate in community endeavours, and the chance to feel a sense of belonging (Benson, Leffert, Scales, & Blyth, 2012).

SAFE FOR YOUNG CHILDREN TO PLAY

With the exception of Grade 6-8 males, students in NL were more likely than students in the rest of Canada to report that their community was a safe place for younger children to play outside during the day. Responses to this question were not related to either grade level or gender.

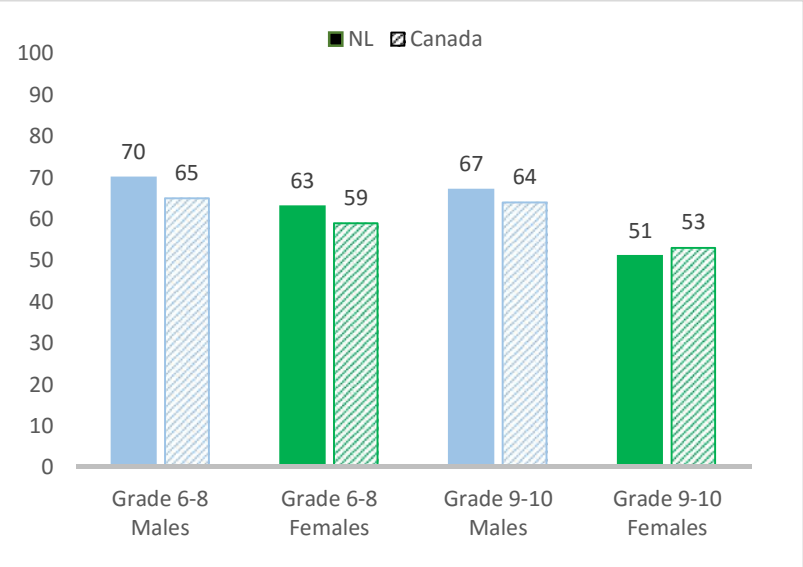
FIGURE 9 **Students who agreed or strongly agreed that it was safe for younger children to play outside during the day, by grade and gender (%)**



TRUSTING PEOPLE

With the exception of Grade 9-10 females, students in NL were more likely than students in the rest of Canada to agree or strongly agree that they could trust people around them. Males were more likely to agree or strongly agree with the statement than were females. The agreement with the statement decreased for females across the grade levels, but remained relatively stable for males.

FIGURE 10 **Students who agreed or strongly agreed that they could trust people around them, by grade and gender (%)**



INVOLVEMENT IN ACTIVITIES OR GROUPS

Grades 6 to 8

Grade 6-8 students in NL were less likely to report being involved in volunteer work and other activities or groups but more likely to report being involved in community groups and church or other/spiritual groups than were Grade 6-8 students in the rest of Canada. Reported sports team participation was lower for Grade 6-8 NL males than for other Canadian males.

Grades 9 and 10

Geographic differences for males and sports teams and for community groups remained stable across grade level. Reported arts group participation was higher for Grade 9-10 NL students than for other Canadian Grade 9-10 students. In contrast to Grade 6-8 students, reported religious involvement was lower for Grade 9-10 students in NL than for Grade 9-10 students elsewhere in Canada.

TABLE 4 Students who reported involvement in activities or groups, by grade and gender (%)

Grades	Males		Females	
6 to 8	**NL**	**Canada**	**NL**	**Canada**
A sports team (e.g., volleyball, hockey, soccer)	63	68	59	59
An individual sport (e.g., running, cycling, skating)	49	49	48	49
Volunteer work	21	26	30	35
Arts groups (e.g., music, dance, drama)	21	22	47	46
Community group (e.g., scouts, girl guides, 4-H, cadets)	15	10	19	12
Church or other religious/spiritual group	29	24	37	25
Other activity or group (e.g., chess, math, debate)	15	19	12	16
9 and 10				
A sports team (e.g., volleyball, hockey, soccer)	55	63	50	50
An individual sport (e.g., running, cycling, skating)	45	49	41	44
Volunteer work	41	39	51	52
Arts groups (e.g., music, dance, drama)	26	19	42	38
Community group (e.g., scouts, girl guides, 4-H, cadets)	17	11	15	10
Church or other religious/spiritual group	18	22	19	23
Other activity or group (e.g., chess, math, debate)	13	16	9	11

3 MENTAL HEALTH

Mental Health

Mental health is “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (World Health Organization [WHO], 2014). According to the Mental Health Commission of Canada (2015), nearly 1.2 million Canadian children and youth experience mental health issues. Traditional approaches to mental health programs and services have been located within the school and have emphasized the challenges related to particular mental health related concerns in youth (Terjesen, Jocofsky, Froh, & Digiuseppe, 2004). However, students’ psychological well-being is not solely influenced by the absence of problems and risk-need concerns, but also by the existence of factors present within their environments that contribute to positive development (Khanna, MacCormack, Kutsyuruba, McCart, & Freeman, 2014). Thus, positive mental health is more than the absence of mental illness (Keyes, 2002). Promoting awareness of and action on youth mental health and well-being requires collaboration across environments (Freeman & Luu, 2011).

LIFE SATISFACTION

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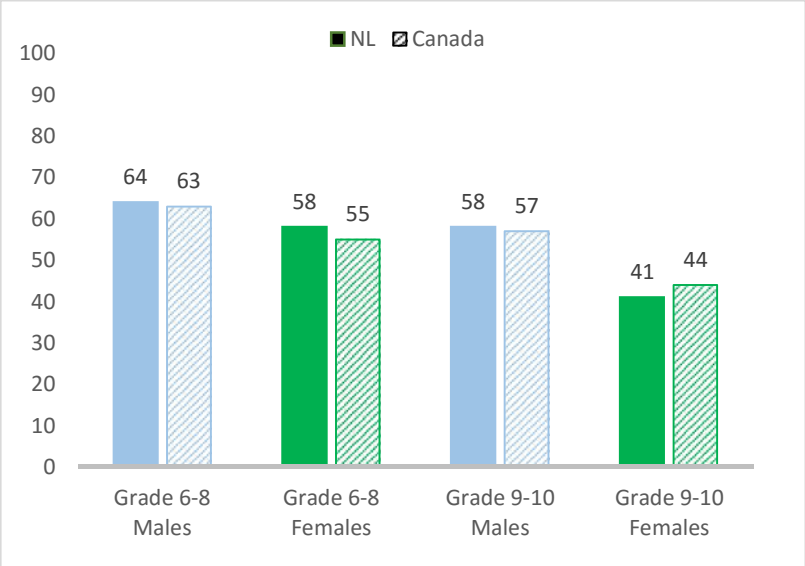
Reported life satisfaction as high (8-10) was related to both gender and grade level, with males and younger students reporting higher life satisfaction than females and older students. Students in NL did not differ from students in the rest of Canada in life satisfaction.

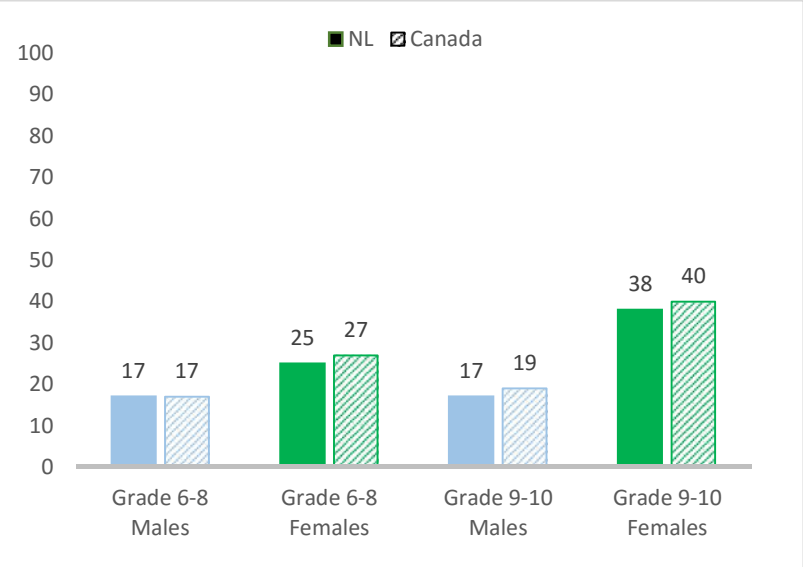
FIGURE 11 **Students who responded 8 to 10 on a 0=worst possible to 10=best possible life satisfaction scale, by grade and gender (%)**



FEELING LOW OR DEPRESSED

Females were more likely to report at least once weekly lowness/ depression than were males. Reported lowness/depression at least once weekly increased for females across grade level, but remained steady for males. Students in NL were similar to students elsewhere in Canada with respect to weekly lowness/depression.

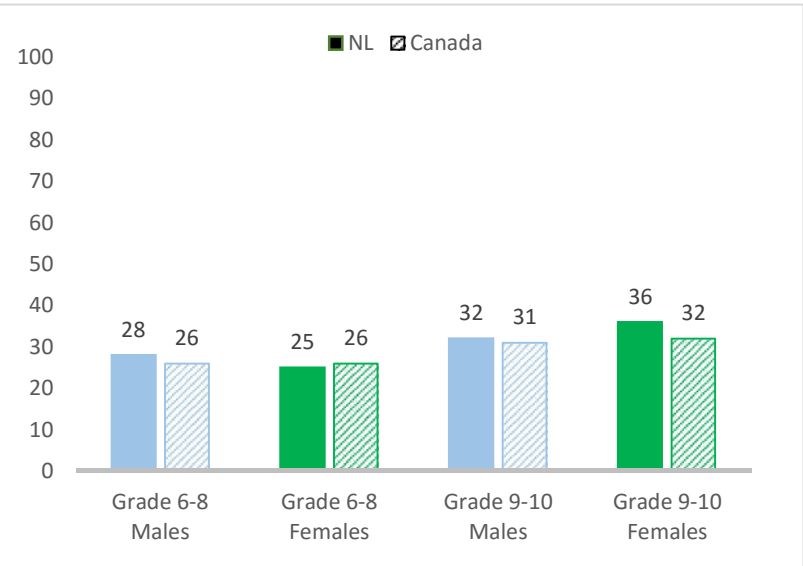
FIGURE 12 **Students who reported they felt low or depressed once a week or more in the last six months by grade and gender (%)**



PARENTS EXPECT TOO MUCH

Too high parental expectations were minimally affected by gender. Grade 9-10 students were more likely to report their parents expected too much of them than were Grade 6-8 students. Students in NL did not differ from students in the rest of Canada on this question.

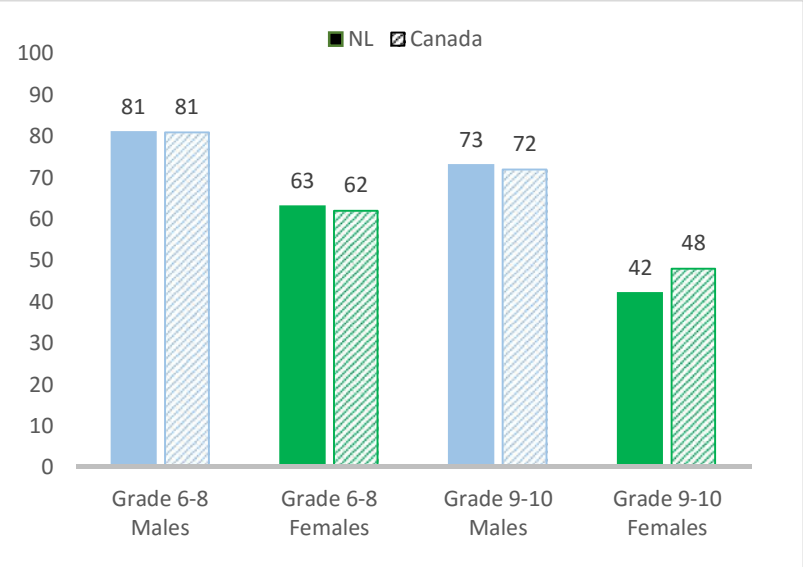
FIGURE 13 **Students who agreed or strongly agreed that their parents expected too much of them, by grade and gender (%)**



SELF-CONFIDENCE

Reported self-confidence was related to both gender and grade level more than to geographic location. Younger students and males were much more likely to agree or strongly agree that they had confidence in themselves than were older students and females. Grade 9-10 females in NL were less likely to report being self-confident than were Grade 9-10 females in the rest of Canada.

