

# Health and health-related behaviours among young people

in  
Yukon



## TABLE OF CONTENTS

	<i>Page</i>
1. Introduction .....	3
The Health Behaviour in School-aged Children (HBSC) Study in Canada .....	3
Survey Administration .....	5
Outline of Report .....	7
2. Home .....	9
Family Support Scale .....	10
Chapter Summary .....	15
3. Friends .....	17
Friend Support Scale .....	18
Chapter Summary .....	22
4. School and Community .....	23
School .....	23
School Climate Scale .....	24
Community .....	30
Chapter Summary .....	34
5. Health: Self-rated Health, Mental Health, and Spiritual Health .....	35
Chapter Summary .....	44
6. Healthy Behaviours .....	46
Physical Activity .....	46
Sedentary Behaviour .....	49
Dental Hygiene .....	52
Eating and Diet .....	53
Chapter Summary .....	60
7. Health Risk Behaviour .....	61
Smoking .....	63
Alcohol Use .....	65
Drugs .....	69

Sexual Behaviours .....	75
Chapter Summary .....	77
8.    Violence and Bullying .....	79
Chapter Summary .....	90
9.    Injuries .....	92
Chapter Summary .....	96
10.    Conclusion .....	98
Causes for Celebration .....	98
Causes for Concern .....	99
Concluding Thoughts .....	100
References .....	102

## 1. INTRODUCTION

---

The Health Behaviour in School-aged Children (HBSC) study is a cross-national research study aimed at increasing understanding of young people's health in their social and environmental contexts. The Social Program Evaluation Group (SPEG) at Queen's University, Faculty of Education has been conducting the HBSC survey through the collection of national data from students aged 11 to 15 every four years since 1990. In 2010 and 2014, the survey has included a representative sample of young people from Yukon. Findings from the HBSC survey are used to inform and influence health promotion and health education policy and programs at national and international levels, as well as to increase understanding of young people's health and well-being.

### **The Health Behaviour in School-aged Children (HBSC) Study in Canada**

The Health Behaviour in School-aged Children (HBSC) study, originally initiated in 1982 with researchers from three countries, is a continuing cross-sectional research project developed through an inter-disciplinary, cross-national collaboration. There are now 43 HBSC participating countries and regions, in Europe, North America, and Israel. The HBSC researchers come from a variety of countries, disciplines, and theoretical perspectives. For example, the Canadian team based at Queen's University, with members at McGill University, the University of British Columbia and University of New Brunswick, includes researchers from the areas of community health and epidemiology, education, kinesiology and physical education, nursing, and psychology.

HBSC is sponsored by the World Health Organization (WHO) and funded nationally by the Public Health Agency of Canada. The study is conducted every four years with schools and students in Grades 6 to 10 across Canada. The Social Program Evaluation Group at Queen's University in Ontario has led the study in Canada since its inception in 1990. The first cycle of the study resulted in the publication of *The Health of Canada's Youth* (1992); the second, in the international publication *The Health of Youth: A Cross-National Survey* (1996); the third, in two publications *Trends in the Health of Canadian Youth* (1999) and *Health and Health Behaviour among Young People* (2000); the fourth, in a national report *Young People in*

*Canada: Their Health and Well-being* (2004); the fifth in a national report *Healthy Settings for Young People in Canada* (2008), and the fifth in a national report *The Health of Canada's Young People: a Mental Health Focus* (2012).

HBSC uses a population health framework, recognizing that the determinants of health operate at two levels: (a) the individual level and (b) the ecological level (Advisory Committee on Population Health, 1994). In accordance with the World Health Organization (WHO) perspective, health is acknowledged as a resource for everyday living and not just the absence of disease. As such, the HBSC regards young people's health in its broadest sense, encompassing physical, social, and emotional well-being. The HBSC survey adopts a three-pronged approach to conducting research with adolescents, each approach representing a dimension of students' lives. A developmental approach examines students' lives at 11, 13, and 15 years of age to investigate significant changes that occur in health behaviours and attitudes from the onset of puberty to the middle of adolescence. A socio-demographic approach explores factors such as gender, cultural diversity, and socio-economic determinants in relation to health outcomes. An ecological perspective incorporates contextual determinants – such as the home, school, peers, neighbourhoods, and geographic locations – that may shape or influence a variety of behaviours, attitudes, and outcomes for young people. A broad range of outcomes are examined in the study in relation to the above three dimensions; these include the conventional health-compromising behavioural outcomes, such as smoking, alcohol use, limited physical activity, bullying, and injuries. In addition, the HBSC measures positive adolescent developmental outcomes such as happiness, life satisfaction, emotional well-being, relationships with others, attachment and connectedness to school, and student participation in curricular and extra-curricular activities (Currie et al., 2001).

The overall purposes of the HBSC study in Canada are as follows:

- To collect data on school-aged children that allows researchers to gain insights into young people's attitudes and behaviours, and examine the relationships between contextual factors and health behaviours.

- To contribute to the theoretical, conceptual, and methodological development of research related to youth as it pertains to health in schools, a prime setting for health monitoring and interventions.
- To develop a national information system on the health and lifestyles of young people in Canada that documents trends.
- To disseminate findings to relevant audiences, including researchers, health and education policy-makers, health promotion practitioners, teachers, parents, and young people.
- To provide a knowledge base to inform policy and practice to improve the lives of young people.
- To promote and strengthen national and international expertise on health behaviour and the social and environmental contexts of health in school-aged children.

## **Survey Administration**

The Health Behaviour in School-aged Children Survey was conducted by the Yukon Bureau of Statistics, on behalf of SPEG/Queen's University, and the Yukon Government Departments of Health & Social Services and Education. The survey results are considered important by these government groups because they offer a means of providing a wealth of information that could guide health promotion programming, curriculum development and selection, and school policy. Allocated funding made it possible to target a sample that included every student in Grades 6 to 10 in the territory.

Two experienced interviewers from the YBS travelled to each community to administer the surveys. Prior to the school visits, the school administrators were contacted to set up a convenient time to visit the school and to find out how many students would be in each group (Grades 6 to 8; Grades 9 and 10). At the beginning of each survey session, the interviewers introduced the survey, explained the importance of collecting the data, described how the results would be used, and answered questions that students had. In Grades 6 and 7, the survey was read aloud because of the varied comprehension levels of

students. This process helped keep the class together so that students could complete the survey at the same time. The classroom teacher was invited to stay in the classroom while the survey was being administered but was asked not to walk about so that the students' answers to survey items would remain confidential. At the end of the survey session, each questionnaire was put into its own envelope and sealed by the student. The data collection time for each classroom visit ranged from a low of about 45 minutes to a high of 1 hour and 15 minutes. YBS collected the questionnaires and forwarded them to Queen's University, where researchers analyzed the data.

The data collection was carried out in January, February, and March of 2014. In total, 14 schools in rural Yukon and 17 schools in Whitehorse were visited. The interviewers conducted a total of 96 classroom sessions, including two in French. A total of 1,343 questionnaires were completed and mailed to Queen's University (see [Tables 1.1 and 1.2](#)). Eight of the questionnaires were unusable and are not included in the final Yukon file. The students at the Catholic Secondary School, Grades 9 and 10, used the same questionnaire as the other Yukon Secondary Schools. Of the 31 school administrators, 26 completed the Administrator Questionnaire. Some students from rural communities attend Grade 9 and/or 10 in Whitehorse. The responses of these students are subsumed in the Whitehorse data. Since the survey was administered in school, it necessarily excludes youth who are no longer attending. Care needs to be taken in extrapolating the results to age cohorts, and in making comparisons across gender or geography, particularly if drop-out rates are different for boys and girls, or youth living in Whitehorse versus rural communities.

**Table 1.1: Number of Completed Survey Questionnaires by Grade**

Location	Grades 6, 7 and 8			Grades 9 and 10		
	Enrolment	Sample	Participation rate	Enrolment	Sample	Participation rate
Rural Yukon	212	153	72.1%	143	68	47.6%
Whitehorse	873	675	77.3%	662	439	66.3%
Total	1085	828	76.3%	805	507	63.0%

**Table 1.2: Distribution of Respondents by Region, Gender and Grade<sup>1</sup>**

		Boys	Girls	Total
Grades 6-8	Whitehorse	347	328	675
	Rural	81	69	153
	<b>Total</b>	<b>428</b>	<b>397</b>	<b>825</b>
Grades 9-10	Whitehorse	215	224	439
	Rural	36	32	68
	<b>Total</b>	<b>251</b>	<b>256</b>	<b>507</b>

## Outline of Report

This report presents key findings from the 2014 cycle of the HBSC survey in Yukon and includes chapters on the following topics:

- Home
- Peers
- School and Community
- Health
- Healthy Behaviours
- Health Risk Behaviours
- Violence and Bullying
- Injuries

<sup>1</sup> These are numbers in the final data file. The numbers do not match what appears in Table 1 since some questionnaires were spoiled, empty, or very incomplete and are, therefore, not included as part of the final data file.

The choice of focus areas and items for presentation was made in consultation with the departments of health and education in Yukon and researchers at Queen's University. Health outcomes are examined in relation to gender, grade, and urban/rural location. The decision to present findings by grade, gender, and location was also a collaborative one. Urban/rural designations were determined by school location, and do not necessarily reflect the communities in which students reside. Each chapter includes an introduction to the theme and descriptions of the measures presented. The introduction is followed by tables and figures that illustrate the analyses of the corresponding variables, with a short accompanying text providing interpretation for each figure or table. Summaries of findings are interspersed within these chapters. A concluding chapter summarizes the overall findings of the report, presenting causes for celebration and causes for concern.

## 2. HOME

---

The family plays a central role in socialization and in influencing young people's actions, values, and beliefs (Parke & Buriel, 2006). Family functioning (Berge, Wall, Larson, Loth, & Neumark-Sztainer, 2013), responsive parenting, and parental actions that facilitate healthy living (Rew, Arheart, Thompson & Johnson, 2013) are associated with health-promoting behaviours such as physical activity and healthy eating in youth. Food habits, physical activity, and educational aspirations are more influenced, particularly in early adolescence, by parents than by peers (Inchley, Todd, Bryce, & Currie, 2001; Mazur, Scheidt, Overpeck, Harel, & Molcho, 2001).

While peers have significant influence on adolescent 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 link between parents and adolescent risk taking behaviours. Parents who provide their children with support, who share a strong connection with their children, and who provide supervision for their children during adolescence can buffer the influence peers have on these health risk behaviours (Bremner, Burnett, Nunney, Ravat, & Mistral, 2011).

Parents also have an important influence on young people's psychological and emotional health and well-being. Strong attachments and supportive relationships with parents not only increase self-esteem in youth, but also help youth in coping with the many challenges and struggles they face in adolescence (Bulanda & Majumdar, 2009), including mental health problems (Leone, Ray, & Evans, 2013). Young people struggling with their mental health benefit from supportive parental relationships and the development of a positive living space at home (Leone et al., 2013). Parental support and connectedness are also protective factors against youth suicide (Borowsky, Ireland, & Resnick, 2001).

While other sources of support become prominent during adolescence, parental support remains vital to the positive development of adolescents. Therefore, it is important to examine the home setting to better understand its relationship to health behaviours in school-aged children. This chapter examines the relationships adolescents have with their parents. These relationships are assessed by asking students in Grades 6 to 10 about how

supported they feel by their family; if their parents expect too much of them; if they feel understood by their parents; if they have a happy home life; if they have thoughts of leaving home; and the ease at which they communicate with their mother and father.

### **Family Support Scale**

The family support scale ([Table 2.1](#)) is comprised of four items with a reliability of 0.89. The four items in the family support scale are: my family really tries to help me, I get the emotional help and support I need from my family, my family is willing to help me make decisions, and I can talk about my problems with my family. All items were reported on a five-point scale anchored by “strongly agree” and “strongly disagree.” When students were divided into three approximately equal sized groups with respect to family support, 36.5% of students were in the group with the highest family support.

**Table 2.1: Family Support**

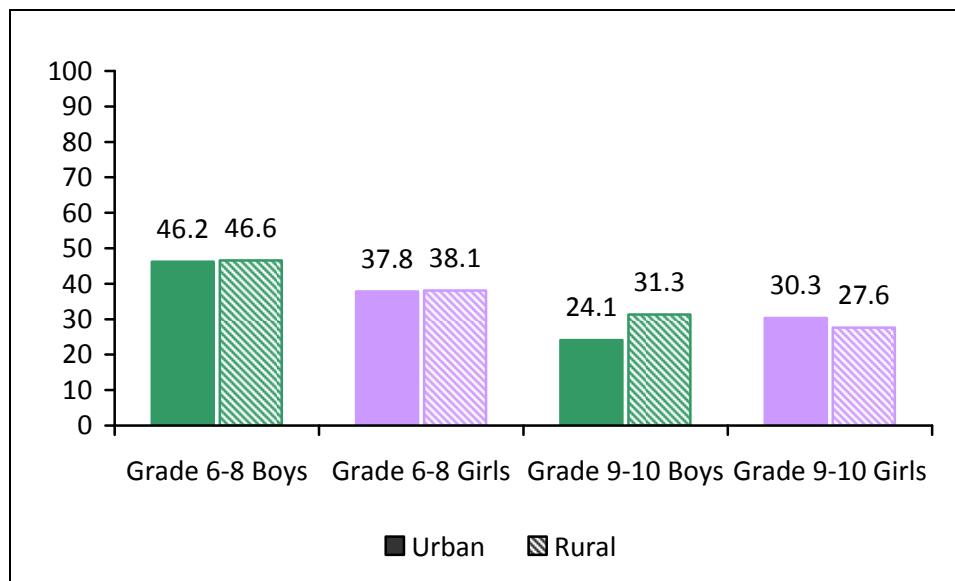
---

My family really tries to help me.	1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree
I get the emotional help and support I need from my family.	
My family is willing to help me make decisions.	
I can talk about my problems with my family.	

---

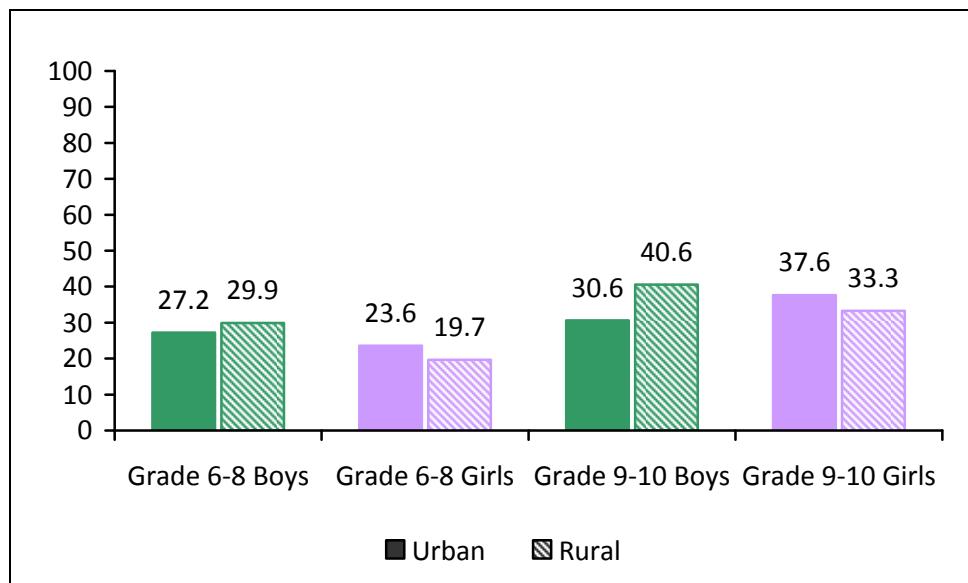
In Grades 6-8, there is no difference between Whitehorse and the rest of Yukon on the percentage of students who are in the high group on family support ([Figure 2.1](#)). Boys are more likely to be in the high group at this grade level. Grade 9-10 boys in Whitehorse are less likely to be in the high family support than other Grade 9-10 boys in Yukon. Secondary students are less likely to have high family support than elementary students.

**Figure 2.1: Students who score in the high third (36.5%) of the family support scale," by grade, urban/rural status, and gender (%)**



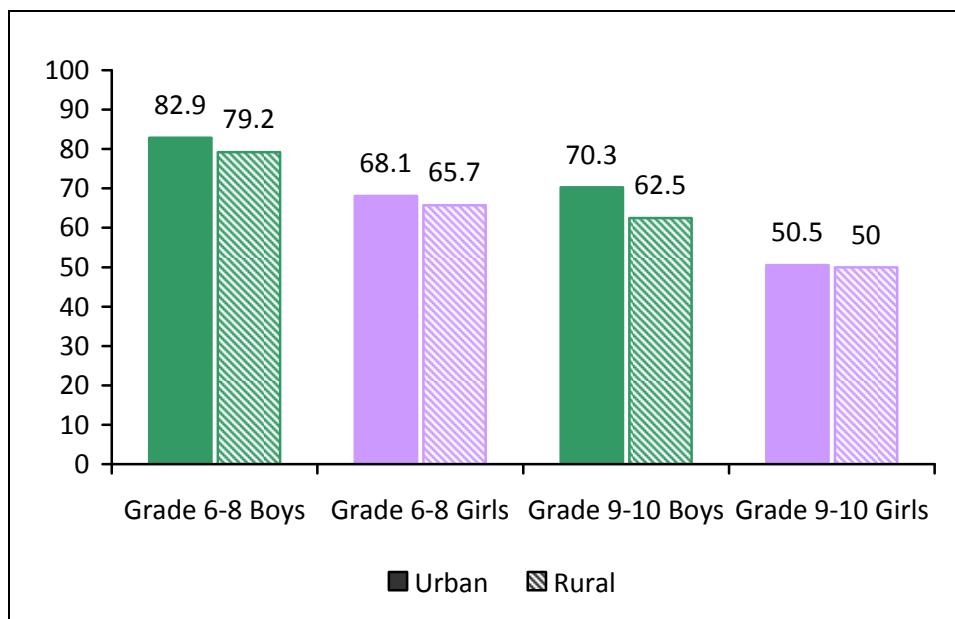
There is a gender difference based on location with respect to parental expectations (Figure 2.2). Grade 9-10 boys in rural areas tend to see their parents as expecting more of them than do those in urban areas. In contrast, girls in urban areas report higher parental expectations than those in rural areas. Parental expectations increase across grades, although minimally for urban boys.

**Figure 2.2: Students who agree or strongly agree with the statement “My parents expect too much of me,” by grade, urban/rural status, and gender (%)**



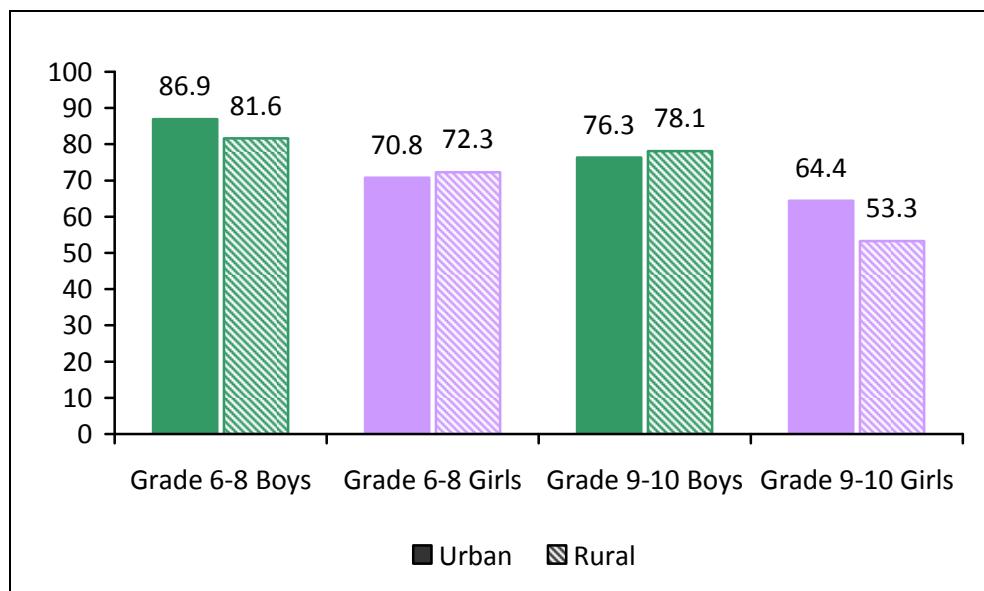
Younger students in Yukon view their parents as more understanding than do older students (Figure 2.3). Additionally, boys view their parents as more understanding than do girls. The effect of location is minimal, most particularly for girls.

**Figure 2.3: Students who agree or strongly agree with the statement “My parents understand me,” by grade, urban/rural status, and gender (%)**



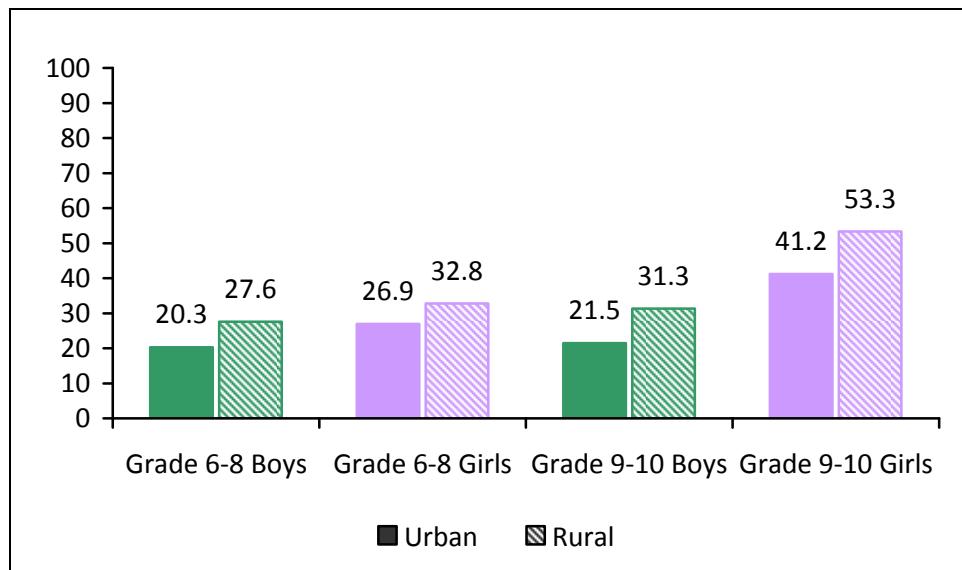
Younger students and male students agree or strongly agree that they have a happy home life in comparison to older students and female students (Figure 2.4). There is no consistent pattern with respect to location, as Grade 6-8 boys and Grade 9-10 girls show an urban-rural difference in favour of the urban students. For Grade 6-8 girls and Grade 9-10 boys, location differences are slight.

**Figure 2.4: Students who agree or strongly agree with the statement “I have a happy home life,” by grade, urban/rural status, and gender (%)**



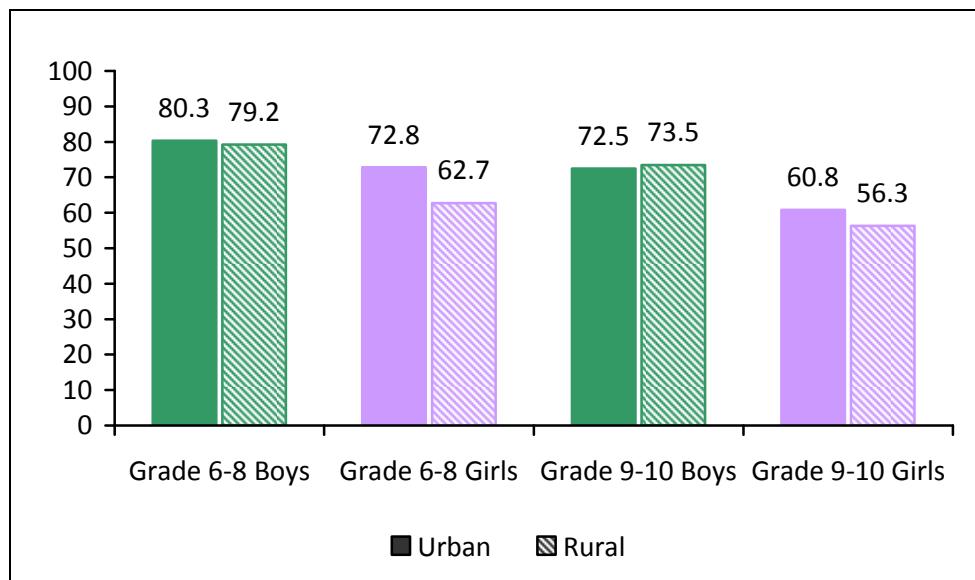
Although there is no marked difference with respect to location for having a happy home life, there is a distinct urban-rural split in regards to students indicating there are times they would like to leave home (Figure 2.5). Rural students are much more likely than urban students to say they would like to leave home, especially in the older grades. Grade 9-10 girls, regardless of location, are the most likely to express a desire to leave home.

**Figure 2.5: Students who agree or strongly agree with the statement “There are times I would like to leave home,” by grade, urban/rural status, and gender (%)**



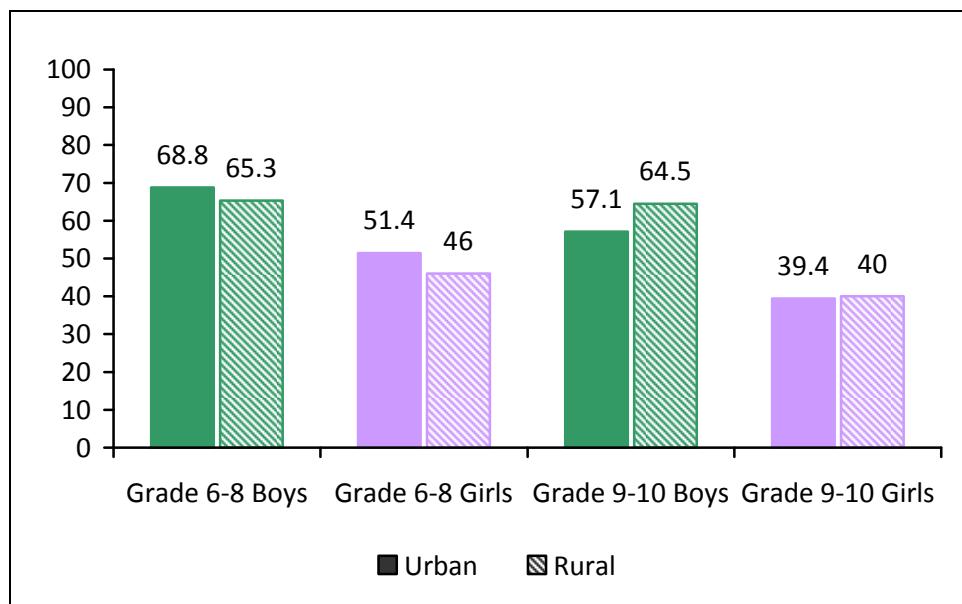
Boys and younger students generally find it easier to talk to their mothers than do girls and older students (Figure 2.6). Urban girls find talking to their mothers easier than the rural girls do. There is no noticeable difference between urban and rural boys.

**Figure 2.6: Students who say their mother is easy or very easy to talk to, by grade, urban/rural status and gender (%)**



As with talking to their mothers, boys and younger students generally find it easier to talk to their fathers than do girls and older students (Figure 2.7). For Grade 6-8 girls, urban students report greater ease in talking to their fathers than do their rural counterparts. In contrast, for Grade 9-10 boys, rural students report greater ease in talking to their fathers than do their urban counterparts.

**Figure 2.7: Students who say their father is easy or very easy to talk to, by grade, urban/rural status and gender (%)**



## Chapter Summary

Family plays a crucial role in the lives of young people as they move through adolescence (Berge et al., 2013; Bulanda & Majumdar, 2009; Parke & Buriel, 2006). Within the health realm, having strong parental relationships has been linked to better physical well-being (Inchley et al., 2001; Mazur et al., 2001), decreased substance use (Bremner et al., 2011; Cavalca et al., 2013; Osgood et al., 2013), better mental health (Leone et al., 2013), and lowered likelihood of youth suicide (Borowsky et al., 2001).

The majority of Yukon youth describe positive relationships with their parents. They feel their parents understand them, describe their home life as happy, and find their mother and (with the exception of secondary school girls) father easy to talk to. Less than half feel

their parents expect too much of them and (with the exception of secondary school rural girls) do not think of leaving home.

These numbers are affected by both grade level and gender. Elementary students, in comparison to secondary students, report more understanding parents, a happier home life, less desire to leave home, and greater ease in talking to their parents. For all of these items, boys are more likely to be positive than girls. Younger students and rural secondary school boys are also more likely to be in the high family support group than older students and rural secondary school girls, while urban secondary school girls are also more likely to be in the high family support group than urban secondary school boys. Parental expectations are higher for secondary school students than for elementary school students and for Grade 9-10 urban girls than Grade 9-10 urban boys. For rural Grade 9-10 students, the gender difference is reversed.

### 3. FRIENDS

---

Friends play a prominent role in the lives of school-aged youth. Relationships with peers of the same and opposite sex are important for the psychological, social, and emotional development of young people. During adolescence, peers become primary providers of emotional and social support (Juvonen, Espinoza, & Knifsend, 2012; Tompkins, Hockett, Abraibesh, & Witt, 2011), as youth pursue independence from family, and friends become close confidants with whom young people can share their worries and problems (Buhrmester, 1990).

Relationships with peers can affect students' academic, social, and emotional adjustment (Hartup, 1996; Juvonen et al., 2012; Molloy, Gest, & Rulison, 2011). Young people who feel socially alienated, who experience hostile peer relationships, and who do not have close friends are more likely to avoid school and are at greater risk for dropping out (Juvonen et al., 2012). Having positive and supportive relationships with peers is also associated with a variety of positive outcomes: greater self-concept (Leung, Marsh, Craven, Yeung, & Abduljabbar, 2012) and increased engagement at school (Molloy et al., 2011). Moreover, positive friendships that provide companionship and support, and that involve mutual engagement in positive behaviours, predict lower levels of behavioural problems, emotional problems, and mental health problems in youth (La Greca & Harrison, 2005; McCuaig Edge & Craig, 2011). Feeling a sense of social connectedness with peers positively affects adolescents (Jose, Ryan, & Pryor, 2012). Caring, responsive, and reciprocal relationships are an important part of the foundation of adolescent well-being (Jose et al., 2012).

This chapter examines young people's relationships with their peers. These relationships are assessed by asking students how supported they feel by their friends and the ease with which they can communicate and share concerns with their friends of the same and opposite sex. In that peer relationships in childhood and adolescence are often formed on the basis of shared interests, this chapter also explores positive-social behaviours and the risk-taking behaviours of the adolescents' peers.

### Friend Support Scale

The friend support scale is comprised of four items (see [Table 3.1](#)) with a reliability of 0.90. The four items included in the friend support scale are: my friends really try to help me, I can count on my friends when things go wrong, I have friends with whom I can share my joys and sorrows, and I can talk about my problems with my friends. All items were reported on a five-point scale anchored by “strongly agree” and “strongly disagree.” When students are divided into three approximately equal sized groups with respect to friend support, 32.3% of students are in the group with the highest friend support.

