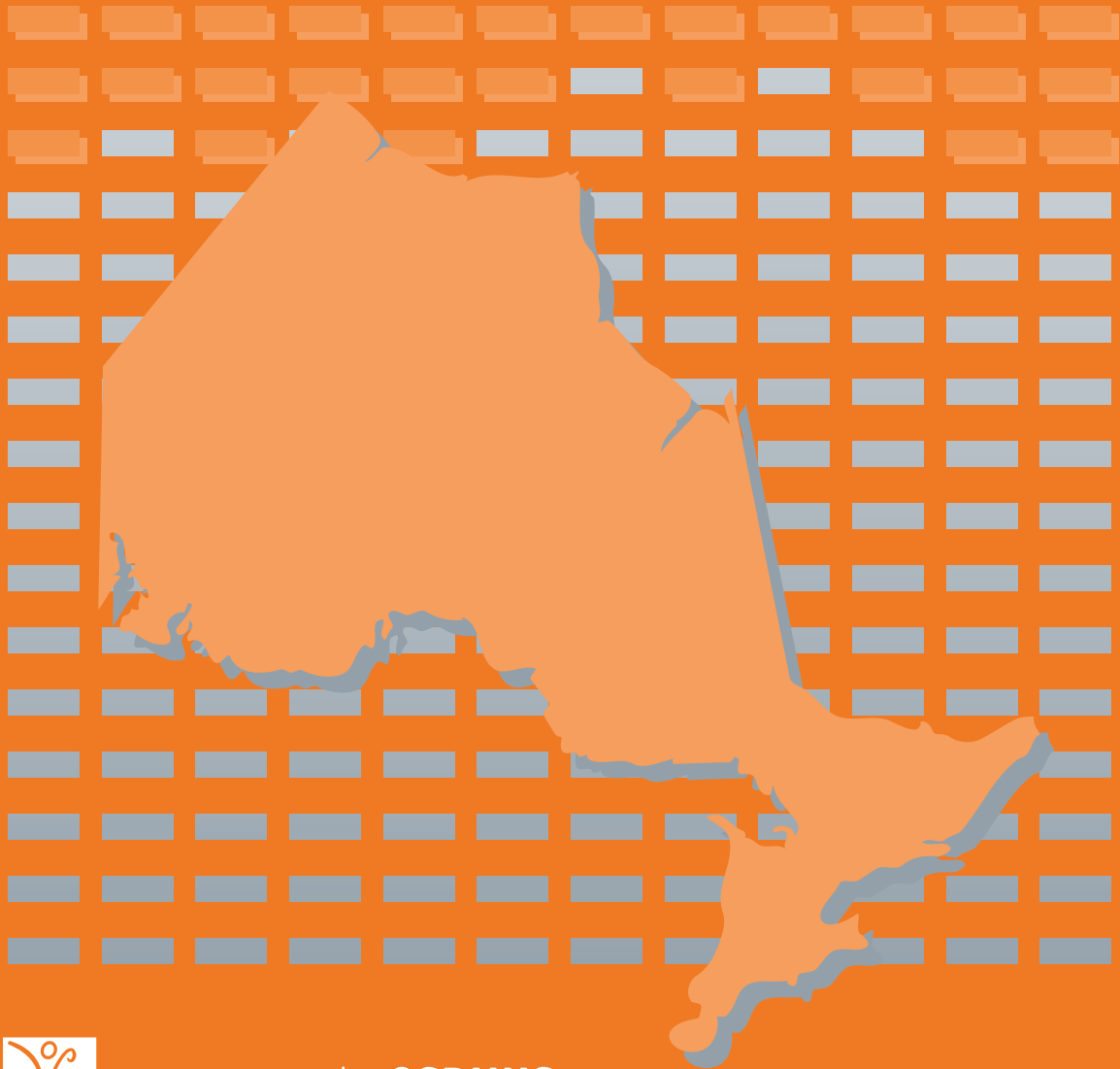


DETAILED OSDUHS FINDINGS

The Mental Health and Well-Being of Ontario Students 1991- 2009



camh

Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

OSDUHS

Ontario Student Drug Use
and Health Survey

DETAILED OSDUHS FINDINGS

The Mental Health and Well-Being of Ontario Students 1991-2009

CAMH RESEARCH DOCUMENT SERIES
No. 29

ANGELA PAGLIA-BOAK
ROBERT E. MANN
EDWARD M. ADLAF
JOSEPH H. BEITCHMAN
DAVID WOLFE
JÜRGEN REHM



Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

A Pan American Health Organization /
World Health Organization
Collaborating Centre

Fully affiliated with the University of Toronto

DETAILED OSDUHS FINDINGS

The Mental Health and Well-Being of Ontario Students 1991-2009

ISBN: 978-1-77052-528-3 (PRINT)

ISBN: 978-1-77052-529-0 (PDF)

ISBN: 978-1-77052-530-6 (HTML)

ISBN: 978-1-77052-531-3 (ePUB)

Printed in Canada

Copyright © 2010

Centre for Addiction and Mental Health

Individuals and school or health organizations are invited to reproduce, in part or in whole, the contents of this report. Citation is appreciated.

Suggested citation for this report:

Paglia-Boak, A., Mann, R.E., Adlaf, E.M., Beitchman, J.H., Wolfe, D. & Rehm, J. (2010). The mental health and well-being of Ontario students, 1991-2009: Detailed OSDUHS findings (CAMH Research Document Series No. 29). Toronto, ON: Centre for Addiction and Mental Health.

This publication may be available in other formats. For information about alternate formats or other CAMH publications, or to place an order, please contact Sales and Distribution:

Toll-free: 1 800 661-1111

Toronto: 416 595-6059

E-mail: publications@camh.net

Online store: <http://store.camh.net>

Website: www.camh.net

The 2009 OSDUHS Mental Health and Well-Being Report

Executive Summary

The Study

The Centre for Addiction and Mental Health's Ontario Student Drug Use and Health Survey (OSDUHS) is the longest ongoing school survey of adolescents in Canada, and the second longest in North America. The study has been conducted every two years since 1977. Between November 2008 and June 2009, 9,112 students (65% of selected students) in grades 7 to 12 from 47 school boards, 181 schools and 573 classes participated in the survey administered by the Institute for Social Research, York University. All data are based on self-reports derived from anonymous questionnaires administered in classrooms.

This report describes mental health, physical health, and risk behaviour among Ontario students in 2009 and changes since 1991, where possible. Although the OSDUHS began in 1977, most physical and mental health indicators were first included in the survey in the early 1990s. Results are provided for two analytical groups of students: those in grades 7 to 12, and those in grades 7, 9, and 11 only. The first group is used to assess current behaviour and **ten-year trends (1999-2009)**, and the second is used to assess **long-term trends (1991-2009)**.

New topics in this report include sedentary behaviour (also called "screen time"), and estimates of overweight and obesity among students.

Family and School

- ❑ About 24% of Ontario students report living with a single parent or no parent (biological, adoptive, or step). About 14% of students report that they split their time between two or more homes.
- ❑ Almost one-quarter (23%) of students report spending less than one hour doing homework per week, outside of school.

- ❑ Overall, 5% of students report being suspended from school at least once during the academic year.
- ❑ Although most students generally feel safe in their school, about 12% are worried about being harmed or threatened at school.
- The percentage of students worrying about being harmed or threatened at school has **remained stable** over the past decade.

Physical Health

- ❑ Although a majority (53%) of students report that they are in excellent or very good health, about 14% report poor health. Females are more likely to report poor health compared to males (18% vs 11%, respectively).
- Poor self-rated health has **significantly increased** over the past two decades.
- ❑ The percentage reporting daily physical activity (a total of at least 60 minutes per day) during the past 7 days is about 21%. At the other extreme, about 8% were not physically active on any day. Males and females are equally likely to be inactive.
- ❑ One-in-ten (10%) students spend at least seven hours per day in front of a TV or computer ("screen time"). Males (11%) are significantly more likely than females (8%) to be sedentary.
- ❑ One-quarter (25%) of Ontario students can be considered overweight or obese. Males (30%) are significantly more likely than females (20%) to be overweight or obese.

The “Choking Game”

- About 5% of Ontario students report self-asphyxiation or having been choked by someone else on purpose in order to “get high,” at least once in their lifetime. A smaller proportion (2%) has done this in the past 12 months. There is no significant difference between males and females, or among the grade levels.

Health Care Utilization

Physical Health Care

- About 34% of students did not see a doctor for their physical health, not even for a check-up, during the past 12 months.
- About 40% of students were treated for a physical injury at least once during the past 12 months. More specifically, 23% were treated just once, 10% were treated twice, 4% were treated three times, and 3% were treated four or more times. Males are significantly more likely than females to sustain an injury that requires treatment (43% vs 38%, respectively).
- The percentage of students reporting at least one physical injury during the past 12 months **significantly increased** between 2003 (35%) and 2009 (40%).

Mental Health Care

- About 24% of students visited a professional (such as a doctor, nurse or counsellor) for mental health reasons at least once during the past 12 months. There is no significant difference between males and females.
- The percentage of student reporting a mental health care visit **significantly increased** over the past decade (from 12% in 1999 to 24% in 2009).

Medical Drug Use

- Among all students, 32% report using a prescribed opioid pain reliever (e.g., Tylenol #3, Percocet) in the past 12 months; 4%

used a prescribed tranquillizer/sedative (e.g., Valium, Ativan, Xanax); and 3% used a prescribed drug for Attention Deficit Hyperactivity Disorder (ADHD) (e.g., Ritalin, Adderall, Concerta).

- Females are more likely than males to report medical opioid pain reliever use and tranquillizer use. Males are more likely to report using an ADHD drug medically.
- About 3% of students report that they were prescribed medication for either anxiety or depression, or both problems, during the past 12 months.

Telephone Crisis Helpline

- About 2% of all students report using a crisis helpline to discuss a problem during the past 12 months. Females (3%) are significantly more likely than males (1%) to use a crisis helpline.

Internalizing Indicators

Self-Rated Mental Health

- One-in-eight (12%) students rate their mental health as poor, with females more likely to do so than males (15% vs 8%, respectively).
- The percentage of students who rated their mental health as poor **remained stable** between 2007 (which was the first year of monitoring) and 2009.

Low Self-Esteem

- About 8% of students report indicators of low self-esteem, with females more likely than males (10% vs 6%, respectively).

Depressive Symptoms

- About 5% of students report symptoms of depression, with females more likely to do so than males (8% vs 3%, respectively).

- Between 1999 and 2009, there was **no significant change** in the percentage reporting depressive symptoms among the total sample, or among subgroups.