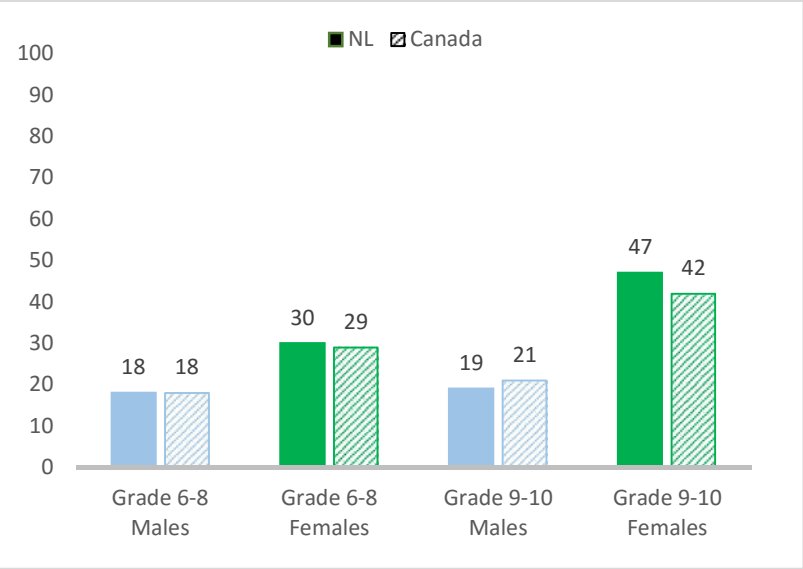
FIGURE 14 **Students who agreed or strongly agreed that they had confidence in themselves, by grade and gender (%)**



FEELING SAD OR HOPELESS

Reported ongoing sadness/hopelessness was higher for females than for males with Grade 9-10 females reporting considerably higher ongoing sadness/ hopelessness than any other grade level-gender combination. Older females in NL were more likely to report ongoing sadness/hopelessness than were older females elsewhere in Canada. Reported sadness/ hopelessness increased for females across grade level, but remained steady for males.

FIGURE 15 **Students who reported that during the past 12 months, they felt so sad or hopeless almost every day <u>for two weeks or more in a row</u> that they stopped doing some usual activities, by grade and gender (%)**



4 HEALTH PROMOTING BEHAVIOURS

Healthy Eating

Healthy eating is important for the healthy development of children and adolescents (Health Canada, 2015). *Canada's Food Guide* (Health Canada, 2015) provides concrete recommendations for amounts of food and specific dietary requirements for different age groups. It advocates that healthy and nutritious food, such as fruits and vegetables, need to be part of a healthy eating pattern and should be consumed on a daily basis (Health Canada, 2015). Additionally, young people should limit the frequency at which they consume foods and beverages high in calories, sugar, and/or salt (Gore, Foster, DiLillo, & West, 2003).

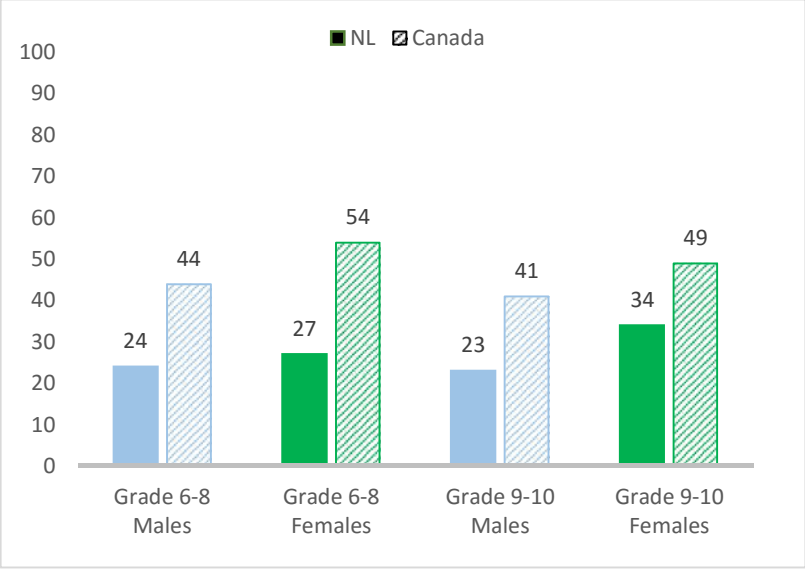
Certain eating patterns are more likely to result in an unhealthy weight, thereby leading to health issues (Lillico, Hammond, Manske, & Murnaghan, 2014). Skipping breakfast, for example, has been linked to poorer nutritional health (Nicklas, O'Neil, & Myers, 2004; Peters, Verly, Marchioni, Fisberg, & Martini, 2012) and reduced cognitive performance (Adolphus, Lawton, & Dye, 2013). Youth should also avoid frequently eating at fast food restaurants, as the foods sold at these establishments, while affordable, are generally high in calories and low in nutrition (Bowman, Gortmaker, Ebbeling, Pereira, & Ludwig, 2004; Kirkpatrick et al., 2014).

Students who live in households with food insecurity, such as scarcity of nutritious foods, and/or nutritious foods being too costly, may not receive adequate or appropriate nutritional intake (Kirkpatrick & Tarasuk, 2008). Going to bed or to school hungry is one indicator of food insecurity. Food insecurity has been related to higher risk of mental health difficulties in both Canada (Melchior et al., 2012) and the United States (McLaughlin et al., 2012).

EATING VEGETABLES

Students in NL were much less likely to report eating vegetables at least once daily than were students in the rest of the Canada. Males' reported vegetable consumption was lower than that of females. In NL, older females were more likely to report eating vegetables at least once daily than were younger females. The reverse was true for females in the rest of Canada.

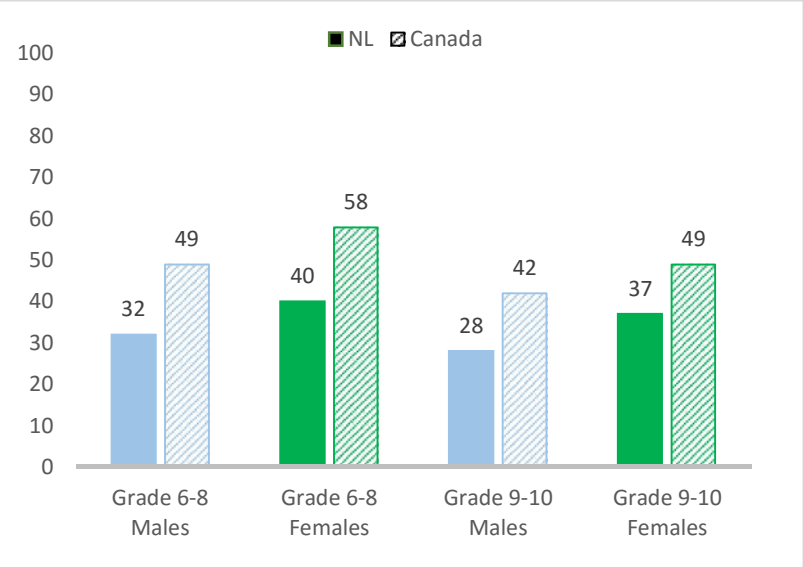
FIGURE 16 **Students who reported that they ate vegetables once per day or more, by grade and gender (%)**



EATING FRUITS

Reported daily fruit consumption was higher for younger students and females than for older students and males. Students in NL were much less likely than students in the rest of Canada to indicate they ate fruits daily or more often.

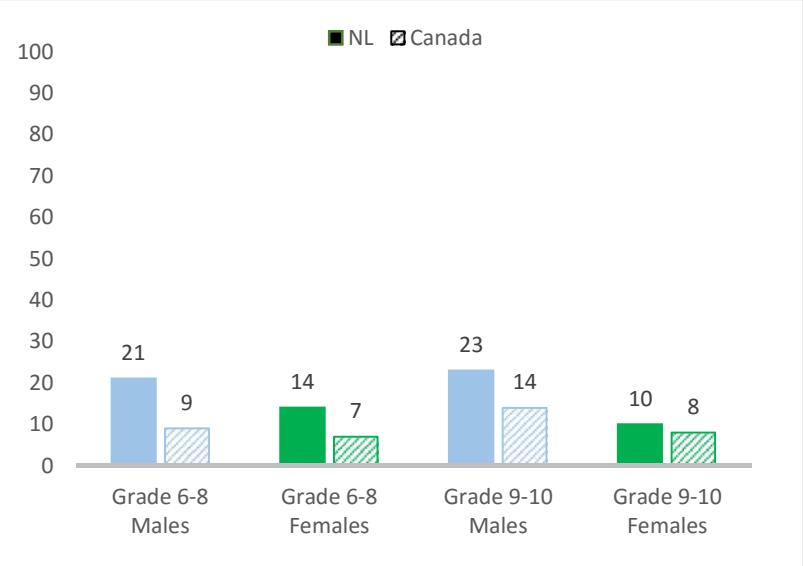
FIGURE 17 **Students who reported that they ate fruits once per day or more, by grade and gender (%)**



DRINKING SOFT DRINKS

With the exception of Grade 9-10 females, students in NL were more likely to report daily consumption of soft drinks than were students in the rest of the country. Reported daily consumption of soft drinks was higher for males than for females, except for Grade 6-8 students in the rest of Canada. For males in the rest of Canada, there was an increase of 5% in the reported consumption across grade level. Differences in the reported consumption were minimal across grade level for other students.

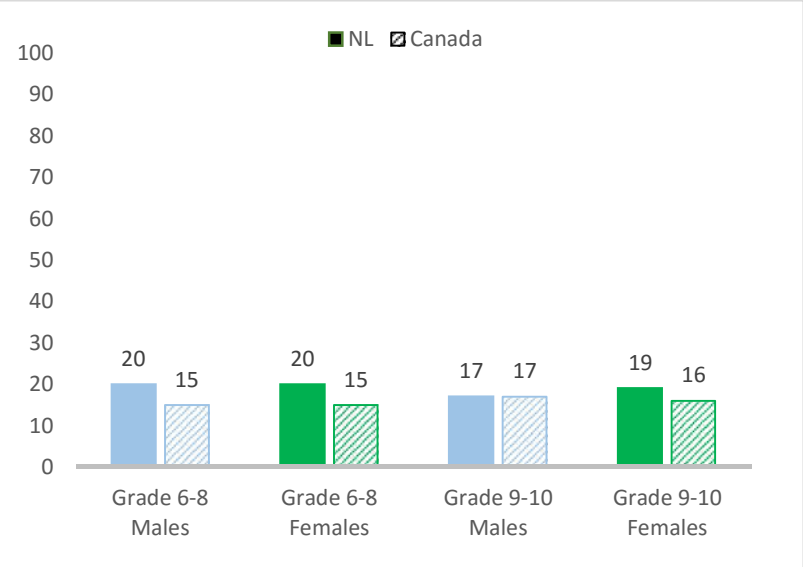
FIGURE 18 **Students who reported that they drank soft drinks once per day or more, by grade and gender (%)**



EATING CANDY OR CHOCOLATE

Younger students in NL were more likely to report eating candy or chocolate daily or more often than were younger students in the rest of Canada. Responses to this question were minimally related to either gender or grade level.