**Table 3.1: Friend Support**

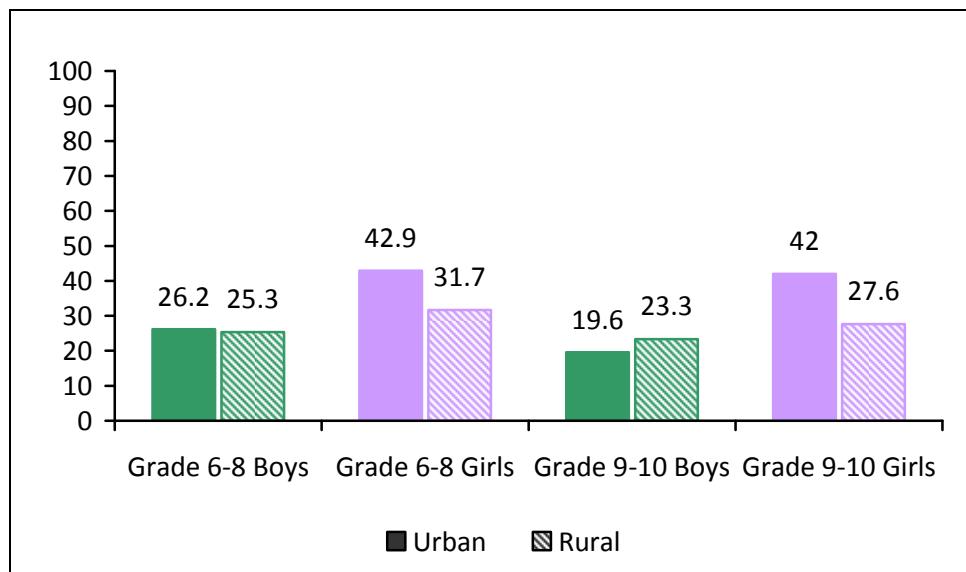
---

My friends really try to help me	
I can count on my friends when things go wrong	1= Strongly disagree, 2= Disagree,
I have friends with whom I can share my joys and sorrows	3= Neither agree nor disagree, 4= Agree,
I can talk about my problems with my friends	5= Strongly agree

---

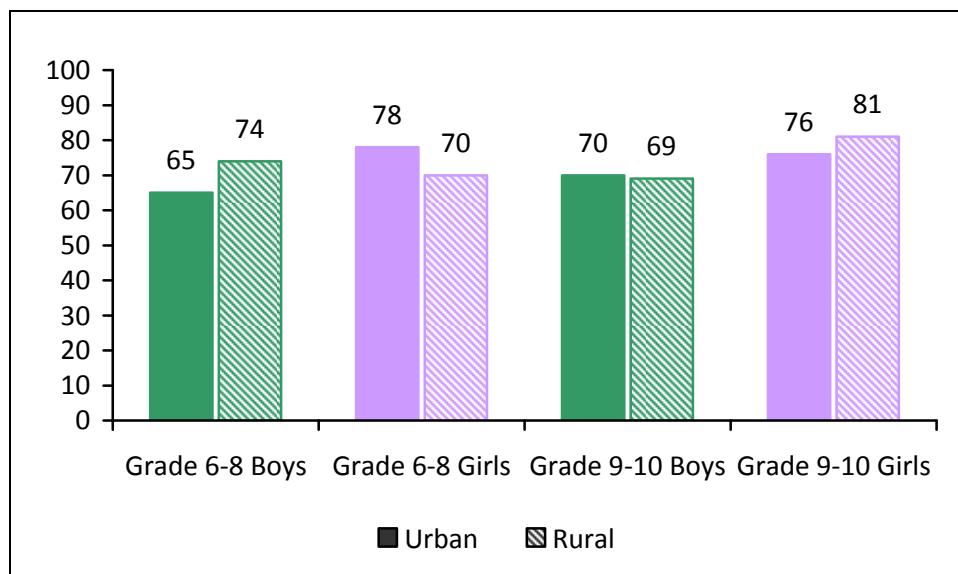
Friend support varies by gender, and, for girls, location ([Figure 3.1](#)). Girls are more likely to be in the high third of the student support scale than are boys. There is also a distinct advantage for urban girls compared to rural girls with urban girls having the greatest probability of being in the high student support group.

**Figure 3.1: Students who score in the high third (32.3%) of the student support scale, by age, urban/rural status, and gender (%)**



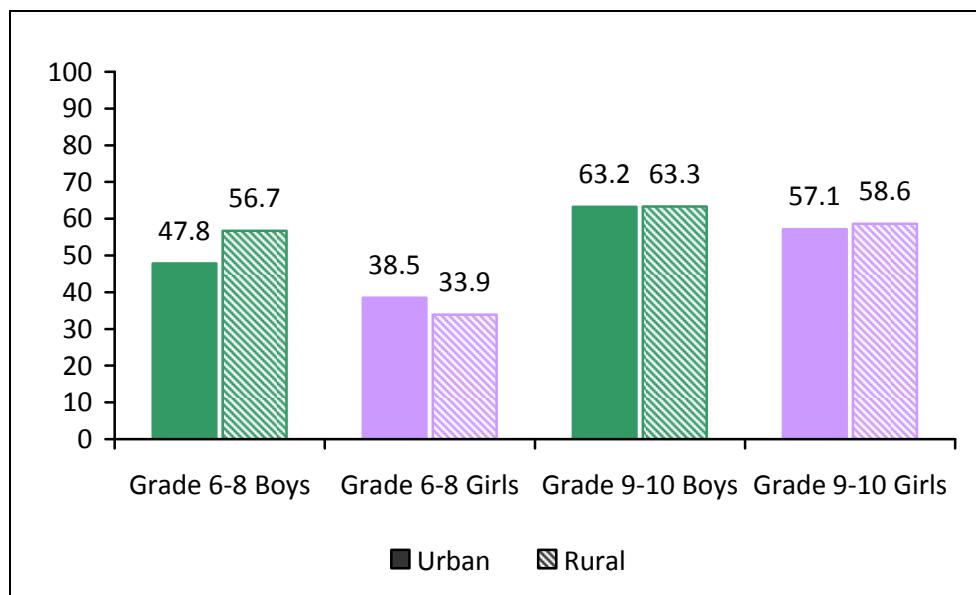
Girls compared to boys find it easier to talk to same-sex friends with the exception of Grade 6-8 students from rural schools (Figure 3.2). Rural Grade 6-8 boys and Grade 9-10 girls find it easier to talk to same sex friends than their urban counterparts. This pattern is reversed for Grade 6-8 girls.

**Figure 3.2: Students who find it easy or very easy to talk to same-sex friends about things that really bother them, by age, urban/rural status, and gender (%)**



Unlike same-sex friends, boys compared to girls find it easier to talk to opposite-sex friends (Figure 3.3). In all groups, the percentages are lower for opposite-sex friends than those for same-sex friends. Grade 6-8 boys in rural areas tend to find it easier to talk to these friends than do boys in urban areas. As students get older, the percentage who finds it easy or very easy to talk to opposite-sex friends increases.

**Figure 3.3: Students who find it easy or very easy to talk to opposite-sex friends about things that really bother them, by age, urban/rural status, and gender (%)**



Females see their friends as more likely to care for the environment and help others in need than do males (Table 3.2). In contrast, males' friends are perceived as more likely to participate in organized sports and in cultural activities and to get along with their parents than are females' friends. Urban students report higher levels for all friend behaviours except participation in cultural activities.

**Table 3.2: Positive Social Behaviours – Grades 9 and 10 students stating most of the friends in their social group perform these behaviours often, by urban/rural status and gender (%)**

	Male Urban	Male Rural	Female Urban	Female Rural
Do well at school	66.2	56.3	66.7	54.8
Participate in organized sports activities with others	67.3	62.5	60.3	41.9
Participate in cultural activities other than sports	19.9	28.1	14.9	26.7
Get along well with their parents	58.9	43.8	42.5	41.9
Care for the environment	26.6	12.5	31.8	26.7
Help others in need	34.8	28.1	50.2	46.7

Rural females see their friends as more likely to participate in all the risk behaviours except having used drugs to get stoned (where rural males are higher; Table 3.3). Male rural students' friends are more likely to be reported as having used drugs to get stoned than are male urban students' friends (41% versus 20%). The difference is reversed for sexual relationships (3% versus 22%).

**Table 3.3: Risk Behaviours – Grades 9 and 10 students stating most of the friends in their social group perform these behaviours often, by urban/rural status and gender (%)**

	Male Urban	Male Rural	Female Urban	Female Rural
Smoke cigarettes	10.8	9.4	11.8	30.0
Get drunk	18.0	21.9	12.9	35.5
Have used drugs to get stoned	20.0	40.6	14.1	35.5
Carry weapons	5.9	0.0	1.4	9.7
Have sexual relationships	22.3	3.2	15.8	16.1

## Chapter Summary

Peer relationships assume critical importance during adolescence (Juvonen et al., 2012; Tompkins et al., 2011) influencing adjustment across multiple life domains (Hartup, 1996; Leung et al., 2012; Molloy et al., 2011). Having strong peer support is particularly beneficial for positive mental health (Jose et al., 2012; La Greca & Harrison, 2005; McCuaig Edge & Craig, 2011).

Peer support is mainly influenced by gender, as girls are more likely to be in the high peer support group than boys and to find it easy or very easy to talk to same-sex friends. There are limited rural-urban differences. Girls from Whitehorse are more likely to be in the high peer support group than girls outside Whitehorse. Boys from Whitehorse are more likely to find it easy or very easy to talk to same-sex friends than boys outside Whitehorse. Talking to opposite-sex friends follows a different pattern. Here boys are more likely to report ease than girls. Ease of talking to opposite-sex friends increases with age for both boys and girls (especially so for girls) across both locations.

The behaviours of friends (measured for Grade 9-10 students only) are most related to location. With the exception of participation in cultural activities, rural girls are more likely to state that their friends participate in risk behaviours and less likely to state that their friends take part in positive social behaviours than urban girls. A similar trend is present with respect to positive social behaviours for boys. In terms of risk behaviours, smoking cigarettes, carrying weapons, and having sexual relationships are more commonly reported about the friends of urban boys; getting drunk and using drugs to get stoned are more commonly reported about the friends of rural boys. Girls' friends are more likely to be seen as caring for the environment and helping others in need than boys' friends.

## 4. SCHOOL and COMMUNITY

---

### School

As one student reported in the Health Behaviour in School-aged Children Healthy Advice Workshop, “school is your second home because you spend so much time in it” (Klinger, Mills, & Chapman, 2011, p. 47). For school-aged children, the school setting may be a greater influence on students’ lives than their home setting. As a result, it is important to examine students’ experiences at school.

While schools are traditionally viewed as being important for students’ academic success, they are also an influence on adolescent development and social-emotional health and well-being (Anderman, 2002; Kidger, Araya, Donovan, & Gunnell, 2012; McLaughlin, 2008; Wells, Barlow, & Stewart-Brown, 2003). Schools and school communities can promote students’ health and well-being through curriculum, the physical environment, and the school’s climate (Weare, 2000).

For many students, their school experiences are positive, in that they have the opportunity to form relationships with their peers and teachers, while also learning and developing life skills. Young people who have positive experiences at school and who attend schools with a positive climate are less likely to engage in risk-taking behaviours that will negatively affect their health (Denny et al., 2011; Wold, Samdal, Nutbeam, & Kannas, 1998). Schools that actively seek to build community among students and that promote safe and inclusive climates assist in fostering students’ social-emotional well-being (McLaughlin, 2008). Moreover, teachers who promote interactions in the classroom, who show mutual respect, and who support students in the school context can increase student engagement at school (Ryan & Patrick, 2001).

Unfortunately, school can be a frightening and unwelcoming place for others. Young people who find their school’s expectations to be too high or who feel excluded and isolated are more likely to have lower levels of self-confidence and a lower sense of self (King, Vadourek, Davis, & McLellan, 2002). These students are also more likely to disengage from school. Disengaged youth are prone to forming relationships with like-minded peers, which may result in the development of further health-risk behaviours (Connop & King, 1999). In

addition, negative school climates and lower rates of teacher support are associated with greater levels of reported student mental health problems (Klinger et al., 2011). Receiving support from teachers (Klinger et al., 2011) and feeling connected with peers are imperative in promoting and supporting positive mental health in young people (La Greca & Harrison, 2005). Schools play an important role in further educating teachers about how to provide support for students with mental health problems (Reinke, Stormont, Herman, Puri, & Goel, 2011; Whitley, Smith, & Vaillancourt., 2012) and in creating inclusive environments in which these connections can be formed (Klinger et al., 2011).

The first part of this chapter examines young people's school experiences in relation to their social and academic development. In addition to exploring and discussing school climate, students in Grades 6 to 10 are asked about their liking for school; school performance; and their perceptions of teachers' acceptance of them as people. Students' relationships with classmates are also investigated, as students are asked about the kindness and helpfulness of their classmates, as well as how accepting their classmates are of them.

### **School Climate Scale**

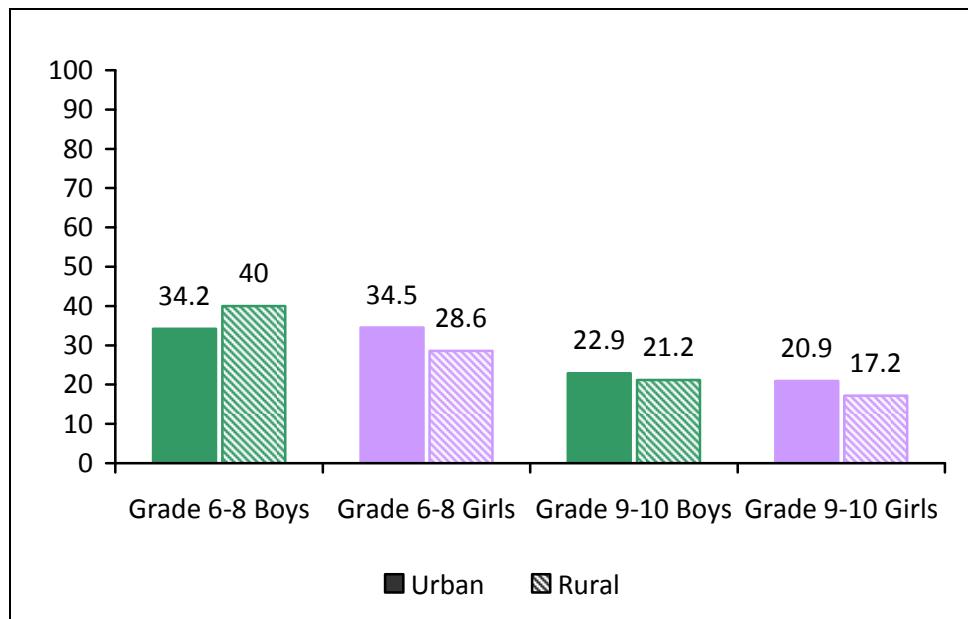
The school climate scale is comprised of four items (see [Table 4.1](#)) with a reliability of 0.83. The four items included in the school climate scale are: the rules in this school are fair, our school is a nice place to be, I feel I belong at this school, and liking school (How do you feel about school at present?). The first three items were reported on a five-point scale anchored by "strongly agree" and "strongly disagree." The fourth item was reported on a four point scale anchored by "I like it a lot" and "I don't like it all". When students were divided into three approximately equal sized groups with respect to school climate, 29.5% of students were in the group with the highest school climate.

**Table 4.1: School Climate**

The rules in this school are fair.	1= Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree, 5= Strongly agree
Our school is a nice place to be.	
I feel I belong at this school.	
How do you feel about school at present?	1= I don't like it at all, 2= I don't like it very much, 3= I like it a bit, 4= I like it a lot

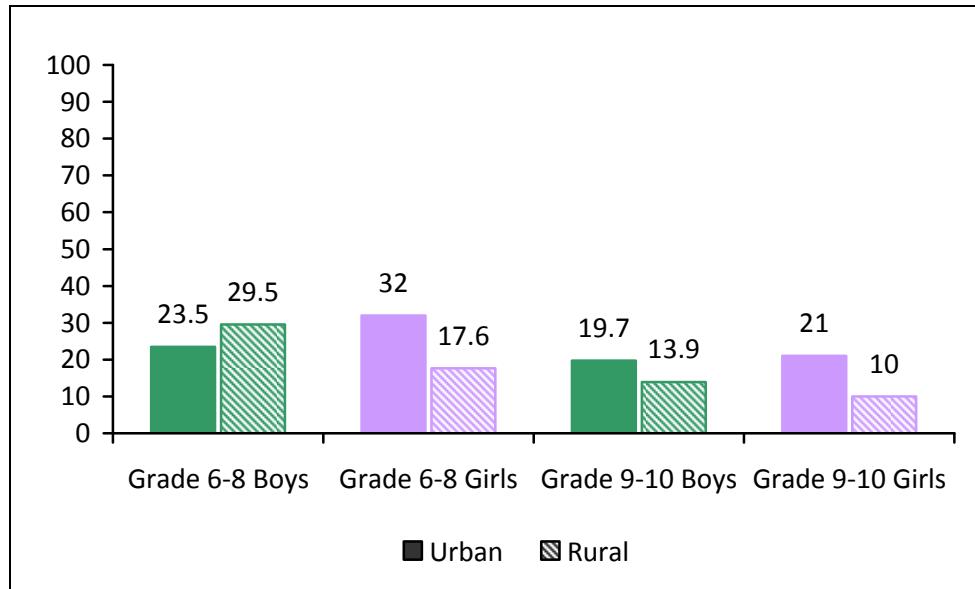
Secondary students are less likely to be in the high school climate group than are elementary students (Figure 4.1). Except for Grade 6-8 urban students, where the numbers are similar, boys tend to be in the high school climate group more so than girls. For Grade 6-8 boys, the rural students are more likely to be in the high school climate group than are urban students. The reverse is true, albeit marginally for Grade 9-10 boys, for the other grade-gender combinations.

**Figure 4.1: Students who score in the high third (29.5%) of the school climate scale, by grade, urban/rural status, and gender (%)**



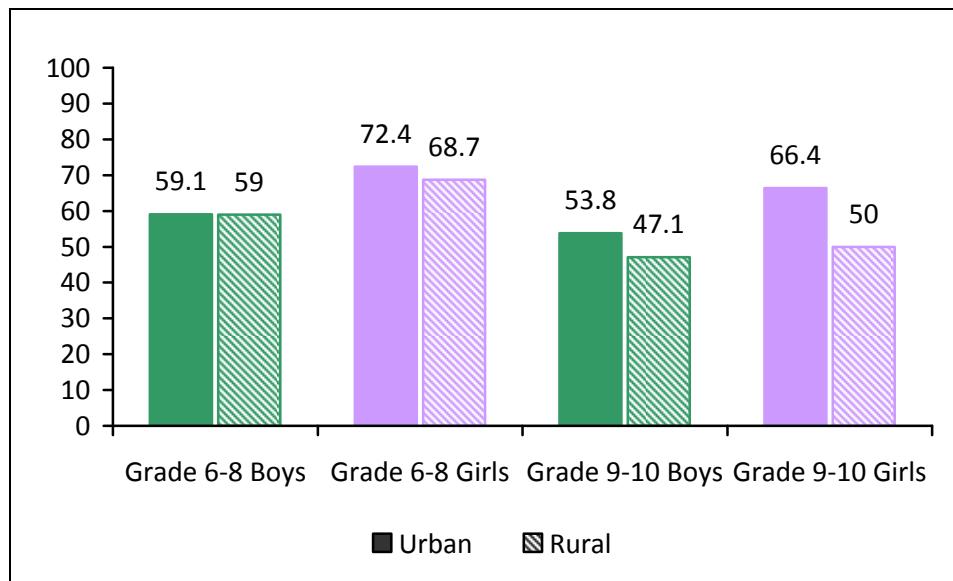
Urban girls tend to like school “a lot” more than do rural girls (Figure 4.2). Grade 6-8 rural boys report greater liking of school than those from urban schools. Younger students generally like school “a lot” more than do older students. Liking school a lot ranges from 10% (Grade 9-10 rural girls) to 32% (Grade 6-8 urban girls).

**Figure 4.2: Students who like school a lot, by grade, urban/rural status, and gender (%)**



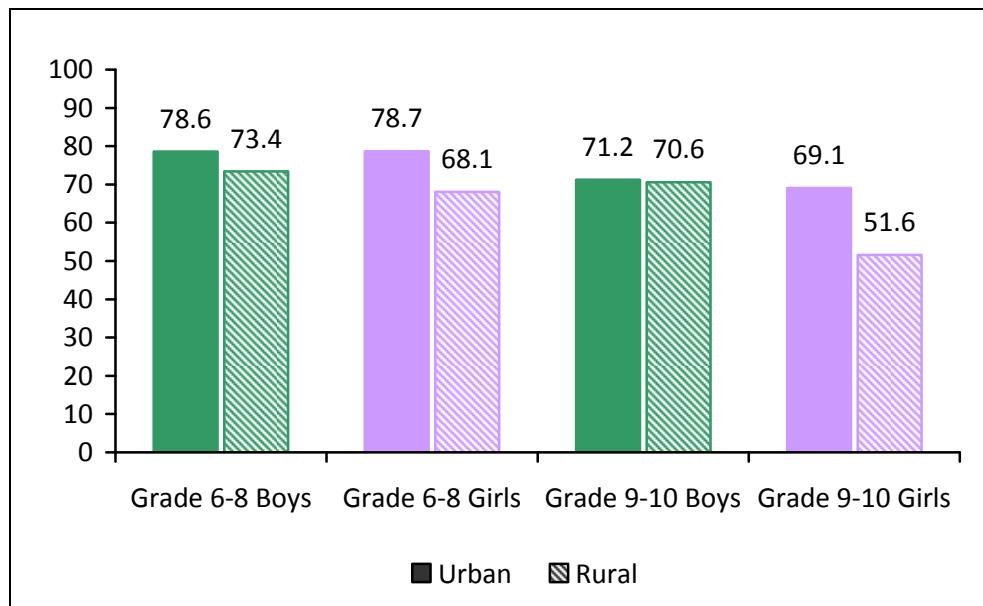
Younger students and girls report that teachers think their school work is good or very good more than do older students and boys (Figure 4.3). The largest urban-rural gap is for Grade 9-10 girls (66% as compared to 50%).

**Figure 4.3: Students who say that teachers think their school work is good or very good, by grade, urban/rural status, and gender (%)**



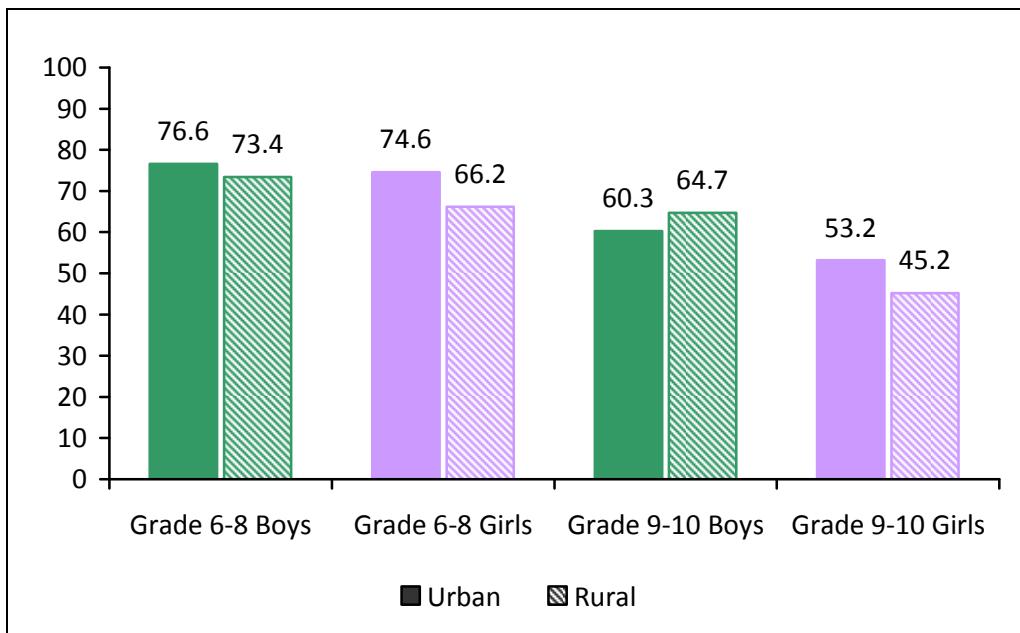
With the exception of Grade 9-10 boys, urban students consistently are more likely to agree or strongly agree their teachers accept them as a person with the biggest contrast being Grade 9-10 girls (69% urban; 52% rural; **Figure 4.4**). Younger students and rural boys tend to feel greater acceptance than do older students and rural girls.

**Figure 4.4: Students who agree or strongly agree that their teachers accept them as they are by grade, urban/rural status, and gender (%)**



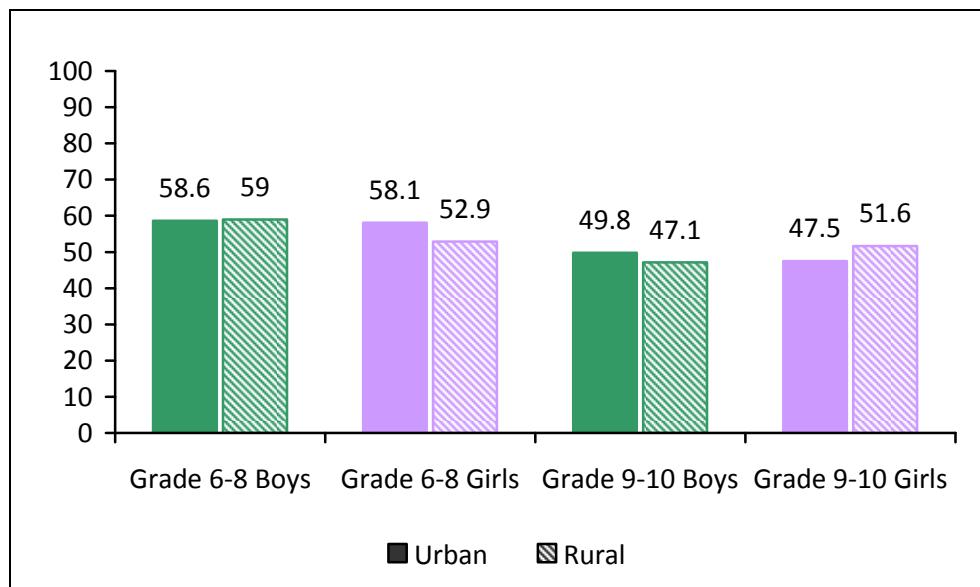
The results for teachers caring about students as persons tend to mirror those for teacher acceptance (Figure 4.5). However, the urban-rural differences are smaller. Indeed, with Grade 9-10 boys, rural students experience more caring than do urban students. The advantage of younger students and boys on teacher caring is higher than that for teacher acceptance.

**Figure 4.5: Students who agree or strongly agree that their teachers care about them as persons, by grade, urban/rural status, and gender (%)**



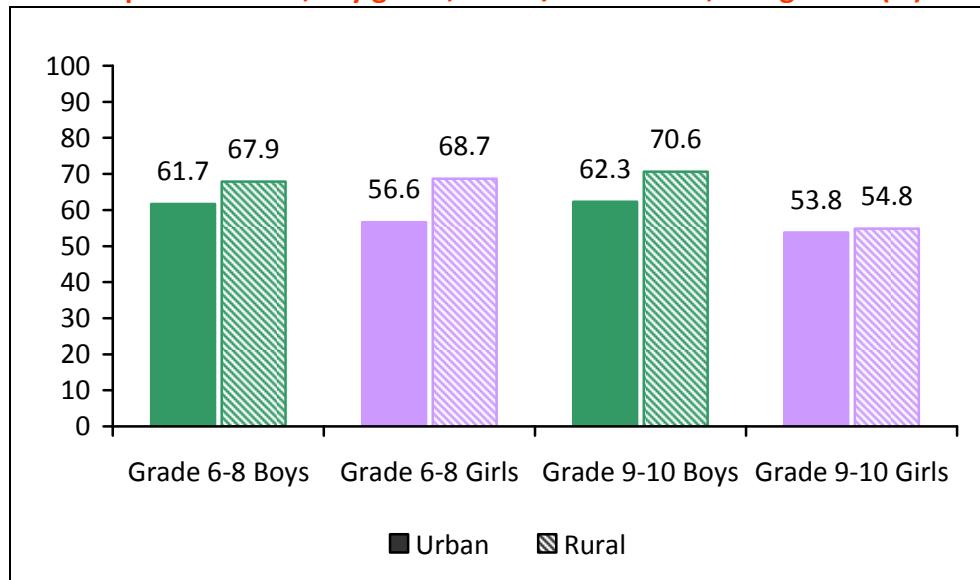
While rural Grade 9-10 girls are comparatively disadvantaged with respect to teacher support, they report higher levels of classmate helpfulness than do their urban counterparts (a reversal from what is reported by Grade 6-8 girls; Figure 4.6). Gender differences are minimal on this question. Younger students view their classmates as more helpful than do older students.

**Figure 4.6: Students who agree or strongly agree with the statement “Most of the students in my class(es) are kind and helpful,” by grade, urban/rural status, and gender (%)**



With the exception of Grade 9-10 girls, where the percentages are similar, rural students are more likely to report classmate acceptance than are urban students (Figure 4.7). Gender differences are minimal at the Grade 6-8 level. Age differences are minimal for boys. However, Grade 9-10 girls report lower classmate acceptance than similarly aged boys and younger girls.

**Figure 4.7: Students who agree or strongly agree with the statement “Other students accept me as I am,” by grade, urban/rural status, and gender (%)**



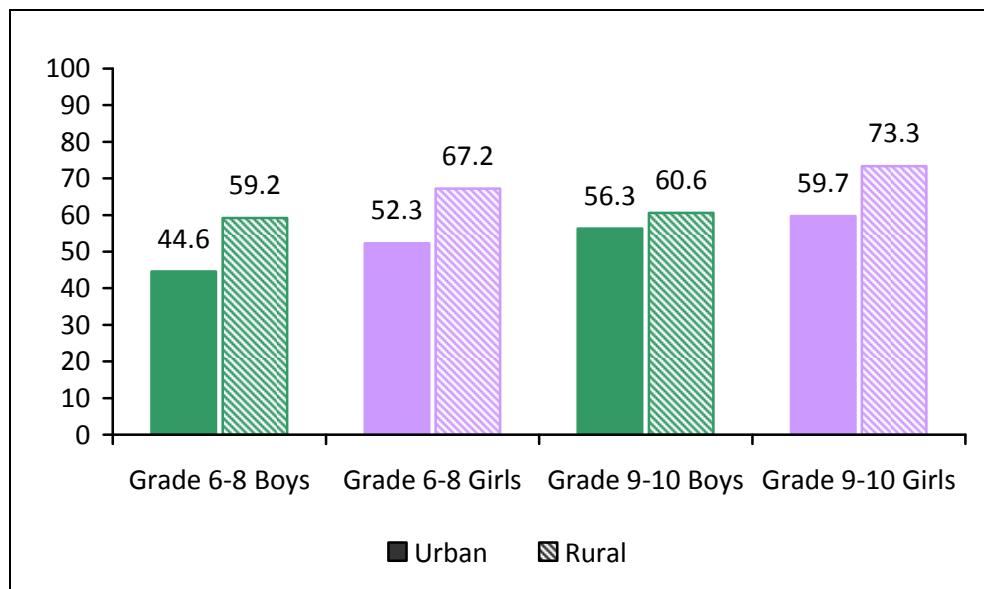
## Community

School-aged children are embedded within a variety of contexts that affect their development and well-being. The community is one such context (Antonishak, Sutfin, & Reppucci, 2005). Young people's wider community becomes increasingly important during adolescence as youth begin to establish their own identity apart from their family (Kowaleski-Jones & Dunifon, 2006). Communities are important to adolescents as they can provide youth with norms and expectations for behaviour, additional care and support, opportunities for youth to feel included and valued, and opportunities for youth involvement in a variety of civic and recreation activities (Benson, Leffert, Scales, & Blyth, 2012). In addition, feeling a sense of belonging and safety within the community context can play a protective role in preventing the development of risk-taking behaviours in youth (Brooks, Magnusson, Spencer, & Morgan, 2012).

This part of the chapter examines young people's relationship with their community. Students are asked if people say 'hello' and often stop to talk to each other in the street; if people in their community can be trusted; if their neighbours are helpful; and if people in their community would try to take advantage of them if they got the chance.

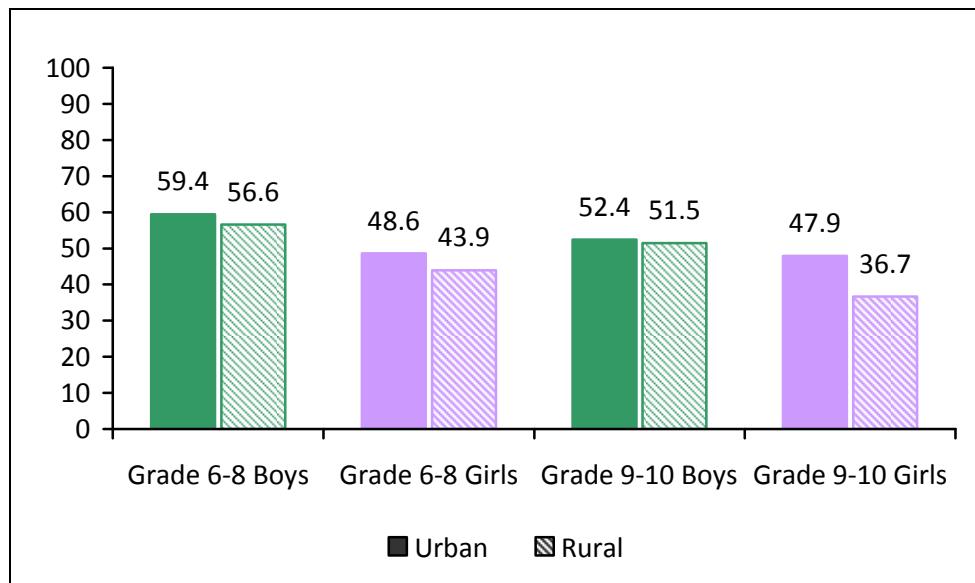
People are reported as stopping and saying hello much more often by rural students than by urban students (Figure 4.8). Girls and older students indicate people are more likely to say hello than do boys and younger students. As a result, Grade 6-8 urban boys are the least likely to agree or strongly agree with the statement (45%), while Grade 9-10 rural girls are the most likely (73%).