Elevated Psychological Distress

- ❑ Just under one-third (31%) of students indicate elevated psychological distress (symptoms of depression, anxiety, social dysfunction), with females more likely to than males (39% vs 23%, respectively).
- ❑ The most common symptom experienced by students is the feeling of being constantly under stress (36%), followed by losing sleep because of worrying (27%), and then by feeling unhappy and depressed (25%).
- Among the total sample, elevated psychological distress has **remained stable** since 1999, at around 30%.

Suicide Ideation and Attempt

- ❑ About one-in-ten (10%) students had serious thoughts about suicide in the past 12 months; 3% reported a suicide attempt in the past 12 months.
- ❑ Females are more likely than males to contemplate suicide (11% vs 8%, respectively). However, there is no sex difference regarding reported suicide attempt.
- Suicide ideation **remained stable** between 2001 and 2009.

Body Image

- ❑ Over two-thirds (67%) of all students are satisfied with their weight. About one-quarter (23%) feel that they are too fat, while one-tenth (10%) feel that they are too thin.
- ❑ Just over one-third (35%) of students are not trying to do anything about their weight. Another 29% are trying to lose weight, 23%

want to keep from gaining weight, and 13% want to gain weight.

- ❑ Females are significantly more likely to believe that they are too fat, compared with males (29% vs 17%, respectively), whereas males are more likely to believe that they are too thin compared with females (14% vs 5%, respectively).
- There have been **no significant changes** in body image perceptions over the past decade.

Externalizing Indicators

Delinquent Behaviour

- ❑ Among the 13 delinquent behaviours asked about in 2009, the 3 most common were: setting something on fire (15%), theft of goods worth \$50 or less (14%), and vandalism (14%). The least reported behaviour was carrying a handgun (1%).
- ❑ Overall, 11% of students engaged in delinquent behaviour (defined as 3 or more delinquent behaviours) during the 12 months before the survey. Males are more likely to engage in delinquent behaviour than females (14% vs 7%, respectively).
- The percentage of students engaging in delinquent behaviour is **significantly lower** today compared with estimates from the early 1990s.

Non-Violent Delinquent Behaviour

- ❑ Of the nine non-violent delinquent behaviours asked about (fire-setting, vandalism, theft of goods worth \$50 or less, theft of goods more than \$50, car theft/joyriding, breaking and entering, selling cannabis, selling other drugs, running away from home), males are significantly more likely than females to report eight. Females are more likely to report running away from home.

- Over the long-term, reports of vandalism, theft of goods worth \$50 or less, and car theft/joyriding were **significantly lower** in 2009 compared to estimates from 1991.
- The percentage of students reporting selling cannabis increased between 1991 and 2001, and still **remains at a higher level** compared with the estimates from the early 1990s.

Violent Behaviour

- ❑ One-in-ten (10%) students report that they assaulted someone at least once during the past 12 months. About 7% carried a weapon (a gun or knife), 3% participated in a gang fight, and 1% carried a handgun. Males are significantly more likely than females to report engaging in each of these violent behaviours.
- Since the early 1990s there have been **significant decreases** in the percentage of students reporting assaulting someone, carrying a weapon, and gang fighting.

Gang Membership

- ❑ About 2% of students report that they currently belong to a gang. Males are more likely than females to report gang affiliation (3% vs 1%, respectively).

School Violence and Bullying

- ❑ About 15% report fighting on school property at least once during the past 12 months, with males more likely than females to do so (23% vs 7%, respectively).
- ❑ About 7% were threatened or injured with a weapon on school property at least once during the past 12 months. Males are significantly more likely than females to report experiencing this (8% vs 5%, respectively).
- ❑ Almost one-third (29%) of all students report being bullied at school since September. The most prevalent form of

bullying victimization is verbal (24%), while 3% are primarily bullied physically, and 2% are victims of theft/vandalism.

- ❑ One-quarter (25%) of all students report bullying other students at school. The most prevalent form of bullying others is through verbal attacks (21%), followed by physical attacks (4%), and theft/vandalism (less than 1%).
- Among the total sample, the percentage reporting being bullied at school **remained stable** between 2003 (the first year of monitoring) and 2009. The percentage reporting bullying others at school **significantly decreased** between 2003 and 2009.

Gambling and Video Gaming

Gambling Activities

- ❑ Of the 11 gambling activities asked about in the 2009 survey, the most prevalent among all students are: card playing (reported by 20%), lottery tickets (16%), and betting in sports pools (13%). The least prevalent activity is casino gambling (1%).
- ❑ Gambling over the internet is reported by about 3% of students.
- ❑ Among all students, 43% report gambling at one or more activities in the past 12 months. Males are more likely to report gambling than females (50% vs 34%, respectively).
- ❑ Among all students, 3% gambled at five or more activities. Males are more likely to report multi-gambling activity than females (4% vs 2%, respectively).

- The percentage of students reporting any gambling in 2009 (43%) is **significantly lower** than the estimate from 2003 (57%), when this measure first began. Similarly, multi-gambling activity is **significantly lower** in 2009 (3%) compared with the estimate from 2003 (6%).

Gambling Problem

- ❑ About 3% of students report symptoms of a gambling problem (loss of control, problems with family/friends, disruption to school/work), with males more likely to do so than females (4% vs 1%, respectively).
- The percentage of students with a gambling problem **significantly decreased** over the past decade, from 7% in 1999 down to 3% in 2009.

Video Gaming Problem

- ❑ One-in-five (20%) students play video games daily, with males significantly more likely to do so than females (32% vs 6%, respectively).
- ❑ One-in-ten (10%) students report symptoms of a video gaming problem (preoccupation, tolerance, loss of control, withdrawal, escape, disregard for consequences, disruption to family/school). Males are significantly more likely than females to have a video gaming problem (16% vs 4%, respectively).
- The percentage of students with a video gaming problem **remained stable** between 2007 (the first year of monitoring) and 2009.

Co-Existing Problems

- ❑ The majority (53%) of students report none of the following four problems: elevated psychological distress, hazardous/harmful drinking, a drug use problem, or delinquent behaviour. About 28% report one of these problems, 11% report two problems, 6% report three problems, and 2% report all four problems.

Regional Variation

Historically, the survey design has divided the province into four regions: Toronto; Northern Ontario (Parry Sound District, Nipissing District and farther north); Western Ontario (Peel District, Dufferin County and farther west); and Eastern Ontario (Simcoe County, York County and farther east).

Only a few indicators significantly differ according to region:

- ❑ Compared to the provincial average, **Toronto students** are more likely to be worried over being threatened or harmed at school; to rate their physical health as poor; to engage in no physical activity; and to report a high level of “screen time” (that is, to be sedentary). However, Toronto students are less likely to report medical use of prescription opioid pain relievers, and less likely to report being bullied at school.
- ❑ Compared to the provincial average, **Northern Ontario** students are more likely to be overweight or obese.
- ❑ **Western Ontario** students do not significantly differ from the province on any measure.
- ❑ Compared to the provincial average, **Eastern Ontario** students are more likely to report medical use of prescription opioid pain relievers, and to report sustaining an injury. Students in the East are less likely to rate their physical health as poor, and to be overweight or obese.

Readers should note that an overview of results according to Ontario’s Local Health Integration Networks is provided in the report on page 77.

Major Mental Health and Well-Being Indicators for the Total Sample and by Sex, 2009 OSDUHS (Grades 7 to 12)

Indicator	Total % (95% CI)	Estimated Number [†]	Males %	Females %
poor self-rated physical health	14.5 (13.3-15.8)	146,000	10.8	18.5 *
physically inactive (no days of activity in past week)	8.5 (7.6-9.5)	85,000	7.9	9.1
sedentary behaviour (7+ hours of screen time daily)	9.7 (8.7-10.7)	93,000	11.4	7.8 *
overweight or obese	25.2 (23.8-26.7)	246,000	30.0	20.1 *
no physical health doctor visits (past year)	33.6 (31.2-36.0)	306,000	39.3	27.2 *
treated for a physical injury (past year)	40.5 (38.5-42.5)	386,000	43.0	37.6 *
used opioid pain reliever medically (past year)	31.8 (30.3-33.3)	320,000	26.7	37.3 *
ever participated in the “choking game”	5.3 (4.4-6.3)	55,000	5.1	5.5
used tranquillizers/sedatives medically (past year)	3.7 (3.0-4.7)	39,000	2.8	4.7 *
used an ADHD drug medically (past year)	2.7 (2.1-3.5)	28,000	3.9	1.4 *
prescribed medication for depression/anxiety/both	3.3 (2.7-4.0)	34,000	2.6	4.0
mental health professional visit (past year)	23.8 (22.0-25.8)	253,000	22.3	25.5
used telephone crisis helpline (past year)	1.9 (1.4-2.6)	20,000	1.1	2.8 *
poor self-rated mental health	11.7 (10.3-13.2)	122,000	8.4	15.0 *
low self-esteem	8.3 (7.3-9.5)	87,000	6.5	10.1 *
depressive symptoms (past week)	5.4 (4.4-6.6)	56,000	2.8	8.1 *
elevated psychological distress (past few weeks)	31.0 (29.1-32.9)	327,000	23.4	38.8 *
suicide ideation (past year)	9.5 (8.3-10.8)	99,000	7.6	11.4 *
suicide attempt (past year)	2.8 (2.2-3.5)	29,000	2.5	3.1
delinquent behaviour (3+/11 behaviours in past year)	10.7 (9.3-12.2)	113,000	14.1	7.2 *
carried a weapon (past year)	7.3 (6.2-8.6)	78,000	11.4	3.2 *
gang fighting (past year)	2.8 (2.2-3.5)	29,000	4.4	1.1 *
belong to a gang currently	2.3 (1.8-3.0)	24,000	3.3	1.3 *
fought at school (past year)	15.1 (13.4-16.9)	156,000	23.3	6.7 *
threatened/injured with weapon at school (past year)	6.8 (5.7-8.1)	70,000	8.5	5.1 *
worried be harmed or threatened at school	12.3 (11.2-13.5)	125,000	11.6	13.0
been bullied at school (since September)	28.9 (26.9-31.0)	300,000	26.5	31.4 *
bullied others at school (since September)	25.1 (23.2-27.2)	260,000	28.1	22.1 *
any gambling activity (1+/10 activities in past year)	42.6 (40.2-45.0)	452,000	50.5	34.3 *
multi-gambling activity (5+/10 activities in past year)	3.0 (2.2-4.0)	32,000	4.5	1.5 *
gambling problem (past year)	2.8 (2.0-3.9)	29,000	4.3	1.2 *
video gaming problem (past year)	10.3 (9.0-11.7)	97,000	16.0	4.0 *
3 or all 4 co-existing problems ^{††}	8.4 (7.3-9.7)	89,000	8.7	8.2

Notes: the survey sample size was 9,112 students; CI is the confidence interval; medical drug use refers to use with a prescription; [†] the estimated number of students is based on a student population of about 1,023,900 in Ontario (numbers have been rounded down); * indicates a significant sex difference (p<.05); ^{††} among the four problem indicators: elevated psychological distress, hazardous/harmful drinking, a drug use problem, and delinquent behaviour.