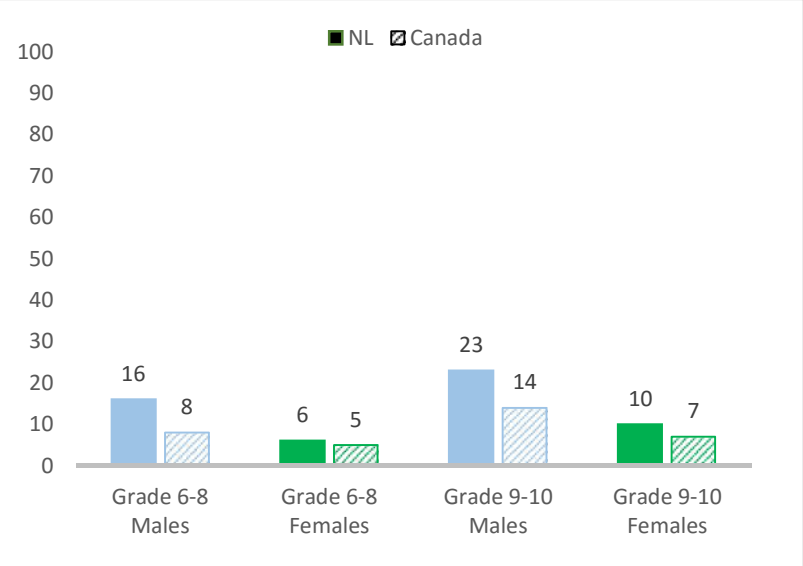
FIGURE 19 **Students who reported that they ate candy or chocolate once per day or more, by grade and gender (%)**



DRINKING ENERGY DRINKS

Reported weekly energy drink consumption was higher for males than for females with Grade 9-10 males the most likely to report drinking energy drinks at least once weekly. Reported energy drink consumption increased across grade level, except for females in the rest of Canada. Male students in NL were more likely to report drinking energy drinks at least once weekly than were male students in the rest of Canada.

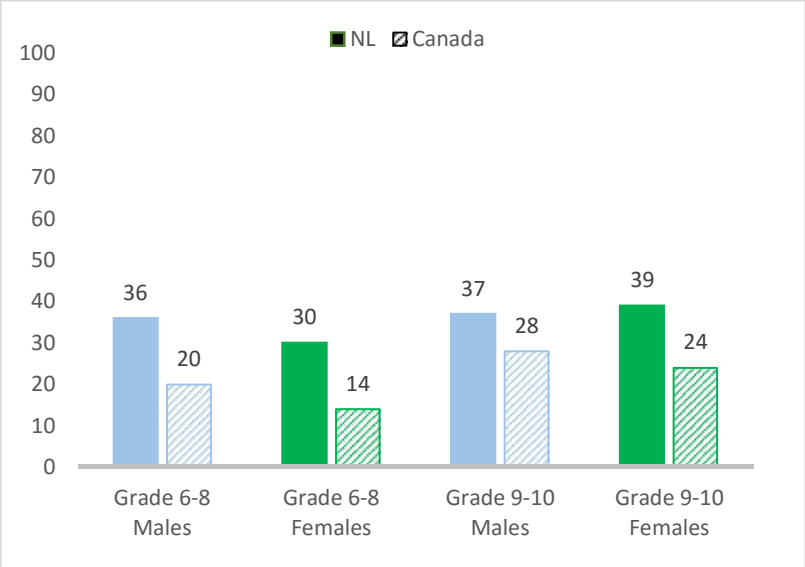
FIGURE 20 **Students who reported that they drank energy drinks once a week or more, by grade and gender (%)**



EATING IN A FAST FOOD RESTAURANT

Students in NL were much more likely to report eating at least weekly in a fast food restaurant than were students in the rest of Canada. With the exception of Grade 9-10 students in NL, males were more likely to report eating at least weekly in a fast food restaurant than were females. Students' reports of eating fast food at least once a week increased across grade level.

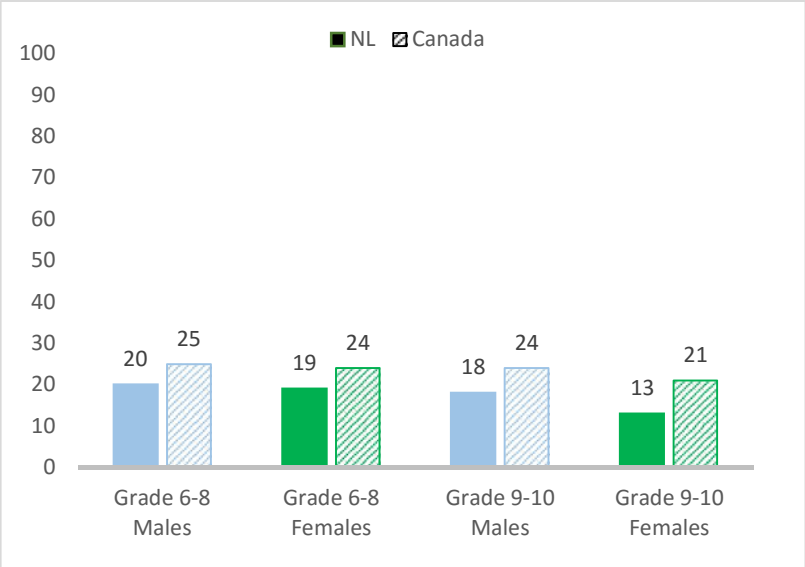
FIGURE 21 **Students who reported that they ate in a fast food restaurant once a week or more, by grade and gender (%)**



FOOD INSECURITY

Students in NL were less likely to report going to school or bed hungry because there was not enough food at home at least sometimes than were students in the rest of Canada. Grade 9-10 males were more likely to report going to school or bed hungry because there was not enough food at home at least sometimes than were Grade 9-10 females. Reported going to school or bed hungry because there was not enough food at home at least sometimes decreased across grade level.

FIGURE 22 **Students who reported that they went to school or to bed hungry because there was not enough food at home at least sometimes, by grade and gender (%)**



Healthy Weight

Obesity, a condition of excess body weight and fat that can be classified as a disease (Allison et al., 2008), is a recognized public health issue in Canada. Obesity results from a long-term imbalance wherein the number of calories consumed in the diet exceeds the amount of calories burned and expended by the body. Obesity experienced during the adolescent years tends to persist into adulthood (Singh, Mulder, Twisk, VanMechelen, & Chinapaw, 2008).

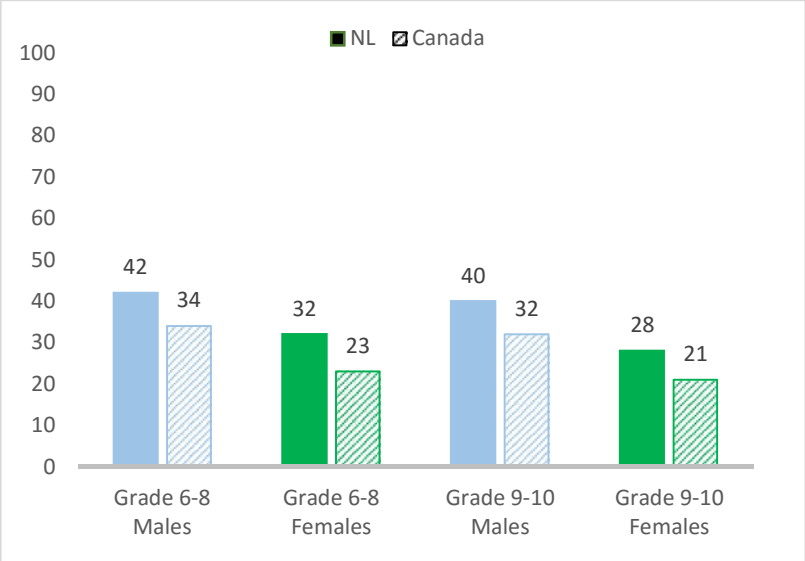
Body Mass Index (BMI), calculated as weight (in kg) divided by height (in m^2), was used to determine healthy weights in this report. Students were classified as overweight or obese based on international BMI standards for school-aged children and adolescents as developed by the WHO (de Onis et al., 2007).

BMI is admittedly an imperfect measure of the percentage of body fat. Overall, BMI accounts for approximately 74.5% of the variance in body fat for females and 65.4% of the variance for males, although these figures are influenced by both age and race (Jackson et al., 2002). Additionally, rather than weighing and measuring students, we relied on their reports of height and weight. For example, in a validation of HBSC data in Wales, self-report BMI data led to an estimation of 13.9% overweight and 2.8% obese, compared to a measured BMI estimate of 18.7% and 4.4% respectively (Elgar, Roberts, Tudor-Smith, & Moore, 2005). Overweight/ obese adolescents tended to be more likely than other students to under-report their weight.

BODY MASS INDEX (BMI)

Males were more likely to be classified as overweight or obese by BMI than were females. Students in NL were more likely to be classified as overweight or obese by BMI than were students elsewhere in the country. Differences across grade level were small.

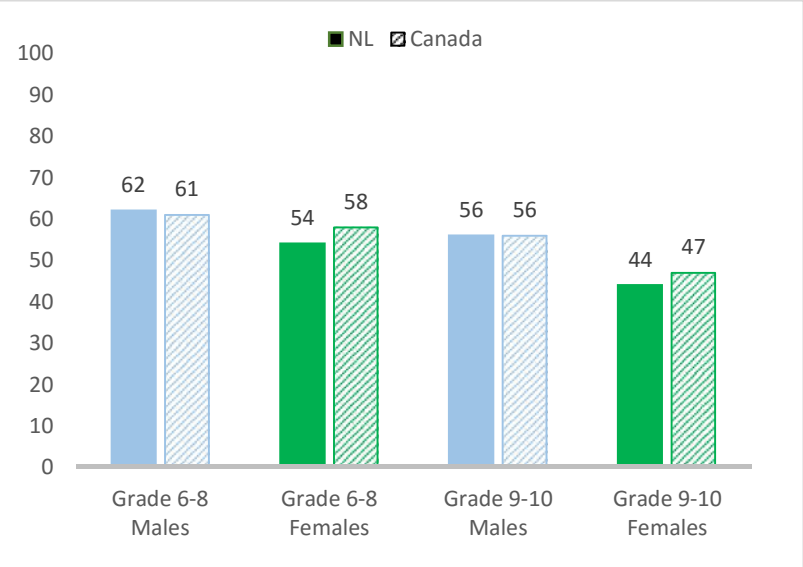
FIGURE 23 **Students who reported they were overweight or obese by Body Mass Index (BMI) category, by grade and gender (%)**



BODY IMAGE

Students' reports of thinking their body was "about the right size" decreased across grade level, most sharply for females. Males were more likely to report that their body was "about the right size" than were females. Differences between students in NL and students in the rest of the country were limited.

FIGURE 24 **Students who reported that they thought their body was about the right size, by grade and gender (%)**



Sleep Health

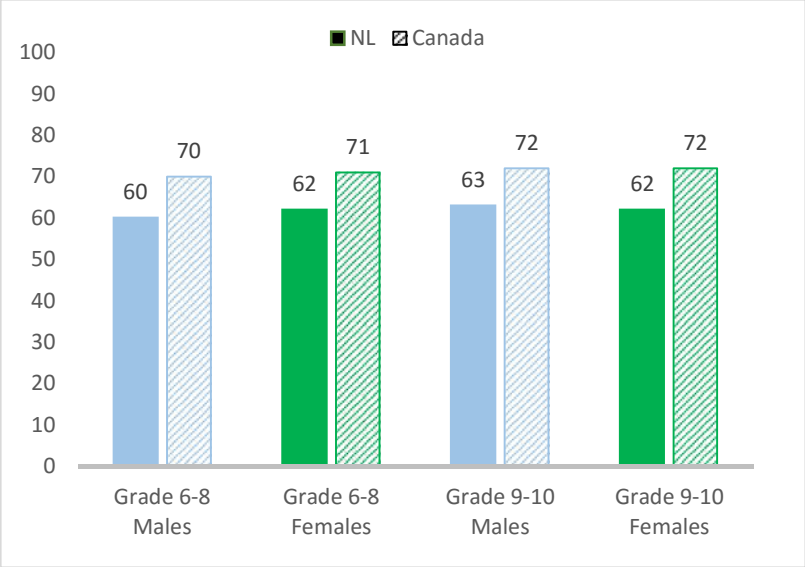
Today's youth sleep one hour less per night than they did 100 years ago (Matricciani, Olds, & Petkov, 2012). This reduction in sleep could be contributing to a myriad of physical, mental, and social health problems (Gruber et al., 2014). Insufficient sleep has long been associated with an impaired ability to concentrate and retain information and impaired academic performance (Wolfson & Carskadon, 1998), mood disorders such as anxiety and depression (Blunden, Hoban, & Chervin, 2006), decreased immune function (Sekine, Chandola, Martikainen, Marmot, & Kagamimori, 2006), increased risk of injuries (Koulouglioti, Cole, & Kitzman, 2008), and obesity (Cappuccio et al., 2008).