**Figure 4.8: Students that either agree or strongly agree that “people say ‘hello’ and often stop to talk to each other in the street,” by grade, urban/rural status, and gender (%)**



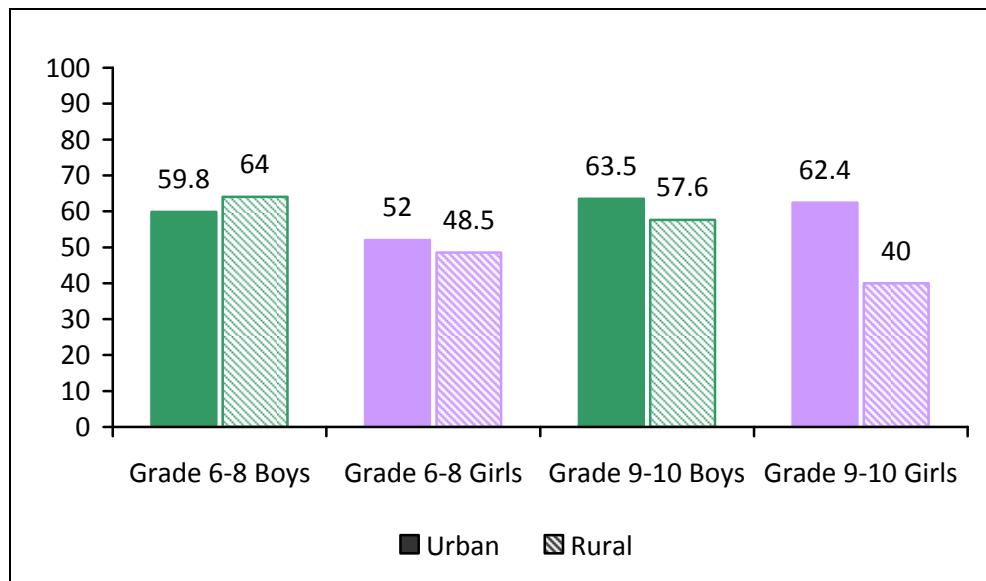
Although rural students report that people stop and say hello more often than urban students, they see themselves as less trusting, especially rural girls (Figure 4.9). Boys report being more trusting than do girls. Age differences are small.

**Figure 4.9: Students that either agree or strongly agree that “you can trust people around here,” by grade, urban/rural status, and gender (%)**



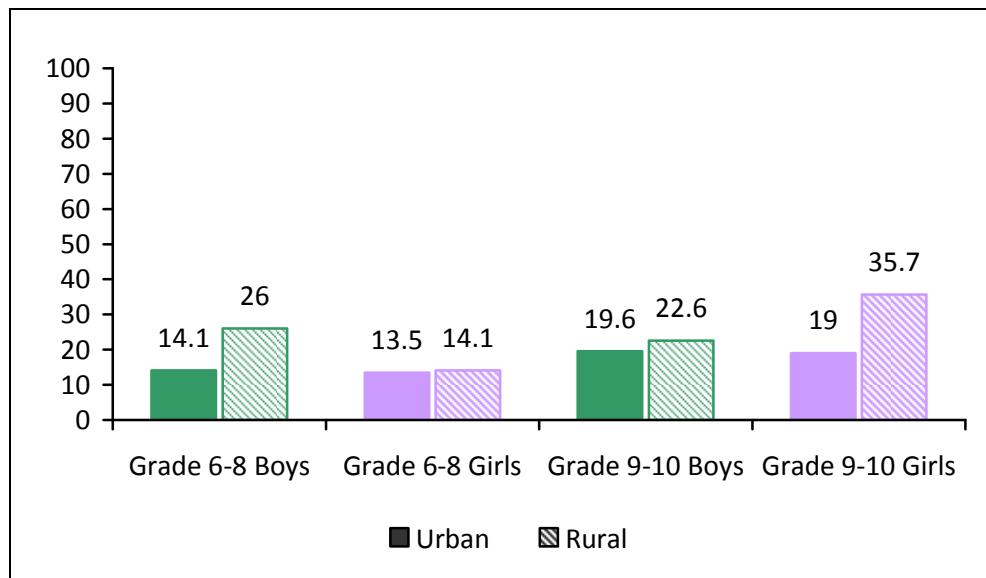
Younger rural students find their neighbours to be more helpful than do older rural students (Figure 4.10). In contrast, older urban students find their neighbours to be more helpful than do younger urban students. Boys are more likely to see their neighbours as helpful than are girls. With the exception of Grade 6-8 boys, rural students view their neighbours as less helpful than do urban students, most especially, Grade 9-10 rural girls.

**Figure 4.10: Students that either agree or strongly agree that “I could ask for help or a favour from neighbours,” by grade, urban/rural status, and gender (%)**



Grade 9-10 rural girls (36%) are much more likely than all other groups to think that most people would try to take advantage of them (Figure 4.11). Rural students are generally more prone to see other people as likely to take advantage than are urban students.

**Figure 4.11: Students that either agree or strongly agree that “most people around here would try to take advantage of you if they got the chance,” by grade, urban/rural status, and gender (%)**



## Chapter Summary

While the primary function of schools is the promotion of academic success, they also exert an influence on adolescent social-emotional health and well-being (Anderman, 2002; Kidger et al., 2012; McLaughlin, 2008; Wells et al., 2003). Students who experience school positively are less likely to have mental health problems and engage in risk-taking behaviours than students who experience school negatively (McLaughlin, 2008). For students who are negative about school, schools contribute to lower levels of self-confidence and a lower sense of self (King et al., 2002).

There is a consistent pattern in Yukon whereby elementary students experience school more positively than secondary students. They are more often in the high school climate group; they tend to like school more; they see their teachers as valuing their work more, accepting them more, and caring for them more; and they more often perceive their classmates as kind and helpful. The other notable pattern concerns the differences between rural girls and urban girls, where there is an advantage for urban girls in general school experiences (school climate and liking school) and teacher support.

Like school, community is an important context that promotes youth thriving (Antonishak et al., 2005; Benson et al., 2012; Brooks et al., 2012; Kowaleski-Jones & Dunifon, 2006). Concerning community, the most interesting group in Yukon is Grade 9-10 rural girls. Grade 9-10 rural girls are the most likely to report contact with the people in their community but also the most prone to seeing these people as taking advantage of them and the least likely to see their neighbours as trustworthy and helpful. Contact with community members increases over grade levels and is higher in rural areas compared to urban, while trusting people is lower in rural areas than in urban.

## **5. HEALTH: SELF-RATED HEALTH, MENTAL HEALTH, and SPIRITUAL HEALTH**

---

When examining the health of young people, we must not only examine students' physical health, but also their mental and spiritual health. Being physically, mentally, and spiritually healthy assists youth in coping with and managing their many challenges and stressors.

Having a positive sense of mental health is the foundation of one's personal well-being and affects one's ability to function effectively, independently, and with others (World Health Organization, 2004). Young people in Canada who experience mental health problems often have difficulties adjusting at home (Buote, 2009) and struggle to succeed academically and thrive socially at school (Mychailyszyn, Mendez, & Kendall, 2010). Students struggling with their mental health are less engaged in the classroom, have lower levels of academic performance and achievement (Mychailyszyn et al., 2010; Owens, Stevenson, & Hadwin, 2012), and are more likely to drop out of school (Meldrum, Venn & Kutcher, 2009) or exhibit criminal behaviour (Kutcher & McDougall, 2009). If mental health problems are not addressed in the school-age years, these problems can persist and lead to adverse outcomes throughout one's lifespan (Waddell, Shepherd, Chen, & Boyle, 2013).

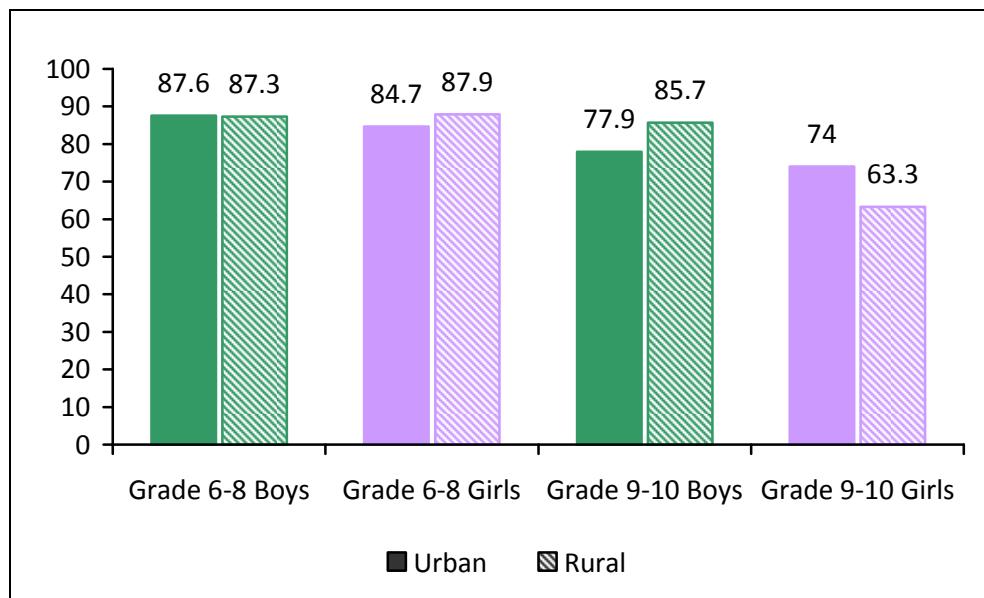
Spirituality is an important aspect of adolescent development and well-being. Spirituality – a feeling of connection or sense of closeness to the sacred (Worthington, Hook, Davis, & McDaniel, 2011) - has been associated with greater self-reported levels of wellness among youth (Spurr, Bally, Ogenchuk, & Walker, 2012). While it is often alleged that youth reject spirituality, emergent research suggests that many Canadian youth feel that their spirituality is not only an essential resource in their journey through adolescence, but that their spirituality influences and is positively related to their overall sense of well-being (Spurr et al., 2012). Spirituality is associated with a variety of indicators of adolescent health and well-being, including lower levels of substance use, violence, and mental health problems (Scales, Syvertsen, Benson, Roehlkepartain, & Sesma, 2014).

In this chapter, students self-rate their health and life satisfaction. Their mental health is further assessed by asking students how often they feel depressed or low; how often they feel bad tempered or irritable; if they feel they have self-confidence in

themselves; if they often wish to be someone else, if they feel helpless; and if they feel sad and hopeless. Feeling low or depressed and self-confidence are discussed in relation to perceptions of school climate. Finally, the spiritual health of adolescents in Yukon is examined by asking young people if they feel it is very important to feel a connection to a higher spiritual power and if it is very important to feel that your life has meaning or purpose.

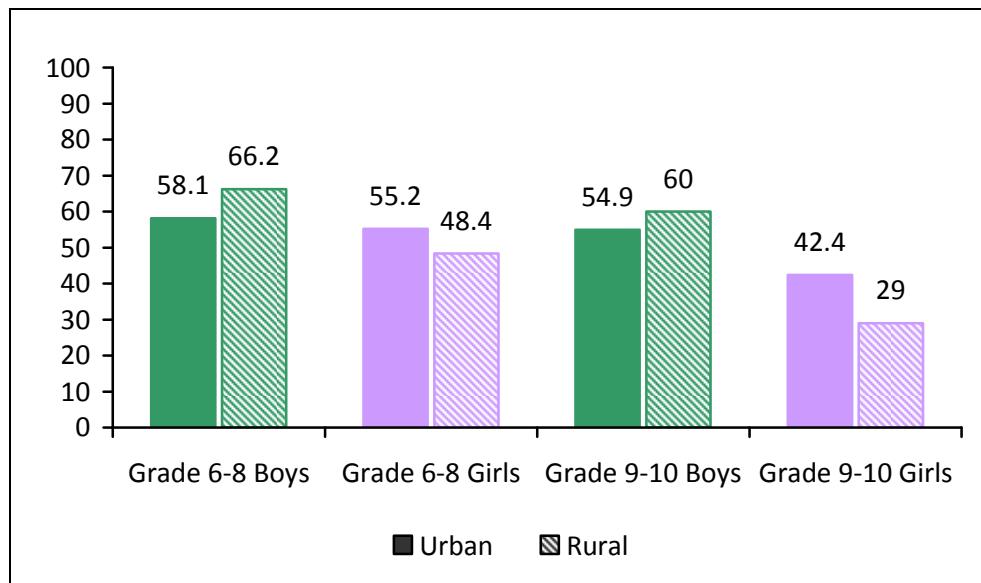
Younger students have minimal gender or location differences with respect to self-rated health (Figure 5.1). Older students, who tend to rate their health lower than do younger students, show a gender x location interaction. For Grade 9-10 boys, rural students report higher health than do urban students. The reverse is true for Grade 9-10 girls. At 63%, Grade 9-10 rural girls are the least likely group to view their health as excellent or good.

**Figure 5.1: Students who rate their health as excellent or good, by grade, urban/rural status, and gender (%)**



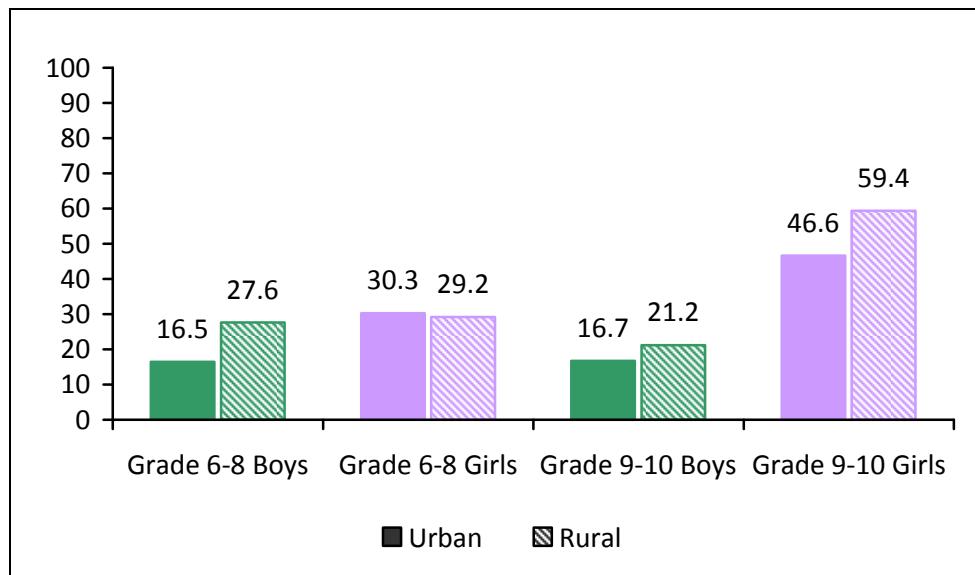
Life satisfaction is related to gender, age, and location (Figure 5.2). Younger students and boys tend to rate their satisfaction as 8-10 on a 0 to 10 scale more so than do older students and girls. For boys, rural students report higher life satisfaction than do urban students. The reverse is true for girls. Only 29% of Grade 9-10 rural girls describe their life satisfaction as 8-10 on a 0 to 10 scale.

**Figure 5.2: Students indicating life satisfaction levels from 8 through 10 on a 0 to 10 scale by grade, urban/rural status, and gender (%)**



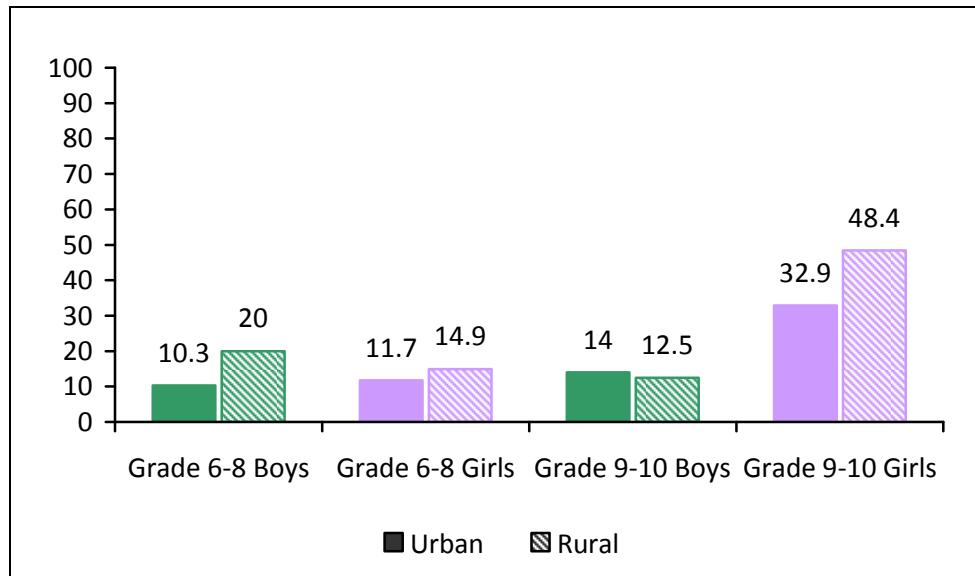
Girls are more likely to report feeling depressed or low at least once a week than are boys (Figure 5.3). Except for Grade 6-8 girls, reported depression is higher in rural areas than in urban ones. For girls, depression is much higher in the older grades: 47% for urban Grade 9-10 girls and 59% for rural Grade 9-10 girls.

**Figure 5.3: Feeling depressed or low at least once a week, by grade, urban/rural status, and gender (%)**



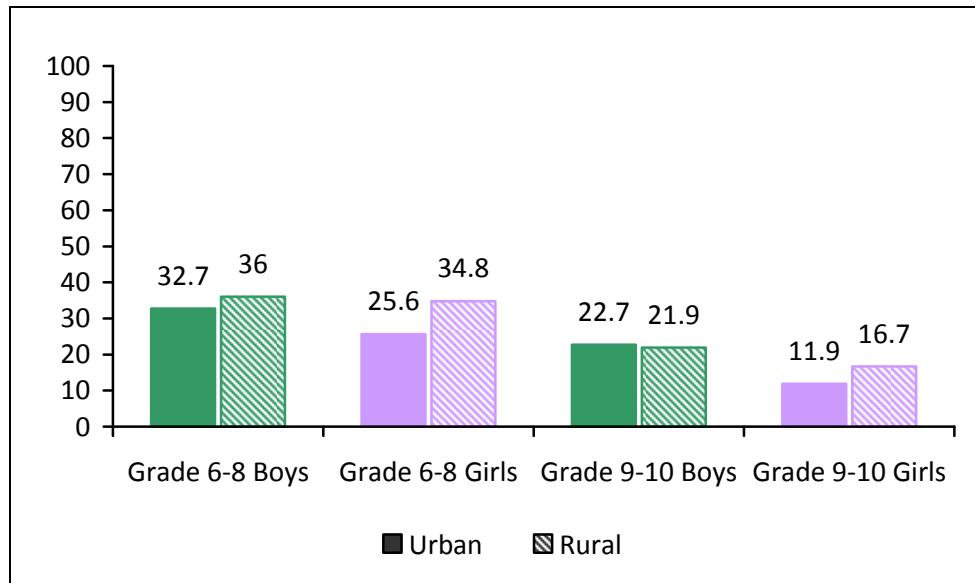
The statistics for feeling bad tempered or irritable are similar to those for feeling depressed or low (Figure 5.4). Except for Grade 9-10 boys, reported irritability is higher in rural areas than in urban ones. For girls, irritability is much higher in the older grades: 33% for urban Grade 9-10 girls and 48% for rural Grade 9-10 girls.

**Figure 5.4: Feeling bad-tempered or irritable more than once a week, by grade, urban/rural status, and gender (%)**



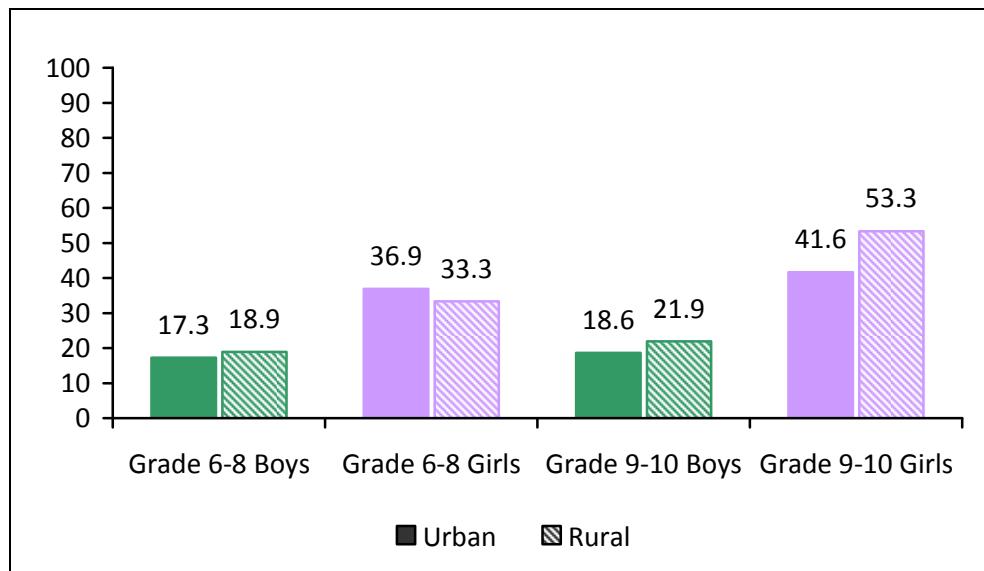
Boys and younger students generally have higher self-confidence than do girls and older students (Figure 5.5). With the exception of Grade 9-10 boys, rural students have higher self-confidence than do urban students. Grade 9-10 girls have the lowest self-confidence (12% Grade 9-10 urban girls; 17% Grade 9-10 rural girls).

**Figure 5.5: Students who strongly agree they have confidence in themselves, by grade, urban/rural status, and gender (%)**



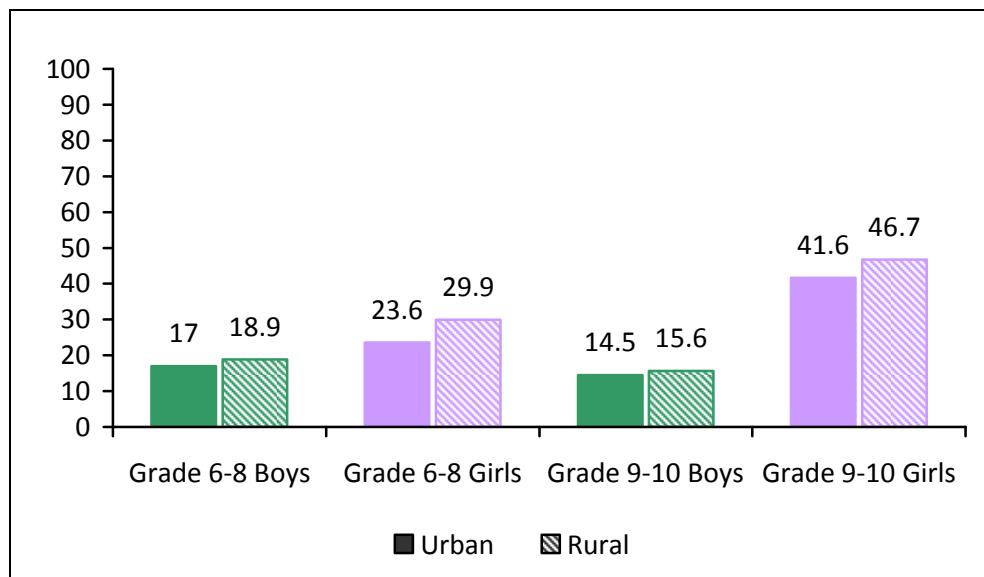
Girls more often wish they were someone else than do boys (Figure 5.6). There are minimal age-related differences for boys. Older girls tend to more often wish they were someone else than do younger girls (42% Grade 9-10 urban girls; 53% Grade 9-10 rural girls).

**Figure 5.6: Students who agree or strongly agree they often wish they were someone else, by grade, urban/rural status, and gender (%)**



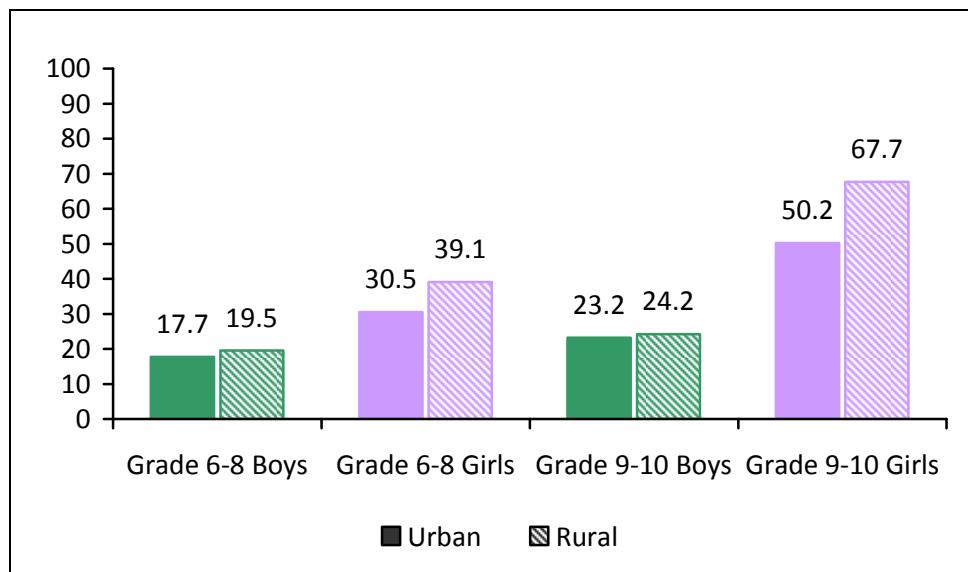
Older girls are much more likely to often feel helpless than are younger girls (42% Grade 9-10 urban girls; 47% Grade 9-10 rural girls; [Figure 5.7](#)). In contrast, younger boys are somewhat more likely to feel helpless than are older boys. The percentages for helplessness are similar but somewhat lower than those for wishing to be someone else.

**Figure 5.7: Students who agree or strongly agree they often feel helpless, by grade, urban/rural status, and gender (%)**



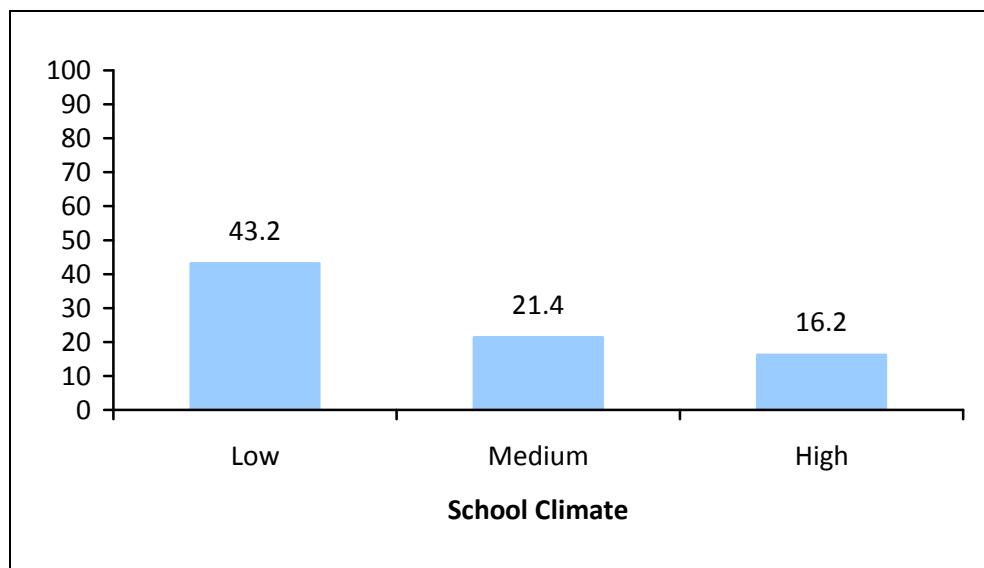
The percentages for sadness and hopelessness are higher than those for helplessness (Figure 5.8). Older students and girls are more likely to indicate they are sad and hopeless than are younger students and boys. Rural students are higher than are urban students. Grade 9-10 girls are again the highest groups (50% Grade 9-10 urban girls; 68% Grade 9-10 rural girls).

**Figure 5.8: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? (% Yes)**



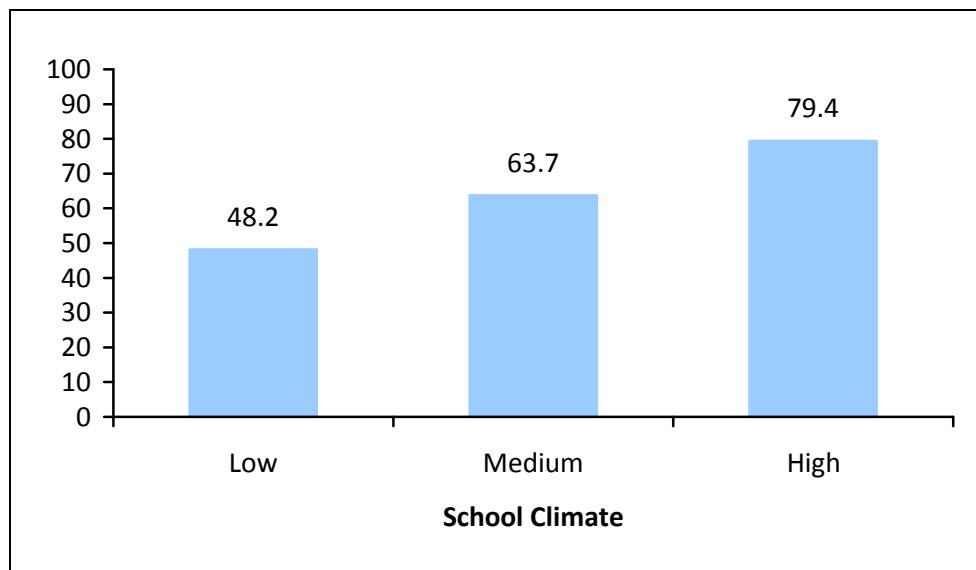
School climate is related to feeling low or depressed for Yukon students (Figure 5.9). Those students who are in the low school climate group are more than twice as likely (43%) to feel low or depressed at least once a week than are students in the medium (21%) or high (16%) school climate groups.

**Figure 5.9: Students who feel low or depressed at least once a week, by school climate (%)**



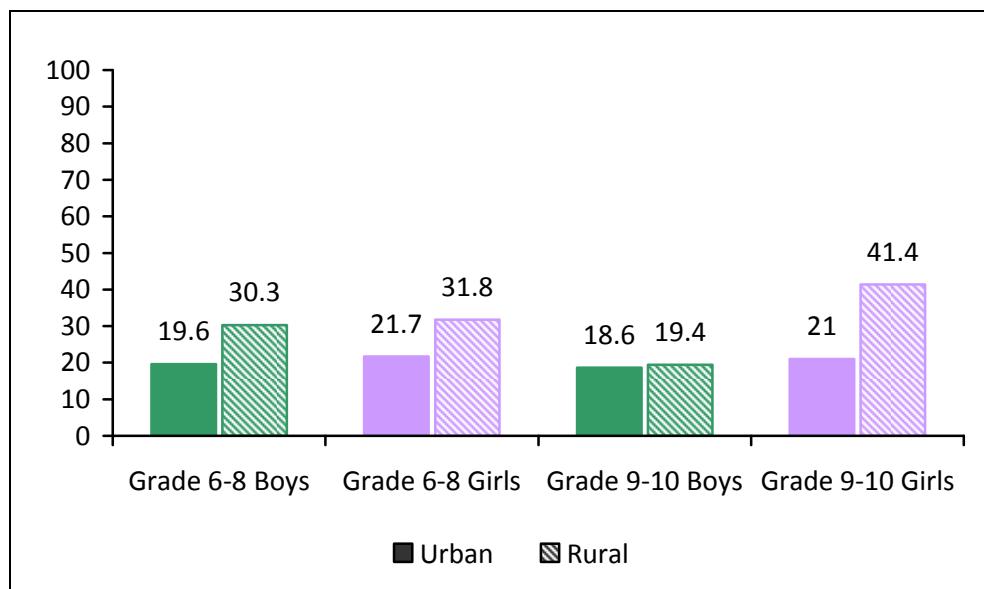
School climate also demonstrates a strong linear relationship to self-confidence (Figure 5.10). While 48% of Yukon students in the low school climate group see themselves as confident, that percentage increases to 64% in the medium group and 79% in the high group.