Percentage Reporting Selected Mental Health and Well-Being Indicators by Grade, 2009 OSDUHS

Indicator	G7	G8	G9	G10	G11	G12
poor self-rated physical health	6.3	10.6	14.3	14.5	17.6	19.8 *
physically inactive (no days of activity in past week)	6.9	7.3	6.8	7.6	9.4	11.4 *
sedentary behaviour (7+ hours of screen time daily)	4.9	7.6	8.1	9.6	12.6	12.8 *
overweight or obese	23.5	27.4	26.1	25.8	25.4	23.8
no physical health doctor visits (past year)	33.6	33.4	31.1	30.3	35.0	36.9
treated for a physical injury (past year)	39.1	40.8	42.9	42.0	40.8	37.9
used opioid pain reliever medically (past year)	23.9	28.7	33.9	33.6	33.9	34.1 *
ever participated in the “choking game”	4.1	3.7	5.3	5.1	5.6	7.0
used tranquilizers/sedatives medically (past year)	2.4	2.4	2.3	4.5	5.4	4.8 *
used an ADHD drug medically (past year)	3.2	2.8	4.2	2.4	2.6	s
prescribed medication for depression/anxiety/both	2.3	1.9	2.3	2.8	4.4	5.0 *
mental health professional visit (past year)	28.9	23.2	26.1	24.6	23.3	19.0
used telephone crisis helpline (past year)	2.6	1.3	2.2	2.1	s	2.2
poor self-rated mental health	6.9	9.1	12.6	10.9	13.2	15.1 *
low self-esteem	7.4	8.2	8.5	7.0	10.2	8.4
depressive symptoms (past week)	4.0	4.5	8.1	5.8	4.8	5.0
elevated psychological distress (past few weeks)	19.5	22.0	29.5	33.4	38.8	37.8 *
suicide ideation (past year)	5.9	8.7	9.7	10.6	10.7	10.3
suicide attempt (past year)	s	2.5	3.4	2.6	3.1	3.4
delinquent behaviour (3+/11 behaviours in past year)	4.1	6.2	9.3	13.7	13.6	14.7 *
carried a weapon (past year)	4.5	6.4	7.7	10.0	5.9	8.7
gang fighting (past year)	2.1	3.0	3.7	3.4	2.2	2.5
belong to a gang currently	2.2	2.7	2.3	1.7	1.9	2.9
fought at school (past year)	21.6	21.4	16.5	11.8	12.8	10.0 *
threatened/injured with weapon at school (past year)	3.9	6.7	8.7	5.5	6.6	8.4 *
worried be harmed or threatened at school	18.6	12.2	14.3	12.9	9.1	8.8 *
been bullied at school (since September)	31.6	31.5	32.6	32.8	25.2	22.7 *
bullied others at school (since September)	21.3	25.3	23.9	26.8	27.0	25.7
any gambling activity (1+/10 activities in past year)	31.5	32.4	38.5	42.4	47.7	56.0 *
multi-gambling activity (5+/10 activities in past year)	1.9	1.7	2.9	2.5	4.6	4.1
gambling problem (past year)	s	s	2.1	2.1	4.2	4.5
video gaming problem (past year)	8.3	10.9	11.2	11.4	9.7	10.0
3 or all 4 co-existing problems [†]	s	2.6	6.2	9.2	12.2	15.5 *

Notes: * indicates a significant grade difference ($p < .05$); 's' indicates estimate suppressed due to unreliability; medical drug use refers to use with a prescription; [†]among the four problem indicators: elevated psychological distress, hazardous/harmful drinking, a drug use problem, and delinquent behaviour.

Percentage Reporting Selected Mental Health and Well-Being Indicators by Region, 2009 OSDUHS (Grades 7 to 12)

Indicator	Toronto	North	West	East
poor self-rated physical health	17.9	16.0	14.7	12.3 *
physically inactive (no days of activity in past week)	11.2	7.4	8.3	7.6 *
sedentary behaviour (7+ hours of screen time daily)	14.5	8.3	8.7	8.8 *
overweight or obese	24.5	31.4	25.9	23.6 *
no physical health doctor visits (past year)	35.8	39.1	33.2	31.7
treated for a physical injury (past year)	34.7	34.6	41.7	43.2 *
used opioid pain reliever medically (past year)	26.9	31.1	31.9	34.1 *
ever participated in the “choking game”	4.3	6.9	5.5	5.2
used tranquilizers/sedatives medically (past year)	2.6	3.7	3.7	4.4
used an ADHD drug medically (past year)	s	s	2.6	3.7
prescribed medication for depression/anxiety/both	2.6	3.0	3.3	3.7
mental health professional visit (past year)	27.0	19.8	23.1	24.1
used telephone crisis helpline (past year)	2.9	2.2	1.6	1.8
poor self-rated mental health	14.4	12.4	12.2	9.7
low self-esteem	9.3	6.2	8.6	8.0
depressive symptoms (past week)	5.9	4.0	5.8	5.0
elevated psychological distress (past few weeks)	33.8	31.0	30.5	30.3
suicide ideation (past year)	11.0	9.0	10.1	8.2
suicide attempt (past year)	2.3	s	2.4	3.7
delinquent behaviour (3+/11 behaviours in past year)	7.4	11.6	11.1	11.5
carried a weapon (past year)	5.8	7.6	7.8	7.5
gang fighting (past year)	3.4	2.8	2.2	3.3
belong to a gang currently	s	s	2.1	3.0
fought at school (past year)	15.0	15.2	14.9	15.2
threatened/injured with weapon at school (past year)	6.3	7.7	6.7	7.0
worried be harmed or threatened at school	18.0	11.1	11.9	10.2 *
been bullied at school (since September)	23.0	32.1	30.6	29.1 *
bullied others at school (since September)	23.8	27.8	27.3	22.8
any gambling activity (1+/10 activities in past year)	35.2	47.4	43.4	43.9
multi-gambling activity (5+/10 activities in past year)	2.7	3.9	3.0	3.0
gambling problem (past year)	3.8	2.2	1.8	3.7
video gaming problem (past year)	8.0	10.5	11.9	9.2
3 or all 4 co-existing problems [†]	5.7	11.9	8.5	8.9

Notes: * indicates a significant region difference ($p < .05$); 's' indicates estimate suppressed due to unreliability; medical drug use refers to use with a prescription; [†]among the four problem indicators: elevated psychological distress, hazardous/harmful drinking, a drug use problem, and delinquent behaviour.

Overview of Trends for Selected Mental Health and Well-Being Indicators Among the Total Sample of Students, OSDUHS

Indicator	Among Grades	Period	Change
% poor self-rated physical health	7, 9, 11	1991-2009	Increased from 6% to 13%
% no physical health doctor visits (past year)	7 to 12	1999-2009	Increased between 1999 (30%) and 2007 (39%), and decreased in 2009 (33%)
% 1+ physical injuries requiring treatment	7 to 12	2003-2009	Increased from 35% to 40%
% 1+ mental health prof. visit (past year)	7 to 12	1999-2009	Increased from 12% to 24%
% poor self-rated mental health	7 to 12	2007-2009	Stable
% low self-esteem	7, 9, 11	1995-2009	Stable
% depressive symptoms (past week)	7 to 12	1999-2009	Stable
% elevated psychological distress	7 to 12	1999-2009	Stable
% suicide ideation (past year)	7 to 12	2001-2009	Stable
% suicide attempt (past year)	7 to 12	2007-2009	Stable
% delinquent behaviour (past year)	7, 9, 11	1993-2009	Decreased from 17% to 9%
% carried a weapon (past year)	7, 9, 11	1993-2009	Decreased from 16% to 6%
% gang fighting (past year)	7, 9, 11	1993-2009	Decreased from 7% to 2%
% threatened/injured with a weapon at school	7 to 12	2003-2009	Stable
% worried be threatened/harmed at school	7 to 12	1999-2009	Stable
% been bullied at school (since September)	7 to 12	2003-2009	Stable
% any Internet gambling (past year)	7 to 12	2003-2009	Stable
% any gambling activity (past year)	7 to 12	2003-2009	Decreased from 57% to 43%
% multi-gambling activity (past year)	7 to 12	2003-2009	Decreased from 6% to 3%
% gambling problem (past year)	7 to 12	1999-2009	Decreased from 7% to 3%
% video gaming problem (past year)	7 to 12	2007-2009	Stable

Notes: the changes presented are based on the total sample of students in the grades shown; subgroup changes are not presented.

Résumé du rapport de 2009 sur la santé mentale et le bien-être selon le SCDSEO

Étude

Le Sondage sur la consommation de drogues et la santé des élèves de l'Ontario (SCDSEO), réalisé par le Centre de toxicomanie et de santé mentale, est la plus ancienne étude menée auprès des adolescents en milieu scolaire au Canada et se classe au deuxième rang parmi les études les plus anciennes en Amérique du Nord. Cette étude est menée tous les deux ans depuis 1977. Entre novembre 2008 et juin 2009, 9 112 élèves (65 % des élèves sélectionnés) de la 7^e à la 12^e année répartis dans 47 conseils scolaires, 181 écoles et 573 classes ont participé au sondage, qui a été administré par l'Institut de recherche sociale de l'Université York. Toutes les données proviennent de questionnaires anonymes que les élèves ont remplis en classe.

Le présent rapport décrit la santé physique et mentale ainsi que les comportements à risque des élèves ontariens en 2009 et les changements survenus depuis 1991, lorsque c'est possible. Bien que le SCDSEO ait commencé en 1977, la plupart des indicateurs de la santé physique et mentale ont été inclus dans le sondage pour la première fois au début des années 1990. Les résultats sont fournis pour deux groupes d'élèves analysés : ceux de la 7^e à la 12^e année et ceux des 7^e, 9^e et 11^e années uniquement. Le premier groupe sert à évaluer les comportements actuels et les **tendances sur 10 ans (1999-2009)** tandis que le second est utilisé pour évaluer les **tendances à long terme (1991-2009)**.

Parmi les nouveaux sujets présentés dans le rapport de 2009, citons le comportement sédentaire (temps passé devant un téléviseur ou un ordinateur) et une estimation de l'excès de poids et de l'obésité chez les élèves.

Vie familiale et scolaire

- Environ 24 % des élèves ontariens ont déclaré habiter avec un seul parent ou ne pas avoir de père ou de mère (parent biologique, adoptif ou beau-parent). Environ 14 % des élèves ont dit qu'ils partagent leur temps entre deux foyers ou plus.