The National Sleep Foundation from the United States has recently provided updated recommendations on how many hours of sleep people need (Hirshkowitz et al., 2015). Although Canadian guidelines do not exist, the National Sleep Foundation recommendations have been endorsed in a Canadian position statement on pediatric sleep (Gruber et al., 2014). These recommendations suggest that 6 to 13 years olds should get 9-11 hours of sleep per night (used for Grade 6-8 students) and that 14 to 17 year olds should get 8-10 hours of sleep per night (used for Grade 9-10 students).

SLEEP DURATION

Students in NL were less likely to report that they slept the recommended amount of time on average in the past week than were students in the rest of Canada. Students' responses to this question were unrelated to grade level or gender.

FIGURE 25 **Students who met sleep duration recommendations, by grade and gender (%)**



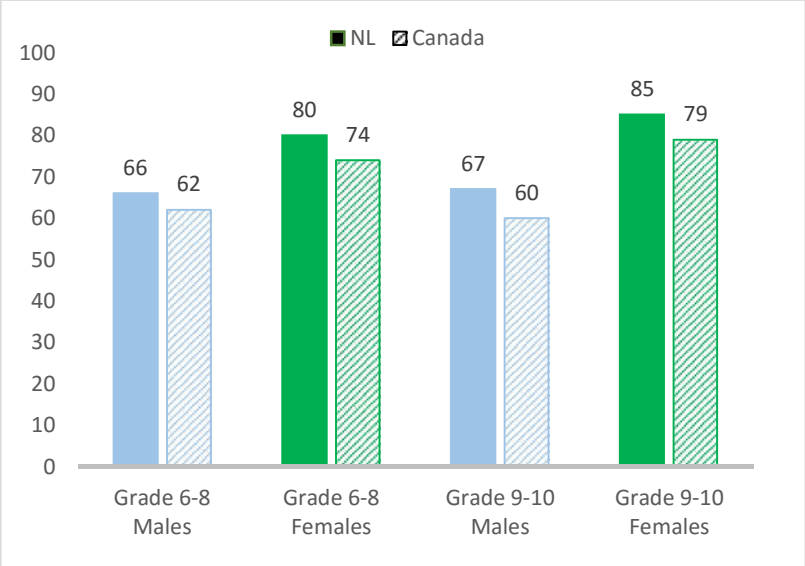
Oral Health

There is a relationship between following a healthy diet and brushing one's teeth regularly for improved oral care (Canadian Dental Association [CDA], 2015). Oral health is related to improved physical and mental health. Brushing teeth twice daily is recommended (American Dental Association [ADA], 2014).

BRUSHING TEETH

Females were more likely to report brushing their teeth two or more times daily than were males. Reports of brushing teeth increased by 5% across grade level for females but remained steady for males. Students in NL were more likely to indicate that they brushed their teeth at least twice daily than were students in the rest of Canada.

FIGURE 26 **Students who reported that they brushed their teeth more than once a day, by grade and gender (%)**



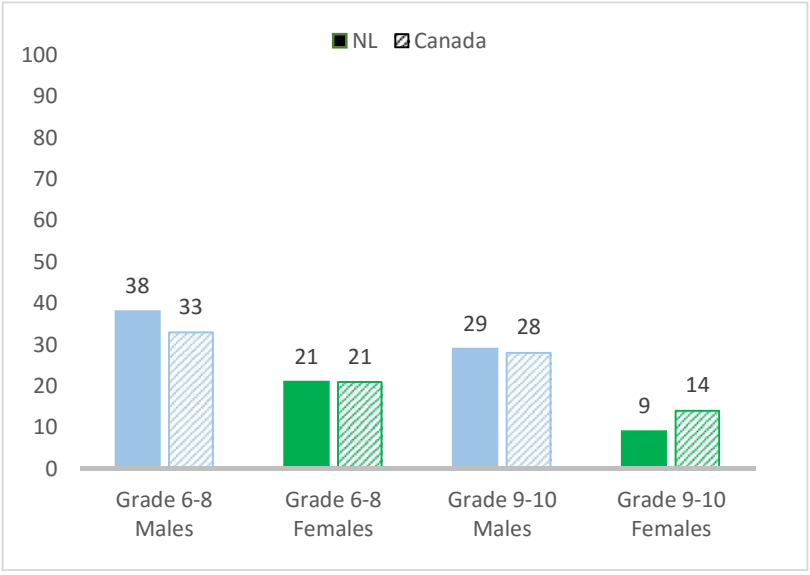
Physical Activity

Physical activity is defined as bodily movement produced by the muscles that results in an increase in energy expenditure (Sirard & Pate, 2001). It includes non-vigorous tasks such as playing catch, moderate intensity tasks such as walking, and vigorous intensity tasks such as running. Physical activities of moderate to vigorous intensity are those that will make the individual breathe more deeply and rapidly and increase his or her body temperature (e.g., makes him or her feel warm, sweat; National Health Services [NHS], 2015). Physical activities of moderate to vigorous intensity are associated with a variety of physical and mental health benefits including regulation of body weight, fewer chronic disease risk factors, improved fitness, development of healthy and strong bones, and improved mental health (Janssen & LeBlanc, 2010; Strong et al., 2005).

PHYSICAL ACTIVITY IN THE PAST SEVEN DAYS

Males tended to report more every day physical activity than did females, especially in Grade 9-10. Reported daily physical activity decreased across grade level. Grade 6-8 males in NL were more likely to report more every day physical activity than were Grade 6-8 males in the rest of Canada. The reverse was true for Grade 9-10 females.

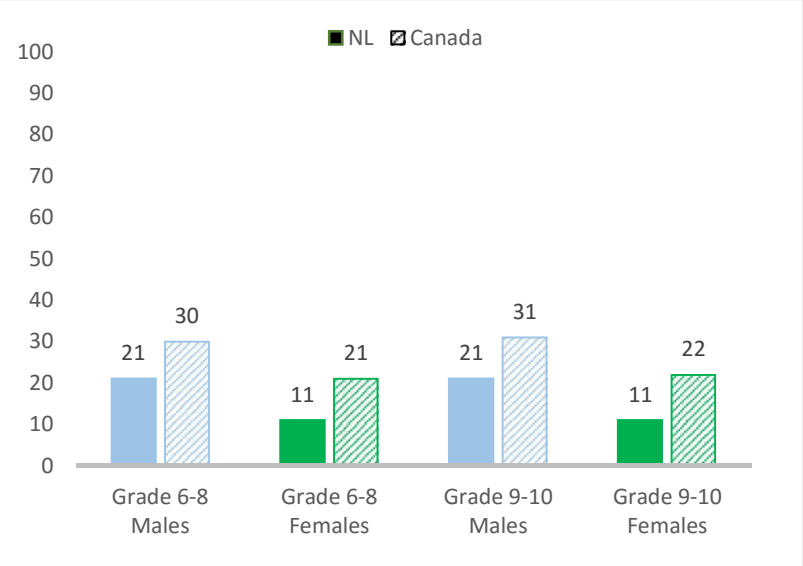
FIGURE 27 **Students who reported that they had been physically active for at least 60 minutes per day on each of the past seven days, by grade and gender (%)**



PHYSICAL ACTIVITY IN CLASS TIME AT SCHOOL (NOT JUST PHYS. ED. CLASS)

Students in NL were less likely to report spending four or more hours per week doing physical activity in class time at school than were students in the rest of Canada. Males reported meeting this standard more often than did females. Grade level was largely unrelated to this question.

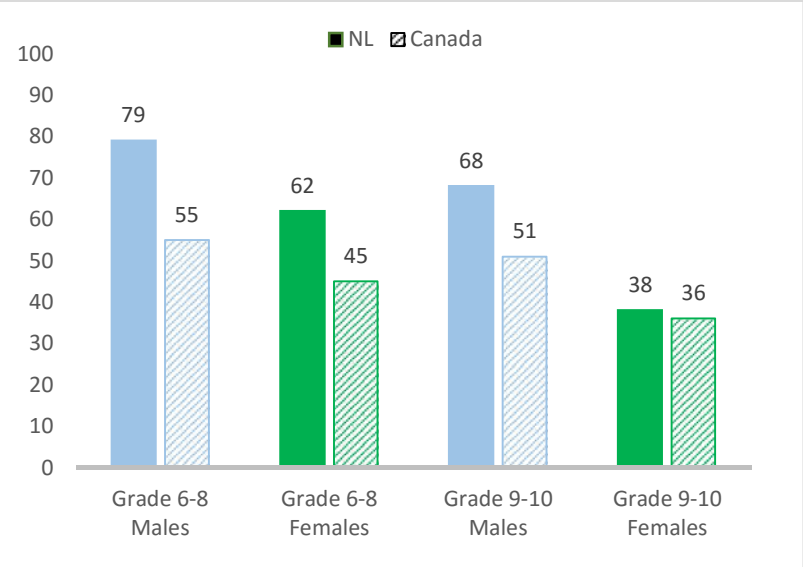
FIGURE 28 **Students who reported that they had spent four or more hours per week doing physical activity in class time at school, by grade and gender (%)**



PLAYING OUTDOORS

With the exception of Grade 9-10 females, students in NL were much more likely to report playing outside in their free time than were students in the rest of Canada. Gender and grade level were both connected to reports of playing outside, with males higher than females and younger students higher than older students.

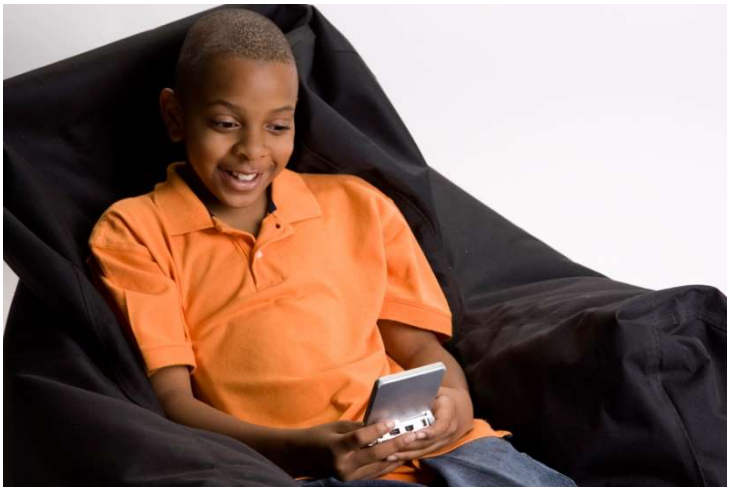
FIGURE 29 **Students who reported that they had spent two or more hours per week participating in outdoor play in free time outside of school hours, by grade and gender (%)**



5 HEALTH RISK BEHAVIOURS

Sedentary Behaviour

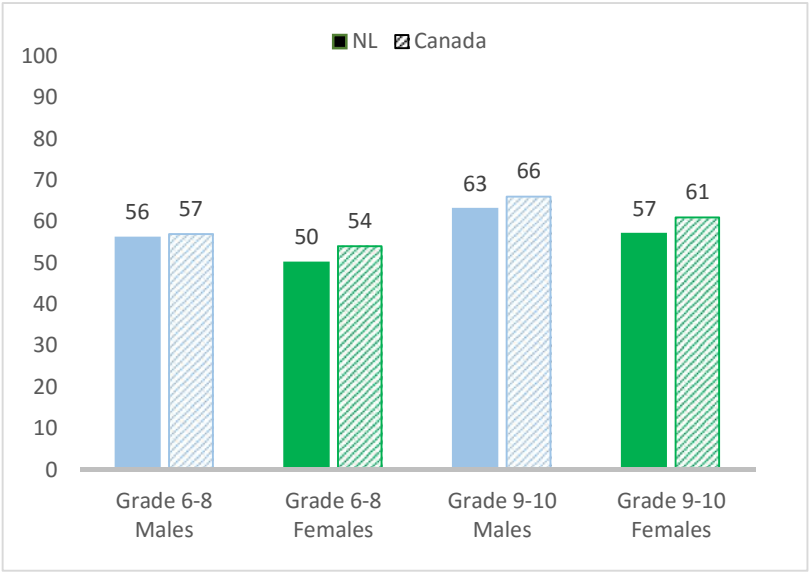
Sedentary behaviour differs from physical activity and consists of activities in which there is little movement or energy expenditure, usually occurring while a person is seated or lying down (Sedentary Behaviour Research Network, 2012). Common sedentary activities include watching television, playing video games, using the computer, doing homework, reading, and motorized travel (Pate, O'Neill, & Lobelo, 2008). Young people's sedentary behaviour levels should be reasonable and healthy with a recommendation that recreational screen time not exceed two hours daily (Tremblay et al., 2011). Increased time spent engaging in sedentary behaviour, especially screen activities such as watching television, using the computer and playing video games, have been linked to several negative health outcomes (LeBlanc et al., 2012 ; Tremblay, Colley, Saunders, Healy, & Owen, 2010). For example, obesity, unhealthy eating, decreased fitness, and substance use and abuse are all associated with excessive screen time (e.g., Carson, Pickett, & Janssen, 2011; Mark & Janssen, 2008).