**Figure 5.10: Students who agreed or strongly agree they have confidence in themselves, by school climate (%)**



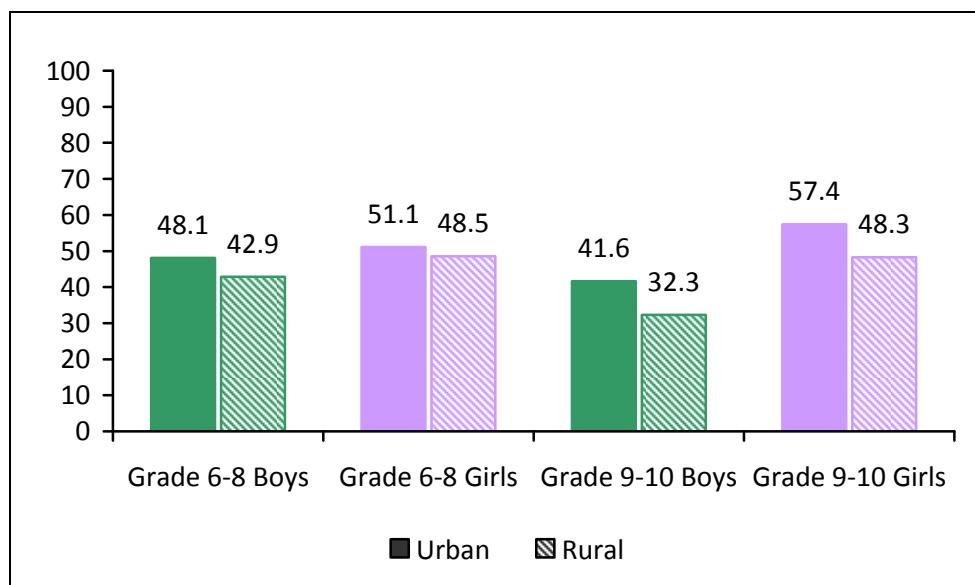
With the exception of Grade 9-10 boys, rural students are more likely to consider it very important to feel a connection to a higher spiritual power than are urban students (Figure 5.11). There is no age-related change for urban students from Grade 6-8 to Grade 9-10. While spiritual connection decreases for rural boys across grades, it increases for rural girls. As a result, importance of connection to a higher power is higher for Grade 9-10 rural girls than Grade 9-10 rural boys.

**Figure 5.11: It is very important to feel a connection to a higher spiritual power (%)**



Urban students are more likely to want to feel their life has meaning or purpose than do rural students, especially in Grade 9-10 (Figure 5.12). The need for meaning or purpose is higher for girls than for boys. This need decreases across grades for boys. It remains stable for rural girls but increases for Grade 9-10 urban girls (51% Grade 6-8 urban girls; 57% Grade 9-10 urban girls).

**Figure 5.12: It is very important to feel that your life has meaning or purpose (%)**



### Chapter Summary

Mental health is the core of well-being (World Health Organization, 2004). Canadian youth with mental health issues struggle at home (Buote, 2009), at school (Meldrum et al., 2009; Mychailyszyn et al., 2010; Owens et al., 2012), and within the community (Kutcher & McDougall, 2009). Adolescent mental concerns often persist into adulthood (Waddell et al., 2013).

Self-rated health and life satisfaction tend to be higher for younger students than for older students with the decrease steeper for girls, especially rural girls, than for boys. Boys' self-rated health and life satisfaction are higher than girls'. Grade 9-10 girls, regardless of location, are lower than all other groups. Grade 9-10 rural girls are particularly low.

With only three exceptions across the five negative mental health items examined (feeling bad-tempered or irritable, Grade 6-8 rural students; feeling depressed or low and often wish I were someone else, Grade 6-8 girls), the pattern is exactly the same. Girls are higher than boys, rural students are higher than urban students, and Grade 9-10 students are higher than Grade 6-8 students. Grade 9-10 rural girls consistently report the highest level of mental health concerns; Grade 9-10 urban girls the second highest. Self-confidence

is similarly lower for girls than for boys and for older students than for younger students. However, with the exception of Grade 9-10 boys, it is higher for rural students than for urban students.

School climate is related to both adolescent depression and self-confidence in Yukon. Students in the high school climate group report lower depression and greater self-confidence than students in the medium school climate group, who, in turn, have more favourable results than the low school climate group. The gap is larger between the low and medium groups than between the medium and high groups.

Spirituality is a crucial part of many adolescents' lives and seems to influence their well-being (Scales et al., 2014; Spurr et al., 2012). While it is distinct conceptually from mental health, spiritual health and mental health are generally correlated (Scales et al., 2014).

Girls generally are higher than boys on spiritual health, giving greater importance to both feeling a connection to a higher spiritual power and feeling their life has meaning. Rural students more often than urban students indicate it is very important to feel a connection to a higher spiritual power. Urban students more often than rural students indicate it is very important to feel their life has meaning.

## 6. **HEALTHY BEHAVIOURS**

---

This chapter examines healthy living among youth. Healthy living habits are assessed by asking students about their physical activity during and outside of school hours, participation in sedentary activities such as television watching and computer use, their dental hygiene practices, and their eating habits.

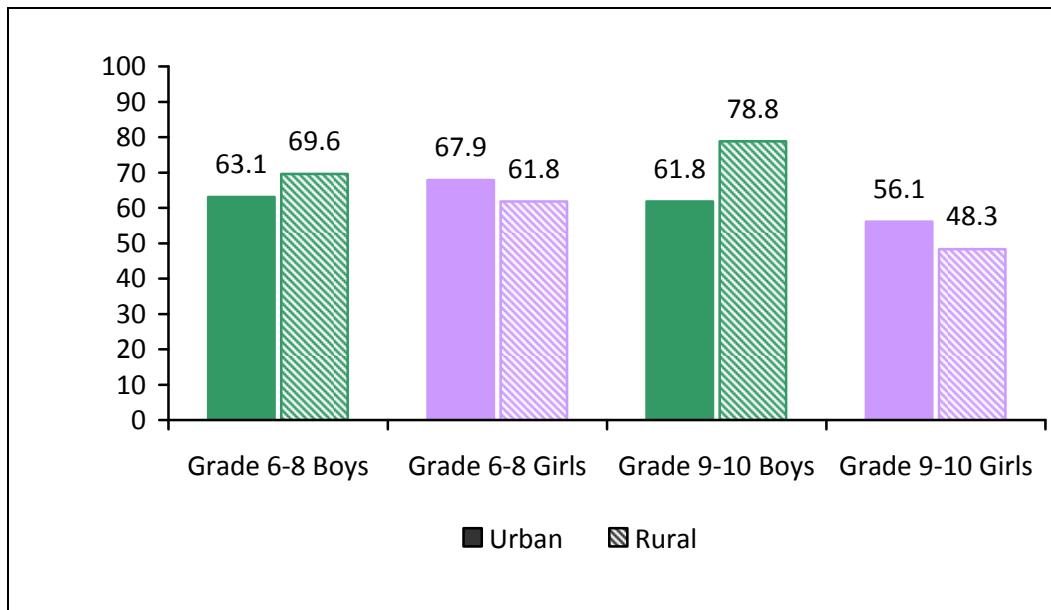
### **Physical Activity**

Healthy living encompasses a variety of health behaviours, including physical activity. Physical activity is defined as the expending of energy through movement of the body (Sallis & Owen, 1999). Physical activity can include participation in unstructured activities such as walking and running, or organized sports such as basketball and hockey. Regular physical activity among young people is not only associated with improved fitness (Chan et al., 2003) and the development of healthy bones, but also plays a role in regulating body weight (Janssen & LeBlanc, 2010) and in decreasing cardiovascular and metabolic risks factors such as high blood pressure (Kemper et al., 2000; Strong et al., 2005).

In addition, physical activity benefits young people's mental health and well-being. Symptoms of depression and anxiety – common internalizing disorders – are associated with low levels of physical activity in youth (Skrope, Romundstad, & Indredavik, 2013). In contrast, adolescents who are more physically active are less likely to experience mental health difficulties (Wiles, Haese, Lawlor, Ness, & Lewis, 2012). Anxiety and depression can be improved with physical activity such as yoga, running, and aerobics (Biddle & Asare, 2011; Mehta & Sharma, 2010; Strong et al., 2005). These types of activities have also been shown to improve adolescents' self-esteem and self-concept (Biddle & Asare, 2011; Strong et al., 2005). Ultimately, lifestyles that encompass physical activity are linked to better physical and mental health in youth.

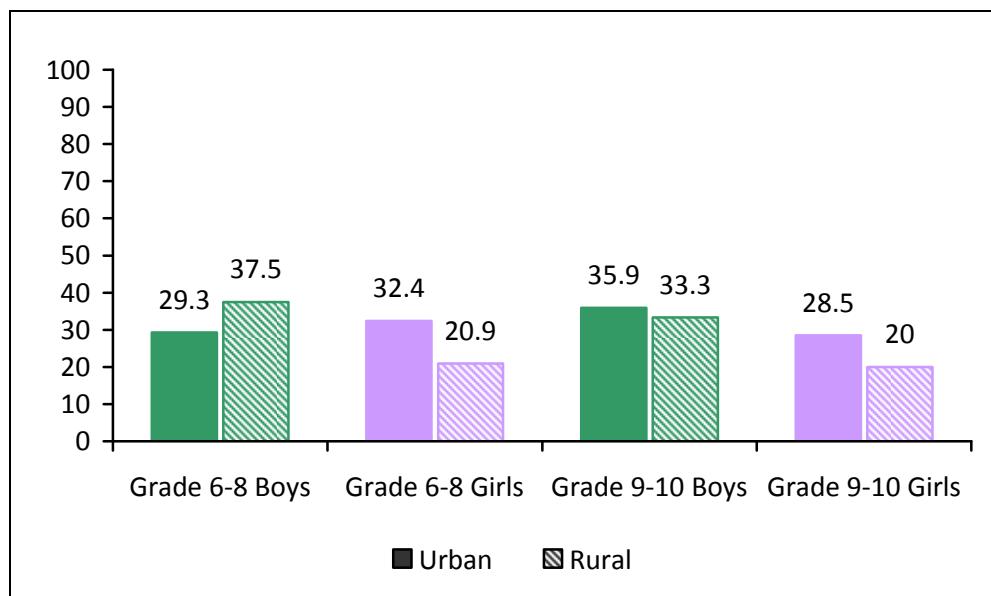
Grade 9-10 rural boys report the highest level of physical activity during the past seven days at 79% (Figure 6.1). Grade 9-10 rural girls report the lowest level at 48%. With the exception of urban Grade 6-8 students, boys state they are more physically active than do girls. Rural girls are less physically active than urban girls, whereas rural boys are more physically active than urban boys. Physical activity decreases for girls over the grades.

**Figure 6.1: Students physically active five days or more over the past seven days for a total of at least 60 minutes per day, by grade, urban/rural status, and gender (%)**



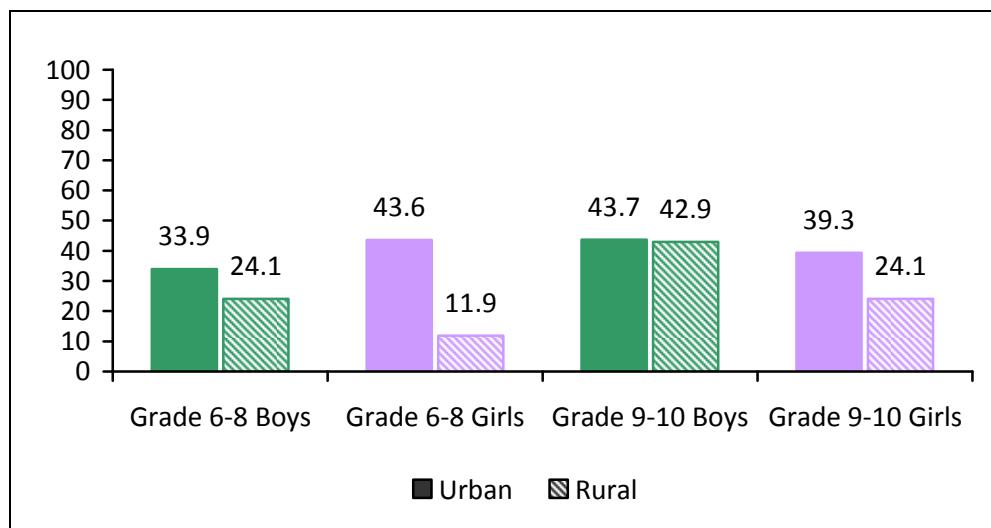
Class time physical activity is higher for urban girls than it is for rural girls (Figure 6.2). As with overall physical activity, with the exception of Grade 6-8 urban students, boys are more active during class time than are girls. At 38%, Grade 6-8 rural boys report the highest percentage of class time physical activity.

**Figure 6.2: Spending four or more hours per week doing physical activities in class time at school, by grade, urban/rural status, and gender (%)**



Grade 9-10 boys and Grade 6-8 urban girls are the most likely to be physically active for at least four hours a week outside school hours (Figure 6.3). There is a pronounced difference between rural and urban girls in terms of physical activity outside school, with urban girls reporting much more physical activity. As with the other two measures of physical activity, boys are higher than girls except for Grade 6-8 urban students where girls are higher.

**Figure 6.3: Spending four or more hours per week doing physical activities outside of school, by grade, urban/rural status, and gender (%)**



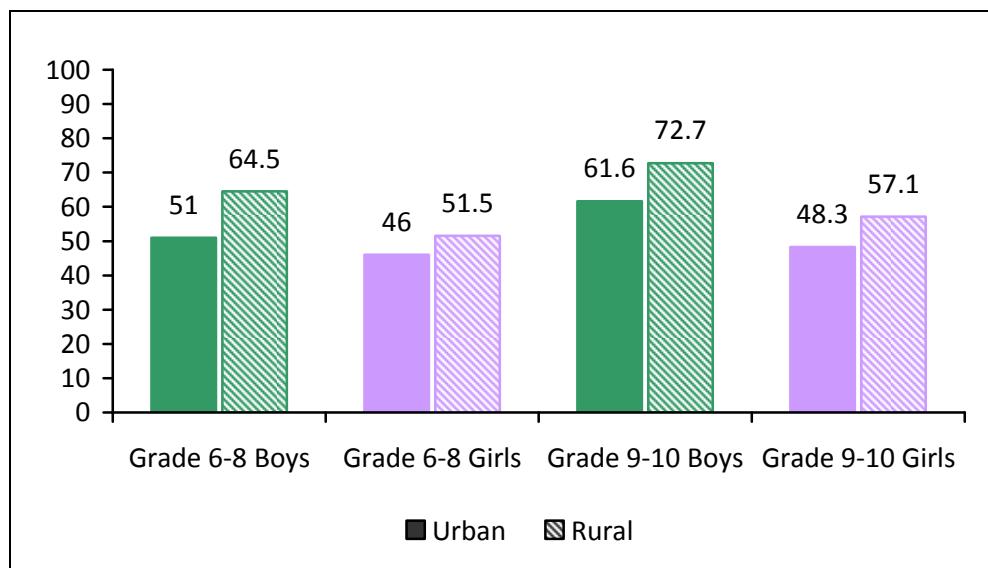
### Sedentary Behaviour

Sedentary behaviour, which includes behaviours such as sitting, playing video games, and watching TV, can be detrimental to young people's health (Tremblay et al., 2011).

Sedentary behaviour is not only linked with unfavourable body composition (Tremblay et al., 2011), obesity (Rey-Lopez, Vicente-Rodriguez, Biosca, & Moreno, 2008), and decreased fitness and cardiovascular health issues (Martinez-Gomez et al., 2010); it is also associated with mental health problems in adolescents (Sund, Larsson, & Wichstrøm, 2011). Extended periods of screen time playing video games, using social media, and watching TV may compromise physical activity among youth.

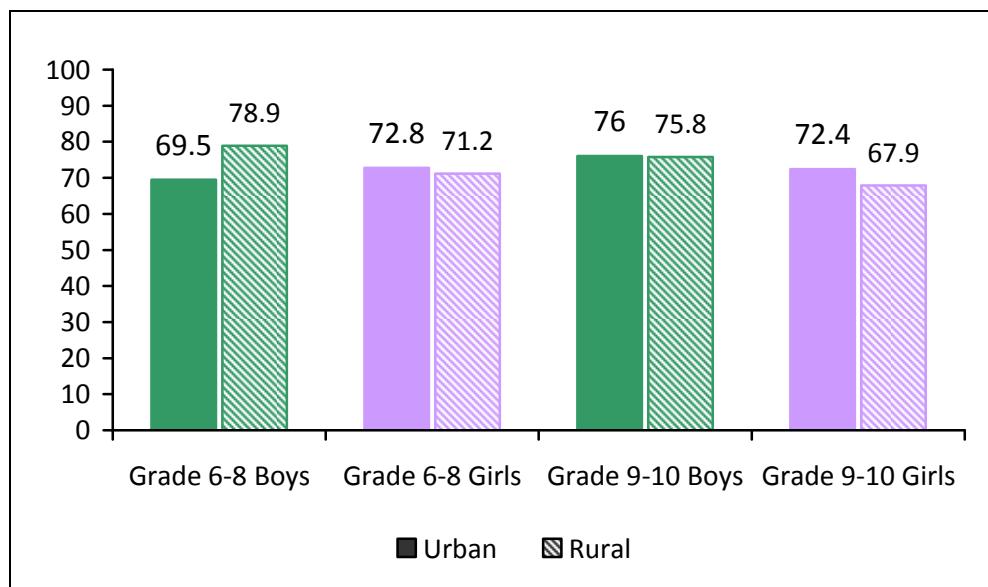
Older students, rural students, and boys are more likely to watch television two hours or more on a weekday when compared to younger students, urban students, and girls (Figure 6.4). As a result, Grade 6-8 urban girls are the least frequent TV watchers (46%), and Grade 9-10 rural boys are the most frequent (73%).

**Figure 6.4: Students who spend two hours or more watching television on a weekday, by grade, urban/rural status, and gender (%)**



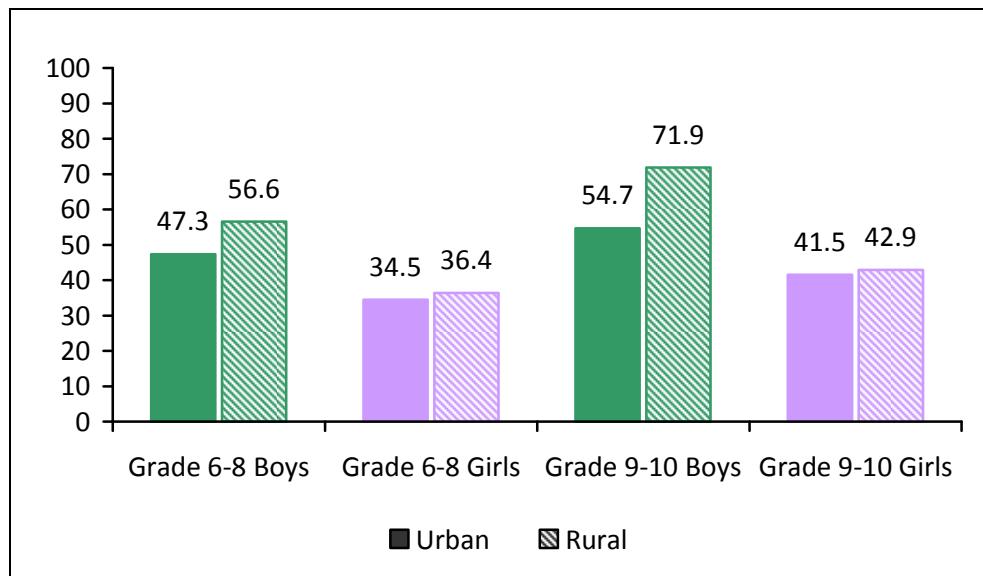
There is minimal relation between age, gender, and location and television watching on the weekend with all groups having at least two-thirds watching two hours or more per day (Figure 6.5).

**Figure 6.5: Students who spend two hours or more watching television per day on a weekend, by grade, urban/rural status, and gender (%)**



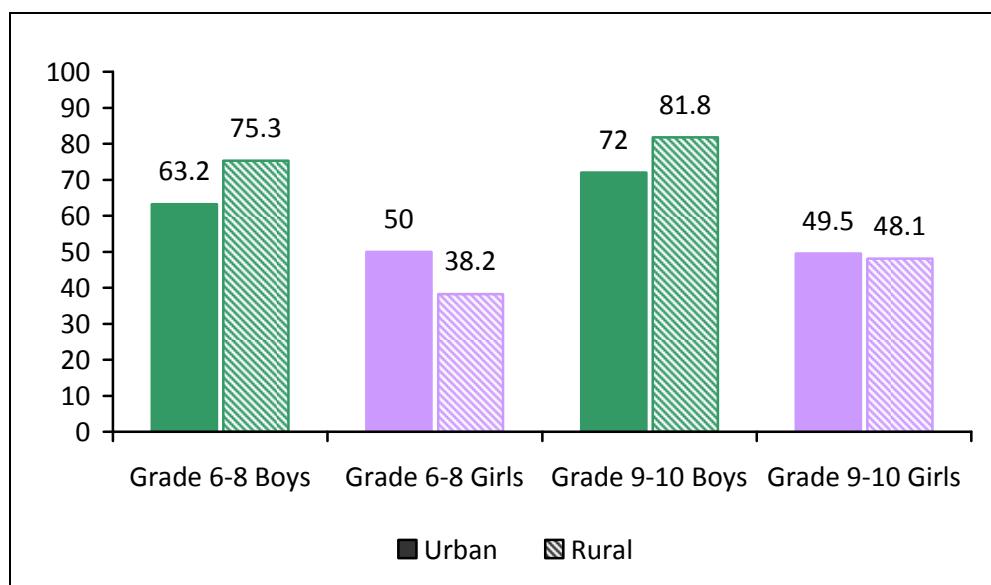
Boys are more likely to play computer games on weekdays than are girls (Figure 6.6). Older students are more likely to do so than are younger students. Rural boys are much more likely to play computer games on weekends than are urban boys. The rates for girls are similar regardless of location.

**Figure 6.6: Students who spend two hours or more playing on a computer or a games console on a weekday, by grade, urban/rural status, and gender (%)**



Similarly, boys are more likely to play computer games on weekends than are girls (Figure 6.7). Older boys are more likely to do so than are younger boys. Rural boys play much more computer games on the weekend than do urban boys. The rates for Grade 9-10 girls are similar regardless of location. The rates for Grade 6-8 girls are higher in urban areas. Weekend computer game playing is higher than on weekdays.

**Figure 6.7: Students who spend two hours or more playing on a computer or games console per day on a weekend, by grade, urban/rural status, and gender (%)**

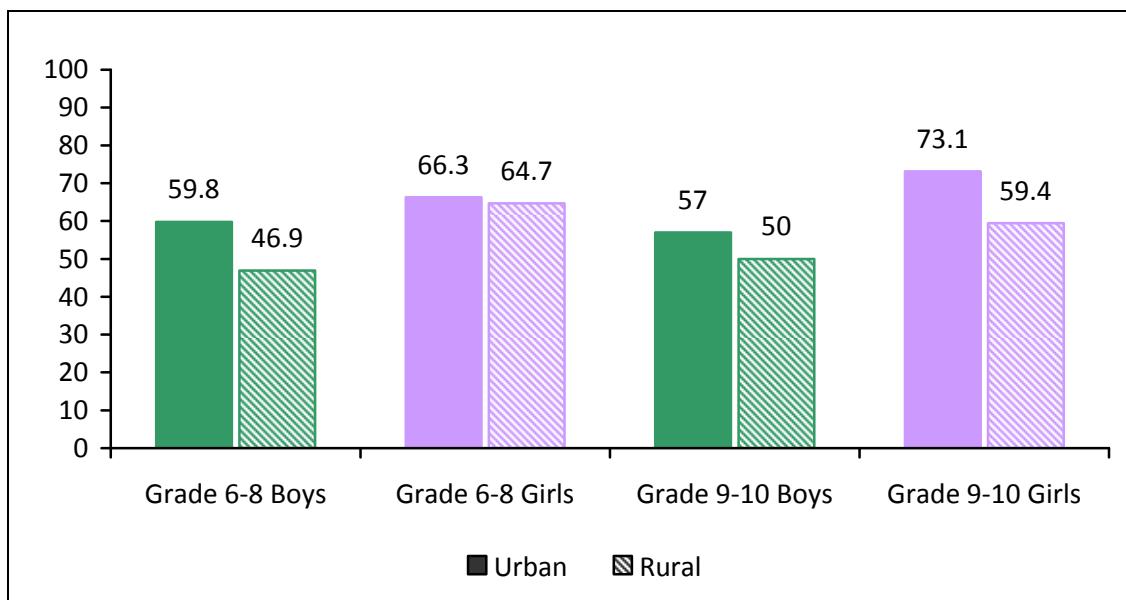


## Dental Hygiene

Dental hygiene is the care and maintenance of healthy teeth and gums. Simple activities such as brushing one's teeth can prevent the development of oral health problems such as gum disease and tooth decay (Canadian Dental Association, 2015). The Canadian Dental Association (2015) recommends brushing one's teeth after every meal, in that bacteria attack teeth shortly after eating. However, brushing should occur at least once throughout the day and always at bedtime (Canadian Dental Association, 2015). While oral health problems are largely preventable, dental decay is a common infectious ailment in children (Smith et al., 2014). Children in Canada, particularly those from lower socioeconomic backgrounds, continue to have dental disease at high rates (Rowan-Legg & Community Paediatrics Committee, 2013).

Tooth brushing more than once a day is affected minimally by age (Figure 6.8). Girls tend to be more likely to brush their teeth that often than are boys. Urban students, especially Grade 9-10 girls (73%), are more likely to brush their teeth at least twice daily than are rural students.

**Figure 6.8: Students who brush their teeth more than once a day, by grade, urban/rural status, and gender (%)**



## Eating and Diet

Eating behaviours in youth are influenced by a variety of environmental and psychosocial factors. Media messages, peer pressure, teasing, food availability, body dissatisfaction, parent's nutritional knowledge and encouragement, biological factors, and food preferences (Neumark-Sztainer, Wall, Story, & Perry, 2003; Raine, 2005; Taylor, Evers, & McKenna, 2005) are all associated with the eating patterns and food choices of youth. In fact, many of these factors place young people at risk for poor nutritional health and other health problems in adolescence (Neumark-Sztainer et al., 2003). Moreover, eating and nutritional behaviours acquired in adolescence can continue into adulthood – a period of life where healthy eating, disease, and mortality are inextricably linked (Vereecken, 2005).

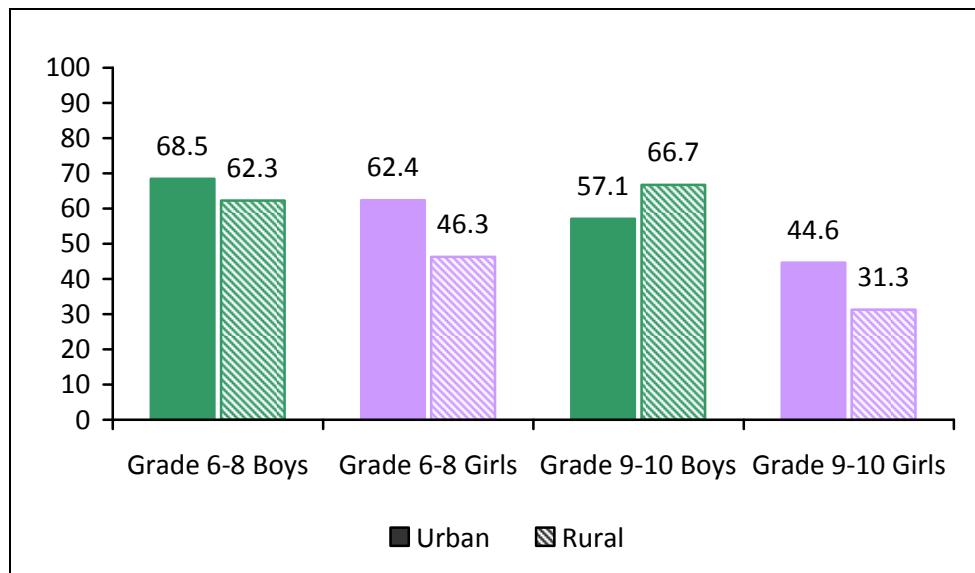
Excessive dieting and extreme weight control methods are among the concerns related to adolescents and their eating habits. (Neumark-Sztainer, Wall, Larson, Eisenberg, & Loth, 2011). Young people who diet and engage in disordered eating habits in adolescence are at greater risk for engaging in these behaviours in adulthood (Neumark-Sztainer et al., 2011). Adolescents who are dissatisfied with their body and who are considered obese report greater depressive symptoms (Goldfield et al., 2010; Neumark-Sztainer, Story,

Hannan, Perry, & Irving, 2002). In addition, avoidant coping and low self-esteem are linked to unhealthy eating behaviours in adolescents (Martyn-Nemeth, Penckofer, Gulanick, Velsor-Friedrich, & Bryant, 2009). As a consequence, the eating habits of young people contribute not only to their physical health, but their emotional and mental health as well.

This section explores young people's eating and diet patterns. Students are asked how often they eat breakfast and how often they eat certain foods: fruit; vegetables; sweets/candy/chocolate/; soft drinks with sugar; diet soft drinks; potato chips, meat alternatives; orange vegetables; fruit juice; energy drinks; sports drinks; and game from hunting. Questions also elicit how often they go to school or bed hungry because there is not enough food at home and if they are currently on a diet to lose weight. Students classified as overweight or obese on the Body Mass Index (BMI) and these classifications' relationship with going to school or bed hungry because there is not enough food at home are also explored.

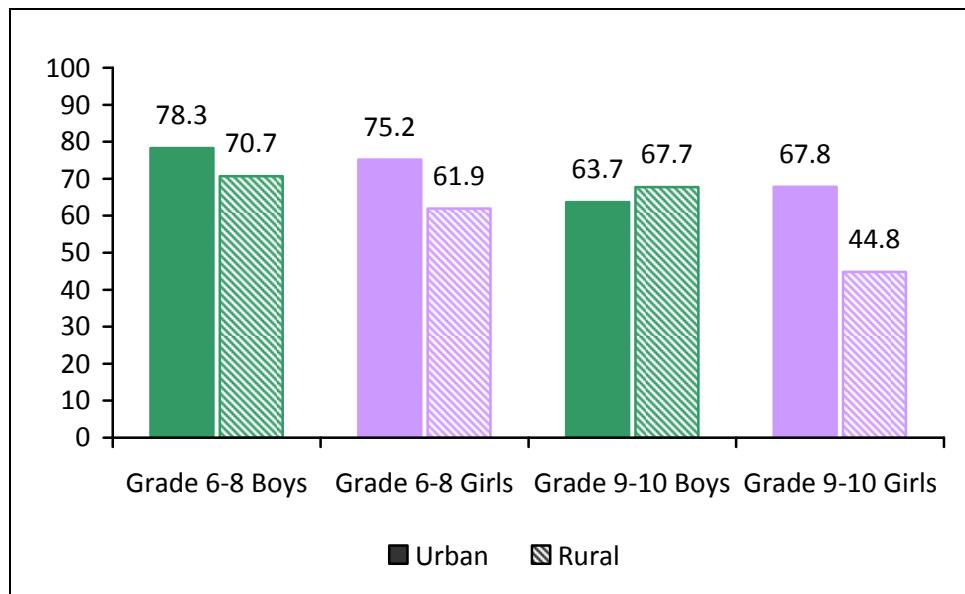
Younger girls and younger urban boys are more likely to eat breakfast during the school week than are older girls and older urban boys (Figure 6.9). With the exception of Grade 9-10 boys, where the reverse is true, urban students are more likely to do so than rural students. Boys report eating breakfast during the school week more so than do girls.

**Figure 6.9: Students that eat breakfast all five days of the school week, by grade, urban/rural status, and gender (%)**



The pattern for weekend breakfast eating, while higher than that for school week breakfast eating, is quite similar (Figure 6.10). Namely, younger students are more likely to eat breakfast on weekends than are older students. With the exception of Grade 9-10 boys, where the reverse is true, urban students are more likely to do so than rural students. Not including Grade 9-10 urban students, boys report eating breakfast on the weekend more so than do girls.

**Figure 6.10: Students that eat breakfast both days of the weekend, by grade, urban/rural status, and gender (%)**



Fruits and vegetables are more often eaten daily by girls than by boys at this grade level (Table 6.1). Soft drinks, potato chips, and sports drinks are more often consumed by boys than by girls. Rural students eat more game from hunting than do urban students.