- Près du quart des élèves (23 %) ont dit qu'ils consacraient moins d'une heure par semaine à leurs devoirs à l'extérieur de l'école.
- Dans l'ensemble, 5 % des élèves ont déclaré avoir été suspendus de l'école au moins une fois pendant l'année scolaire.
- Même si la majorité des élèves se sentent généralement en sécurité dans leur école, environ 12 % craignent d'être blessés ou menacés à l'école.
- Le pourcentage d'élèves qui craignent d'être blessés ou menacés à l'école n'a pas beaucoup changé au cours des 10 dernières années.

Santé physique

- Bien que la majorité des élèves (53 %) se disent en excellente ou en très bonne santé, environ 14 % signalent une santé médiocre. Les filles sont plus susceptibles de signaler une santé médiocre que les garçons (18 % et 11 %, respectivement).
- Le nombre d'élèves qui disent avoir une santé médiocre a augmenté significativement au cours des 20 dernières années.
- Environ 21 % des élèves ont déclaré avoir fait de l'exercice tous les jours (au moins 60 minutes au total par jour) au cours des sept derniers jours. À l'opposé, environ 8 % ont déclaré ne pas avoir fait d'exercice. Les garçons sont tout aussi susceptibles que les filles d'être inactifs.
- Un élève sur dix (10 %) passe au moins sept heures par jour devant un téléviseur ou un ordinateur. Les garçons (11 %) sont significativement plus susceptibles que les filles (8 %) d'être sédentaires.

- Un quart des élèves ontariens (25 %) peuvent être considérés comme ayant un excès de poids ou comme étant obèses. Les garçons (30 %) sont significativement plus susceptibles que les filles (20 %) d'avoir un excès de poids ou d'être obèses.

Le « jeu de la suffocation »

- Environ 5 % des élèves ontariens ont déclaré s'être auto-asphyxiés ou s'être faits étrangler par quelqu'un, à dessein, pour parvenir à un état d'extase au moins une fois dans leur vie. Un pourcentage plus faible (2 %) ont déclaré s'être livrés à cette activité au cours des 12 derniers mois. Il n'y a pas de différence significative entre les garçons et les filles ni entre les années d'études.

Recours aux services de santé

Services de santé physique

- Environ 34 % des élèves n'ont pas consulté un médecin spécialisé dans la santé physique, même pour un examen, au cours des 12 derniers mois.
- Environ 40 % des élèves ont été traités pour une blessure physique au moins une fois au cours des 12 derniers mois. Vingt-trois pour cent ont été traités une fois ; 10 %, deux fois ; 4 %, trois fois ; et 3 %, quatre fois ou plus. Les garçons sont significativement plus susceptibles que les filles d'avoir subi une blessure nécessitant un traitement (43 % par rapport à 38 %).
- Le pourcentage d'élèves qui déclarent au moins une blessure physique était significativement plus élevé en 2009 (40%) qu'en 2003 (35%), lorsque la surveillance a commencé.

Services de santé mentale

- Environ 24 % des élèves ont consulté un professionnel (comme un médecin, une infirmière ou un conseiller) pour des raisons de santé mentale au moins une fois au cours des 12 derniers mois. Il n'y a pas de différence significative entre les garçons et les filles.

- Le pourcentage d'élèves qui ont déclaré avoir consulté un professionnel de la santé mentale a enregistré une hausse significative au cours des 10 dernières années, passant de 12 % en 1999 à 24 % en 2009.

Utilisation de médicaments

- Parmi tous les élèves, 32 % ont déclaré avoir consommé des analgésiques opioïdes (p. ex., Tylenol 3, Percocet) qui leur avaient été prescrits, au cours des 12 derniers mois ; 4 % ont pris un tranquillisant ou un sédatif prescrit (p. ex., Valium, Ativan, Xanax) ; et 3 % ont pris un médicament prescrit pour le trouble d'hyperactivité avec déficit de l'attention (THADA) (p. ex., Ritalin, Adderall, Concerta).
- Les filles sont plus susceptibles que les garçons de prendre des tranquillisants et des analgésiques opioïdes à des fins médicales. Les garçons sont plus susceptibles de déclarer prendre des médicaments pour le THADA.
- Environ 3 % des élèves ont déclaré qu'on leur avait prescrit un médicament contre l'anxiété ou la dépression ou contre ces deux problèmes au cours des 12 derniers mois.

Ligne d'aide en cas de crise

- Environ 2 % de tous les élèves ont déclaré avoir utilisé une ligne d'aide en cas de crise pour discuter d'un problème au cours des 12 derniers mois. Les filles sont significativement plus susceptibles que les garçons d'avoir recours à ce service.

Indicateurs d'intériorisation

Santé mentale auto-évaluée

- Un élève sur huit (12 %) qualifie sa santé mentale de médiocre, les filles étant plus susceptibles de signaler une santé mentale médiocre que les garçons (15 % par rapport à 8 %).

- Le pourcentage d'élèves qui qualifie sa santé mentale de médiocre n'a relevé aucun changement significatif entre 2007 (la première année de surveillance) et 2009.

Faible estime de soi

- ❑ Environ 8 % des élèves présentent des indicateurs de faible estime de soi. Les filles sont plus susceptibles que les garçons de présenter de tels indicateurs (10 % par rapport à 6 %).

Symptômes de dépression

- ❑ Environ 5 % des élèves ont déclaré avoir des symptômes de dépression. Les filles sont plus susceptibles que les garçons de présenter de tels symptômes (8 % par rapport à 3 %).

- On n'a relevé aucun changement significatif entre 1999 et 2009 dans le pourcentage d'élèves ayant déclaré avoir des symptômes de dépression, que ce soit pour l'échantillon total ou pour les sous-groupes.

Détresse psychologique élevée

- ❑ Un peu moins du tiers des élèves (31 %) ont signalé une détresse psychologique élevée (symptômes de dépression, d'anxiété, de dysfonctionnement social), qui est plus fréquente chez les filles (39 %) que chez les garçons (23 %).

- ❑ Les symptômes les plus fréquents étaient un état constant de stress (36 %), une perte de sommeil attribuable à l'inquiétude (27 %) et un sentiment de tristesse accompagné d'une dépression (25 %).

- Pour l'échantillon total, le taux de répondants ayant signalé une détresse psychologique élevée est généralement stable depuis 1999, se situant à environ 30 %.

Idées suicidaires et tentatives de suicide

- ❑ Environ un élève sur dix (10 %) a songé sérieusement à se suicider au cours des 12 derniers mois. Environ 3 % des répondants ont signalé une tentative de suicide pendant la même période.

- ❑ Les filles sont plus susceptibles que les garçons d'avoir des idées suicidaires (11 % par rapport à 8 %). Toutefois, autant de filles que de garçons ont signalé une tentative de suicide.

- Le taux de répondants ayant déclaré avoir eu des idées suicidaires a peu changé entre 2001 et 2009.

Image corporelle

- ❑ Plus des deux tiers des élèves (67 %) sont satisfaits de leur poids. Environ le quart des élèves (23 %) pensent être trop gros et un dixième (10 %) pensent être trop maigres.

- ❑ Un peu plus du tiers des élèves (35 %) ne font rien pour changer leur poids. Vingt-neuf pour cent essaient de perdre du poids, tandis que 23 % essaient de ne pas en gagner et que 13 % veulent en gagner.

- ❑ Les filles sont significativement plus susceptibles que les garçons de croire qu'elles sont trop grosses (29 % par rapport à 17 %), et les garçons sont plus susceptibles que les filles de croire qu'ils sont trop maigres (14 % par rapport à 5 %).

- Il n'y a pas eu de changement majeur en ce qui concerne l'image de soi au cours des 10 dernières années.

Indicateurs d'extériorisation

Actes délinquants

- ❑ Parmi les 13 actes délinquants étudiés en 2009, les trois actes les plus fréquents étaient l'allumage d'un feu (15 %), le vol de biens valant 50 \$ ou moins (14 %) et le vandalisme (14 %). L'acte délinquant le

moins souvent signalé était le port d'une arme de poing (1 %).

- Dans l'ensemble, 11 % des élèves ont eu un comportement délinquant (c.-à-d. commettre au moins trois actes délinquants) au cours des 12 mois ayant précédé le sondage. Ce phénomène est plus courant chez les garçons (14 %) que chez les filles (7 %).
- Le pourcentage d'élèves qui commettent des actes délinquants est significativement plus faible aujourd'hui qu'il ne l'était selon les estimations effectuées au début des années 1990.

Actes délinquants non violents

- Parmi les neuf actes délinquants non violents étudiés (allumage d'un feu, vandalisme, vol de biens valant 50 \$ ou moins, vol de plus de 50 \$, vol de voiture, prise d'un véhicule sans consentement, introduction par effraction, trafic de cannabis, trafic d'autres drogues, fugue), les garçons ont déclaré dans une proportion significativement plus grande que les filles en avoir commis huit. Les filles sont plus susceptibles que les garçons de faire une fugue.
- Le nombre d'élèves ayant déclaré avoir commis un acte de vandalisme, volé des biens valant 50 \$ ou moins, avoir volé une voiture ou l'avoir prise sans consentement était nettement inférieur en 2009 qu'il ne l'était en 1991.
- Le pourcentage d'élèves qui ont déclaré avoir fait le trafic de cannabis a augmenté entre 1991 et 2001 et reste à un niveau supérieur comparativement aux estimations effectuées au début des années 1990.

Actes violents

- Un élève sur dix (10 %) a déclaré avoir agressé quelqu'un au moins une fois au cours des 12 derniers mois. Environ 7 % des élèves portaient une arme (un couteau ou un pistolet), 3 % ont pris part à des luttes de

gangs et 1 % portaient une arme de poing. Les garçons sont significativement plus susceptibles que les filles de signaler ces trois comportements violents.

- Depuis le début des années 1990, le pourcentage d'élèves ayant déclaré avoir agressé quelqu'un, porté une arme ou pris part à des luttes de gangs a diminué considérablement.

Appartenance à un gang

- Environ 2 % des élèves ont dit appartenir à un gang d'un type ou d'un autre. Les garçons sont plus susceptibles que les filles d'appartenir à un gang (3 % par rapport à 1 %).