HOURS WATCHING TELEVISION

Reports of watching television two hours or more daily were higher for males than for females and for older students than for younger students. Females in NL were less likely to report watching at least two hours of TV per day than were females elsewhere in Canada.

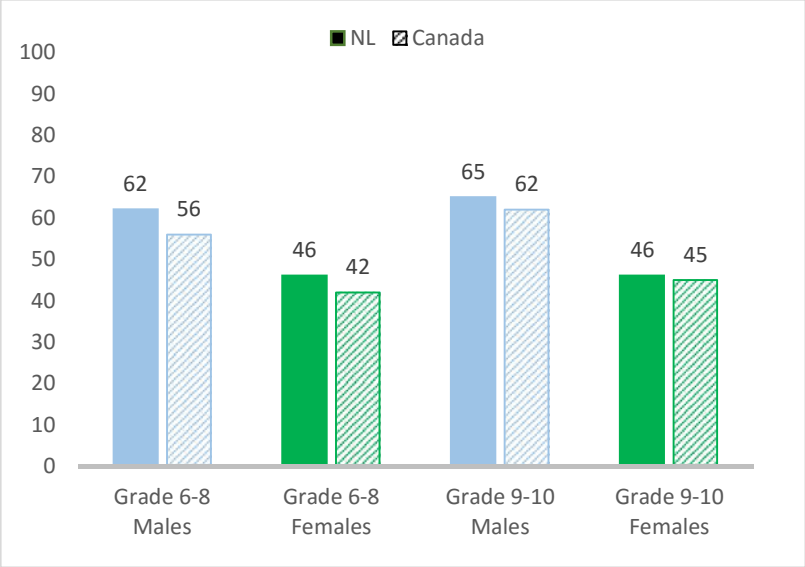
FIGURE 30 **Students who reported that they had watched two or more hours per day of television, videos (including YouTube or similar services), DVDs, and other entertainment, by grade and gender (%)**



HOURS PLAYING ON A COMPUTER OR GAMES CONSOLE

Males were more likely to indicate they spent at least two hours daily playing video games than were females. Grade 6-8 students in NL were more likely to report they spent at least two hours daily playing video games than were Grade 6-8 students in the rest of Canada.

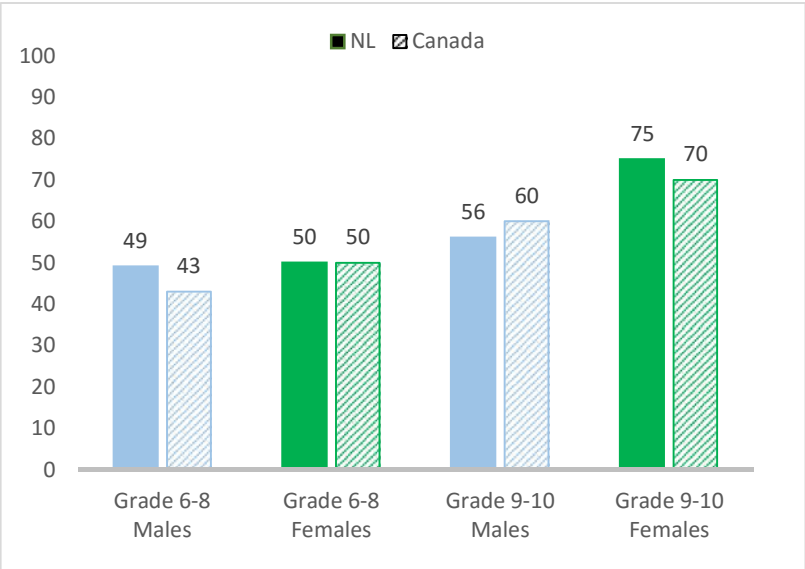
FIGURE 31 **Students who reported that they had spent two or more hours per day playing games on a computer, games console, tablet (like iPad), smartphone or other electronic device (not including moving or fitness games), by grade and gender (%)**



HOURS USING A COMPUTER FOR CHATTING ON-LINE

With the exception of Grade 6-8 students in NL, reported on-line chatting was higher for females than for males. Older students were more likely to report on-line chatting than were younger students. The grade-level increase was 7%-17% for males and 20%-25% for females. Younger males and older females in NL were more likely to report on-line chatting than were their peers in the rest of Canada.

FIGURE 32 **Students who reported that they spent two or more hours per day using electronic devices such as computers, tablets (like iPad) or smartphones for other purposes (e.g., homework, emailing, tweeting, Facebook, chatting, surfing the internet), by grade and gender (%)**



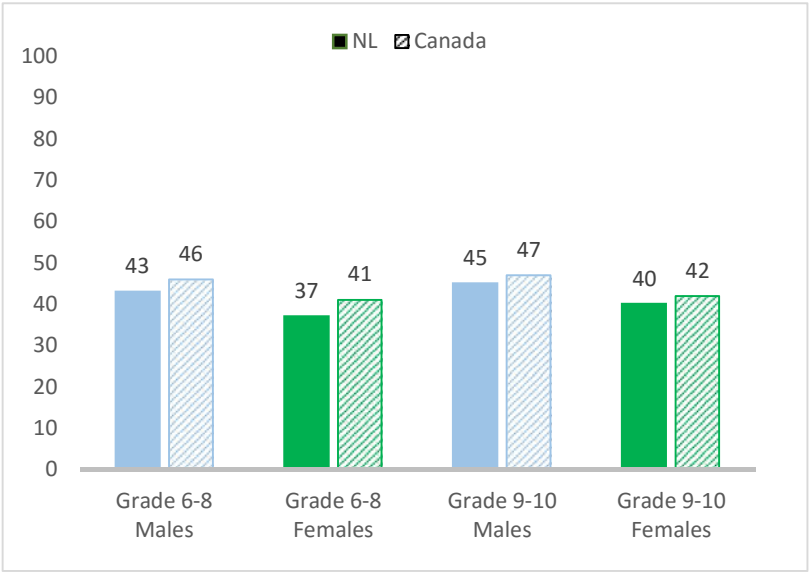
Injury

Injury is defined as any physical harm to the body (Langley & Brenner, 2004). Such physical damage to the body is produced by energy exchanges that involve physical, thermal, chemical, and radiation forces that have relatively sudden discernible effects (Robertson, 1998). These events happen frequently to young people and represent an important burden to the health of adolescent populations in Canada (Public Health Agency of Canada [PHAC], 2009). The most common injuries among young people are caused by physical forces; these injuries often happen while playing sports, during motor vehicle collisions, while cycling, or during physical fights (Molcho et al., 2006). Injuries can also include poisoning and ingestions, and burns (Langley & Brenner, 2004). Injuries are costly to society in terms of health care expenditures and time lost from productive activities for both adolescents and the adults who care for them when they are injured (Leitch, 2007; Peden et al., 2008). We also asked about the location of injuries, but the numbers were too small to report with confidence.

INJURIES IN THE PAST 12 MONTHS

Injury reports were higher for males than for females. Grade 6-8 females in NL were less likely to report an injury during the past 12 months requiring treatment by a doctor or nurse than were Grade 6-8 females in the rest of Canada. Students' responses to this question were unrelated to grade level.

FIGURE 33 **Students who reported an injury during the past 12 months requiring treatment by a doctor or nurse, by grade and gender (%)**



Bullying

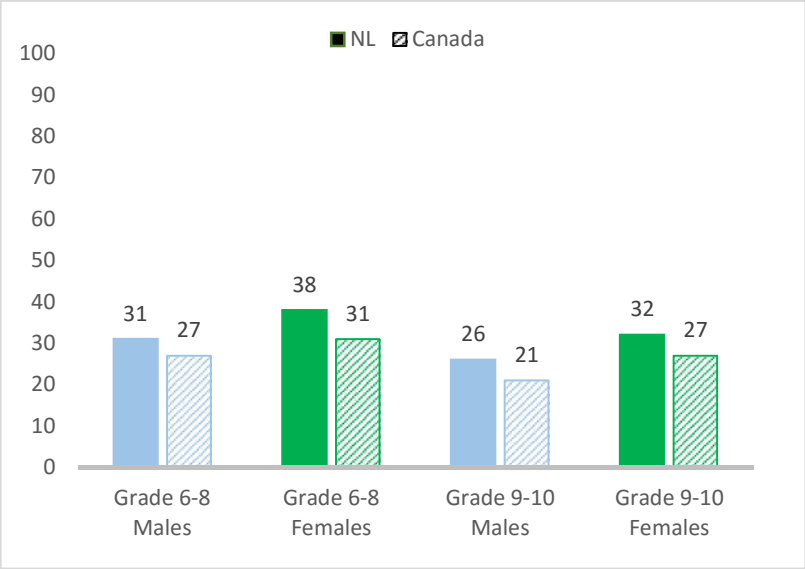
Bullying is a relationship problem. Bullying among youth has been traditionally defined as repeated, unwanted aggressive behaviour(s) by another youth or group of youth, involving an observed or perceived power imbalance (Olweus, 2003). It can result in physical, psychological, social, or educational harm or distress being inflicted on the targeted youth (Gladen, Vivolo-Kantor, Hamburger, & Lumpkin, 2014). Since bullying is defined as a relationship problem, online relationships must also be considered. Cyberbullying is associated with many of the same negative outcomes as traditional bullying (Tokunaga, 2010).

Bullying puts young people at immediate and long-term risk for academic, emotional, behavioural, and relationship problems (e.g., Golmaryami et al., 2015; Strøm, Thoresen, Wentzel-Larsen, & Dyb, 2013; Vassallo, Edwards, Renda, & Olsson, 2014). Bullying has broad impacts on the safety and welfare of all students involved – youth who are bullied, youth who bully others, and youth who know it is going on (Graham, 2016; Juvonen & Graham, 2014; Swearer & Hymel, 2015).

HAVING BEEN BULLIED

Students in NL were more likely to report having been bullied at school than were students in the rest of Canada. Males were less likely to report having been bullied at school than were females. Reports of having been bullied decreased across grade level.

FIGURE 34 **Students who reported that they had been victimized at school in the past couple of months, by grade and gender (%)**



VICTIMIZED AT SCHOOL

Grades 6 to 8

Of those who reported being victimized NL females were less likely than those in the rest of Canada to report being victims or being called names or teased in a hurtful way. Both males and females from NL were more likely to report that other students told lies or spread false rumours about them. NL males were more likely to report that other students left them out or excluded them compared to males in the rest of Canada.

Grades 9 and 10

Similar to younger students Grade 9 and 10 NL females were less likely than those in the rest of Canada to report being victims or being called names or teased in a hurtful way. They were also less likely to report other students made fun of them because of their weight or that they were victimized by sexual jokes, comments, or gestures. However, they were more likely to report that other students left them out or excluded them compared to females in the rest of Canada. NL males were more likely to report that other students told lies or spread false rumours about them and that other students made sexual jokes, comments, or gestures to them.