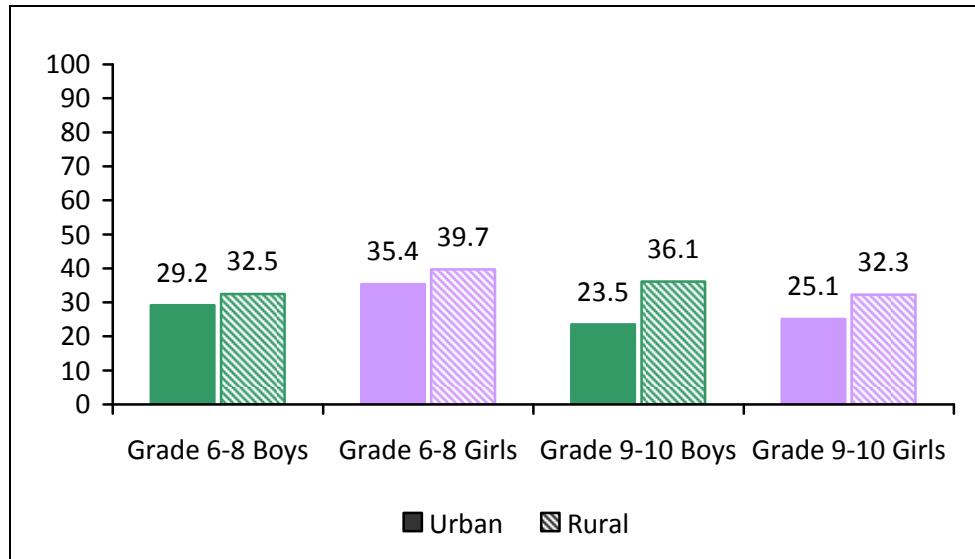
The eating patterns of Grade 9-10 rural girls are divergent from the other three groups. They eat far fewer fruit and vegetables and consume far more sweets, soft drinks with sugar, meat alternatives, and energy drinks. Sweets, soft drinks, energy drinks, and sports drinks consumption is higher for Grade 9-10 students than for Grade 6-8 students.

**Table 6.1: Students eating food items once per day or more often, by grade, urban/rural status, and gender (%)**

<b>Grades</b>	<b>Male</b>		<b>Female</b>	
	<b>6 to 8</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban</b>
Fruit	45.3	51.3	57.9	54.4
Vegetables	36.9	38.5	54.5	49.3
Sweets/candy/chocolate	9.7	14.9	12.3	14.5
Soft drinks with sugar	7.7	11.3	3.2	4.5
Diet soft drinks	2.8	4.0	1.3	0.0
Potato chips	3.1	8.9	1.3	1.5
Meat Alternatives (beans, lentils, tofu, etc.)	29.0	36.4	31.8	27.9
Orange vegetables	18.9	21.1	21.5	20.0
Fruit juice	31.1	27.5	28.3	32.8
Energy drinks	1.5	7.5	1.2	4.5
Sports drinks	5.9	5.1	1.2	1.5
Game from hunting	8.9	17.9	9.6	15.9
<b>9 and 10</b>				
Fruit	46.0	41.7	61.0	22.6
Vegetables	41.5	42.9	53.2	25.8
Sweets/candy/chocolate	10.9	16.7	14.4	26.7
Soft drinks with sugar	11.5	22.2	5.0	29.0
Diet soft drinks	3.3	8.6	2.7	3.2
Potato chips	4.3	5.7	2.3	6.5
Meat Alternatives (beans, lentils, tofu, etc.)	27.1	22.9	26.8	35.5
Orange vegetables	21.9	8.3	16.4	19.4
Fruit juice	31.6	30.6	25.8	29.0
Energy drinks	2.8	8.3	1.8	9.7
Sports drinks	8.9	14.3	2.3	6.5
Game from hunting	10.7	16.7	8.6	19.4

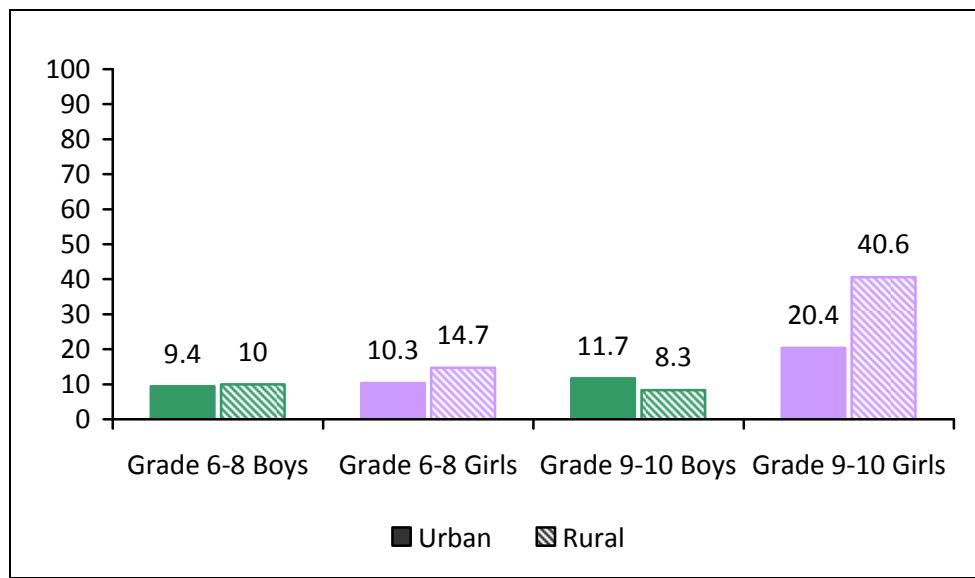
Rural students are more likely to go to school or bed hungry because of lack of food than are urban students (Figure 6.11). Excluding rural boys, younger students have an increased probability of doing so in comparison to older students.

**Figure 6.11: Students who go to school or bed hungry at least sometimes because there is not enough food at home, by grade, urban/rural status, and gender (%)**



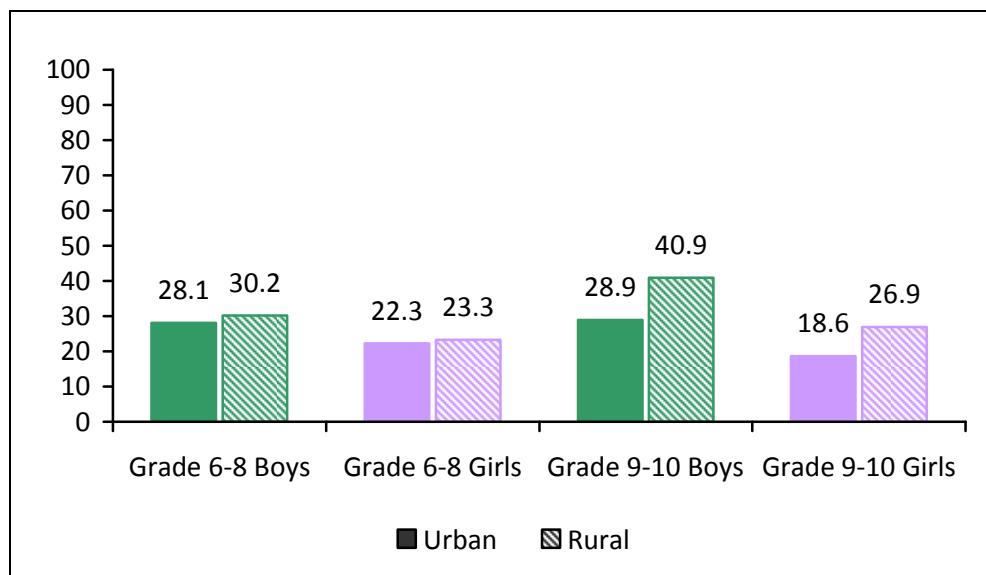
Grade 9-10 girls are the most likely to report being on a diet or doing something else to lose weight (20% Grade 9-10 urban girls; 41% Grade 9-10 rural girls; Figure 6.12).

**Figure 6.12: Students who are currently on a diet or doing something else to lose weight, by grade, urban/rural status, and gender (%)**



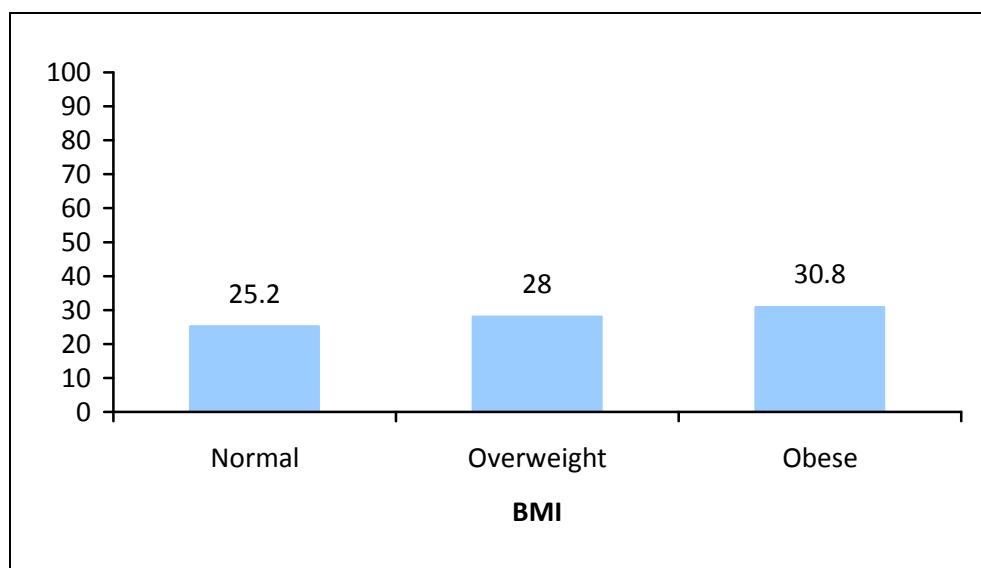
Body Mass Index (BMI) is more likely to be in the overweight or obese classification for boys than it is for girls (Figure 6.13). There are minimal differences across locations at the Grade 6-8 level for BMI. In Grade 9-10, rural students are much more likely to report a BMI in the overweight or obese range than are urban students, most especially Grade 9-10 rural boys (41%).

**Figure 6.13: Students classified as overweight or obese on the Body Mass Index (BMI), by grade, urban/rural status, and gender (%)**



Going to school or bed hungry is minimally related to Body Mass Index (BMI; Figure 6.14). Yukon adolescents with normal BMI are somewhat less likely (25%) than overweight (28%) or obese (31%) students to sometimes report going to school or bed hungry because of a lack of food.

**Figure 6.14: Students who go to school or bed hungry at least sometimes because there is not enough food at home by Body Mass Index (BMI) (%)**



### Chapter Summary

Healthy living, as we have defined it in this chapter, includes increased physical activity, decreased sedentary behaviour, dental hygiene, and healthy eating. Physical activity is associated with improved fitness (Chan et al., 2003), maintenance of a healthy body weight (Janssen & LeBlanc, 2010), better cardiovascular health (Kemper et al., 2000; Strong et al., 2005), and lowered risk of anxiety and depression (Biddle & Asare, 2011; Mehta & Sharma, 2010; Skrove et al., 2013; Strong et al., 2005; Wiles et al., 2012). Sedentary behaviour is related to greater difficulties in maintaining an ideal body weight (Rey-Lopez et al., 2008; Tremblay et al., 2011), poorer fitness levels (Martinez-Gomez et al., 2010), and more mental health issues (Sund et al., 2011).

Grade 9-10 students in Yukon differ in physical activity based on gender and location. Boys at this grade level are more likely than girls to be active on a regular basis. Rural boys are particularly physically active with close to 80% being active a minimum of five days a week. However, across all grade levels, regardless of location or gender, well under half of Yukon adolescents are spending four or more hours a week physically active either in class time at school or outside school. Rural girls are particularly low in doing so.

In contrast, Yukon adolescents spend a large portion of their waking life engaged in sedentary behaviours. On weekdays, TV watching for all groups of at least two hours daily ranges from 46% to 73%. About three-quarters of Yukon students watch television a minimum of two hours per day on weekends. Computer game playing at least two hours daily is especially high for Grade 9-10 boys. It is greater than one in three for all groups on weekdays and on weekends and reaches 82% for rural Grade 9-10 boys on weekends.

Dental hygiene helps prevent the development of oral health problems such as gum disease and tooth decay (Canadian Dental Association, 2015), with such problems largely preventable (Smith et al., 2014). Unhealthy eating can contribute to poor nutritional health and other health problems in adolescence (Neumark-Sztainer et al., 2003) and into adulthood (Vereecken, 2005). Disordered eating habits started in adolescence often persist into adulthood (Neumark-Sztainer et al., 2011). Body dissatisfaction and obesity may contribute to greater depressive symptoms (Goldfield et al., 2010; Neumark-Sztainer et al., 2002) and lower self-esteem (Martyn-Nemeth et al., 2009).

While Yukon girls are more likely to brush their teeth a minimum of twice daily than are boys, only about half of the boys and two-thirds of the girls brush their teeth regularly. With respect to healthy eating, the overall consumption of fruit at least once per day is about 50% for Yukon young people with vegetable consumption somewhat lower. Only 23% of Yukon Grade 9-10 rural girls report eating at least one fruit a day and only 26% one vegetable daily. These girls are also far less likely than any other students to eat breakfast regularly.

Going to bed or to school hungry is a concern unless its prevalence is zero. In Yukon, the percentage ranges from 24% for Grade 9-10 urban boys to 40% for Grade 6-8 rural girls. About one-quarter of Yukon girls are overweight or obese as classified by Body Mass Index (BMI). Slightly more Yukon boys are overweight or obese than Yukon girls. Grade 9-10 girls, especially Grade 9-10 rural girls, are most likely to be on a diet to lose weight. It is only Grade 9-10 girls who are more likely to be on a diet than they are to be overweight or obese. There is a slightly increased probability of going to bed or to school hungry if an adolescent is overweight or obese.

## 7. HEALTH RISK BEHAVIOUR

---

Adolescence is a period of psychological and physiological change. Lifelong habits are formed during these years of development, especially in regards to healthy living. Adolescence is also characterized as a period of risk taking and sensation seeking, in that many young people experiment with smoking, alcohol, and drugs. Unfortunately, some youth who begin experimenting with these risk-taking behaviours become further involved in activities that can adversely affect their health and well-being (Pickett, Boyce, Garner, & King, 2002). There are a variety of cultural, social, and environmental factors that influence young people's engagement in risky behaviour. Some of these factors include social norms, the availability of alcohol and drugs, problems at school, and engaging in relationships with peers who similarly engage in risky behaviours (Hawkins, Catalano & Killen, 1992; Kobus, 2003; Simons-Morton & Chen, 2006). Peer groups shape and hold certain attitudes and values about the use of drugs and alcohol and seem to have the strongest influence on risk-taking behaviours in young people (Kobus, 2003). While substance use and abuse in adolescence may be linked to these factors, young people who abuse drugs and alcohol may have emotional problems or mental health problems and/or disorders such as anxiety and depression that predate the use of alcohol and other drugs (Deas & Thomas, 2002; Elgar & Pickett, 2011; Rey, Sawyer, Raphael, Patton, & Lynskey, 2002).

This chapter examines health risk behaviour among young people in Grades 6 to 10. There are four broad categories of risk behaviour explored: smoking, alcohol, drugs, and sexual behaviour. Students' smoking behaviours are assessed in respect to daily smoking and having smoked tobacco in the last 30 days. How often students report being really drunk, how often students report having five or more drinks, and how often students report drinking beer and liquor are all examined for alcohol. The pattern for recent drunkenness is also discussed.

Questions about drug use and sexual behaviours are only asked of Grade 9 and 10 students. Grade 9 and 10 students are surveyed about the frequency of cannabis use and other substance use, including: ecstasy; LSD and other hallucinogens (PCP, magic mushrooms, mescaline, peyote, Salvia); glue or solvents; and pain relievers (Percodan,

Demerol, Oxycontin, Codeine). The relationship between substance use (cigarettes, alcohol, and cannabis) and school climate, peer support, and family support is also investigated.

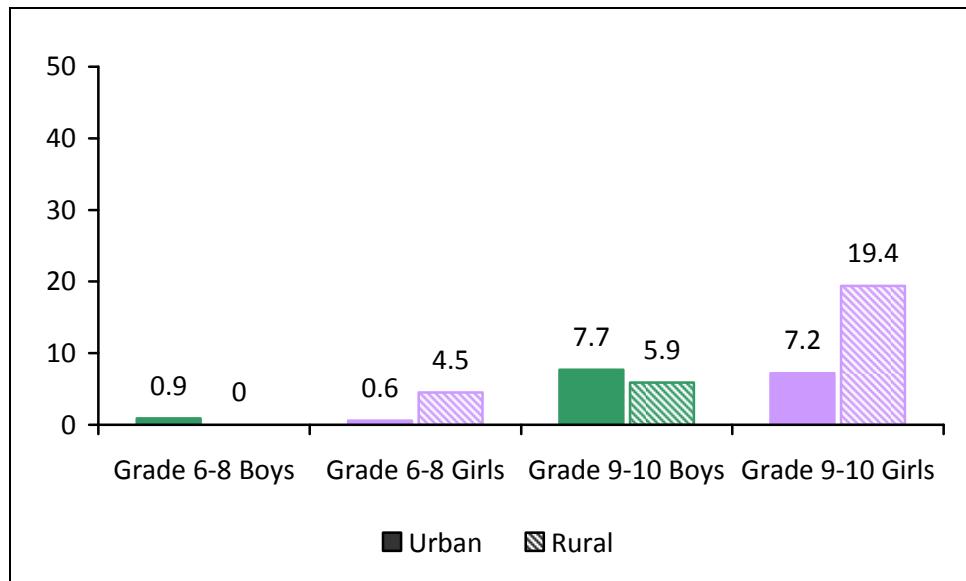
Finally, Grade 9 and 10 students are asked about their sexual behaviours: whether or not they have had sexual intercourse and whether or not a condom was used the last time they had sexual intercourse.

## **Smoking**

According to the Canadian Tobacco Use Monitoring Survey [CTUMS] (2012), smoking among youth is at its lowest recorded rate since Health Canada first began reporting smoking prevalence. The most recent Youth Smoking Survey indicates that, for students in Grades 6 to 12 who smoke, 13.6 is the average age at which youth smoked for the first time (Health Canada, 2014). Although the prevalence of smoking among young people is declining in Canada (Elgar & Pickett, 2011), early onset smoking predicts higher levels of later nicotine dependence (Kendler, Mysers, Damaj, & Chen, 2013). There are many negative effects of prolonged cigarette smoking, including heart problems, respiratory problems, and cancer (Centre for Disease Control and Prevention, 2004). Schools and school environments have a particularly important role to play in reducing smoking in Canadian adolescents (Cole, Leatherdale, & Burkhalter, 2013).

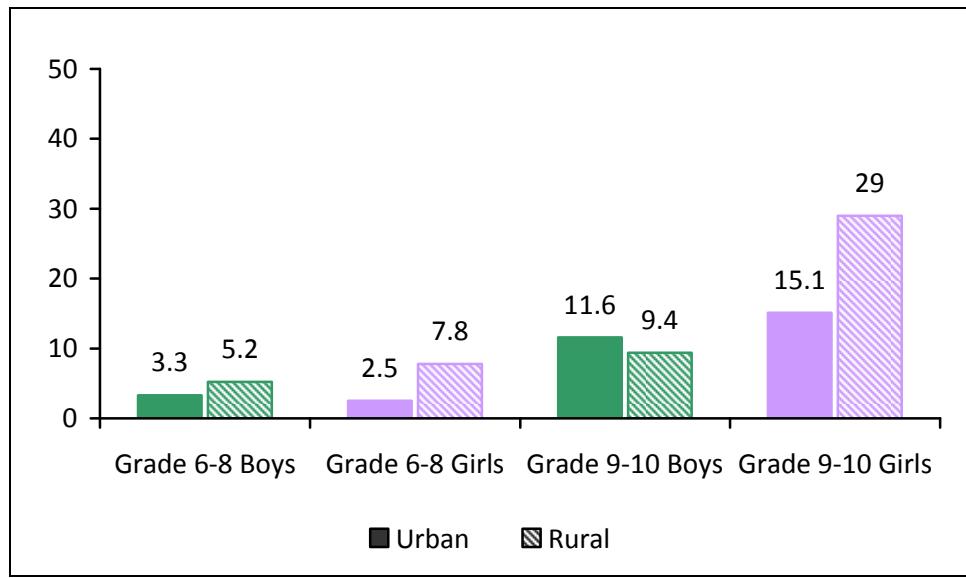
Other than rural girls (5%), there are few daily Grade 6-8 smokers ([Figure 7.1](#)). Smoking increases for Grade 9-10 students compared to the younger students. Smoking for Grade 9-10 boys is higher in Whitehorse than outside the city. The reverse is true for girls. Rural girls in Grade 9-10 are the most likely to report being daily smokers (19%).

**Figure 7.1: Daily smokers, by grade, urban/rural status, and gender (%)**



Although the numbers are higher, the pattern for recent smoking is quite similar to that for daily smoking (Figure 7.2). In particular, recent smoking for Grade 9-10 boys is higher in Whitehorse than outside the city. The reverse is true for girls. Rural girls in Grade 9-10 are the most likely to report having smoked recently (29%).

**Figure 7.2: Having smoked tobacco in the last 30 days by grade, urban/rural status, and gender (%)**

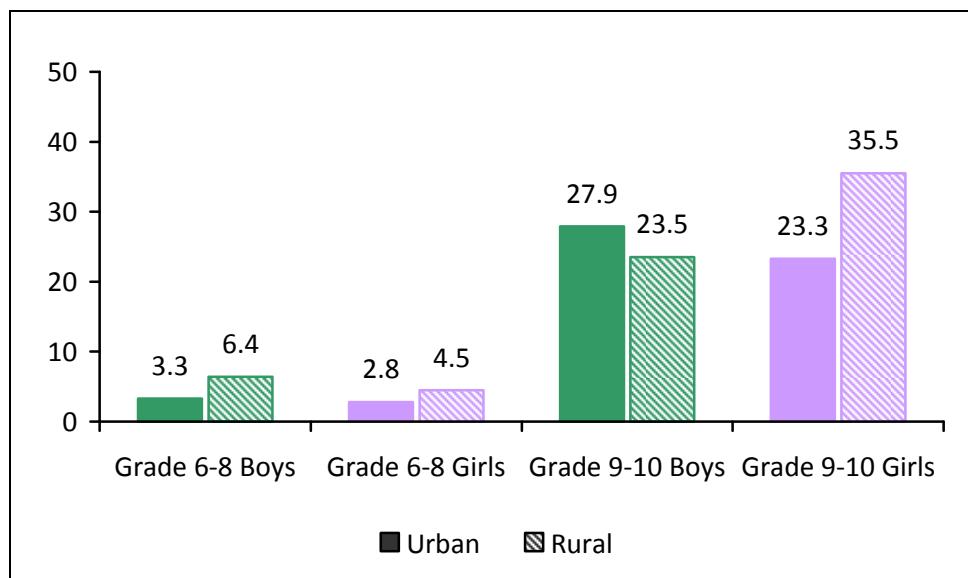


## Alcohol Use

Alcohol is one of the most commonly used substances among youth (Elgar & Pickett, 2011; Leatherdale, Hammond, & Ahmed, 2008). Alcohol misuse and abuse in adulthood is strongly linked to the early use of alcohol in adolescence (Grant, 1998). Alcohol is a primary factor in a variety of risk taking behaviours such as illegal drug use (Johnston, O' Malley & Bachman, 2002) and risky sexual behaviour (Cooper, 2002; Johnston et al., 2002). Youth who drink alcohol are more likely to engage in antisocial behaviour, to have difficulties in school, and to perform poorer academically at school (Anderson, 2006). In addition, alcohol-related accidents are a leading cause of death among youth (Solomon, 2012).

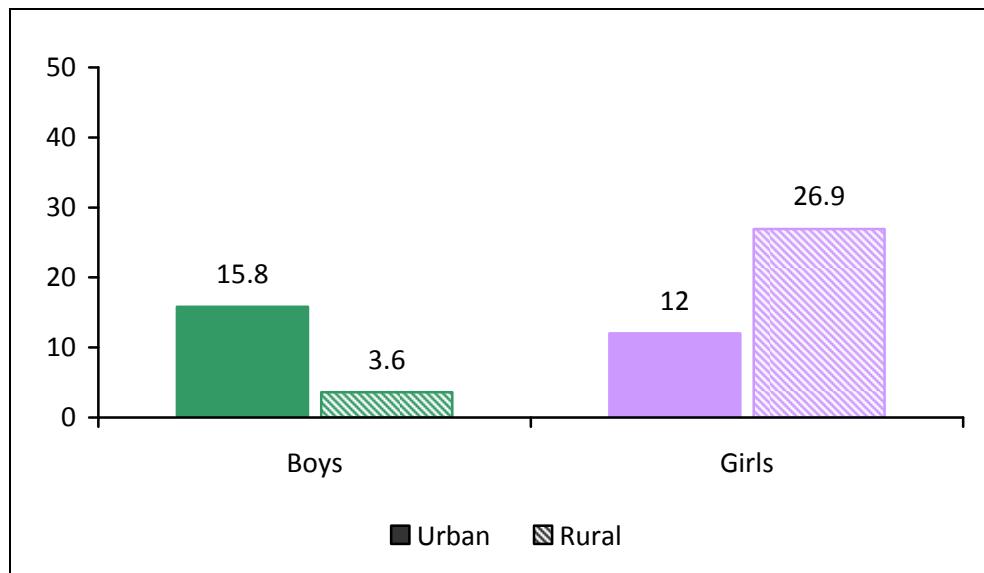
For Grade 6-8 students and Grade 9-10 girls, rural students are more likely to have been really drunk at least twice than students in Whitehorse (Figure 7.3). The reverse is true for Grade 9-10 boys. With the exception of Grade 9-10 rural students, boys are more likely to have been really drunk at least twice than are girls. At 36%, rural Grade 9-10 girls are the most likely to state they have been really drunk at least twice.

**Figure 7.3: Students who report being really drunk at least twice by grade, urban/rural status, and gender (%)**



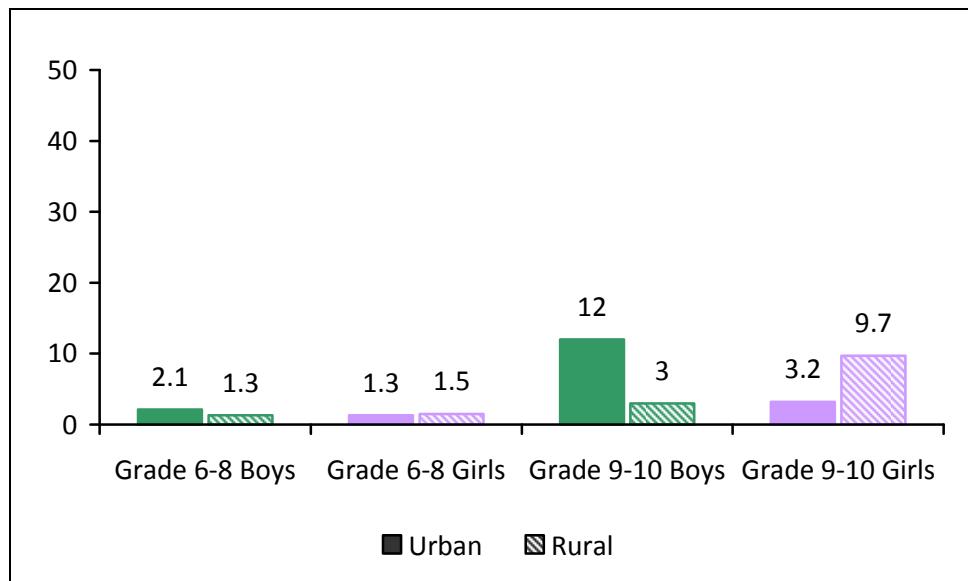
At 27%, rural girls are much more likely than urban girls (12%) to have had four or more drinks on one occasion (Figure 7.4). Urban boys' binge drinking (five or more drinks on one occasion) is much higher (16%) than rural boys (4%).

**Figure 7.4: Grades 9 and 10 students having five or more drinks (or four or more for females) more than once a month, by urban/rural status and gender (%)**



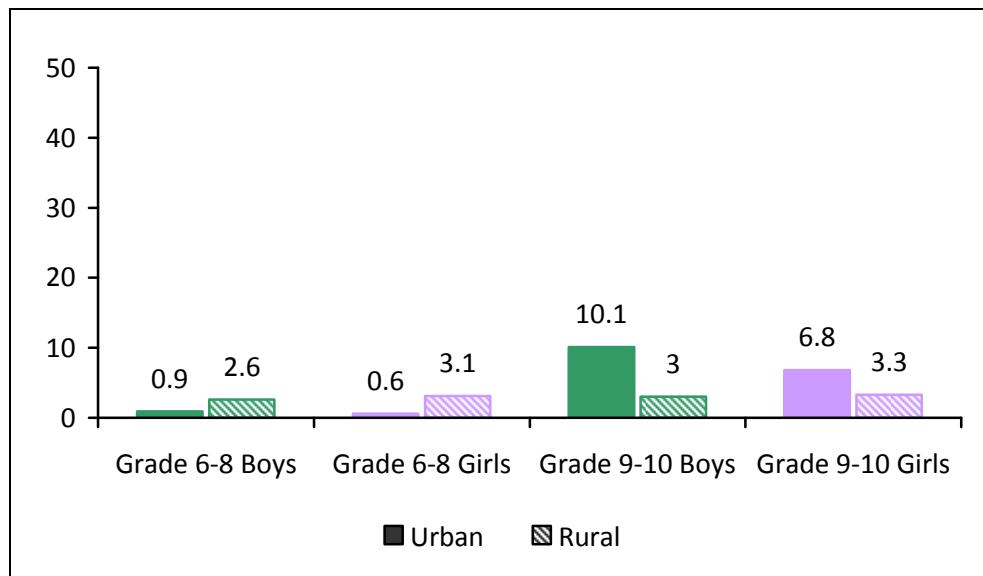
Grade 9-10 boys in Whitehorse (12%) and Grade 9-10 girls in rural areas (10%) report drinking beer the most often on a weekly basis (Figure 7.5). Percentages are three per cent or below for all other groups.

**Figure 7.5: Beer consumption at least once a week by grade, urban/rural status, and gender (%)**



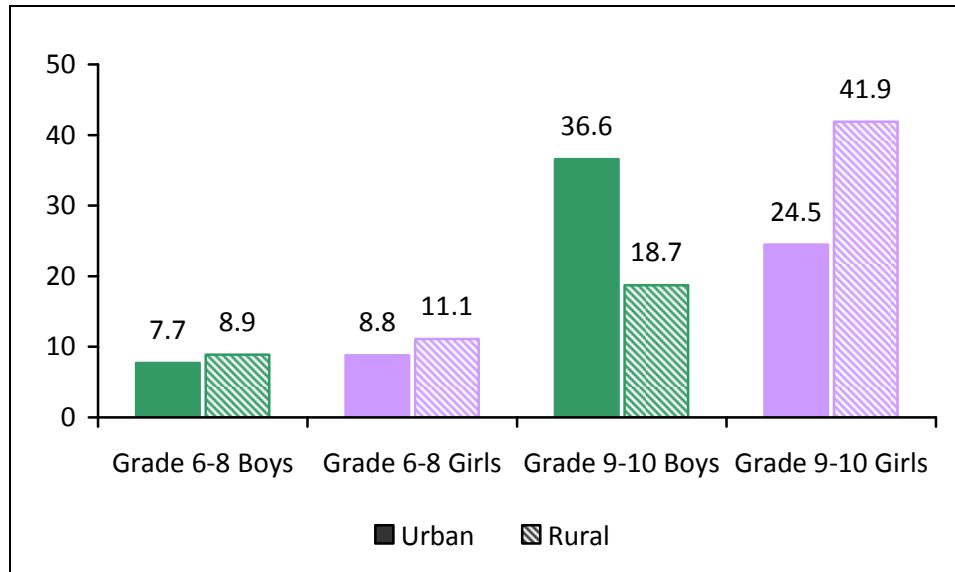
While the rates are low, rural students in Grades 6-8 are more likely to consume liquor on a weekly basis than are their urban counterparts (Figure 7.6). The pattern is reversed in Grades 9-10 where urban students are the most likely of all groups to drink liquor weekly (10% urban boys; 7% urban girls).