Violence et intimidation à l'école

- Environ 15 % des élèves ont dit s'être battus à l'école au moins une fois au cours des 12 derniers mois. Les garçons sont plus susceptibles de se battre que les filles (23 % par rapport à 7 %).
- Environ 7 % des élèves ont été menacés ou blessés avec une arme à l'école au moins une fois au cours des 12 derniers mois. Les garçons sont significativement plus susceptibles d'avoir vécu cette expérience que les filles (8 % par rapport à 5 %).
- Près du tiers de tous les élèves (29 %) ont déclaré avoir été victimes d'intimidation à l'école depuis septembre. En général, ils faisaient l'objet d'intimidation verbale (24 %), suivie d'intimidation physique (3 %) et de vol ou de vandalisme (2 %).
- Le quart de tous les élèves (25 %) a déclaré avoir intimidé d'autres élèves à l'école. Ils le font par des attaques verbales (21 %), par des attaques physiques (4 %) et par le vol ou le vandalisme (moins de 1 %).
- Parmi l'échantillon total, le pourcentage déclarant être victime d'intimidation à l'école est restée stable entre 2003 (la première année de surveillance) et 2009. Le

pourcentage de ceux qui ont déclaré avoir intimidé d'autres à l'école a diminué significativement entre 2003 et 2009.

Jeux de hasard et d'argent et jeux vidéo

Activités de jeu

- ❑ Parmi les 11 jeux de hasard et d'argent étudiés lors du sondage de 2009, les plus fréquents pour tous les élèves étaient les jeux de cartes (20 % des élèves ont dit y avoir joué), les billets de loterie (16 %) et les paris sportifs (13 %). Les jeux de casino sont l'activité la moins courante (1 %).
- ❑ Environ 3 % des élèves ont déclaré s'adonner à des jeux de hasard et d'argent sur Internet.
- ❑ Parmi tous les élèves, 43 % ont déclaré s'être adonnés à au moins un jeu de hasard et d'argent au cours des 12 derniers mois. Les garçons sont plus susceptibles que les filles de déclarer s'adonner à de tels jeux (50 % par rapport à 34 %).
- ❑ Parmi tous les élèves, 3 % ont participé à au moins cinq activités de jeu. On peut considérer ces élèves comme de multi-joueurs. Les garçons sont plus susceptibles que les filles de déclarer multi-joueurs (4 % par rapport à 2 %).
- Le pourcentage d'élèves ayant déclaré s'être adonnés à des jeux de hasard et d'argent en 2009 (43 %) est significativement inférieur à l'estimation faite en 2003 (57 %), année où on a mesuré ce facteur pour la première fois. De même, le pourcentage de multi-joueurs en 2009 (3 %) est significativement inférieur à l'estimation faite en 2003 (6 %).

Problème de jeu

- ❑ Environ 3 % des élèves pourraient avoir un problème de jeu (symptômes déclarés de perte de contrôle, problèmes avec les amis et les membres de la famille, ennuis à l'école ou au travail). Les garçons risquent plus que

les filles d'avoir un tel problème (4 % par rapport à 1 %).

- Le pourcentage d'élèves qui pourraient avoir un problème de jeu a diminué significativement au cours des 10 dernières années, passant de 7 % en 1999 à 3 % en 2009.

Problème lié aux jeux vidéo

- ❑ Un élève sur cinq (20 %) s'adonne à des jeux vidéo tous les jours, et les garçons le font significativement plus que les filles (32 % par rapport à 6 %).
- ❑ Un élève sur dix (10 %) pourrait avoir un problème lié aux jeux vidéo (symptômes déclarés de préoccupation, de tolérance, de perte de contrôle, de sevrage, de fuite, d'indifférence quant aux conséquences, de problèmes avec la famille et à l'école). Les garçons sont significativement plus susceptibles que les filles de signaler un problème lié aux jeux vidéo (16 % par rapport à 4 %).
- Le pourcentage d'élèves qui pourraient avoir un problème lié aux jeux vidéo est restée stable entre 2007 (la première année de surveillance) et 2009.

Problèmes concomitants

- ❑ La majorité des élèves (53 %) disent n'avoir aucun des quatre problèmes suivants étudiés lors du sondage : détresse psychologique élevée, consommation dangereuse ou nocive d'alcool, problème potentiel lié à l'usage de drogues et délinquance. Environ 28 % des élèves ont dit avoir un de ces problèmes ; 11 % ont déclaré en avoir deux ; 6 % ont dit en avoir trois ; et 2 % ont affirmé avoir les quatre problèmes.

Variations régionales

Dans le passé, on a divisé la province en quatre régions pour les besoins du sondage : Toronto ; le Nord de l'Ontario (district de Parry Sound, district de Nipissing et régions situées au nord) ; l'Ouest de l'Ontario (district de Peel, comté de Dufferin et régions situées à l'ouest) ; et l'Est de l'Ontario (comté de Simcoe, comté de York et régions situées à l'est).

On a relevé des différences significatives entre les régions pour quelques indicateurs seulement :

- ❑ Comparativement à la moyenne provinciale, les **élèves de Toronto** sont plus susceptibles de craindre d'être menacés ou blessés à l'école ; de considérer leur santé physique comme médiocre ; de ne pas faire d'exercice ; et d'avoir un comportement sédentaire (temps passé devant un téléviseur ou un ordinateur). Toutefois, ils sont moins susceptibles de déclarer avoir pris un analgésique opioïde sur ordonnance à des fins médicales et d'avoir été intimidés à l'école.
- ❑ Comparativement à la moyenne provinciale, les élèves du **Nord** de l'Ontario sont plus susceptibles d'avoir un excès de poids ou d'être obèses.
- ❑ Les élèves de l'**Ouest** de l'Ontario ne présentent de différence marquée par rapport à la moyenne provinciale pour aucun des indicateurs.
- ❑ Comparativement à la moyenne provinciale, les élèves de l'**Est** de l'Ontario sont plus susceptibles de déclarer avoir pris un analgésique opioïde sur ordonnance à des fins médicales et d'avoir été blessés. Ils sont moins susceptibles de considérer que leur santé physique est médiocre et d'avoir un excès de poids ou d'être obèses.

On trouvera à la page 77 du rapport un aperçu des résultats par réseau local d'intégration des services de santé de l'Ontario.

Principaux indicateurs de la santé mentale et du bien-être pour l'échantillon total et par sexe, SCDSEO 2009 (élèves de la 7^e à la 12^e année)

Indicateur	Total % (IC de 95 %)	Nombre estimatif [†]	Garçons %	Filles %
Santé physique médiocre selon l'élève	14,5 (13,3-15,8)	146 000	10,8	18,5 *
Inactivité physique (aucun jour d'exercice pendant la semaine écoulée)	8,5 (7,6-9,5)	85 000	7,9	9,1
Comportement sédentaire (7 heures et plus par jour passées devant un téléviseur ou un ordinateur)	9,7 (8,7-10,7)	93 000	11,4	7,8 *
Excès de poids ou obésité	25,2 (23,8-26,7)	246 000	30,0	20,1 *
Aucune consultation d'un médecin spécialisé dans la santé physique (année écoulée)	33,6 (31,2-36,0)	306 000	39,3	27,2 *
Traitement d'une blessure (année écoulée)	40,5 (38,5-42,5)	386 000	43,0	37,6 *
Usage médical d'un analgésique opioïde (année écoulée)	31,8 (30,3-33,3)	320 000	26,7	37,3 *
Participation à des « jeux de suffocation »	5,3 (4,4-6,3)	55 000	5,1	5,5
Usage médical de tranquillisants/sédatifs (année écoulée)	3,7 (3,0-4,7)	39 000	2,8	4,7 *
Usage médical d'un médicament pour le THADA (année écoulée)	2,7 (2,1-3,5)	28 000	3,9	1,4 *
Antidépresseur et/ou anxiolytique prescrit	3,3 (2,7-4,0)	34 000	2,6	4,0
Consultation en santé mentale (année écoulée)	23,8 (22,0-25,8)	253 000	22,3	25,5
Recours à une ligne d'aide en cas de crise (année écoulée)	1,9 (1,4-2,6)	20 000	1,1	2,8 *
Santé mentale médiocre selon l'élève	11,7 (10,3-13,2)	122 000	8,4	15,0 *
Faible estime de soi	8,3 (7,3-9,5)	87 000	6,5	10,1 *
Symptômes de dépression (semaine écoulée)	5,4 (4,4-6,6)	56 000	2,8	8,1 *
Détresse psychologique élevée (dernières semaines écoulées)	31,0 (29,1-32,9)	327 000	23,4	38,8 *
Idées suicidaires (année écoulée)	9,5 (8,3-10,8)	99 000	7,6	11,4 *
Tentative de suicide (année écoulée)	2,8 (2,2-3,5)	29 000	2,5	3,1
Actes délinquants (3+/11 dans l'année écoulée)	10,7 (9,3-12,2)	113 000	14,1	7,2 *
Port d'armes (année écoulée)	7,3 (6,2-8,6)	78 000	11,4	3,2 *
Luttes de gangs (année écoulée)	2,8 (2,2-3,5)	29 000	4,4	1,1 *
Fait partie d'un gang	2,3 (1,8-3,0)	24 000	3,3	1,3 *
Batailles à l'école (année écoulée)	15,1 (13,4-16,9)	156 000	23,3	6,7 *
Menace/blessure avec arme à l'école (année écoulée)	6,8 (5,7-8,1)	70 000	8,5	5,1 *
Crainte d'être blessé ou menacé à l'école	12,3 (11,2-13,5)	125 000	11,6	13,0
Victime d'intimidation à l'école (depuis septembre)	28,9 (26,9-31,0)	300 000	26,5	31,4 *
Auteur d'actes d'intimidation à l'école (depuis septembre)	25,1 (23,2-27,2)	260 000	28,1	22,1 *
Jeu de hasard et d'argent (1+/10 jeux dans l'année écoulée)	42,6 (40,2-45,0)	452 000	50,5	34,3 *
Multi-jeu (5+/10 jeux dans l'année écoulée)	3,0 (2,2-4,0)	32 000	4,5	1,5 *
Un problème de jeu (année écoulée)	2,8 (2,0-3,9)	29 000	4,3	1,2 *
Un problème lié aux jeux vidéo (année écoulée)	10,3 (9,0-11,7)	97 000	16,0	4,0 *
3 ou 4 problèmes concomitants ^{††}	8,4 (7,3-9,7)	89 000	8,7	8,2

Nota : 9 112 élèves ont participé au sondage ; IC = intervalle de confiance ; usage médical d'un médicament signifie usage d'un médicament prescrit ; [†] le nombre estimatif d'élèves repose sur une population d'environ 1 023 900 élèves en Ontario (les chiffres ont été arrondis par défaut) ; * indique une différence significative entre les garçons et les filles (p < 0,05) ; ^{††} parmi les quatre indicateurs de problèmes : détresse psychologique élevée, consommation dangereuse ou nocive d'alcool, problème de l'usage de drogues et délinquance.