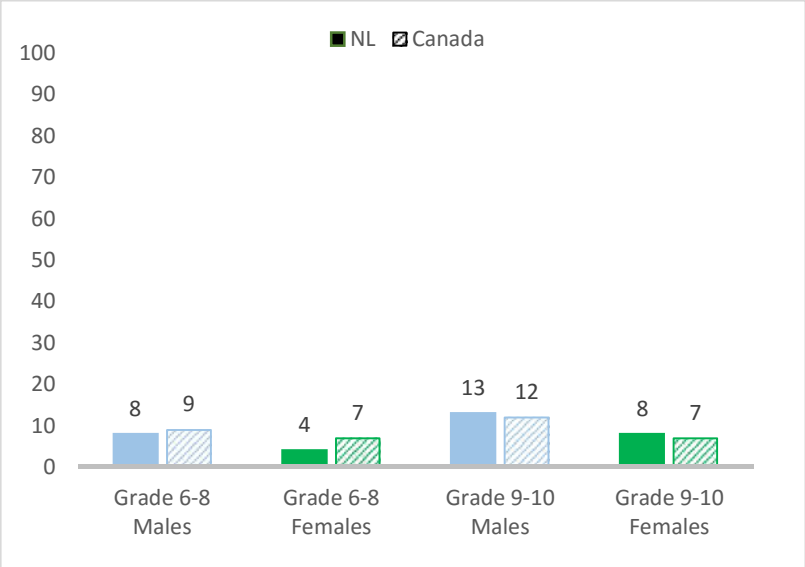
TABLE 5 **How students reported they were victimized at school in the past couple of months, out of students who reported they were victimized, by grade and gender (%)**

Grades	Males		Females	
6 to 8	**NL**	**Canada**	**NL**	**Canada**
I was called mean names, was made fun of, or teased in a hurtful way	52	53	45	51
Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me	44	37	51	50
I was hit, kicked, pushed, shoved around or locked indoors	32	28	16	17
Other students told lies or spread false rumours about me and tried to make others dislike me	43	36	49	42
Other students made fun of me because of my body weight	24	25	25	25
Other students made sexual jokes, comments, or gestures to me	30	30	28	26
9 and 10				
I was called mean names, was made fun of, or teased in a hurtful way	56	51	34	43
Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me	37	36	53	44
I was hit, kicked, pushed, shoved around or locked indoors	29	25	8	10
Other students told lies or spread false rumours about me and tried to make others dislike me	43	30	42	45
Other students made fun of me because of my body weight	29	27	18	24
Other students made sexual jokes, comments, or gestures to me	41	30	32	38

BULLYING OTHERS

With the exception of females in the rest of Canada, older students were more likely to report that they had bullied others than were younger students. Males more often indicated that they had bullied others than did females. Grade 6-8 females in NL were less likely to report they had bullied others than were Grade 6-8 females in the rest of Canada.

FIGURE 35 **Students who reported that they had bullied others at school in the past couple of months, by grade and gender (%)**



Substance Use

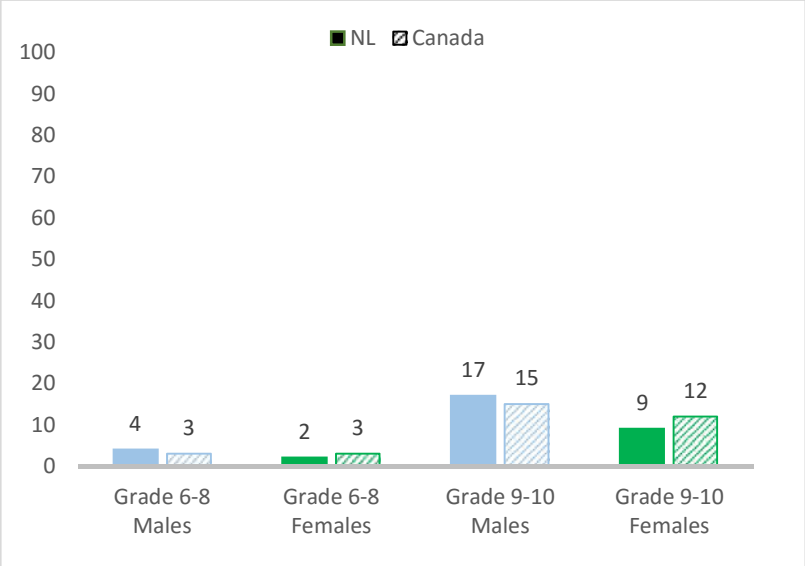
The adolescent years mark a time period when lifelong habits are established. This time period is also marked by experimentation with smoking, alcohol, and drugs and other risky behaviours (Chassin, Pitts, & Prost, 2002). Generally, substance use becomes more common among older youth, but the younger that adolescents begin use, the greater the likelihood that they will develop problems related to that use (Hingson, Heeren, & Winter, 2011; Mason & Spoth, 2012). For the majority of adolescents, these behaviours are occasional in nature (Nell, 2002). However, for a sizable minority of adolescents, these behaviours escalate and become more serious problems. Several risky behaviours tend to co-occur with other health problems in youth, such as injuries (Collin, 2006), cognitive and psychomotor impairment (Squeglia, Jacobus & Tapert, 2009), and social and emotional problems (Elgar, Knight, Worrall, & Sherman, 2003).

The use of self-report data for health-related issues, for example, around alcohol and substance use, has long been a topic of debate and concern (Del Roca & Noll, 2000). However, there remains no reasonable way of collecting such data other than through self-reports. Furthermore, the anonymity of the HBSC data was used to increase the likelihood of adolescents reporting accurately, as has been done in other health studies (Kilpatrick, Howlett, Sedgwick, & Ghodse, 2000).

SMOKERS

Four percent or less of Grade 6-8 students reported having ever smoked or used flavoured tobacco. Those percentages increased across grade level, especially for males. Students' reports of smoking or using flavoured tobacco were unrelated to geographic location.

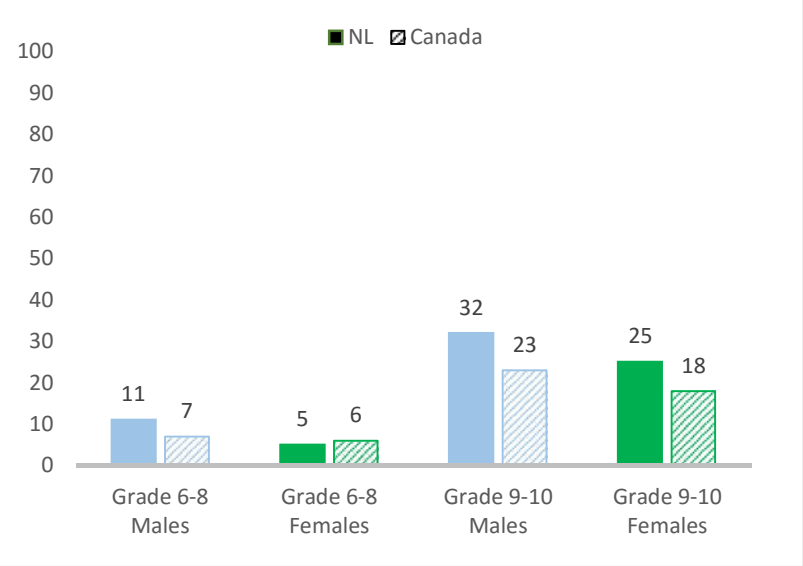
FIGURE 36 **Students who reported that they had ever smoked or used flavoured tobacco, by grade and gender (%)**



SMOKING E-CIGARETTES

Reported e-cigarette smoking increased across grade level, especially for males. With the exception of Grade 6-8 females, students in NL were more likely to report e-cigarette smoking than were students across the rest of Canada. While reported percentages of e-cigarette smoking were similar for younger males and younger females in the rest of Canada, reported e-cigarette smoking was higher for males compared to females in other grade level/location combinations.

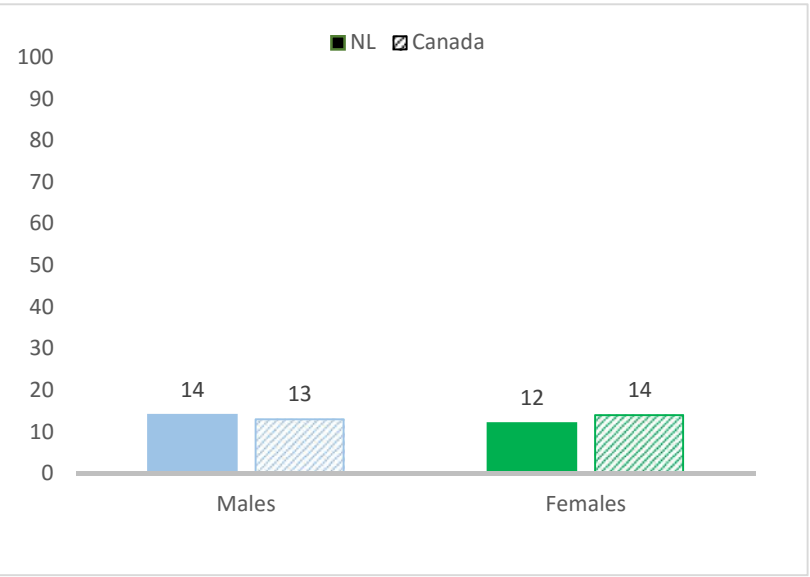
FIGURE 37 **Students who reported that they had ever used e-cigarettes, by grade and gender (%)**



CANNABIS USE

Grade 9-10 students' reports of using cannabis in the last 30 days were not related to gender or geographic location.

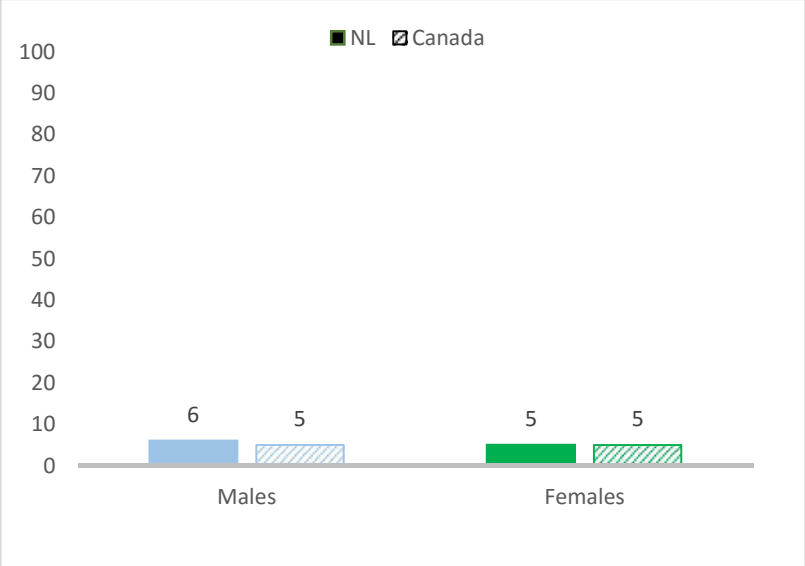
FIGURE 38 **Grade 9 and 10 students who reported that they used cannabis in the last 30 days, by gender (%)**



PAIN RELIEVERS

Very few Grade 9-10 students reported having ever taken pain relievers to get high. Numbers were unrelated to gender or geographic location.

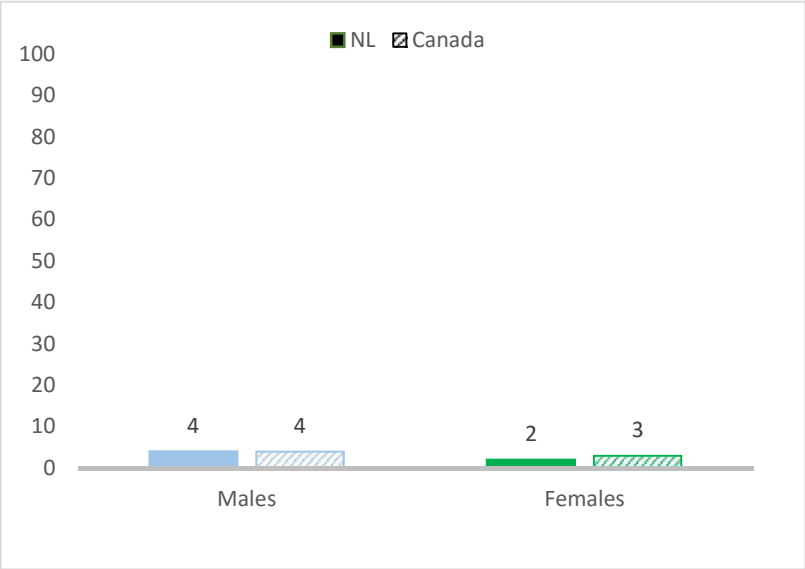
FIGURE 39 **Grade 9 and 10 students who reported that they had ever taken pain relievers (e.g., Percodan, Demerol, Oxycontin, Codeine) in the last 12 months to get high, by gender (%)**



STIMULANTS

Similarly, very few Grade 9-10 students reported having ever taken stimulants to get high. Numbers were unrelated to gender or geographic location.