**Figure 7.6: Liquor consumption at least once a week by grade, urban/rural status, and gender (%)**



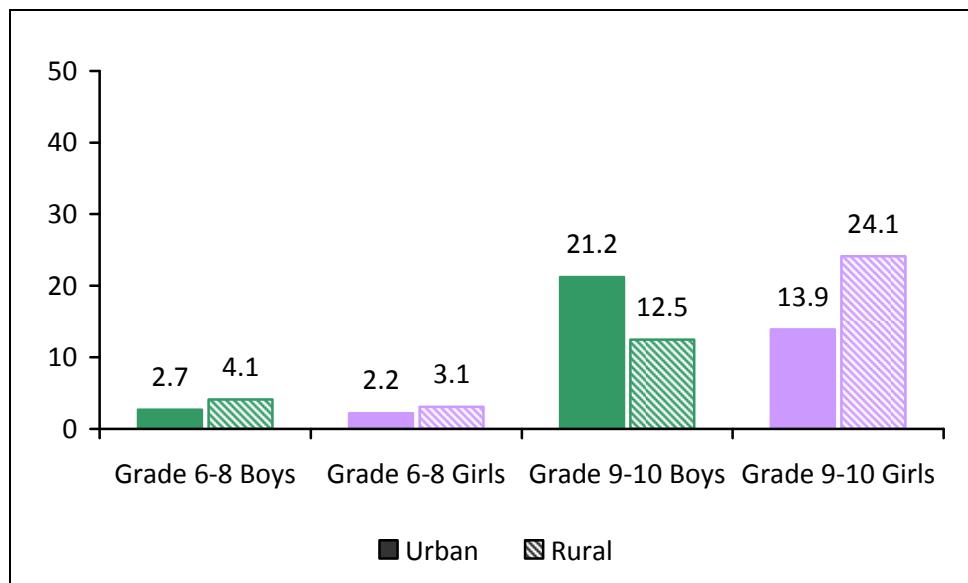
Older students are more likely to have consumed alcohol in the past 30 days than are younger students (Figure 7.7). Rural Grade 9-10 girls (42%) and urban Grade 9-10 boys (37%) are the most likely to have consumed alcohol in the past 30 days.

**Figure 7.7: Alcohol consumption in the past 30 days by grade, urban/rural status, and gender (%)**



The pattern for recent drunkenness is identical but lower to that for recent alcohol consumption (Figure 7.8). Older students are more likely to have been drunk in the past 30 days than are younger students. Rural Grade 9-10 girls (24%) and urban Grade 9-10 boys (21%) are most likely to have been drunk in the past 30 days.

**Figure 7.8: Having been drunk in the past 30 days by grade, urban/rural status, and gender (%)**

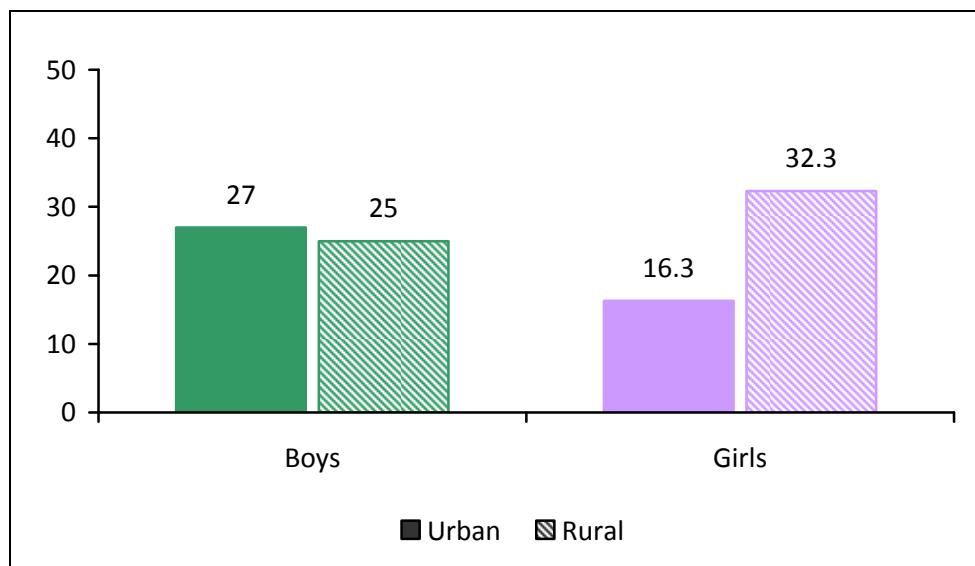


## Drugs

One of the most commonly used drugs in adolescence is cannabis (Health Canada, 2014). There are a variety of factors that influence young people's decision to use and/or not use cannabis. Some of these factors include family relationships and influence, perceived health risks of cannabis, and the impact cannabis has on academic performance (Porath-Waller, Brown, Frigon, & Clarke, 2013). Adolescent cannabis users are less likely to complete high school and are more likely to develop cannabis dependency and use additional illicit drugs (Silins et al., 2014; Volkow, Baler, Compton, & Weiss, 2014). Other illicit drugs used by Canadian youth include ecstasy, LSD and other hallucinogens, and pain relievers (Health Canada, 2014). Comorbid use of cigarettes, alcohol, and drugs is common among youth (Leatherdale & Burkhalter, 2012). Schools that maintain a positive school climate may be a very important protective factor in reducing risk-taking behaviour in adolescents such as substance abuse (Klein, Cornell, & Konold, 2012).

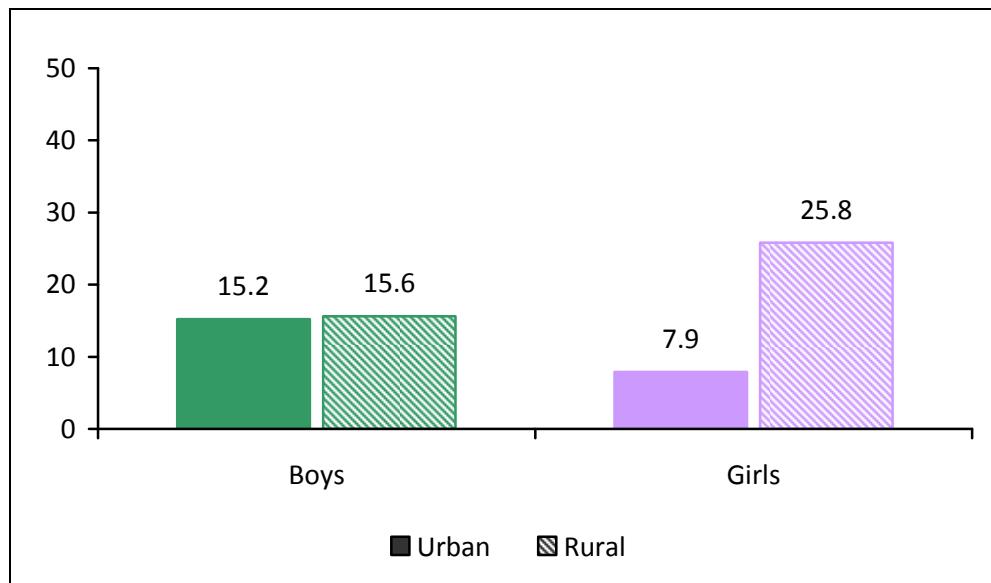
Boys and rural girls are much more likely to report cannabis use in the past 30 days than are urban girls (16%; Figure 7.9). Rural girls have the highest reported cannabis use in the past 30 days (32%).

**Figure 7.9: Grades 9 and 10 students reporting cannabis use in the last 30 days, by urban/rural status, and gender (%)**



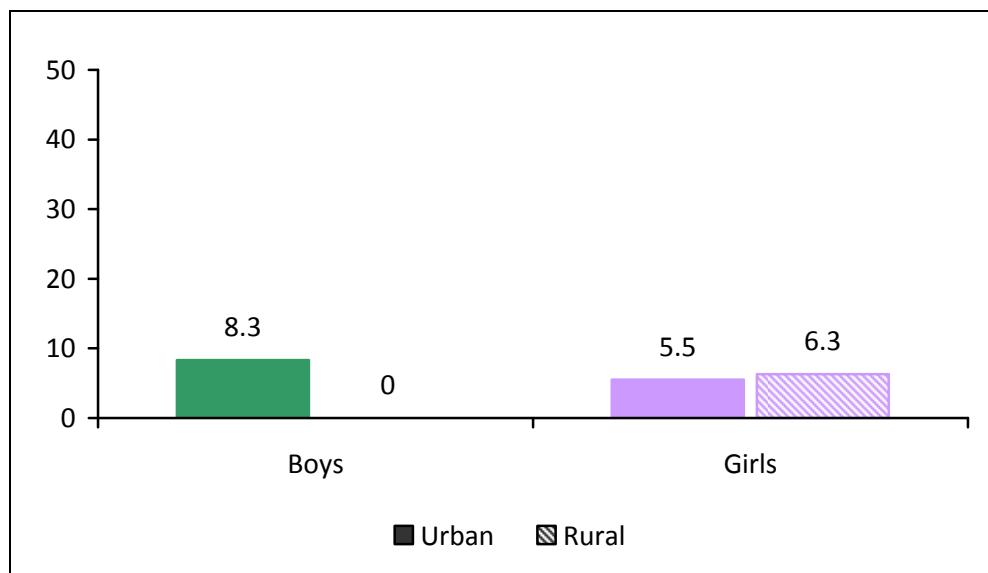
The pattern for frequent cannabis use in the last 30 days is identical to that for any cannabis use with urban girls (8%) considerably lower than rural girls (26%; [Figure 7.10](#)).

**Figure 7.10: Grades 9 and 10 students reporting cannabis use 6 or more days in the last 30 days, by urban/rural status, and gender (%)**



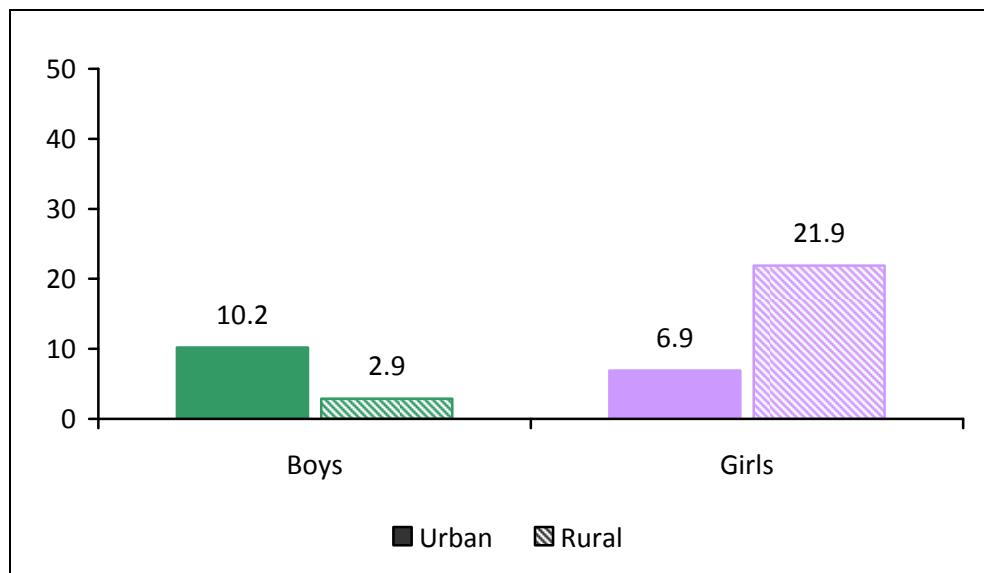
Use of ecstasy in the past 12 months is under 10% for both girls and boys in Yukon (Figure 7.11). None of the rural boys indicate they had used ecstasy.

**Figure 7.11: Grades 9 and 10 students reporting ecstasy use in the last 12 months, by urban/rural status, and gender (%)**



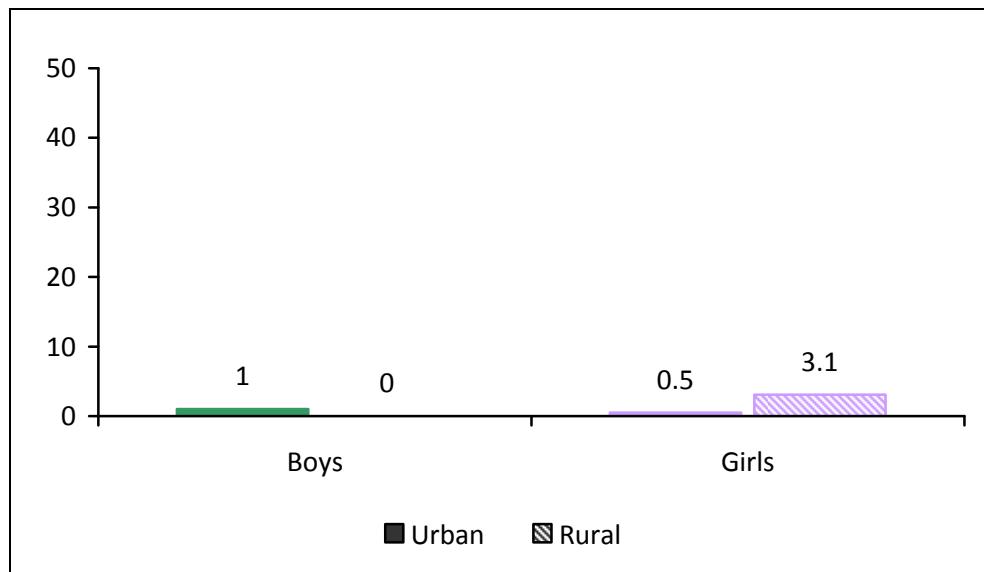
Use of LSD and other hallucinogens is higher for boys in Whitehorse (10%) compared to boys in the rest of the Yukon (3%; Figure 7.12). The reverse is true for girls (7% urban girls; 22% rural girls). Rural girls have more than twice as much reported LCD/hallucinogen use than any other group,

**Figure 7.12: Grades 9 and 10 students reporting LSD and other hallucinogens (PCP, magic mushrooms, mescaline, peyote) use in the last 12 months, by urban/rural status, and gender (%)**



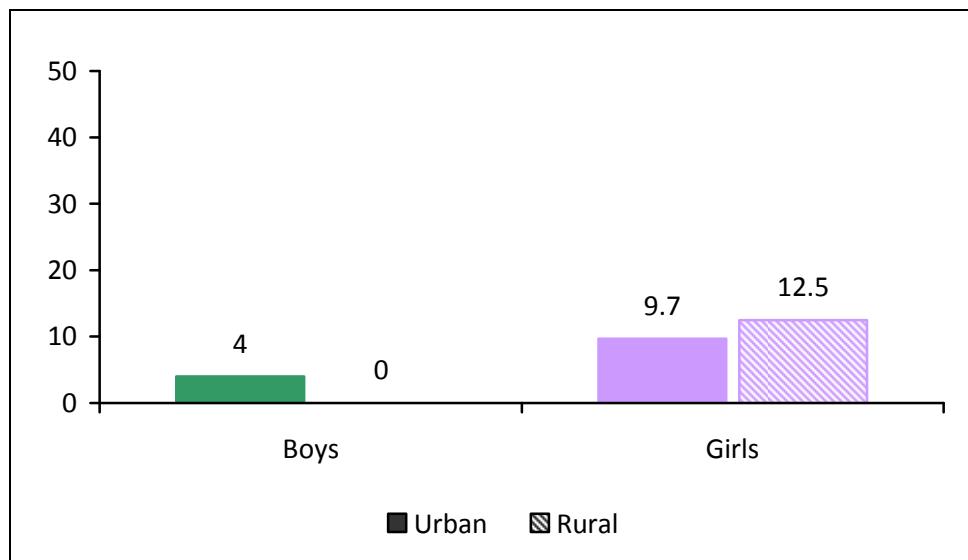
Glue or solvent use in the last 12 months is close to zero in Yukon (Figure 7.13).

**Figure 7.13: Grades 9 and 10 students reporting glue or solvent use in the last 12 months, by urban/rural status, and gender (%)**



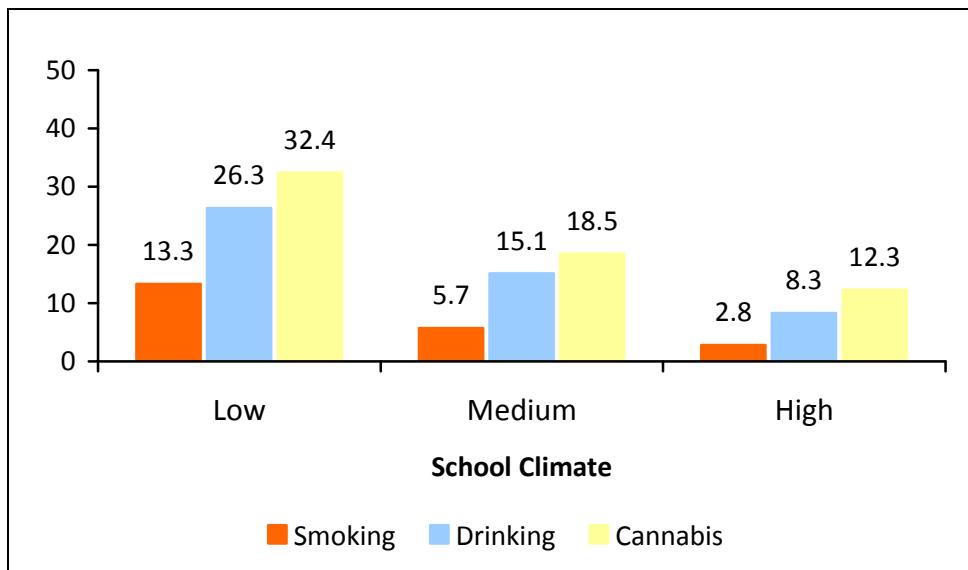
Girls are more likely than boys to report using pain reliever medication to get high, at 10% of urban and 13% of rural girls (Figure 7.14).

**Figure 7.14: Grades 9 and 10 students reporting pain reliever (Percodan, Demerol, Oxycontin, Codeine) use in the last 12 months to get high ever, by urban/rural status, and gender (%)**



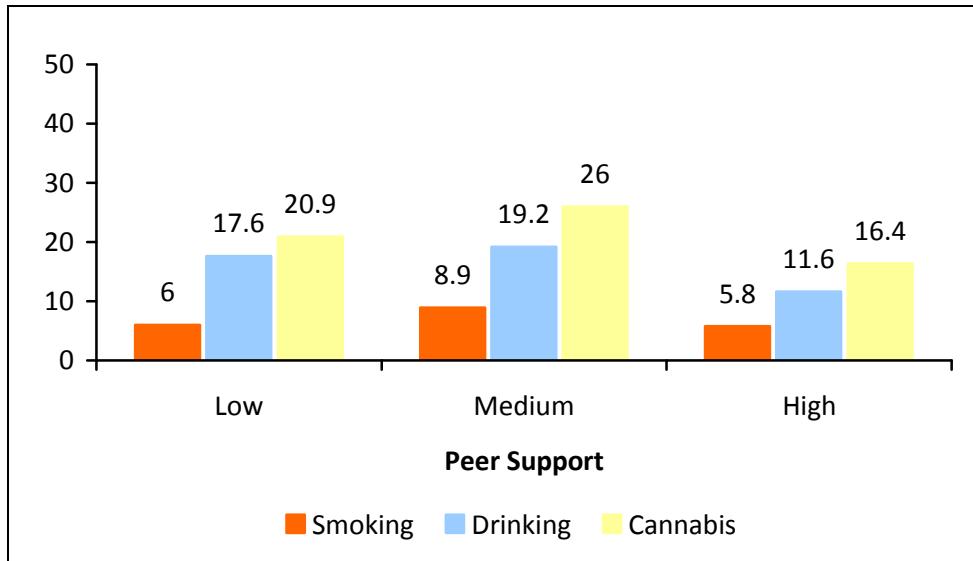
Substance use is related to school climate (Figure 7.15). Regardless of the substance, students in the high school climate group are the least likely to have consumed the substance, while students in the low school climate group are the most likely.

**Figure 7.15: Students smoking cigarettes, drinking alcohol, and using cannabis in the last 30 days, by school climate (%)**



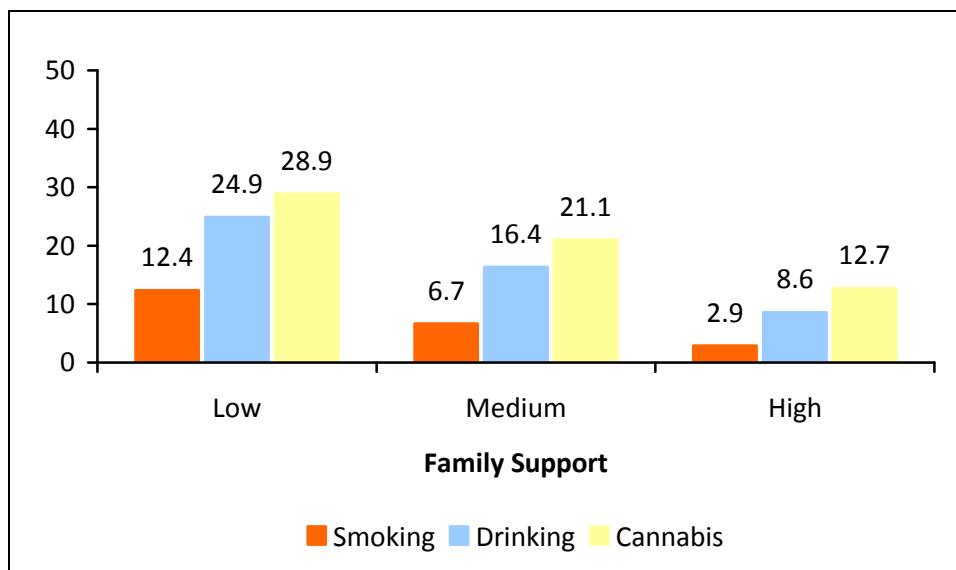
Substance use is also related to peer support. Regardless of the substance, students in the high peer support group are the least likely to have consumed the substance, while students in the medium peer support group are the most likely (Figure 7.16).

**Figure 7.16: Students smoking cigarettes, drinking alcohol, and using cannabis in the last 30 days, by peer support (%)**



Finally, substance use is related to family support (Figure 7.17). Like school climate, regardless of the substance, students in the high family support group are the least likely to have consumed the substance, while students in the low family support group are the most likely.

**Figure 7.17: Students smoking cigarettes, drinking alcohol, and using cannabis in the last 30 days, by family support %**

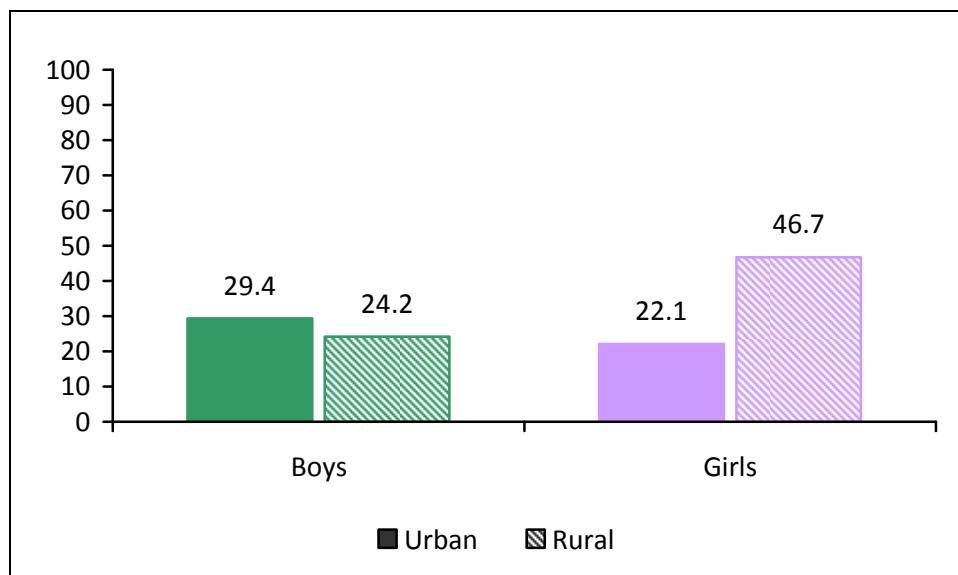


## Sexual Behaviours

Sexual health is important to adolescents' overall health and well-being (Slater & Robinson, 2014). Young people who engage in sexual intercourse earlier are at greater risk for engaging in unprotected sex, having an unplanned pregnancy, and contracting sexually transmitted infections. Moreover, it is linked to other risk taking behaviours such as drug and alcohol use (Godeau, Nic Gabhainn, & Ross, 2005). These effects are largely preventable if schools, families, and health care professionals coordinate their efforts to help educate and support youth (Slater & Robinson, 2014).

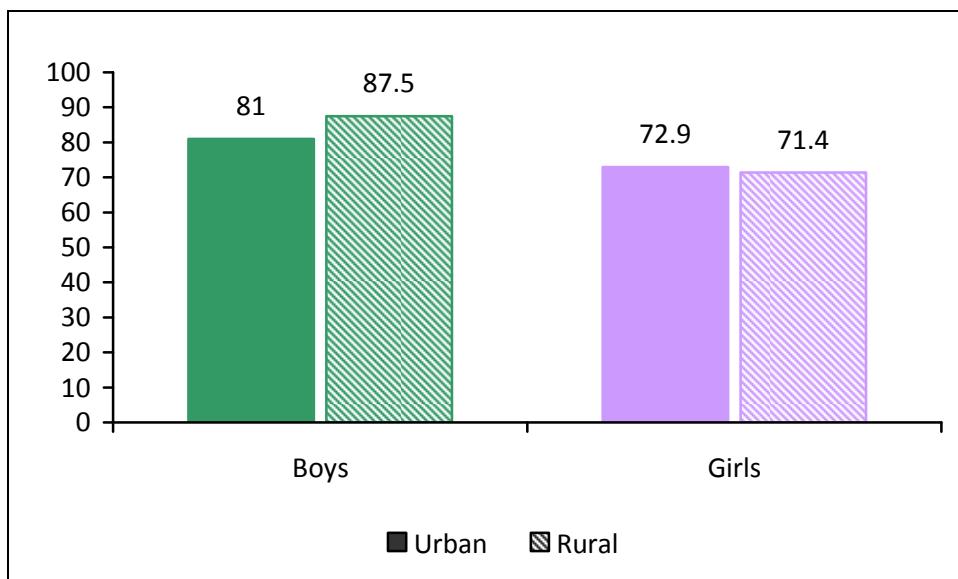
Urban Grade 9-10 boys (29%) are somewhat more likely than rural Grade 9-10 boys (24%) to say they have had sexual intercourse (Figure 7.18). In contrast, rural Grade 9-10 girls (47%) are more than twice as likely as urban Grade 9-10 girls (22%) to state they have had sexual intercourse.

**Figure 7.18: Grades 9 and 10 students who report having had sexual intercourse, by gender and urban/rural status (%)**



Over 80% of boys report using a condom the last time they had sex (81% urban; 88% rural; [Figure 7.19](#)). In contrast, just over 70% of the girls state their partner used a condom (73% urban; 71% rural).

**Figure 7.19: Grades 9 and 10 students who report having used a condom the last time they had sexual intercourse, by gender and urban/rural status (%)**



## Chapter Summary

As lifelong habits are formed during adolescence, including how individuals use and abuse substances, examining these years is key to understanding risk behaviours. Although Canadian youth are smoking at lower rates than they ever have (Elgar & Pickett, 2011), early onset smoking still is predictive of later nicotine dependence (Kendler et al., 2013).

Prolonged cigarette smoking is consistently related to heart problems, respiratory problems, and cancer (Centre for Disease Control and Prevention, 2004). While older Yukon students smoke more than younger Yukon students, Grade 9-10 girls who go to school outside of Whitehorse have especially high smoking rates, with 19.4% being daily smokers and 29% recent smokers.

Similarly, alcohol misuse and abuse in adulthood is strongly linked to the early use of alcohol in adolescence (Grant, 1998). Alcohol use is predictive of other risk behaviours such as illegal drug use (Johnston et al., 2002) and risky sexual behaviour (Cooper, 2002; Johnston et al., 2002). Alcohol-related accidents are a leading cause of death among youth (Solomon, 2012). The probability of having been really drunk increases exponentially in secondary school in Yukon, with rural girls the highest at 35.5%. Binge drinking is also especially high for this group (26.9%). Grade 9-10 rural girls are additionally the most likely to have had an alcoholic drink in the past 30 days (41.9%) and to have been really drunk in that time frame (24.1%), followed closely by Grade 9-10 urban boys (36.6% and 21.2%, respectively).

One of the most commonly used drugs in adolescence is cannabis (Health Canada, 2014). Adolescent cannabis users are more likely to leave high school before graduation and to develop cannabis dependency and use additional illicit drugs (Silins et al., 2014; Volkow et al., 2014). Grade 9-10 rural girls in Yukon are the most likely to use cannabis any time during the past 30 days (32.3%) and numerous times during the past 30 days (25.8%). They also report increased use of hallucinogens (21.9%). Other substances (ecstasy, glue or solvent, pain relievers to get high) are infrequently used by any Yukon youth.

Substance use is related to school climate, peer support, and family support. Regardless of the substance, students in the high school climate group are the least likely to have consumed the substance, while students in the low school climate group are the most

likely. In contrast, for all substances, while students in the high peer support group remain the least likely to have consumed the substance, while students in the medium peer support group are the most likely. However, like school climate, regardless of the substance, students in the high family support group are the least likely to have consumed the substance, while students in the low family support group are the most likely.

Engaging in sexual intercourse at a younger age increases the risk for engaging in unprotected sex, having an unplanned pregnancy, and contracting sexually transmitted infections (STIs; Godeau et al., 2005). Grade 9-10 girls who go to schools in rural areas are the most likely to have had sexual intercourse (46.7%) with about one-quarter of other Grade 9-10 students having had sexual intercourse. Among those adolescents who report having sexual intercourse, about one in five boys and one in four girls had their last sexual intercourse without using a condom.

## 8. VIOLENCE AND BULLYING

---

Bullying entails intentional and repetitive harming of another person's feelings, self-esteem, or body. Bullying can be physical, social, verbal, or indirect, and can also occur electronically. Victims of bullying may be targeted because of their perceived race, sexual identity, religion, physical appearance, and/or abilities. Repeated bullying consolidates the power relationships between bullies and their victims and can lead to a cycle of bullying victimization as the bully gains more power and the victims become increasingly powerless, anxious, and unable to defend themselves (Craig, 1998). Bullying is therefore considered to be a relationship problem involving a power differential between bullies and their victims. Ultimately, bullies assert power using targeted and repeated aggression to cause harm (Pepler & Craig, 2000).

Young people who are bullied are at risk of developing a range of physical health symptoms including stomach-aches, headaches, backaches, and dizziness (Due et al., 2005). Additionally, victims of bullying may experience an array of social, emotional, and psychological problems. Young people who are bullied are more likely to have negative views of themselves, to have lower self-esteem and lower levels of self-worth (Grills & Ollendick, 2002; Hawker & Boulton, 2000), and to find it difficult to make friends (Alikasifoglu, Erginoz, Ercan, Uysal, & Albayrak-Kaymak, 2007). Victims of bullying also report lower levels of school attachment and school performance (Schneider, O'Donnell, Stueve, & Coulter, 2012).

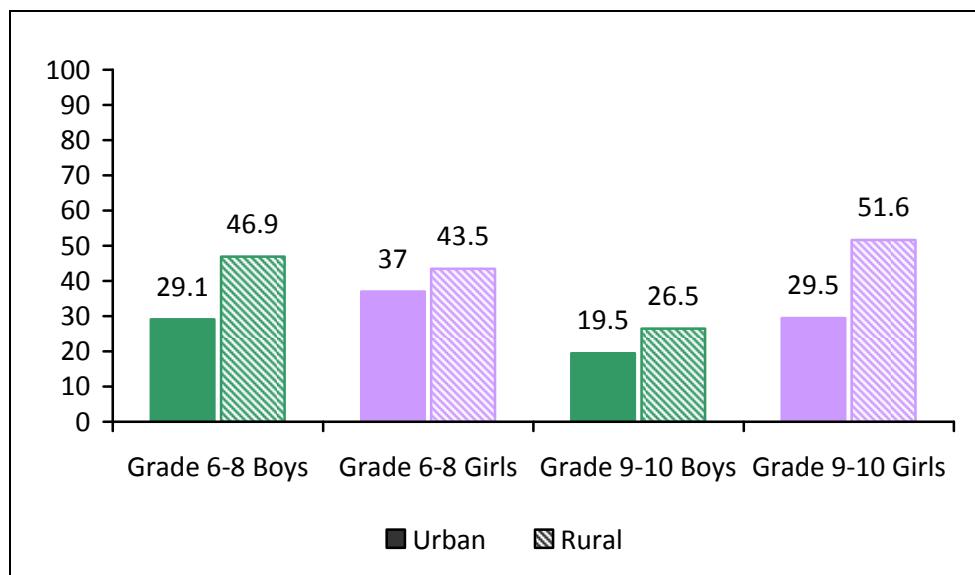
Peer victimization has also been associated with the manifestation and increase of adolescent depression and anxiety (Bond et al., 2001; Craig, 1998; Hawker & Boulton, 2000; Kaltiala-Heino, Rimpelä, Rantanen, & Rimpelä, 2000; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Schneider, O'Donnell, Stueve, & Coulter, 2012). Adolescents who are bullied are at risk for serious suicidal ideation and suicide attempts (Klomek et al., 2007; Rigby & Slee, 1999; Schneider et al., 2012; Van der Wal, De Wit, & Hirasing, 2003). Victimized youth may start to bully others as a result of their own anger and frustration (Goldbaum, Craig, Pepler, & Connolly, 2007).