Pourcentage d'élèves ayant déclaré présenter certains indicateurs de santé mentale et de bien-être, selon l'année d'études, SCDSEO 2009

Indicateur	7 ^e	8 ^e	9 ^e	10 ^e	11 ^e	12 ^e
Santé physique médiocre selon l'élève	6,3	10,6	14,3	14,5	17,6	19,8 *
Inactivité physique (aucun jour d'exercice pendant la semaine écoulée)	6,9	7,3	6,8	7,6	9,4	11,4 *
Comportement sédentaire (7 heures et plus par jour passées devant un téléviseur ou un ordinateur)	4,9	7,6	8,1	9,6	12,6	12,8 *
Excès de poids ou obésité	23,5	27,4	26,1	25,8	25,4	23,8
Aucune consultation d'un médecin spécialisé dans la santé physique (année écoulée)	33,6	33,4	31,1	30,3	35,0	36,9
Traitement d'une blessure (année écoulée)	39,1	40,8	42,9	42,0	40,8	37,9
Usage médical d'un analgésique opioïde (année écoulée)	23,9	28,7	33,9	33,6	33,9	34,1 *
Participation à des « jeux de suffocation »	4,1	3,7	5,3	5,1	5,6	7,0
Usage médical de tranquillisants/sédatifs (année écoulée)	2,4	2,4	2,3	4,5	5,4	4,8 *
Usage médical d'un médicament pour le THADA (année écoulée)	3,2	2,8	4,2	2,4	2,6	s
Antidépresseur et/ou anxiolytique prescrit	2,3	1,9	2,3	2,8	4,4	5,0 *
Consultation en santé mentale (année écoulée)	28,9	23,2	26,1	24,6	23,3	19,0
Recours à une ligne d'aide en cas de crise (année écoulée)	2,6	1,3	2,2	2,1	s	2,2
Santé mentale médiocre selon l'élève	6,9	9,1	12,6	10,9	13,2	15,1 *
Faible estime de soi	7,4	8,2	8,5	7,0	10,2	8,4
Symptômes de dépression (semaine écoulée)	4,0	4,5	8,1	5,8	4,8	5,0
Détresse psychologique élevée (dernières semaines écoulées)	19,5	22,0	29,5	33,4	38,8	37,8 *
Idées suicidaires (année écoulée)	5,9	8,7	9,7	10,6	10,7	10,3
Tentative de suicide (année écoulée)	s	2,5	3,4	2,6	3,1	3,4
Actes délinquants (3+/11 dans l'année écoulée)	4,1	6,2	9,3	13,7	13,6	14,7 *
Port d'armes (année écoulée)	4,5	6,4	7,7	10,0	5,9	8,7
Luttes de gangs (année écoulée)	2,1	3,0	3,7	3,4	2,2	2,5
Fait partie d'un gang	2,2	2,7	2,3	1,7	1,9	2,9
Batailles à l'école (année écoulée)	21,6	21,4	16,5	11,8	12,8	10,0 *
Menace/blessure avec arme à l'école (année écoulée)	3,9	6,7	8,7	5,5	6,6	8,4 *
Crainte d'être blessé ou menacé à l'école	18,6	12,2	14,3	12,9	9,1	8,8 *
Victime d'intimidation à l'école (depuis septembre)	31,6	31,5	32,6	32,8	25,2	22,7 *
Auteur d'actes d'intimidation à l'école (depuis septembre)	21,3	25,3	23,9	26,8	27,0	25,7
Jeu de hasard et d'argent (1+/10 jeux dans l'année écoulée)	31,5	32,4	38,5	42,4	47,7	56,0 *
Multi-jeu (5+/10 jeux dans l'année écoulée)	1,9	1,7	2,9	2,5	4,6	4,1
Un problème de jeu (année écoulée)	s	s	2,1	2,1	4,2	4,5
Un problème lié aux jeux vidéo (année écoulée)	8,3	10,9	11,2	11,4	9,7	10,0
3 ou 4 problèmes concomitants [†]	s	2,6	6,2	9,2	12,2	15,5 *

Nota : * indique une différence significative selon l'année d'études ($p < 0,05$) ; « s » indique que l'estimation a été supprimée parce qu'elle n'est pas fiable ; usage médical d'un médicament signifie usage d'un médicament prescrit ; [†] parmi les quatre indicateurs de problèmes : détresse psychologique élevée, consommation dangereuse ou nocive d'alcool, problème de l'usage de drogues et délinquance.

Pourcentage d'élèves ayant déclaré présenter certains indicateurs de santé mentale et de bien-être, selon la région (de la 7^e à la 12^e année), SCDSEO 2009

Indicateur	Toronto	Nord	Ouest	Est
Santé physique médiocre selon l'élève	17,9	16,0	14,7	12,3 *
Inactivité physique (aucun jour d'exercice pendant la semaine écoulée)	11,2	7,4	8,3	7,6 *
Comportement sédentaire (7 heures et plus par jour passées devant un téléviseur ou un ordinateur)	14,5	8,3	8,7	8,8 *
Excès de poids ou obésité	24,5	31,4	25,9	23,6 *
Aucune consultation d'un médecin spécialisé dans la santé physique (année écoulée)	35,8	39,1	33,2	31,7
Traitement d'une blessure (année écoulée)	34,7	34,6	41,7	43,2 *
Usage médical d'un analgésique opioïde (année écoulée)	26,9	31,1	31,9	34,1 *
Participation à des « jeux de suffocation »	4,3	6,9	5,5	5,2
Usage médical de tranquillisants/sédatifs (année écoulée)	2,6	3,7	3,7	4,4
Usage médical d'un médicament pour le THADA (année écoulée)	s	s	2,6	3,7
Antidépresseur et/ou anxiolytique prescrit	2,6	3,0	3,3	3,7
Consultation en santé mentale (année écoulée)	27,0	19,8	23,1	24,1
Recours à une ligne d'aide en cas de crise (année écoulée)	2,9	2,2	1,6	1,8
Santé mentale médiocre selon l'élève	14,4	12,4	12,2	9,7
Faible estime de soi	9,3	6,2	8,6	8,0
Symptômes de dépression (semaine écoulée)	5,9	4,0	5,8	5,0
Détresse psychologique élevée (dernières semaines écoulées)	33,8	31,0	30,5	30,3
Idées suicidaires (année écoulée)	11,0	9,0	10,1	8,2
Tentative de suicide (année écoulée)	2,3	s	2,4	3,7
Actes délinquants (3+/11 dans l'année écoulée)	7,4	11,6	11,1	11,5
Port d'armes (année écoulée)	5,8	7,6	7,8	7,5
Luttes de gangs (année écoulée)	3,4	2,8	2,2	3,3
Fait partie d'un gang	s	s	2,1	3,0
Batailles à l'école (année écoulée)	15,0	15,2	14,9	15,2
Menace/blessure avec arme à l'école (année écoulée)	6,3	7,7	6,7	7,0
Crainte d'être blessé ou menacé à l'école	18,0	11,1	11,9	10,2 *
Victime d'intimidation à l'école (depuis septembre)	23,0	32,1	30,6	29,1 *
Auteur d'actes d'intimidation à l'école (depuis septembre)	23,8	27,8	27,3	22,8
Jeu de hasard et d'argent (1+/10 jeux dans l'année écoulée)	35,2	47,4	43,4	43,9
Multi-jeu (5+/10 jeux dans l'année écoulée)	2,7	3,9	3,0	3,0
Un problème de jeu (année écoulée)	3,8	2,2	1,8	3,7
Un problème lié aux jeux vidéo (année écoulée)	8,0	10,5	11,9	9,2
3 ou 4 problèmes concomitants [†]	5,7	11,9	8,5	8,9

Nota : * indique une différence significative selon la région ($p < 0,05$) ; « s » indique que l'estimation a été supprimée parce qu'elle n'est pas fiable ; usage médical d'un médicament signifie usage d'un médicament prescrit ; [†] parmi les quatre indicateurs de problèmes : détresse psychologique élevée, consommation dangereuse ou nocive d'alcool, problème de l'usage de drogues et délinquance.

Aperçu des tendances quant à certains indicateurs de santé mentale et de bien-être parmi l'échantillon total d'élèves, SCDSEO

Indicateur	Années d'études	Période	Variation
% d'élèves qui ont déclaré avoir une santé physique médiocre	7 ^e , 9 ^e , 11 ^e	1991-2009	En hausse, de 6 % à 13 %
% d'élèves qui n'ont pas consulté un médecin spécialisé dans la santé physique (année écoulée)	7 ^e – 12 ^e	1999-2009	Hausse entre 1999 (30 %) et 2007 (39 %), et baisse en 2009 (33 %)
% d'élèves qui ont subi au moins une blessure nécessitant un traitement	7 ^e – 12 ^e	2003-2009	En hausse, de 35 % à 40 %
% d'élèves ayant consulté un spécialiste de la santé mentale au moins une fois (année écoulée)	7 ^e – 12 ^e	1999-2009	En hausse, de 12 % à 24 %
% d'élèves qui ont déclaré que leur santé mentale était médiocre	7 ^e – 12 ^e	2007-2009	Stable
% d'élèves ayant une faible estime de soi	7 ^e , 9 ^e , 11 ^e	1995-2009	Stable
% d'élèves ayant eu des symptômes de dépression (semaine écoulée)	7 ^e – 12 ^e	1999-2009	Stable
% d'élèves ayant une détresse psychologique élevée	7 ^e – 12 ^e	1999-2009	Stable
% d'élèves ayant eu des idées suicidaires (année écoulée)	7 ^e – 12 ^e	2001-2009	Stable
% d'élèves ayant tenté de se suicider (année écoulée)	7 ^e – 12 ^e	2007-2009	Stable
% d'élèves ayant commis des actes délinquants (année écoulée)	7 ^e , 9 ^e , 11 ^e	1993-2009	En baisse, de 17 % à 9 %
% d'élèves ayant porté une arme (année écoulée)	7 ^e , 9 ^e , 11 ^e	1993-2009	En baisse, de 16 % à 6 %
% d'élèves ayant participé à des luttes de gangs (année écoulée)	7 ^e , 9 ^e , 11 ^e	1993-2009	En baisse, de 7 % à 2 %
% d'élèves ayant été menacés ou blessés avec une arme à l'école	7 ^e – 12 ^e	2003-2009	Stable
% d'élèves craignant d'être menacés ou blessés à l'école	7 ^e – 12 ^e	1999-2009	Stable
% d'élèves ayant été victimes d'intimidation à l'école (depuis septembre)	7 ^e – 12 ^e	2003-2009	Stable
% d'élèves qui ont joué à des jeux de hasard et d'argent sur Internet (année écoulée)	7 ^e – 12 ^e	2003-2009	Stable
% d'élèves qui ont joué à des jeux de hasard et d'argent (année écoulée)	7 ^e – 12 ^e	2003-2009	En baisse, de 57 % à 43 %
% d'élèves ayant multi-joué (année écoulée)	7 ^e – 12 ^e	2003-2009	En baisse, de 6 % à 3 %
% d'élèves qui auraient pu avoir un problème de jeu (année écoulée)	7 ^e – 12 ^e	1999-2009	En baisse, de 7 % à 3 %
% d'élèves qui auraient pu avoir un problème lié aux jeux vidéo (année écoulée)	7 ^e – 12 ^e	2007-2009	Stable

Nota : Les changements indiqués sont fondés sur l'échantillon total des élèves pour les années d'études indiquées ; les changements dans les sous-groupes ne sont pas présentés.