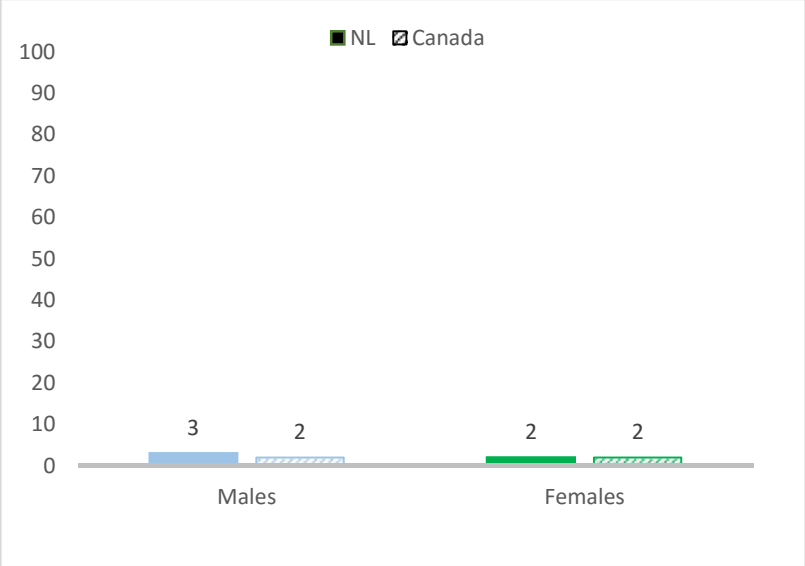
FIGURE 40 **Grade 9 and 10 students who reported that they had ever taken stimulants (e.g., Ritalin, Concerta, Adderall) in the last 12 months to get high, by gender (%)**



SEDATIVES/ TRANQUILIZERS

As with pain relievers and stimulants, reported use of sedatives/tranquilizers to get high was rare, with numbers unaffected by gender or geography.

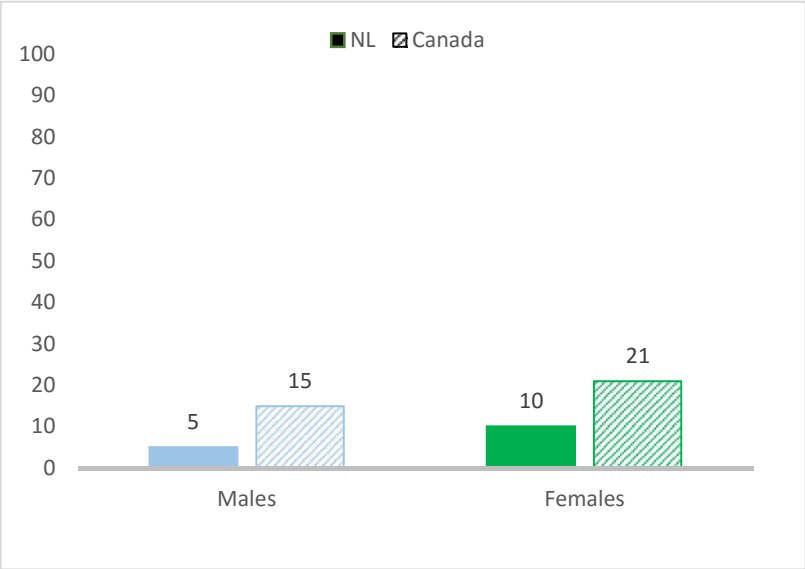
FIGURE 41 **Grade 9 and 10 students who reported that they had ever taken sedatives/tranquillizers (e.g., Valium, Ativan, Xanax) in the last 12 months to get high, by gender (%)**



COUGH AND COLD MEDICINES

Reported use of cough and cold medicines by Grade 9-10 students to get high was higher than reported use of pain relievers, stimulants, and sedatives/tranquilizers. Females were more likely to report getting high on cough and cold medicines than were males. Students in NL were less likely to report using cough and cold medicines to get high than were students in the rest of Canada.

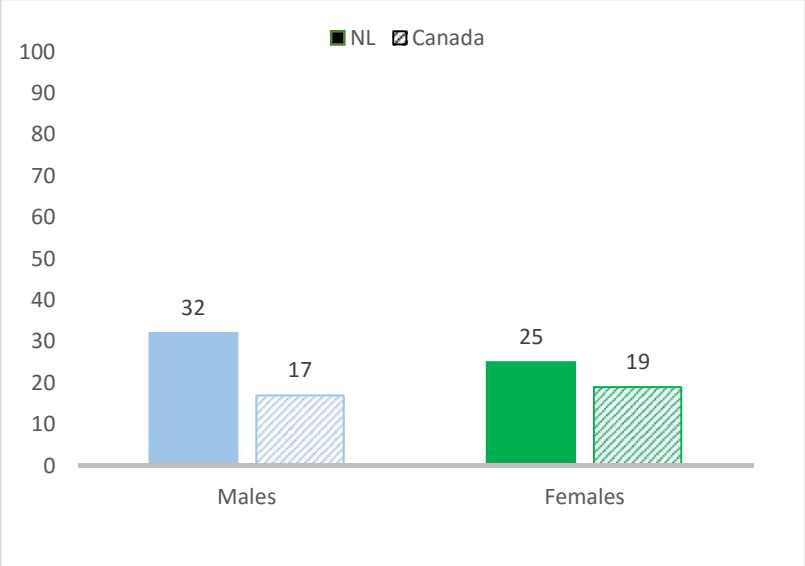
FIGURE 42 **Grade 9 and 10 students who reported that they had ever taken cough and cold medicines in the last 12 months to get high, by gender (%)**

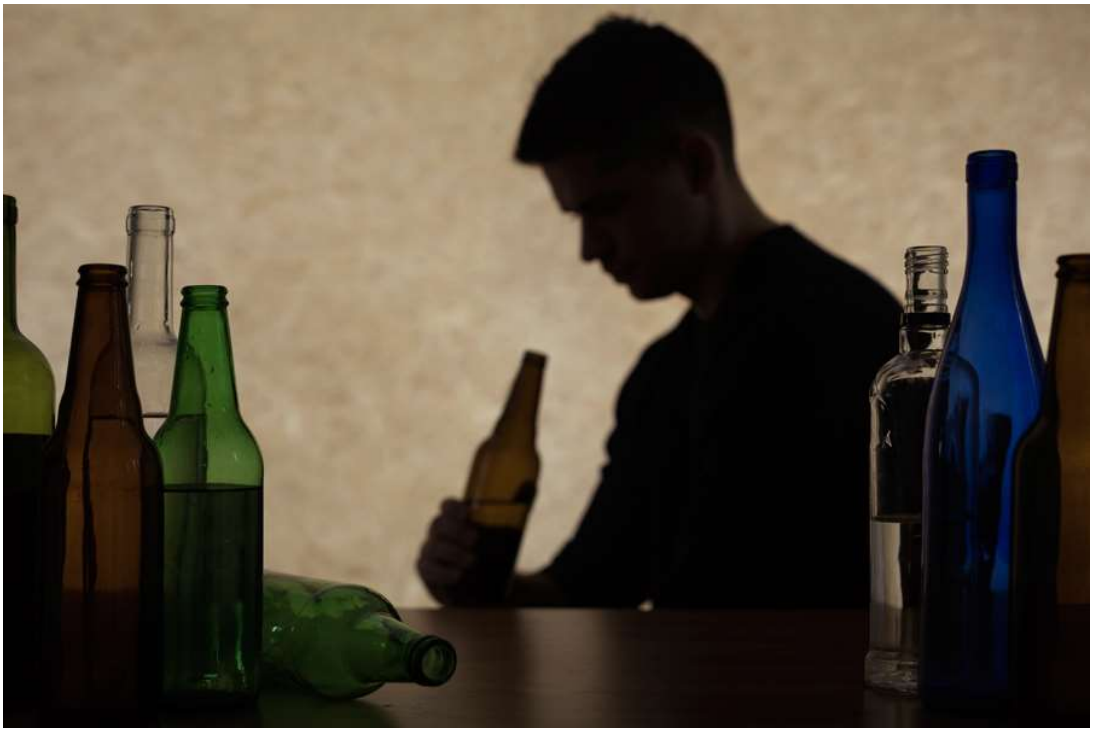


HEAVY DRINKING

Students in NL were more likely to report binge drinking once a month or more than were students in the rest of Canada. Males in NL were more likely to report binge drinking at least once a month than were females in NL. There were no gender differences in the rest of Canada.

FIGURE 43 **Grade 9 and 10 students who reported that they had had 5 or more drinks (4 or more for females), on one occasion, once a month or more in the past 12 months, by gender (%)**

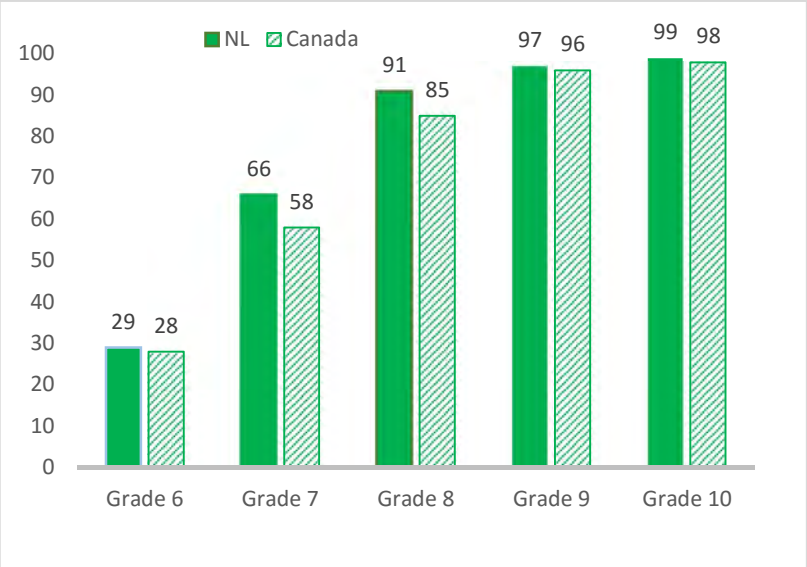




GRADE OF MENARCHE

For the vast majority of girls, menarche occurred before Grade 9. Grade 7 and Grade 8 NL students were more likely to report menarche had occurred compared to their counterparts in the rest of Canada.

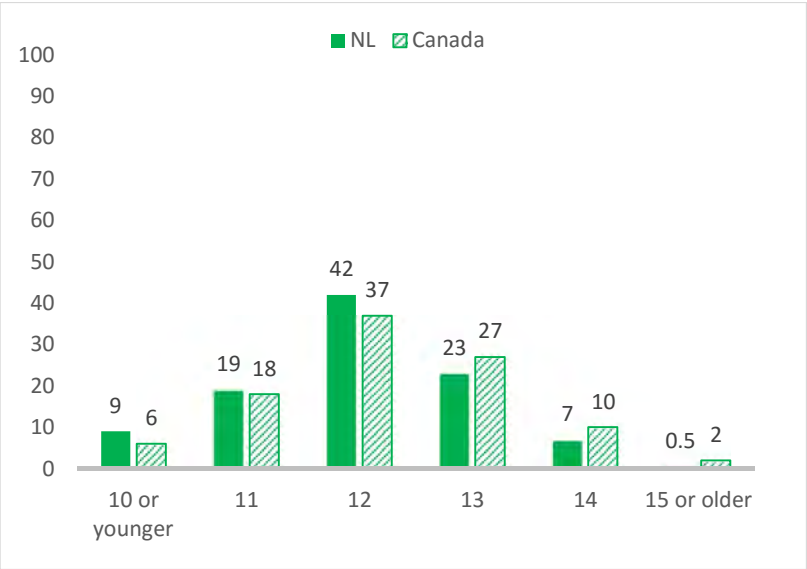
FIGURE 44 Girls who reported they had begun to menstruate, by grade (%)



AGE OF MENARCHE

A similar pattern is revealed when we examine age of menarche. NL females are more likely to report menarche occurred at age 12 or earlier than females in the rest of Canada. For both groups 12 years of age is the most common age of menarche.