Being a bully is associated with a variety of risk taking behaviours such as alcohol consumption (Alikasifoglu et al., 2007; Kaltiala-Heino et al., 2000), smoking cigarettes (Vieno, Gini & Santinello, 2011), illegal substance use (Kaltiala-Heino et al., 2000), excessive use of medicine (Due, Hansen, Merlo, Anderson, & Holstein, 2007), and weapon carrying (Dukes, Stein, & Zane, 2010). Due to learned lessons of aggression and power through bullying at school, bullying can lead to future sexual harassment (McMaster, Connolly, Pepler, & Craig, 2002), dating aggression, child abuse, elder abuse, and work place harassment (Pepler, Jiang, Craig, & Connolly, 2008).

This chapter assesses bullying and victimization among school-aged youth. Students are asked to report how often they have been bullied and how often they bully others at school. Students are also asked about the ways in which they have been bullied or bully others: (a) verbal (e.g., called mean names, made fun of, or teased in a hurtful way); (b) indirect (e.g., left out of things on purpose, excluded from a group of friends, or completely ignored); (c) physical (e.g., hit, kicked, pushed, shoved around or locked indoors); (d) malicious gossip (e.g., lies or false rumours, tried to make others dislike me) (e) sexual harassment (e.g., sexual jokes, comments, or gestures); and (f) weight (e.g., made fun of because of weight). In that electronic communication plays an integral role in the lives of young people today (Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010), students were also asked about how often they have been cyber-bullied and how often they cyber-bully others. Engagement in physical fighting is assessed by having students report how often they partake in physical fighting. Finally, the association between bullying and school climate, peer support, and family support are studied.

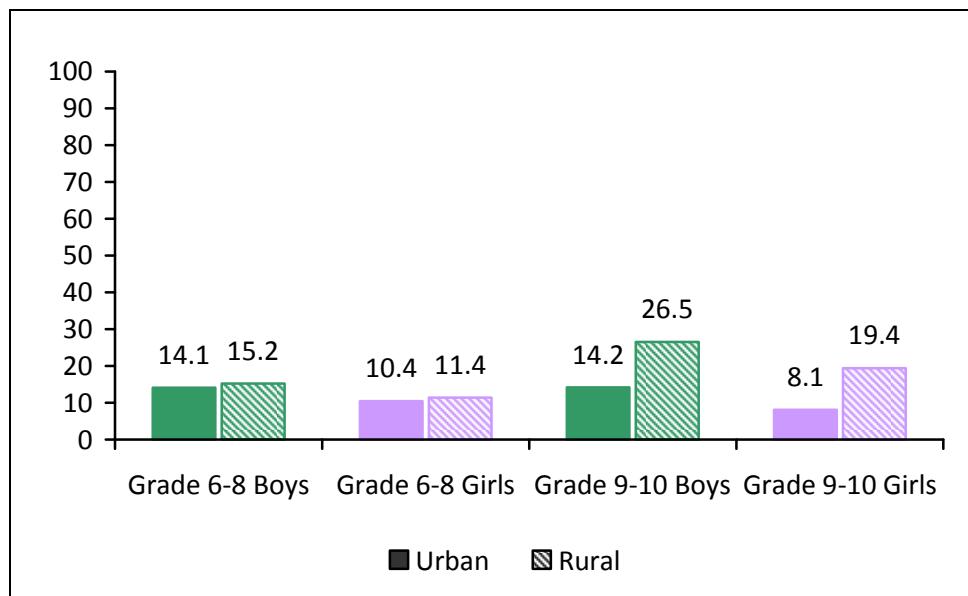
Except for Grade 6-8 rural students, girls more often indicate being bullied than do boys ([Figure 8.1](#)). Rural students report being bullied more often than do urban students. Being bullied decreases for boys and urban girls across grades. It increases for rural girls.

**Figure 8.1: Students who report being bullied at school more than once or twice in the past couple of months, by grade, urban/rural status, and gender (%)**



Boys more often indicate bullying others than do girls, particularly among the older students (Figure 8.2). Rural Grade 9-10 students report bullying others more often than do urban students.

**Figure 8.2: Students who report bullying others at school more than once or twice in the past couple of months, by grade, urban/rural status, and gender (%)**



Being called mean names is the most common form of being bullied for Grade 6-8 students, irrespective of gender or location ([Table 8.1](#)). Girls are more often bullied through social exclusion and because of their weight than are boys. Boys are more often physically bullied than are girls. Rural boys report being bullied more often for all types of bullying than do urban boys. There is no clear pattern in this respect for girls.

Most forms of being bullied decrease with age, although older rural girls report higher levels of malicious gossip than younger rural girls and older urban girls more sexual bullying than younger girls. There is no clear pattern for location in this age group regarding being bullied. Gender differences in types of being bullied remain relatively constant across grades.

**Table 8.1: Been bullied at school more than once or twice in the past couple of months in the ways listed below (%)**

<b>Grades</b>	<b>Male</b>		<b>Female</b>		
	<b>6 to 8</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban</b>	<b>Rural</b>
I was called mean names, was made fun of, or teased in a hurtful way	17.4	24.7		20.4	23.2
Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me	12.4	16.5		20.0	18.8
I was hit, kicked, pushed, shoved around, or locked indoors	9.3	20.8		6.2	11.8
Other students told lies or spread false rumours about me and tried to make others dislike me	8.1	20.5		15.4	13.8
Other students made sexual jokes, comments, or gestures to me	8.2	11.7		9.3	7.5
Other students made fun of me because of my weight	7.5	14.1		9.8	14.7
<b>9 and 10</b>					
I was called mean names, was made fun of, or teased in a hurtful way	10.8	11.8		15.2	16.1
Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me	9.0	2.9		12.5	16.1
I was hit, kicked, pushed, shoved around, or locked indoors	5.2	5.9		3.6	3.2
Other students told lies or spread false rumours about me and tried to make others dislike me	9.4	5.9		12.5	25.8
Other students made sexual jokes, comments, or gestures to me	6.1	8.8		13.1	3.2
Other students made fun of me because of my weight	6.1	8.8		10.3	16.1

Although the reported prevalence for all types of electronic being bullied is under 10% for Grade 6-8 students, girls' numbers are considerably higher than those for boys (Table 8.2).

Gender differences in being bullied persist into Grade 9-10. Unlike the other groups, rural Grade 9-10 girls' reported rates of being electronically bullied increase dramatically from the earlier grades with a resultant large urban-rural split for Grade 9-10 girls.

**Table 8.2: Been bullied more than once or twice in the past couple of months in the ways listed below (%)**

Grades	Male		Female	
	Urban	Rural	Urban	Rural
6 to 8				
Someone sent mean instant messages, wall postings, emails and text messages, or created a web site that made fun of me	2.4	1.3	4.7	9.0
Someone took unflattering or inappropriate pictures of me without permission and posted them online	0.6	1.3	3.1	3.0
<b>9 and 10</b>				
Someone sent mean instant messages, wall postings, emails and text messages, or created a web site that made fun of me	1.0	0.0	5.4	19.4
Someone took unflattering or inappropriate pictures of me without permission and posted them online	1.4	3.0	2.7	12.9

Reports of bullying others are considerably lower than they are for being bullied (Table 8.3). For all types of bullying others except physical bullying, rural girls are the most likely to bully others. All other differences are minimal.

Bullying others changes little as students get older, so that the reported rates remain low. Rural girls are the highest in most forms of bullying others, except name-calling and making sexual remarks. Rural boys are the highest for making sexual remarks.

**Table 8.3: Bullied others at school more than once or twice in the past couple of months in the ways listed below (%)**

<b>Grades</b>	<b>Male</b>		<b>Female</b>		
	<b>6 to 8</b>	<b>Urban</b>	<b>Rural</b>	<b>Urban</b>	<b>Rural</b>
I called another student(s) mean names, and made fun of, or teased him or her in a hurtful way.	6.0	5.1		5.2	8.8
I kept another student(s) out of things on purpose, excluded him or her from my group of friends, or completely ignored him or her.	3.6	2.6		2.8	7.5
I hit, kicked, pushed, shoved around, or locked another student(s) indoors.	3.0	2.5		2.5	1.5
I spread false rumours about another student(s) and tried to make others dislike him or her.	1.2	1.3		0.6	4.5
I made sexual jokes, comments, or gestures to another student(s).	2.1	1.3		0.9	3.0
I made fun of another student(s) because of their body weight.	1.8	1.3		0.6	3.0
<b>9 and 10</b>					
I called another student(s) mean names, and made fun of, or teased him or her in a hurtful way.	9.0	11.8		3.2	10.0
I kept another student(s) out of things on purpose, excluded him or her from my group of friends, or completely ignored him or her.	3.3	2.9		1.4	6.7
I hit, kicked, pushed, shoved around, or locked another student(s) indoors.	2.9	2.9		1.4	6.7
I spread false rumours about another student(s) and tried to make others dislike him or her.	1.0	2.9		1.4	6.7
I made sexual jokes, comments, or gestures to another student(s).	2.4	8.8		2.7	3.3
I made fun of another student(s) because of their body weight.	2.9	0.0		0.9	6.7

Bullying others electronically is rarely reported by Grade 6-8 students ([Table 8.4](#)). Grade 6-8 rural boys and Grade 6-8 urban girls never indicate they have engaged in electronic bullying. The highest reported rate of electronic bullying is 6% for rural girls posting mean text.

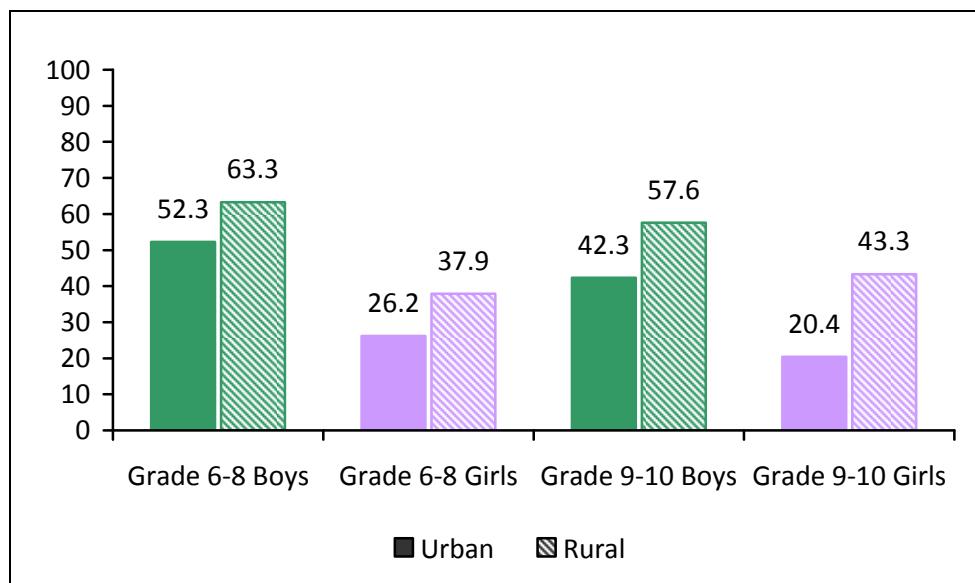
Bullying others electronically remains rarely reported by Grade 9-10 students. Grade 9-10 rural boys still never indicate they have engaged in electronic bullying. The highest reported rate of electronic bullying is 7% for rural girls posting mean text.

**Table 8.4: Bullied others more than once or twice in the past couple of months in the ways listed below (%)**

Grades	Male		Female	
	Urban	Rural	Urban	Rural
<b>6 to 8</b>				
I sent mean instant messages, wall postings, emails or text messages, or created a Web site that made fun of somebody.	0.3	0.0	0.0	6.1
I took pictures of someone without permission and posted them online.	0.6	0.0	0.0	1.5
<b>9 and 10</b>				
I sent mean instant messages, wall postings, emails or text messages, or created a Web site that made fun of somebody.	1.5	0.0	1.4	6.7
I took pictures of someone without permission and posted them online.	1.5	0.0	1.8	3.3

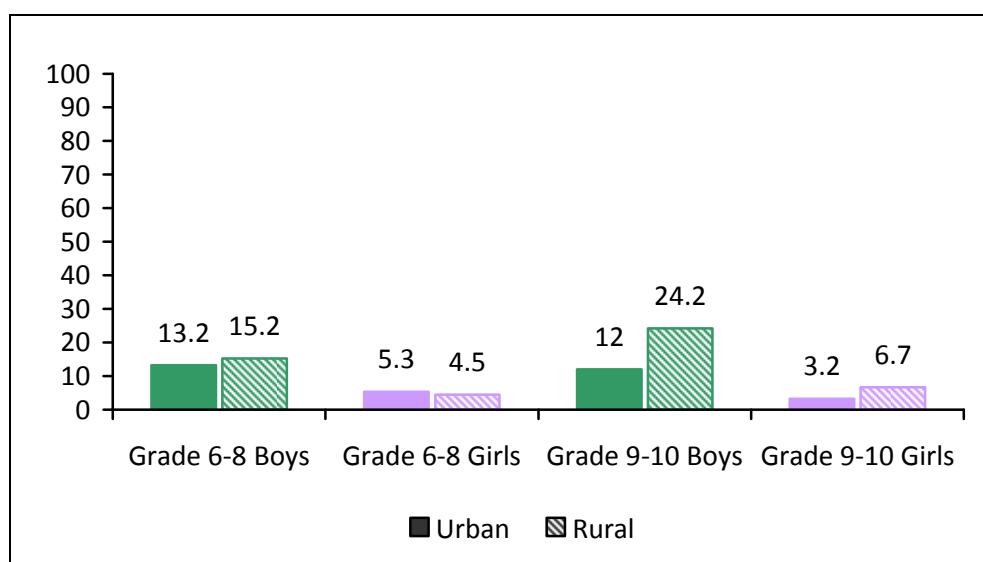
Boys and rural students are more likely to have been in a physical fight in the past 12 months than are girls and urban students ([Figure 8.3](#)). For boys and urban girls, reported physical fighting decreases across grade levels, while it increases for rural girls.

**Figure 8.3: Students who report having been in a physical fight in the past 12 months, by grade, urban/rural status, and gender (%)**



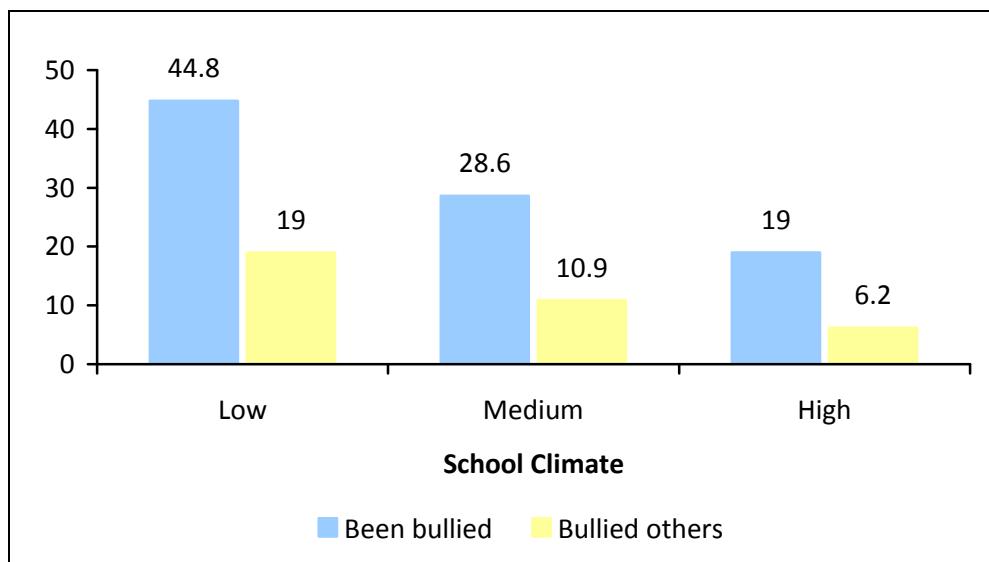
The gender pattern for physical fights four or more times in the past 12 months is the same as for any physical fighting in the past 12 months (Figure 8.4). Physical fighting multiple times decreases across grade levels for urban students but increases for rural students. Rural boys report multiple physical fights more often than other groups (Grade 6-8: 15%; Grade 9-10: 24%).

**Table 8.4: Students who have been in four or more physical fights in the past 12 months, by grade, urban/rural status, and gender (%)**



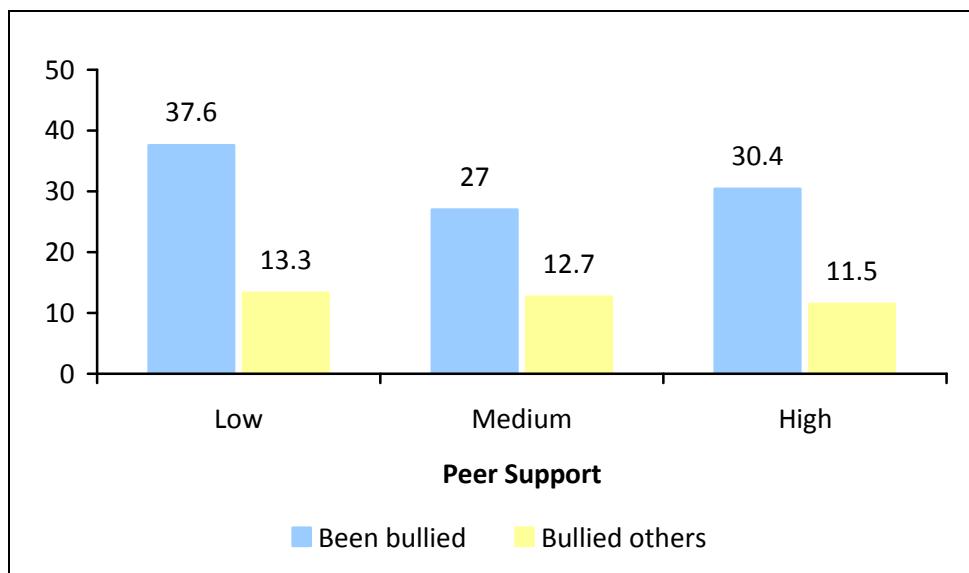
Students who are in the high school climate group are the least likely to have been bullied or to have bullied others (Figure 8.5). Students in the low school climate group are the most likely to have done both.

**Figure 8.5: Students who report being bullied and bullying others more than once or twice in the past couple of months, by school climate (%)**



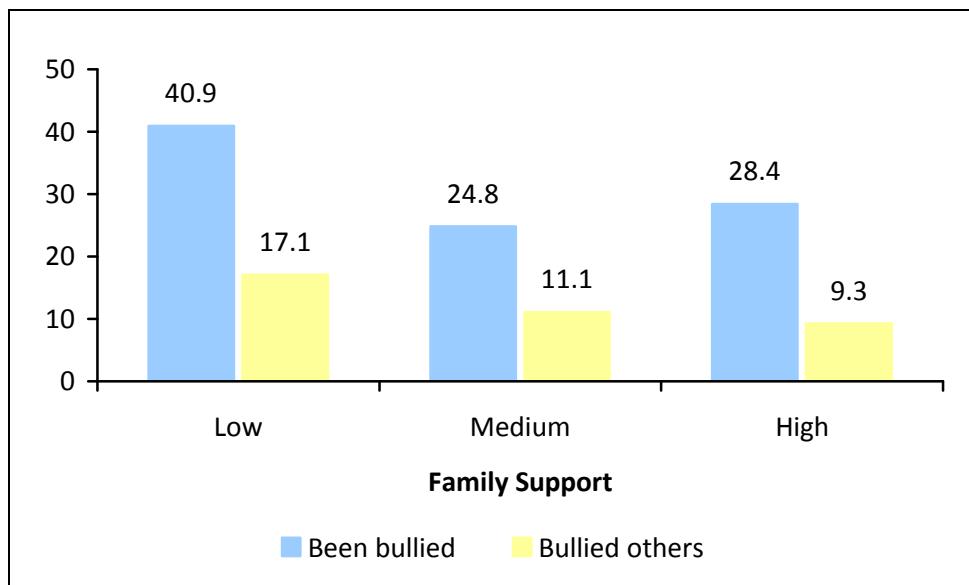
Peer support is largely unrelated to bullying others (Figure 8.6). Students in the low peer support group are the most likely to say they have been bullied. Students in the medium peer support group are the least likely.

**Figure 8.6: Students who report being bullied and bullying others more than once or twice in the past couple of months, by peer support (%)**



Differences between the medium and high family support groups in regards to bullying others and being bullied are minimal (Figure 8.7). However, students in the low family support group are much more likely than the other two groups to report bullying others and being bullied.

**Figure 8.7: Students who report being bullied and bullying others more than once or twice in the past couple of months, by family support (%)**



## Chapter Summary

Bullying entails intentional and repetitive harming of another person's feelings, self-esteem, or body. Bullying can be physical, social, verbal, or indirect, and can also occur electronically. Adolescents who are bullied may suffer physically (Due et al., 2005), socially (Alikasifoglu et al., 2007), emotionally (Bond et al., 2001; Craig, 1998; Hawker & Boulton, 2000; Kaltiala-Heino et al., 2000; Klomek et al., 2007; Schneider et al., 2012), and psychologically (Grills & Ollendick, 2002; Hawker & Boulton, 2000). These issues increase the risk for serious suicidal ideation and suicide attempts (Klomek et al., 2007; Rigby & Slee, 1999; Schneider et al., 2012; van Der Wal et al., 2003).

Being a bully is associated with a range of risk behaviours (Alikasifoglu et al., 2007; Due et al., 2007; Dukes et al., 2010; Kaltiala-Heino et al., 2000; Vieno et al., 2011). Adolescents who bully others are more likely than their peers to exhibit these behaviours in adulthood (McMaster et al., 2002; Pepler et al., 2008).

The pattern for bullying behaviours differs dependent on the type of question asked. For the general question, except for Grade 6-8 rural students, girls more often indicate being bullied than do boys. Rural students report being bullied more often than do urban students. Boys also report bullying others more than do girls, and rural Grade 9-10 students than urban Grade 9-10 students. Rural boys most commonly state they bullied others than do other students at the same grade level.

For specific examples of bullying behaviour, being bullied generally decreases across grade level. Gender differences are tied to the type of question. Grade 6-8 rural boys report being bullied more often for all types of bullying than do Grade 6-8 urban boys. Bullying others does not vary across grade levels. Rural girls consistently report the highest rate of bullying others compared to other students at the same grade level. Name-calling is the most common form of bullying behaviour (regardless of grade level, location, gender, or direction of the bullying). Electronic bullying is rare. Being bullied is far more often reported than bullying others, no matter the type of question.

Physical fights are related to gender and location. Boys and rural students are more likely to have been in a physical fight in the past 12 months than are girls and urban students. Boys are also more likely to have been in multiple physical fights than are girls. Rural boys report multiple physical fights more often than other groups.

Bullying and being bullied are related to school climate and family support. Students who are in the high school climate group are the least likely to have been bullied or to have bullied others. Students in the low school climate group are the most likely to have done both. Students in the low family support group are much more likely than the other two groups to report bullying others and being bullied. Peer support is not systematically related to bullying behaviours.

## 9. INJURIES

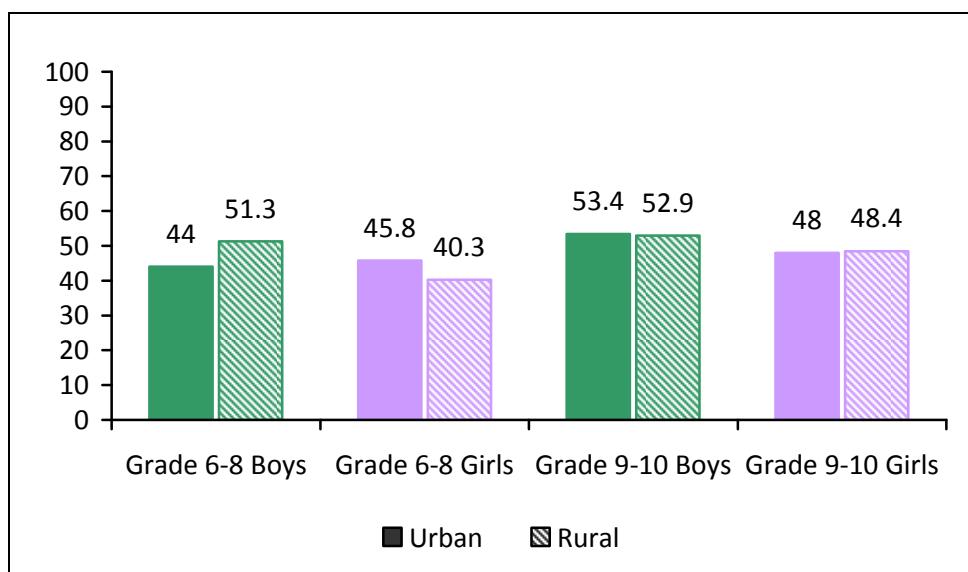
---

Harm or damage that comes to the body, typically by an external force, is considered to be an injury. The harm or damage to the body may be minor, or can be severe and even lead to death. In fact, injuries are the main cause of death in Canadian youth (Leitch, 2011; Pickett, 2011). Consequently, injuries among young people have to be considered a common health problem. As a result, the Canadian government has identified the prevention of injuries as a priority (Billette & Janz, 2011; Leitch, 2011; Public Health Agency of Canada, 2009).

Risk of injury rises considerably during adolescence. Young people are more likely to incur an injury than any other age group (Billette & Janz, 2011). Furthermore, a significant group of youth report engaging in behaviours that they identify as involving risk despite knowing there may be serious consequences to their actions (Pickett, 2011). Some of these risk-taking behaviours may include the use of alcohol and drugs (Pickett et al., 2005; Pickett et al., 2012). Other ways in which youth may acquire injuries include training or participation in sports (Fridman, Fraser-Thomas, McFaull, & Macpherson, 2013), cycling and other recreational activities, and fighting (Molcho et al., 2006; Pickett et al., 2005; Pickett, 2011). Youth are more likely to acquire an injury due to fighting or violence if they are experiencing emotional problems (Pickett, 2011) and elevated depressive symptoms (Asbridge, Azagba, Langille, & Rasic, 2014). Most injuries are both predictable and preventable, and therefore should not be viewed as accidents (Pickett, 2004). Ultimately, social contexts such as school, home, and the peer group can both protect young people from injury and place them at greater risk (Pickett et al., 2005).

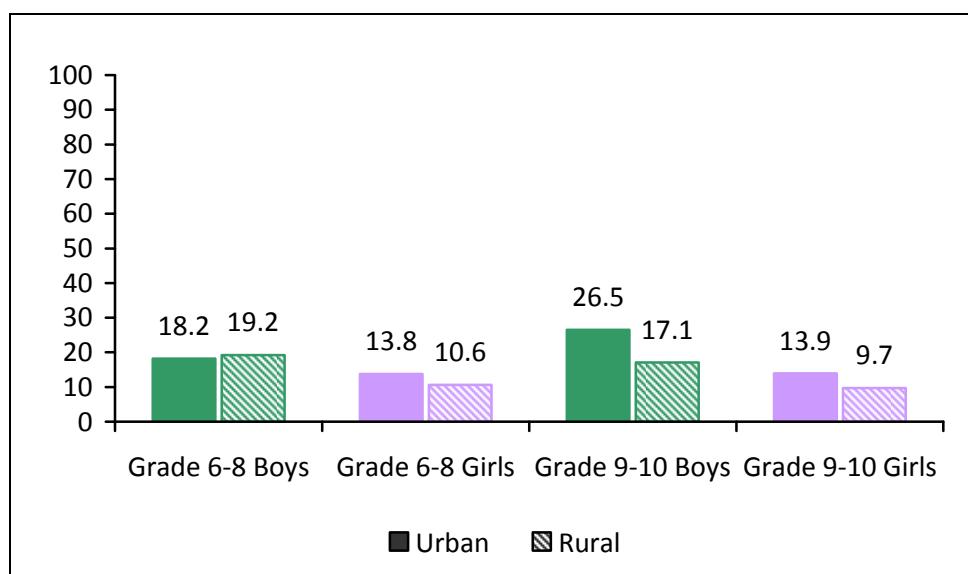
With the exception of Grade 6-8 urban students, older students and boys report more medically treated injuries during the past 12 months than do younger students and girls (Figure 9.1). There are virtually no urban-rural differences in such injuries for Grade 9-10 students. In Grade 6-8, rural boys report more such injuries than do urban boys. The opposite is the case for girls.

**Figure 9.1: Students reporting an injury during the past 12 months requiring treatment by a doctor or nurse, by grade, urban/rural status, and gender (%)**



Serious injuries requiring significant medical treatment are more prevalent for boys than for girls and, with the exception of Grade 6-8 boys, urban students compared to rural students (Figure 9.2). Significant injuries remain relatively stable across grade levels, except for urban boys where they increase substantially.

**Figure 9.2: Students reporting one or more serious injuries during the past 12 months requiring significant medical treatment, by grade, urban/rural status, and gender (%)**



More injuries for urban students occur at a sports facility or field than at the other kinds of locations (Table 9.1). Injuries for rural students are more evenly split across locations. Injuries for Grade 6-8 girls rarely occur at school outside of school hours.

The site of injuries for Grade 9-10 students is like that for Grade 6-8 students with more diversity of settings for the rural students in comparison to the urban students. “Other location” is the most prominent site for rural students’ injuries.

**Table 9.1: Locations of the most serious injury in the past 12 months, by grade, urban/rural status, and gender (%)**

Grades	Male		Female	
	Urban	Rural	Urban	Rural
<b>6 to 8</b>				
I was not injured	60.4	61.3	59.7	66.2
At home or in the yard	6.3	6.7	8.2	4.6
At school during school hours	5.4	6.7	5.7	9.2
At school outside of school hours	1.5	4.0	0.9	1.5
At a sports facility or field	14.8	6.7	17.9	6.2
In the street or parking lot	2.4	8.0	1.6	3.1
Other location	9.1	6.7	6.0	9.2
<b>9 and 10</b>				
I was not injured	51.5	54.5	55.1	56.7
At home or in the yard	6.3	3.0	7.9	3.3
At school during school hours	4.9	0.0	6.5	10.0
At school outside of school hours	1.5	6.1	0.9	0.0
At a sports facility or field	23.8	6.1	20.4	10.0
In the street or parking lot	3.9	9.1	2.8	6.7
Other location	8.3	21.2	6.5	13.3

Injuries for Grade 6-8 students occur most often playing/training for a sport or in a pursuit not listed (Table 9.2). Fighting is a more prominent cause for Grade 6-8 rural boys' injuries than it is for other groups.

Similarly, injuries for Grade 9-10 students occur most often playing/training for a sport or in a pursuit not listed. All other activities account for a small number of injuries.

**Table 9.2: Activities during which the most serious injury occurred in the past 12 months, by grade, urban/rural status, and gender (%)**

Grades	Male		Female	
	6 to 8	Urban	Rural	Urban
I was not injured	60.9	60.3	58.1	67.2
Biking	5.5	5.5	1.9	3.1
Playing or training for a sport	15.9	12.3	22.5	9.4
Walking or running not for sports	2.1	5.5	3.1	4.7
Riding or driving in a car	0.6	1.4	0.0	3.1
Fighting	1.8	6.8	1.6	0.0
Paid or unpaid work	0.3	0.0	0.0	0.0
Other	12.8	8.2	12.8	12.5
<b>9 and 10</b>				
I was not injured	50.0	55.9	54.5	56.7
Biking	4.8	5.9	0.0	3.3
Playing or training for a sport	26.4	17.6	22.7	16.7
Walking or running not for sports	2.9	0.0	4.5	3.3
Riding or driving in a car	1.0	2.9	0.9	3.3
Fighting	1.9	0.0	0.9	0.0
Paid or unpaid work	0.0	0.0	0.9	0.0
Other	13.0	17.6	15.5	16.7

Few rural Grade 6-8 students report not riding other vehicles (Table 9.3). For those boys and urban girls who do ride such vehicles, helmet use “always” occurs more often than “never,” “sometimes,” and “most of the time” combined. Such is not the case for rural girls.

The balance between those persons who always wear helmets versus the other three helmet use categories shifts in Grade 9-10. By this time, only Grade 9-10 urban boys are more likely to always wear a helmet than not.