Acknowledgements

A study of this magnitude requires the ongoing cooperation and support of many individuals and groups alike. The 1981-1997 sampling plan was designed by P. Peskun and C.M. Lamphier of York University. In 1999, the survey was redesigned by Michael Ornstein of York University. The sampling design and fieldwork were aptly conducted by the Institute for Social Research, York University, and we especially thank David Northrup, John Pollard, and Michael Ornstein for their assistance over the years. We also appreciate the input from Ken Allison and Guy Faulkner from the University of Toronto. Special thanks are owed to J. Charles Victor for assisting with the 2009 survey weighting, and to Anca Ialomiteanu, Bruna Brands, Hyacinth Irving, and Gina Stoduto from the Centre for Addiction and Mental Health for providing editorial assistance.

We also owe a debt of gratitude to a pioneer. Indeed, we would not be in the enviable position of having such rich historical data without the work and foresight of Reginald G. Smart.

Most importantly, the high level of cooperation by Ontario school boards, school board research ethics committees, school principals, parents and students has played a major role in ensuring the representativeness and success of this project. We gratefully acknowledge the support of all.

This study was supported in-part by the Ontario Ministry of Health and Long Term Care (MOHLTC). The views expressed here are those of the authors and do not necessarily reflect those of the MOHLTC.

Angela Paglia-Boak
Robert E. Mann
Edward M. Adlaf
Joseph H. Beitchman
David Wolfe
Jürgen Rehm

Table of Contents

EXECUTIVE SUMMARY	i
ACKNOWLEDGEMENTS	xx
LIST OF TABLES	xxii
LIST OF FIGURES	xxiv
1. INTRODUCTION	1
2. METHOD	7
3. RESULTS	18
3.1 Family and School	19
3.1.1 Family Living Arrangement	19
3.1.2 Relationship with Parents	19
3.1.3 School Performance and Attitudes	20
3.1.4 School Suspensions	20
3.1.5 School Climate	21
3.2 Physical Health	23
3.2.1 Self-Rated Physical Health	23
3.2.2 Daily Physical Activity	25
3.2.3 Physical Inactivity	25
3.2.4 Physical Inactivity at School	27
3.2.5 Sedentary Behaviour (“Screen Time”)	27
3.2.6 Overweight or Obese	28
3.2.7 The “Choking Game”	30
3.3 Health Care Utilization	31
3.3.1 Physical Health Doctor Visit	31
3.3.2 Treated for a Physical Injury	32
3.3.3 Mental Health Professional Visit	33
3.3.4 Medical Drug Use	34
3.3.5 Prescription Medication to Treat Anxiety or Depression	38
3.3.6 Use of a Telephone Crisis Helpline	39
3.4 Internalizing Indicators	40
3.4.1 Self-Rated Mental Health	40
3.4.2 Low Self-Esteem	41
3.4.3 Depressive Symptoms	43
3.4.4 Elevated Psychological Distress	45
3.4.5 Suicide Ideation and Attempt	47
3.4.6 Body Image and Desired Change in Weight	49
3.5 Externalizing Indicators	51
3.5.1 Delinquent Behaviour	51
3.5.2 Non-Violent Delinquent Behaviours	54
3.5.3 Aggressive and Violent Behaviours	56
3.5.4 Gang Membership	60
3.5.5 Violence on School Property	61
3.5.6 Bullying at School	63
3.6 Gambling and Video Gaming	66
3.6.1 Gambling Activity	66
3.6.2 Gambling Problems	70
3.6.3 Video Gaming	72
3.7 Co-existing Problems	74
3.7.1 Configurations of Risk	74
3.8 Overview by Ontario LHINs	77
4. SUMMARY	80
5. REFERENCES	87
6. APPENDIX TABLES	97

List of Tables

2.1	Thirty-Two Years of the OSDUHS.....	7
2.2	The 2009 OSDUHS Sample vs. Ontario 2007/2008 School Enrolment.....	12
2.3	Sample Characteristics, 2009 OSDUHS.....	12
2.4	Definitions of Terms Used in the Report.....	16
2.5	Outline of Topics Presented by Survey Year.....	17
3.1.1	School Climate Indicators, 1999–2009 (Grades 7 to 12).....	22
3.6.1	Percentage of All Students Reporting SOGS-RA Gambling Problem Indicators Experienced During the Past Year, 2009 OSDUHS (Grades 7 to 12).....	71
3.6.2	Percentage of All Students Reporting Video Game Playing Problem Indicators During the Past Year, 2009 OSDUHS (Grades 7 to 12).....	73
3.8.1	Percentage of Secondary School Students (Grades 9 to 12) Reporting Mental Health and Well-Being Indicators, by Ontario Local Health Integration Network, 2009 OSDUHS.....	78
4.1	Changes Over Time for Selected Indicators by Subgroup, 2009 vs. 2007 and 2009 vs. 1999, OSDUHS (Grades 7 to 12).....	85
4.2	Subgroup Differences for Selected Indicators, 2009 OSDUHS (Grades 7 to 12).....	86

Appendix Tables

A3.1.1	School Performance and Attitudes, 1991–2009.....	98
A3.2.1	Percentage Reporting Poor Health, 1991–2009.....	99
A3.2.2	Percentage Reporting Days of Physical Activity in Physical Education Classes at School During the Past 5 School Days, 1999–2009 (Grades 7 to 12).....	100
A3.3.1	Percentage Reporting No Visits to a Doctor for their Physical Health or for a Check-Up During the Past Year, 1999–2009 (Grades 7 to 12).....	102
A3.3.2	Percentage Reporting Having Been Treated for a Physical Injury at Least Once During the Past Year, 2003–2009 (Grades 7 to 12).....	103
A3.3.3	Percentage Reporting at Least One Visit to a Professional for their Mental Health During the Past Year, 1999–2009 (Grades 7 to 12).....	104
A3.3.4	Percentage Reporting Medical Use of Prescription Opioid Pain Relievers at Least Once During the Past Year 2007–2009 (Grades 7 to 12).....	105
A3.3.5	Percentage Reporting Medical Use of an ADHD Drug at Least Once During the Past Year 2007–2009 (Grades 7 to 12).....	106
A3.3.6	Percentage Reporting Medical Use of Tranquillizers/Sedatives at Least Once During the Past Year, 1977–2009.....	107
A3.4.1	Percentage Reporting Poor Mental Health, 2007–2009 (Grades 7 to 12).....	109
A3.4.2	Percentage Reporting Low Self-Esteem, 1995–2009.....	110
A3.4.3	Percentage Reporting Depressive Symptoms (CES-D), 1999-2009 (Grades 7 to 12).....	111
A3.4.4	Percentage Reporting Elevated Psychological Distress (GHQ 3+), 1999–2009 (Grades 7 to 12).....	112
A3.4.5	Percentage Reporting Suicide Ideation, 2001–2009 (Grades 7 to 12).....	113
A3.4.6	Body Image Belief and Desired Change in Weight, 2001–2009 (Grades 7 to 12).....	114
A3.5.1a	Percentage Reporting Delinquent Behaviours at Least Once During the Past Year by Sex, Grade, and Region, 1999–2009 (Grades 7 to 12).....	117
A3.5.1b	Percentage Reporting Delinquent Behaviours at Least Once During the Past Year by Sex, 1991–2009 (based on Grades 7, 9, and 11 only).....	122

A3.5.2	Percentage Reporting Physical Fighting on School Property, and Percentage Reporting Been Threatened or Injured with a Weapon on School Property at Least Once During the Past Year, 2001–2009 (Grades 7 to 12).....	123
A3.5.3	Percentage Reporting Bullying Behaviour at School since September, 2003–2009.....	125
A3.6.1	Percentage Reporting Gambling Activities During the Past Year, 2001–2009 (Grades 7 to 12).....	128
A3.6.2	Percentage of All Students Reporting a Gambling Problem (Reduced SOGS-RA), 1999–2009 (Grades 7 to 12).....	133
A3.6.3	Percentage of All Students Reporting a Video Gaming Problem (PVP Scale), 2007–2009 (Grades 7 to 12).....	134
A3.7.1	Co-Existing Problems: Percentage Reporting Elevated Psychological Distress, Alcohol Problem, Drug Problem, and Delinquent Behaviour, 2003-2009 (Grades 7 to 12)	135
A3.7.2	Percentage Reporting Three or All Four Co-Existing Problems, 2003–2009 (Grades 7 to 12).....	136