FIGURE 45 Grade 9 and 10 girls, age of menarche (%)



Sexual Health

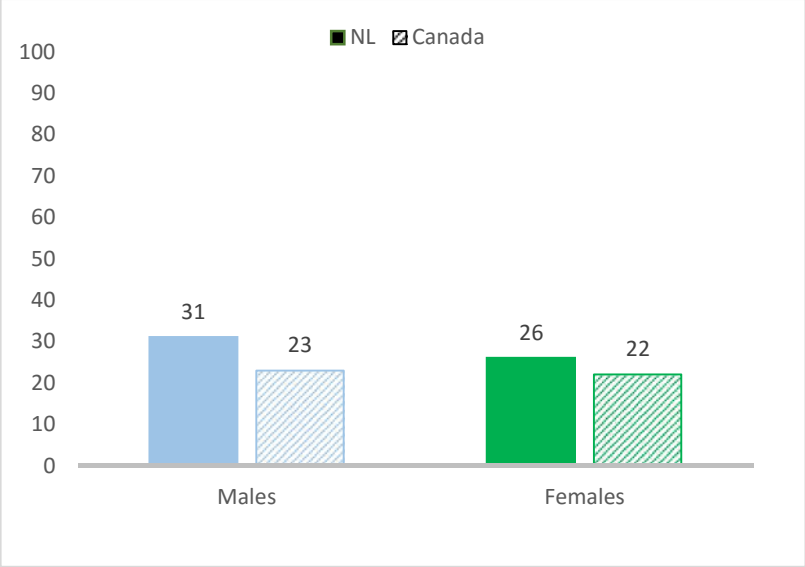
The adolescent years are marked by puberty; the development of sexual identity, sexual attractions, and the onset of sexual behaviours may occur during the pubertal transition (Tolman & McClelland, 2011; Saewyc, 2011). In this sense, adolescent sexuality can be considered developmentally normative (Harden, 2014).

Although having sex is not unhealthy in and of itself, early sexual onset (i.e., at the age of students in the HBSC survey) has been connected to negative consequences in adulthood including a greater number of recent sexual partners, increased number of recent risky sexual partners, greater history of sexually transmitted infections (STIs) and having sex while intoxicated, and (for males) increased sexual dysfunction (Sandfort, Orr, Hirsch, & Santelli, 2008). Moreover, adolescents are at relatively high risk for STIs (Weinstock, Berman, & Cates, 2004), which could be greatly lessened through consistent use of condoms.

EVER HAD SEXUAL INTERCOURSE

Grade 9-10 students in NL were more likely to report having had sexual intercourse than were Grade 9-10 students in the rest of Canada. Males in NL were more likely to report having had sexual intercourse than were females in NL.

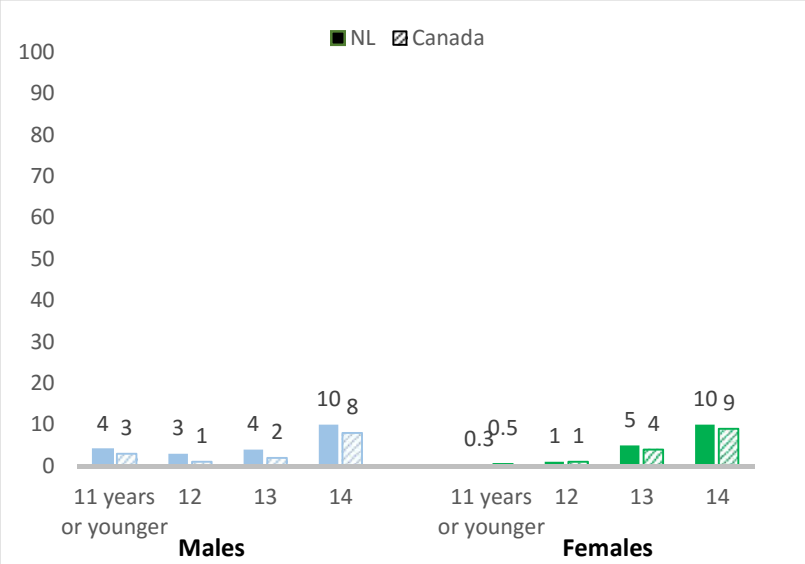
FIGURE 46 **Grade 9 and 10 students who reported that they had sexual intercourse, by gender (%)**



EARLY INITIATION OF SEXUAL INTERCOURSE

Males were more likely to report very early (under 12 years of age) initiation to sexual intercourse than females in both NL and the rest of Canada. For both males and females' patterns of early initiation were similar for NL students and those in the rest of Canada.

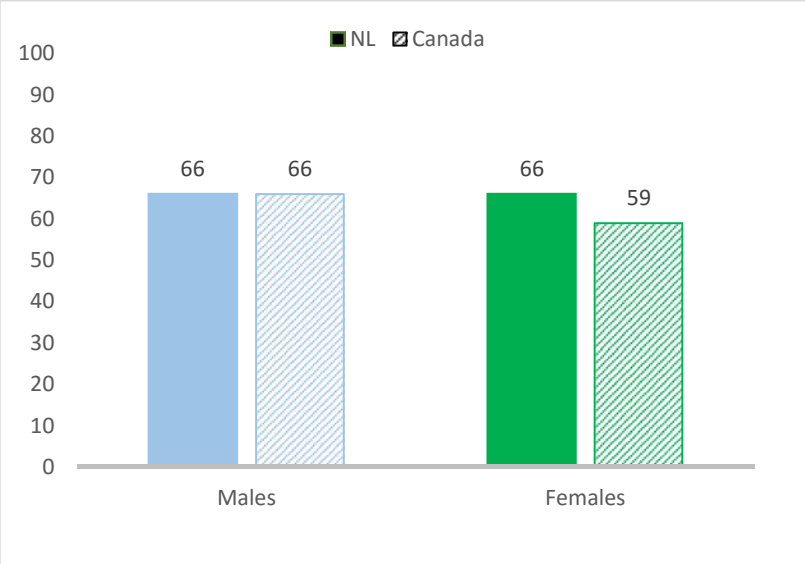
FIGURE 47 **Students aged 15 years or older who reported early initiation (before age 15) to sexual intercourse, by age of initiation, by gender (%)**



CONDOM USE

Grade 9-10 females in NL were more likely to report using a condom the last time they had sexual intercourse than were Grade 9-10 females in the rest of Canada. There was no geographic difference for males. In the rest of Canada, a higher percentage of males reported the use of a condom the last time they had sexual intercourse than did females. There was no gender difference in NL.

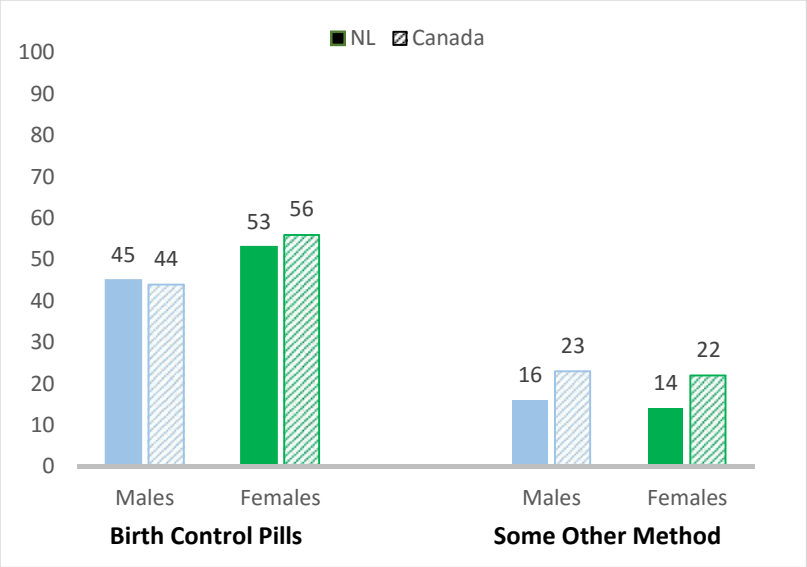
FIGURE 48 **Grade 9 and 10 students who reported that a condom was used the last time they had intercourse, by gender (%)**



BIRTH CONTROL PILLS OR OTHER METHOD

Grade 9-10 males and females in NL were similarly likely to students in the rest of Canada to have reported using birth control pills for protection the last time they had sexual intercourse. More females than males reported using birth control pills while more males were unsure if they had or had not. Newfoundland and Labrador males and females were similar in the percentages who used a method of protection other than condoms or birth control pills and for both males and females NL students were less likely than those in the rest of Canada to use some other method.

FIGURE 49 **Grade 9 and 10 students who reported they or their partner used birth control pills or some method of protection other than condoms or birth control pills the last time they had sexual intercourse, by gender (%)**



6 SUMMARY/CONCLUSION

In summarizing the report for Newfoundland and Labrador, we concentrated on areas where NL students reported better outcomes ("encouraging findings") and worse outcomes ("areas of concern") than did students in the rest of Canada. We included Grade 9-10 females' mental health as an area of concern, because it remains a pervasive issue across the country, worthy of attention at all levels of government.

Encouraging Findings

Understanding Parents: Students in Newfoundland and Labrador were more likely to report their parents as understanding than were students in the rest of Canada. With the exception of Grade 9-10 females, students in NL were more likely to report that they could talk to their family about problems than were students in the rest of Canada.

Community Support: With the exception of Grade 6-8 males, students in NL were more likely than students in the rest of Canada to report that their community was a safe place for younger children to play outside during the day. Grade 6-8 students in NL were more likely than students in the rest of Canada to agree or strongly agree that they could trust people around them. NL students were more likely to report being involved in community than other Canadian students.

Food Insecurity: Although any level of going to school or bed hungry is distressing, students in NL were much less likely to report going to school or bed hungry because there was not enough food at home at least sometimes than were students in the rest of Canada.

Outdoor Play: With the exception of Grade 9-10 females, students in NL were much more likely to report playing outside in their free time than were students in the rest of Canada.

Cough and Cold Medicines: Students in NL were less likely to report using cough and cold medicines to get high than were students in the rest of Canada.

Areas of Concern

Unhealthy Eating: There were indications that NL students were more likely to consume unhealthy food than were other Canadian students. Students in NL were much more likely to report eating at least weekly in a fast food restaurant than were students in other parts of Canada. With the exception of Grade 9-10 females, students in NL were more likely to report daily consumption of soft drinks than were students in the rest of the country. Younger students in NL were more likely to report eating candy or chocolate daily or more often than were younger students elsewhere in Canada. Male students in NL were more likely to report drinking energy drinks at least once weekly than were male students in the rest of Canada.

Physical Activity: Students in NL were less likely to report spending four or more hours per week doing physical activity in class time at school than were students elsewhere in Canada. Reported sports team participation was lower for NL males than for other Canadian males. Although Grade 6-8 males in NL were more likely to report more every day physical activity than were Grade 6-8 males in the rest of Canada, the reverse was true for Grade 9-10 females.

Reported Body Mass Index (BMI): Students in NL were more likely to be classified as overweight or obese by BMI than were students elsewhere in the country.

E-cigarettes and Binge Drinking: With the exception of Grade 6-8 females, students in NL were more likely to report e-cigarette smoking than were students across the rest of Canada. Students in NL were more likely to report binge drinking once a month or more than were students in the rest of Canada.

Grade 9-10 Girls' Mental Health: Across Canada including Newfoundland and Labrador, Grade 9-10 females were far less likely to rate their life satisfaction as "high" (8-10), and to agree or strongly agree that they had confidence in themselves. As well, they were much more likely to state they felt low or depressed at least once weekly, and to indicate that, during the past 12 months, they felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities. Grade 9-10 females in NL were less likely to report being self-confident and more likely to report ongoing sadness/hopelessness than were older females elsewhere in Canada.

The 2013/2014 national report in Canada focuses on the importance of relationships. Similarly, in trying to address the areas of concern identified in this NL Report, an interlocking nest of positive relationships is needed. It is the responsibility of families, schools, peers, and communities to work together in an effort to improve the lives of NL adolescents. It only takes one adult to make a real difference in a young person's life. Let's make sure that each and every youth in Newfoundland and Labrador has that significant adult.

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