**Table 9.3: Reported helmet use while riding other vehicles (e.g. snowmobile, ATV, dirt bike) by grade, urban/rural status, and gender (%)**

Grades	Male		Female	
	Urban	Rural	Urban	Rural
<b>6 to 8</b>				
I do not ride other vehicles	35.1	7.7	41.6	13.4
Never	5.7	14.1	5.2	14.9
Sometimes	7.6	11.5	13.5	22.4
Most of the time	10.1	9.0	8.7	10.4
Always	41.5	57.7	31.0	38.8
<b>9 and 10</b>				
I do not ride other vehicles	28.1	14.7	37.9	9.7
Never	9.0	0.0	11.4	9.7
Sometimes	12.1	20.6	11.0	16.1
Most of the time	12.1	23.5	14.2	25.8
Always	38.7	41.2	25.6	38.7

## Chapter Summary

Injuries can have varying degrees of severity. Regardless, injuries are the main cause of death in Canadian youth (Leitch, 2011; Pickett, 2011) with the prevention of injuries a priority of the Canadian government (Billette & Janz, 2011; Leitch, 2011; Public Health Agency of Canada, 2009). Youth may acquire injuries include training or participation in sports (Fridman et al., 2013), cycling and other recreational activities, and fighting (Molcho et al., 2006; Pickett et al., 2005; Pickett, 2011).

With the exception of Grade 6-8 urban students, older students and boys in Yukon report more medically treated injuries during the past 12 months than do younger students and girls. About half of the students report such an injury. In contrast, significant injuries in the territory are linked to gender and location with boys higher than girls and, other than Grade 6-8 males, rural students higher than urban students. Injuries for urban students tend to occur at a sports facility or field, while sites of injuries for rural students are more diverse. The prominence of sports facility or field as a site of injury concurs with most injuries occurring while playing or training for a sport.

Helmet use for other vehicles shifts with age in Yukon. For those boys and urban girls who do ride such vehicles, helmet use “always” occurs more often than “never,” “sometimes,” and “most of the time” combined. Such is not the case for rural girls. The balance between those persons who always wear helmets versus the other three helmet use categories shifts in Grade 9-10. By this time, only Grade 9-10 urban boys are more likely to always wear a helmet than not.

## 10. CONCLUSION

---

In this conclusion, we summarize the causes for celebration and causes for concern related to the findings of this report. Causes for celebration are areas where adolescents in Yukon are generally doing well, while causes for concern highlight ongoing challenges with respect to adolescent health in the territory.

### Causes for Celebration

#### 1) *Parental Support*

The majority of Yukon youth describe positive relationships with their parents. They feel their parents understand them, describe their home life as happy, and find their mother and (with the exception of secondary school girls) father easy to talk to. Less than half feel their parents expect too much of them and (with the exception of secondary school rural girls) do not think of leaving home.

#### 2) *Communication with Same-Sex Friends*

Over three-quarters of Yukon girls and over half of Yukon boys find it easy or very easy to talk to their same-sex friends about things that really bother them.

#### 3) *Boys and Mental Health*

Over three-quarters of the boys in Yukon rate their health as excellent or good. Over half rate their life satisfaction as 8-10 on a 0 to 10 scale. Fewer than one in four report feeling depressed or low (excepting Grade 6-8 rural boys at 27.6%), feeling bad-tempered or irritable, often wishing they were someone else, feeling helpless, and feeling sad and hopeless.

#### 4) *Use of Other Substances*

Other substances (ecstasy, glue or solvent, pain relievers to get high) are infrequently used by any Yukon youth. Hallucinogens tend only to be used by Grade 9-10 rural girls.

#### 5) *Positive Influence of School Climate*

School climate is related to both adolescent depression and self-confidence in Yukon. Students in the high school climate group report lower depression and greater self-

confidence than students in the medium school climate group, who, in turn, have more favourable results than the low school climate group. The gap is larger between the low and medium groups than between the medium and high groups. Regardless of the substance, students in the high school climate group are the least likely to have consumed the substance, while students in the low school climate group are the most likely.

6) *Electronic Bullying*

Electronic bullying is rare in Yukon.

### **Causes for Concern**

1) *Grade 9-10 Rural Girls*

In numerous health domains, Grade 9-10 girls going to school in rural areas experience the poorest outcomes. They are the most likely to report contact with the people in their community but also the most prone to seeing these people as taking advantage of them and least likely to see their neighbours as trustworthy and helpful. Grade 9-10 girls who go to school outside of Whitehorse have especially high smoking rates, with 19.4% being daily smokers and 29% recent smokers. They are the most likely to have had an alcoholic drink in the past 30 days (41.9%), to have been really drunk in that time frame (24.1%), and to use cannabis any time during the past 30 days (32.3%) and numerous times during the past 30 days (25.8%). They also report increased use of hallucinogens (21.9%). With the exception of participation in cultural activities, rural girls are more likely to state that their friends participate in risk behaviours and less likely to state that their friends take part in positive social behaviours than urban girls.

2) *Grade 9-10 Urban Girls and Mental Health Concerns*

After Grade 9-10 rural girls, Grade 9-10 urban girls have the lowest self-rated health and life satisfaction. They are also the second most likely to feel depressed or low, feel bad tempered or irritable, wish they were someone else, feel helpless, and feel sad and hopeless. They exhibit the lowest levels of self-confidence.

**3) *Physical Activity and Sedentary Behaviour***

Across all grade levels, regardless of location or gender, well under half of Yukon adolescents are spending four or more hours a week physically active either in class time at school or outside school. Rural girls are particularly low in doing so, In contrast, Yukon adolescents spend a large portion of their waking life engaged in sedentary behaviours. On weekdays, TV watching for all groups of at least two hours daily ranges from 46% to 72.7%. About three-quarters of Yukon students watch television a minimum of two hours per day on weekends. Computer game playing at least two hours daily is especially high for Grade 9-10 boys. It is greater than one in three for all groups on weekdays and on weekends and reaches 81.8% for rural Grade 9-10 boys on weekends.

**4) *Eating Patterns***

With respect to healthy eating, the overall consumption of fruit at least once per day is about 50% for Yukon young people with vegetable consumption somewhat lower. Only 22.6% of Yukon Grade 9-10 rural girls report eating at least one fruit a day and only 25.8% one vegetable daily. These girls are also far less likely than any other students to eat breakfast regularly. Going to bed or to school hungry is a concern unless its prevalence is zero. In Yukon, the percentage ranges from 23.5% for Grade 9-10 urban boys to 39.7% for Grade 6-8 rural girls.

### **Concluding Thoughts**

The biggest concern in Yukon currently with respect to health is the well-being of Grade 9-10 girls going to school outside of Whitehorse who have the poorest outcomes across a range of mental health and substance use issues. Mental health concerns are also prominent for Grade 9-10 urban girls. Lack of physical activity, high levels of sedentary behaviour, poor eating patterns, and inconsistent use of condoms are problems affecting

young people in Yukon more generally. However, it is encouraging that young people in Yukon feel high levels of support from their parents and find it easy or very easy to talk to same-sex peers. Additionally, positive school climate is consistently related to better health outcomes. As a result, the contextual pieces are clearly in place to effect changes in the health of Yukon adolescents.

## REFERENCES

Advisory Committee on Population Health. (1994). Strategies for population health: Investing in the health of Canadians. Report to the Ministers of Health.

Alikasifoglu, M., Erginoz, E., Ercan, O., Uysal, O., & Albayrak-Kaymak, D. (2007). Bullying behaviours and psychosocial health: results from a cross-sectional survey among high school students in Istanbul, Turkey. *European Journal of Pediatrics*, 166, 1253–1260.

Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*, 94, 795–809.

Anderson, P. (2006). Global use of alcohol, drugs and tobacco. *Drug and Alcohol Review*, 25, 489–502.

Antonishak, J., Sutfin, E. L., & Reppucci, N. D. (2005). Community influence on adolescent development. In T. Gullotta & G. Adams (Eds.), *Handbook of adolescent behavioral problems* (pp. 57–78). New York, NY: Springer.

Asbridge, M., Azagba, S., Langille, D. B., & Rasic, D. (2014). Elevated depressive symptoms and adolescent injury: examining associations by injury frequency, injury type, and gender. *BMC Public Health*, 14(1), 1–6.

Benson, P. L., Leffert, N., Scales, P. C., & Blyth, D. A. (2012). Beyond the “village” rhetoric: Creating healthy communities for children and adolescents. *Applied Developmental Science*, 16, 3–23.

Berge, J. M., Wall, M., Larson, N., Loth, K. A., & Neumark-Sztainer, D. (2013). Family functioning: associations with weight status, eating behaviors, and physical activity in adolescents. *Journal of Adolescent Health*, 52, 351–357.

Biddle, S. J., & Asare, M. (2011). Physical activity and mental health in children and adolescents: A review of reviews. *British Journal of Sports Medicine*, 45, 886–895.

Billette, J., & Janz, T. (2011). *Injuries in Canada: Insights from the Canadian Community Health Survey*. Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/82-624-x/2011001/article/11506-eng.pdf>.

Bond, L., Carlin, J. B., Thomas, L., Rubin, K., & Patton, G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *British Medical Journal*, 323, 480–484.

Borowsky, I. W., Ireland, M., & Resnick, M. D. (2001). Adolescent suicide attempts: Risks and protectors. *Pediatrics*, 107, 485–493.

Bremner, P., Burnett, J., Nunney, F., Ravat, M., & Mistral, W. (2011). *Young people, Alcohol and influences*. Retrieved from: [http://www.drugsandalcohol.ie/15327/1/JRF\\_young-people-alcohol-full.pdf](http://www.drugsandalcohol.ie/15327/1/JRF_young-people-alcohol-full.pdf).

Brooks, F. M., Magnusson, J., Spencer, N., & Morgan, A. (2012). Adolescent multiple risk behaviour: an asset approach to the role of family, school and community. *Journal of Public Health*, 34, 48–56.

Buhrmester, D. (1990). Intimacy of friendship, interpersonal competence, and adjustment during preadolescence and adolescence. *Child Development*, 61, 1101–1111.

Bulanda, R., & Majumdar, D. (2009). Perceived parent-child relations and adolescent self-esteem. *Journal of Child and Family Studies*, 18, 203–212.

Buote, D. (2009). *Social-emotional health in middle childhood: What we know*. Ottawa, ON: Public Health Agency of Canada.

Canadian Dental Association. (2015). *Flossing and brushing*. Retrieved from [http://www.cda-adc.ca/en/oral\\_health/cfyt/dental\\_care/flossing\\_brushing.asp](http://www.cda-adc.ca/en/oral_health/cfyt/dental_care/flossing_brushing.asp).

Canadian Tobacco Usage Monitoring Survey [CTUMS]. (2012). *Smoking in Canada: Summary of annual results for 2012*. Retrieved from [http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/\\_ctums-esutc\\_2012/ann\\_summary-sommaire-eng.php](http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/_ctums-esutc_2012/ann_summary-sommaire-eng.php).

Cavalca, E., Kong, G., Liss, T., Reynolds, E. K., Schepis, T. S., Lejuez, C. W., & Krishnan-Sarin, S. (2013). A preliminary experimental investigation of peer influence on risk-taking among adolescent smokers and non-smokers. *Drug and Alcohol Dependence*, 129, 163–166.

Centre for Disease Control and Prevention. (2004). *The health consequences of smoking – 50 years of progress: A report from the surgeon general*. Rockville, MD: US Department of Health and Human Services.

Chan, E. W., Au, E. Y., Chan, B. H., Kwan, M. K., Yiu, P. Y., & Yeung, E. W. (2003). Relations among physical activity, physical fitness, and self-perceived fitness in Hong Kong adolescents. *Perceptual and Motor Skills*, 93, 787–797.

Cole, A. G., Leatherdale, S. T., & Burkhalter, R. (2013). An examination of different smoking patterns among Canadian youth: New insight for tobacco control programming. *Addictive Behaviors*, 38, 1610–1615.

Connop, H., & King, A. J. C. (1999). *Adolescent smoking initiation and maintenance: Report of a pilot study of school smoking zones*. Kingston, ON: Queen's University, Social Program Evaluation Group.

Cooper, M. L. (2002). Alcohol use and risky sexual behaviour among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol*, 14 (Supplemental), 101–117.

Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24, 123–130.

Currie, C., Samdal, O., Boyce, W., & Smith, B. (Eds.). (2001). *Health behaviour in school-aged children: A World Health Organization cross-national study*. Edinburgh, Scotland: University of Edinburgh, Child and Adolescent Health Research Unit.

Deas, D., & Thomas, S. (2002). Comorbid psychiatric factors contributing to adolescent alcohol and other drug use. *Alcohol Research and Health*, 26, 116–121.

Denny, S. J., Robinson, E. M., Utter, J., Fleming, T. M., Grant, S., Milfont, T. L., ... Clark, T. (2011). Do schools influence student risk-taking behaviors and emotional health symptoms? *Journal of Adolescent Health*, 48, 259–267.

Due, P., Hansen, E. H., Merlo, J., Andersen, A., & Holstein, B. E. (2007). Is victimization from bullying associated with medicine use among adolescents? A nationally representative cross-sectional survey in Denmark. *Pediatrics*, 120, 110–117.

Due, P., Holstein, B. E., Lynch, J., Diderichsen, F., Gabhain, S. N., Scheidt, P., & Currie, C. (2005). Bullying and symptoms among school-aged children: International comparative cross sectional study in 28 countries. *The European Journal of Public Health*, 15(2), 128–132.

Dukes, R. L., Stein, J. A., & Zane, J. I. (2010). Gender differences in the relative impact of physical and relational bullying on adolescent injury and weapon carrying. *Journal of School Psychology*, 48, 511–532.

Elgar, F., & Pickett, W. (2011). Substance use and risky behavior. In J. G. Freeman, M. King, & W. Pickett (Eds.), *The health of Canada's young people: A mental health focus* (pp. 145–166). Ottawa, ON: Public Health Agency of Canada.

French, S. A., Story, M., Downes, B., Resnick, M. D., & Blum, R. W. (1995). Frequent dieting among adolescents: Psychological and health behaviour correlates. *American Journal of Public Health*, 85, 695–701.

Fridman, L., Fraser-Thomas, J. L., McFaull, S. R., & Macpherson, A. K. (2013). Epidemiology of sports-related injuries in children and youth presenting to Canadian emergency departments from 2007–2010. *BMC Sports Science, Medicine and Rehabilitation*, 5(1), 1–9.

Godeau, E., Nic Gabhainn, S., & Ross, J. (2005). Sexual health. In *HBSC Research Protocol for 2005/06 Survey*. Section 2, Scientific rationales for focus areas.

Goldbaum, S., Craig, W. M., Pepler, D., & Connolly, J. (2007). Developmental trajectories of victimization: Identifying risk and protective Factors. In J. E. Zins, M.J. Elias & C.A. Maher (Eds.) *Bullying, victimization, and peer harassment: A handbook of prevention and intervention* (pp. 143-160). New York, NY: Haworth Press.

Goldfield, G. S., Moore, C., Henderson, K., Buchholz, A., Obeid, N., & Flament, M. F. (2010). Body dissatisfaction, dietary restraint, depression, and weight status in adolescents. *Journal of School Health*, 80, 186–192.

Grant, B. F. (1998). The impact of a family history of alcoholism on the relationship between age at onset of alcohol use and DSM-IV alcohol dependence: Results of the National Longitudinal Alcohol Epidemiologic Survey. *Alcohol Health & Research World*, 22, 144–147.

Grills, A. E., & Ollendick, T. H. (2002). Peer victimization, global self-worth, and anxiety in middle school children. *Journal of Clinical Child and Adolescent Psychology*, 31, 59–68.

Harma, A.-M., Kaltiala-Heino, R., Rimpelä, M., & Rantanen, P. (2002). Are adolescents with frequent pain symptoms more depressed? *Scandinavian Journal of Primary Health Care*, 20, 92–96.

Hartup, W. (1996). The company they keep: Friendships and their developmental significance, *Child Development*, 67, 1–13.

Hawker, D. S., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry*, 41, 441–455.

Hawkins, D., Catalano, R. & Miller, J. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 1, 64–105.

Health Canada. (2014). *Youth smoking survey 2012-2013: Summary*. Retrieved from [http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/\\_survey-sondage\\_2012-2013/result-eng.php](http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/_survey-sondage_2012-2013/result-eng.php).

Inchley, J., Todd, J., Bryce, C., & Currie, C. (2001). Dietary trends among Scottish schoolchildren in the 1990's. *Journal of Human Nutrition and Dietetics*, 14, 206–217.

Janssen, I., & LeBlanc, A. G. (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioural Nutrition & Physical Activity*, 7(40), 1–16.

Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2002). Demographic subgroup trends for various licit and illicit drugs, 1975-2001. *Monitoring the future: Occasional paper No. 57*. Ann Arbor, MI: Institute for Social Research.

Jose, P. E., Ryan, N., & Pryor, J. (2012). Does social connectedness promote a greater sense of well-being in adolescence over time? *Journal of Research on Adolescence*, 22, 235–251.

Juvonen, J., Espinoza, G., & Knifsend, C. (2012). The role of peer relationships in student academic and extracurricular engagement. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 387–401). New York, NY: Springer.

Kaltiala-Heino, R., Rimpelä, M., Rantanen, P., & Rimpelä, A. (2000). Bullying at school – an indicator of adolescents at risk for mental disorders. *Journal of Adolescence*, 23, 661–674.

Keeley, M. L., & Storch, E. A. (2009). Anxiety disorders in youth. *Journal of Pediatric Nursing*, 24, 26–40.

Kemper, H. C. C., Twisk, J. W., van Mechelen, W., Post, G. B., Roos, J. C., & Lips, P. (2000). A fifteen-year longitudinal study in young adults on the relation of physical activity and fitness with the development of the bone mass: The Amsterdam Growth and Health Longitudinal Study. *Bone*, 27, 847–853.

Kendler, K. S., Myers, J., Damaj, M. I., & Chen, X. (2013). Early smoking onset and risk for subsequent nicotine dependence: A monozygotic co-twin control study. *American Journal of Psychiatry*, 170, 408–413.

Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: A systematic review. *Pediatrics*, 129, 1–25.

King, K. A., Vidourek, R. A., Davis, B., & McClellan, W. (2002). Increasing self-esteem and school connectedness through a multidimensional mentoring program. *Journal of School Health*, 72, 294–299.

Klein, J., Cornell, D., & Konold, T. (2012). Relationships between bullying, school climate, and student risk behaviors. *School Psychology Quarterly*, 27, 154–169.

Klinger, D., Mills, A., & Chapman, A. (2011). School. In J. G. Freeman, M. King, & W. Pickett (Eds.), *The health of Canada's young people: A mental health focus* (pp. 47–66). Ottawa, ON: Public Health Agency of Canada.

Klomek, A. B., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*, 40–49.

Kobus, K. (2003). Peers and adolescent smoking. *Addiction, 98*, 37–55.

Kowaleski-Jones, L., & Dunifon, R. (2006). Family structure and community context: Evaluating influences on adolescent outcomes. *Youth & Society, 38*, 110–130.

Kutcher, S., & McDougall, A. (2009). Problems with access to adolescent mental health care can lead to dealings with the criminal justice system. *Pediatric Child Health, 14*(1), 15–18.

La Greca, A. M., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child & Adolescent Psychology, 34*, 49–61.

Leatherdale, S. T., & Burkhalter, R. (2012). The substance use profile of Canadian youth: exploring the prevalence of alcohol, drug and tobacco use by gender and grade. *Addictive Behaviors, 37*, 318–322.

Leatherdale, S. T., Hammond, D., & Ahmed, R. (2008). Alcohol, marijuana, and tobacco use patterns among youth in Canada. *Cancer Causes & Control, 19*, 361–369.

Leitch, K. (2007). *Reaching for the top: A report by the advisor on healthy children and youth*. Ottawa, ON: Ministry of Health Canada.

Leone, R., Ray, S. L., & Evans, M. (2013). The lived experience of anxiety among late adolescents during high school: An interpretive phenomenological approach. *Journal of Holistic Nursing, 31*, 188–197.

Leung, K. C., Marsh, H. W., Craven, R. G., Yeung, A. S., & Abduljabbar, A. S. (2012). Domain specificity between peer support and self-concept. *Journal of Early Adolescence, 33*, 227–244.

Martinez-Gomez, D., Rey-López, J. P., Chillón, P., Gómez-Martínez, S., Vicente-Rodríguez, G., Martín-Matillas, M., ... & Marcos, A. (2010). Excessive TV viewing and cardiovascular disease risk factors in adolescents. The AVENA cross-sectional study. *BMC Public Health, 10*, 1–8.

Martyn-Nemeth, P., Penckofer, S., Gulanick, M., Velsor-Friedrich, B., & Bryant, F. B. (2009). The relationships among self-esteem, stress, coping, eating behavior, and depressive mood in adolescents. *Research in Nursing & Health*, 32(1), 96–109.

Mazur, J., Scheidt, P. C., Overpeck, M. D., Harel, Y., & Molcho, M. (2001). Adolescent injuries in relation to economic status: An international perspective. *Injury Control and Safety Promotion*, 8, 179–182.

McCuaig Edge, H., & Craig, W. (2011). Peers. In J. G. Freeman, M. King, & W. Pickett (Eds.), *The health of Canada's young people: A mental health focus* (pp. 67–84). Ottawa, ON: Public Health Agency of Canada.

McLaughlin, C. (2008). Emotional well-being and its relationship to schools and classrooms: A critical reflection. *British Journal of Guidance and Counselling*, 36, 353–366.

McMaster, L. E., Connolly, J., Pepler, D., & Craig, W. M. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology*, 14(1), 91–105.

Mehta, P., & Sharma, M. (2010). Yoga as a complementary therapy for clinical depression. *Complementary Health Practice Review*. 15, 156–170.

Meldrum, L., Venn, D., & Kutcher, S. (2009). Mental health in schools: How teachers have the power to make a difference. *Health & Learning Magazine*, 8, 3–5.

Mishna, F., Cook, C., Gadalla, T., Daciuk, J., & Solomon, S. (2010). Cyber bullying behaviors among middle and high school students. *American Journal of Orthopsychiatry*, 80, 362–374.

Molcho, M., Harel, Y., Pickett, W., Scheidt, P. C., Mazur, J., Overpeck, M.D. & HBSC Violence and Injury Writing Group (2006). The epidemiology of non-fatal injuries among 11, 13 and 15 year old youth in 11 Countries: Findings from the 1998 WHO-BSC cross national survey. *International Journal of Injury Control and Safety Promotion*, 13, 205–211.

Molloy, L. E., Gest, S. D., & Rulison, K. L. (2011). Peer influences on academic motivation: Exploring multiple methods of assessing youths' most "influential" peer relationships. *Journal of Early Adolescence*, 31, 13–40.

Mychailyszyn, M. P., Méndez, J. L., & Kendall, P. C. (2010). School functioning in youth with and without anxiety disorders: Comparisons by diagnosis and comorbidity. *School Psychology Review, 39*, 106–121.

Neumark-Sztainer, D., Story, M., Hannan, P. J., Perry, C. L., & Irving, L. M. (2002). Weight-related concerns and behaviors among overweight and nonoverweight adolescents: Implications for preventing weight-related disorders. *Archives of Pediatrics & Adolescent Medicine, 156*, 171–178.

Neumark-Sztainer, D., Wall, M. M., Story, M., & Perry, C. L. (2003). Correlates of unhealthy weight-control behaviors among adolescents: Implications for prevention programs. *Health Psychology, 22*, 88–98.

Neumark-Sztainer, D., Wall, M., Larson, N. I., Eisenberg, M. E., & Loth, K. (2011). Dieting and disordered eating behaviors from adolescence to young adulthood: Findings from a 10-year longitudinal study. *Journal of the American Dietetic Association, 111*, 1004–1011.

Osgood, D. W., Ragan, D. T., Wallace, L., Gest, S. D., Feinberg, M. E., & Moody, J. (2013). Peers and the emergence of alcohol use: influence and selection processes in adolescent friendship networks. *Journal of Research on Adolescence, 23*, 500–512.

Owens, M., Stevenson, J., & Hadwin, J. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology International, 33*(4), 1–13.

Parke, R.D., & Buriel, R. (2006). Socialization in the family: Ethnic and ecological perspectives. In W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology* (pp. 429–504). Hoboken, NJ: John Wiley & Sons Inc.

Pepler, D. J., & Craig, W. M. (2000). *Making a difference in bullying*. Toronto, ON: LaMarsh Centre for Research on Violence and Conflict Resolution, York University.

Pepler, D. J., Jiang, D., Craig, W., & Connolly, J. (2008). Developmental trajectories of bullying and associated factors. *Child Development, 79*, 325–338.

Pickett, W. (2004). *Injuries: The health of youth in Canada*. Ottawa, ON: Health Canada.

Pickett, W. (2011). Injuries. In J. G. Freeman, M. King, & W. Pickett (Eds.), *The health of Canada's young people: A mental health focus* (pp. 103–118). Ottawa, ON: Public Health Agency of Canada.

Pickett, W., Boyce, W. F., Garner, M., & King, M. A. (2002). Gradients in risk for youth injury associated with multiple risk behaviours: A study of 11,329 Canadian children. *Social Science and Medicine*, 55, 1055–1068.

Pickett, W., Davison, C., Torunian, M., McFaull, S., Walsh, P., & Thompson, W. (2012). Drinking, substance use and the operation of motor vehicles by young adolescents in Canada. *PLOS One*, 7, e42807.

Pickett, W., Molcho, M., Simpson, K., Janssen, I., Kuntsche, E., Mazur, J., & Boyce, W. F. (2005). Cross national study of injury and social determinants in adolescents. *Injury Prevention*, 11, 213–218.

Porath-Waller, A. J., Brown, J. E., & Clark, H. (2013). *What Canadian youth think about cannabis*. Ottawa, ON: Canadian Centre on Substance Abuse.

Public Health Agency of Canada [PHAC]. (2009). *Child and youth injury in review, 2009 edition - Spotlight on consumer product safety*. Ottawa, ON: Government of Canada. Retrieved from <http://www.phac-aspc.gc.ca/publicat/cyi-bej/2009/index-eng.php>.

Raine, K. D. (2005). Determinants of healthy eating in Canada: An overview and synthesis. *Canadian Journal of Public Health*, 96, S8–S14.

Reinke, W., Stormont, M., Herman, K., Puri, R., & Goel, N. (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. *School Psychology Quarterly*, 26, 433–449.

Rew, L., Arheart, K. L., Thompson, S., & Johnson, K. (2013). Predictors of adolescents' health-promoting behaviors guided by primary socialization theory. *Journal for Specialists in Pediatric Nursing*, 18, 277–288.

Rey, J. M., Sawyer, M. G., Raphael, B., Patton, G. C., & Lynskey, M. (2002). Mental health of teenagers who use cannabis Results of an Australian survey. *British Journal of Psychiatry*, 180, 216–221.

Rey-Lopez, J. P., Vicente-Rodriguez, G., Biosca, M., & Moreno, L. A. (2008) Sedentary behaviour and obesity development in children and adolescents. *Nutrition, Metabolism, & Cardiovascular Diseases*, 18, 242–251.

Rigby, K., & Slee, P. (1999). Suicidal ideation among adolescent school children, involvement in bully-victim problems, and perceived social support. *Suicide and Life-Threatening Behavior*, 29, 119–130.

Rowan-Legg, A., & Community Paediatrics Committee. (2013). Oral health care for children— a call for action. *Paediatrics & Child Health*, 18, 37–43.

Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38, 437–460.

Sallis, J. F., & Owen, N. (1999). *Physical activity and behavioral medicine* (Vol. 3). Thousand Oaks, CA: Sage.

Scales, P. C., Syvertsen, A. K., Benson, P. L., Roehlkepartain, E. C., & Sesma Jr, A. (2014). Relation of spiritual development to youth health and well-being: evidence from a global study. In A. Ben-Arieh, F. Casa, I. Frones, & J. Korbin (Eds.), *Handbook of child well-being* (pp. 1101–1135). Dordrecht, Netherlands: Springer.

Schneider, S. K., O'Donnell, L., Stueve, A., & Coulter, R. W. (2012). Cyberbullying, school bullying, and psychological distress: A regional census of high school students. *American Journal of Public Health*, 102, 171–177.

Silins, E., Horwood, L. J., Patton, G. C., Fergusson, D. M., Olsson, C. A., Hutchinson, D. M., ... Cannabis Cohorts Research Consortium. (2014). Young adult sequelae of adolescent cannabis use: an integrative analysis. *The Lancet Psychiatry*, 1, 286–293.

Simons-Morton, B., & Chen, R. S. (2006). Over time relationships between early adolescent and peer substance use. *Addictive Behaviors*, 31, 1211–1223.

Skrove, M., Romundstad, P., & Indredavik, M. S. (2013). Resilience, lifestyle and symptoms of anxiety and depression in adolescence: The Young-HUNT study. *Social Psychiatry and Psychiatric Epidemiology*, 48, 407–416.

Slater, C., & Robinson, A. J. (2014). Sexual health in adolescents. *Clinics in Dermatology*, 32, 189–199.

Smith, L., Katz, L., Emery, H., Sieppert, J., Polsky, Z., & Nagan, K. (2014). It's about more than just baby teeth: An examination of early oral care in Canada. *Universal Journal of Public Health* 2(4), 125–130.

Solomon, R. (2012). *Traffic-related countermeasures and youth*. London, ON: MADD.

Spurr, S., Bally, J., Ogenchuk, M., & Walker, K. (2012). A framework for exploring adolescent wellness. *Pediatric Nursing*, 38, 320–326.

Strong, W. B., Malina, R. M., Blimkie, C. J., Daniels, S. R., Dishman, R. K., Gutin, B., et al. (2005). Evidence based physical activity for school-age youth. *Journal of Pediatrics*, 14, 732–737.

Sund, A. M., Larsson, B., & Wichstrøm, L. (2011). Role of physical and sedentary activities in the development of depressive symptoms in early adolescence. *Social Psychiatry and Psychiatric Epidemiology*, 46, 431–441.

Taylor, J. P., Evers, S., & McKenna, M. (2005). Determinants of healthy eating in children and youth. *Canadian Journal of Public Health*, S20–S26.

Tompkins, T. L., Hockett, A. R., Abraibesh, N., & Witt, J. L. (2011). A closer look at co-rumination: Gender, coping, peer functioning and internalizing/externalizing problems. *Journal of Adolescence*, 34, 801–811.

Tremblay, M. S., LeBlanc, A. G., Kho, M. E., Saunders, T. J., Larouche, R., Colley, R. C., ... Gorber, S. C. (2011). Systematic review of sedentary behaviour and health indicators in school-aged children and youth. *International Journal of Behavioural Nutrition and Physical Activity*, 8, 1–22.

Van der Wal, M. F., De Wit, C. A., & Hirasing, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics*, 111, 1312–1317.

Vereecken, C. A. (2005). Eating habits. In *HBSC Research Protocol for 2005/06 Survey. Section 2. Scientific rationales for focus areas*.

Vieno, A., Gini, G., & Santinello, M. (2011). Different forms of bullying and their association to smoking and drinking behavior in Italian adolescents. *Journal of School Health, 81*, 393–399.

Volkow, N. D., Baler, R. D., Compton, W. M., & Weiss, S. R. (2014). Adverse health effects of marijuana use. *New England Journal of Medicine, 370*, 2219–2227.

Waddell, C., Shepherd, C. A., Chen, A., & Boyle, M. H. (2013). Creating comprehensive children's mental health indicators for British Columbia. *Canadian Journal of Community Mental Health, 32*, 9–27.

Weare, K. (2000). *Promoting mental, emotional, and social health: A whole school approach*. London, UK: Routledge.

Wells, J., Barlow, J., & Stewart-Brown, S. (2003). A systematic review of universal approaches to mental health promotion in schools. *Health Education, 103*, 197–220.

Whitley, J., Smith, D., & Vaillancourt, T. (2012). Promoting mental health literacy among educators: Critical in school based prevention and intervention. *Canadian Journal of School Psychology, 1*, 56–70.

Wiles, N. J., Haase, A. M., Lawlor, D. A., Ness, A., & Lewis, G. (2012). Physical activity and depression in adolescents: cross-sectional findings from the ALSPAC cohort. *Social Psychiatry and Psychiatric Epidemiology, 47*, 1023–1033.

Wold, B., Samdal, O., Nutbeam, D., & Kannas, L. (1998) Achieving health and educational goals through schools: A study of the importance of school climate and the students' satisfaction with school. *Health Education Research, 13*, 383–397.

World Health Organization [WHO]. (2004). *Promoting mental health: Concepts, emerging evidence, and practice*. Geneva, Switzerland: Author.

Worthington, E.L., Hook, J. N., Davis, D. E., & McDaniel, M. A. (2011). Religion and spirituality. *Journal of Clinical Psychology, 67*, 204–214.

## Social Program Evaluation Group



Queen's University

March 2015