List of Figures

3.1.1	Percentage Reporting Worrying About Being Harmed or Threatened at School by Sex Grade and Region, 2009 OSDUHS	22
3.2.1	Percentage Reporting Poor Health by Sex, Grade and Region, 2009 OSDUHS	24
3.2.2	Percentage Reporting Poor Health by Sex, 1991-2009 (Grades 7, 9, 11 only).....	24
3.2.3	Percentage Reporting Daily Physical Activity During the Past Week by Sex, Grade, and Region, 2009 OSDUHS	26
3.2.4	Percentage Reporting No Physical Activity During the Past Week by Sex, Grade, and Region, 2009 OSDUHS	26
3.2.5	Percentage Reporting Sedentary Behaviour (“Screen Time”) by Sex, Grade and Region, 2009 OSDUHS	27
3.2.6	Percentage Estimated to be Normal Weight, Overweight, and Obese, 2009 OSDUHS.....	29
3.2.7	Percentage Overweight or Obese by Sex, Grade and Region, 2009 OSDUHS	29
3.2.8	Percentage Reporting Ever Participating in the “Choking Game” by Sex, Grade and Region, 2009 OSDUHS	30
3.3.1	Percentage Reporting No Visits to a Doctor for Physical Health Reasons During the Past Year by Sex, Grade, and Region, 2009 OSDUHS	31
3.3.2	Percentage Reporting Being Treated for a Physical Injury at Least Once During the Past Year by Sex, Grade and Region, 2009 OSDUHS	32
3.3.3	Percentage Reporting at Least One Mental Health Care Visit During the Past Year by Sex, Grade and Region, 2009 OSDUHS.....	33
3.3.4	Percentage Reporting Past Year Medical Opioid Pain Reliever Use by Sex, Grade and Region, 2009 OSDUHS	35
3.3.5	Past Year Medical ADHD Drug Use by Sex, Grade and Region, 2009 OSDUHS	35
3.3.6	Past Year Medical Tranquillizer/Sedative Use by Sex, Grade and Region, 2009 OSDUHS	36
3.3.7	Past Year Medical Tranquillizer/Sedative Use, 1977–2009 OSDUHS	37
3.3.8	Percentage Reporting Having Been Prescribed Medication to Treat Anxiety or Depression or Both Problems During the Past Year by Sex, Grade and Region, 2009 OSDUHS	38
3.3.9	Percentage Reporting Use of a Telephone Crisis Helpline During the Past Year by Sex, Grade and Region, 2009 OSDUHS	39
3.4.1	Percentage Reporting Poor Mental Health by Sex, Grade and Region, 2009 OSDUHS.....	40
3.4.2	Rosenberg’s Six Self-Esteem Items by Sex, 2009 OSDUHS (Grades 7 to 12).....	42
3.4.3	Percentage Indicating Low Self-Esteem by Sex, Grade and Region, 2009 OSDUHS	42
3.4.4	Percentage Reporting Depression Items on the CES-D Subscale by Sex, 2009 OSDUHS	44
3.4.5	Percentage Reporting Depressive Symptoms by Sex, Grade and Region, 2009 OSDUHS	44
3.4.6	GHQ Symptoms Experienced Over the Past Few Weeks by Sex, 2009 OSDUHS	46
3.4.7	Percentage Reporting Elevated Psychological Distress (GHQ 3+) by Sex, Grade and Region, 2009 OSDUHS	46
3.4.8	Percentage Reporting Suicide Ideation During the Past Year by Sex, Grade and Region, 2009 OSDUHS	48
3.4.9	Percentage Reporting a Suicide Attempt During the Past Year by Sex, Grade and Region, 2009 OSDUHS	48
3.4.10	Body Image and Desired Change in Weight by Sex, 2009 OSDUHS.....	50
3.5.1	Percentage Reporting Engaging in Delinquent Behaviours at Least Once During the Past Year by Sex, 2009 OSDUHS	53
3.5.2	Percentage Reporting Delinquent Behaviour (3+ of 11 Behaviours) During the Past Year by Sex, Grade, and Region, 2009 OSDUHS	53
3.5.3	Grade Profile: Percentage Reporting Non-Violent Delinquent Behaviours at Least Once During the Past Year, 2009 OSDUHS.....	54

3.5.4	Percentage Reporting Non-Violent Delinquent Behaviours, 1991-2009 OSDUHS.....	55
3.5.5	Percentage Reporting Assaulting Someone at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS.....	57
3.5.6	Percentage Reporting Gang Fighting at Least Once During the Past Year by Sex, Grade and Region, 2009 OSDUHS	57
3.5.7	Percentage Reporting Carrying a Weapon (i.e. knife or gun) at Least Once During the Past Year, by Sex, Grade and Region, 2009 OSDUHS	58
3.5.8	Percentage Reporting Carrying a Handgun at Least Once During the Past Year by Sex, Grade and Region, 2009 OSDUHS.....	58
3.5.9	Percentage Reporting Violent Behaviours, 1991-2009 OSDUHS (Grades 7, 9, 11 only).....	59
3.5.10	Percentage Reporting Belonging to a “Gang” by Sex, Grade and Region, 2009 OSDUHS.....	60
3.5.11	Percentage Reporting Physically Fighting at School at Least Once in the Past Year, by Sex, Grade and Region, 2009 OSDUHS.....	62
3.5.12	Percentage Reporting Having Been Threatened or Injured with a Weapon at School at Least Once in the Past Year by Sex, Grade, and Region, 2009 OSDUHS	62
3.5.13	Percentage Reporting the Most Common Way They Were Bullied at School by Sex, 2009 OSDUHS	64
3.5.14	Percentage Reporting Being Bullied at School (in Any Manner) Since September by Sex, Grade and Region, 2009 OSDUHS.....	65
3.5.15	Percentage Reporting Bullying Others at School (in Any Manner) Since September by Sex, Grade, and Region, 2009 OSDUHS.....	65
3.6.1	Percentage Reporting Gambling Activities in the Past Year by Sex, 2009 OSDUHS	67
3.6.2	Percentage Reporting Number of Gambling Activities (of 10) in the Past Year by Sex, 2009 OSDUHS.....	67
3.6.3	Percentage Reporting Any Gambling Activity (of 10 Activities) in the Past Year by Sex, Grade, and Region, 2009 OSDUHS.....	69
3.6.4	Percentage Reporting Multi-Gambling Activity (5+/10 Activities) in the Past Year by Sex, Grade, and Region, 2009 OSDUHS.....	69
3.6.5	Percentage of All Students Indicating a Gambling Problem (Reduced SOGS-RA) by Sex, Grade, and Region, 2009 OSDUHS.....	71
3.6.6	Percentage of All Students Indicating a Video Gaming Problem (PVP Scale) by Sex, Grade, and Region, 2009 OSDUHS.....	73
3.7.1	Co-Existing Problems: Elevated Psychological Distress, Hazardous/Harmful Drinking, Drug Use Problem, and Delinquent Behaviour (Grades 7 to 12), 2009 OSDUHS.....	75
3.7.2	Percentage Indicating Three or All Four Problems by Sex, Grade, and Region, 2009 OSDUHS.	76
3.8.1	Local Health Integration Networks of Ontario	77
4.1	Overview of Mental Health and Well-Being Indicators, 2009 OSDUHS (Grades 7 to 12)	82
4.2	Internalizing and Externalizing Indicators by Sex, 2009 OSDUHS	83

1. INTRODUCTION

The World Health Organization constitution defines optimum health as “physical, mental, and social well-being, and not merely the absence of disease and infirmity” (World Health Organization, 1948). Thus, good health should reflect not only the absence of physical problems, but also the presence of positive personal and interpersonal resources that help foster a better quality of life.

Physical, emotional, and social well-being among youth are important for numerous reasons, not the least of which is their long-lasting effects into adulthood. Childhood and adolescence are pivotal developmental stages during which many life-long health behaviours, beliefs and attitudes become established. Therefore, healthy children will likely become healthy adults.

Physical Health

Generally, adolescence is a period of optimal physical health. Over three-quarters of Canadian children and young adolescents report “excellent” or “very good” health (Currie et al., 2008; Tremblay, Dahinten, & Kohen, 2003). However, health problems and unhealthy behaviours tend to increase during adolescence. Poor physical health, obesity, inactivity, and poor dietary habits among youth are especially concerning given that these health states and behaviours are highly likely to continue into adulthood and lead to serious morbidity or mortality (Hallal, Victora, Azevedo, & Wells, 2006; Singh, Mulder, Twisk, van Mechelen, & Chinapaw, 2008). Further, poor physical health is associated with concurrent negative school experience, lower academic performance, and poor mental health (Ortega, Ruiz, Castillo, & Sjöström, 2008).

Over the past three decades, obesity among Canadian adolescents has tripled (Shields, 2006;

Tremblay et al., 2010). Recent epidemiological estimates indicate that between about 6% and 9% of Canadian adolescents are obese (Janssen, 2008; Shields, 2006). Further, an international study found that Canadian adolescents’ overweight/obesity rates rank among the highest (Currie et al., 2008).

Injuries are the leading cause of morbidity and mortality among Canadian adolescents, with motor vehicle collisions being the primary cause (Pan et al., 2007). Thus, injury may be a marker for a high-risk lifestyle that may include engaging in health risk behaviours such as binge drinking and driving after using alcohol or drugs (Adlaf, Mann, & Paglia, 2003). A national survey found that almost half of Canadian adolescents reported experiencing an injury that needed medical treatment in the past year (Currie et al., 2008). Canadian mortality and hospitalization rates due to injuries seem to have decreased in recent years (Pan et al., 2007; Public Health Agency of Canada, 2009).

Mental Health

Significant life transitions occur during adolescence, such as puberty and entering high school, and for most it is a stressful and emotionally turbulent period. These transitions can lead to academic, behavioural and emotional difficulties (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). Good mental health is critical to all aspects of life, and impairment during the formative years can adversely impact personal and social functioning throughout life. In fact, the onset of most mental disorders occurs during adolescence or young adulthood (Health Canada, 2002; Kessler et al., 2005; Patel, Flisher, Hetrick, & McGorry, 2007).

About 20% of children and adolescents show symptoms of a mental disorder during any given year, and that 5% have a serious emotional

disturbance with functional impairment (US Department of Health and Human Services, 1999a). Canadian studies show that the prevalence of a psychiatric problem among children and adolescents ranges between 18% and 22% (Offord, 1995; Romano, Tremblay, Vitaro, Zoccolillo, & Pagani, 2001), and reaches about 25% among young adults (Offord et al., 1996). In Canada and the US, suicide is the third leading cause of death among adolescents, after motor vehicle fatalities and other accidents (Canadian Institute of Child Health, 2000; US Department of Health and Human Services, 1999a). Some evidence suggests that Canadian youth experience poorer mental health, in general, compared with adults (Stephens, Dulberg, & Joubert, 1999).

There is some evidence to suggest that the prevalence of mental health problems among children and adolescents may actually be increasing over time. Some study examples include the following:

- In the US, the identification of mental health problems, such as emotional and conduct disorders, by family physicians increased between the late 1970s and late 1990s among children aged 4 to 15 years (Kelleher, McInerney, Gardner, Childs, & Wasserman, 2000).
- Since the mid-1970s, there has been a substantial increase in conduct and emotional problems among adolescents in the UK (Collishaw, Maughan, Goodman, & Pickles, 2004).
- Between the 1950s and the 1990s, anxiety among children had increased substantially, likely due to a decrease in social connectedness (Twenge, 2000).
- The prevalence of lifetime depression increased throughout the 20th century (Lewinsohn, Rohde, Seeley, & Fischer, 1993).
- Hospitalization rates for eating disorders have increased by 34% among Canadian girls under age 15 (Health Canada, 2002).
- In Canada, childhood trauma (e.g., parental divorce, parental substance abuse) has increased over the last few decades, and

corresponding increases in mental and physical health problems in adulthood are foreshadowed (Thompson & Cui, 2000).

- US research has found that rates of prescribing anti-depressant, anti-anxiety, and anti-psychotic medication to adolescents significantly increased between about 1993 and 2002, but the reasons for these increases are not fully understood (Olfson, Blanco, Liu, Moreno, & Laje, 2006; Parks-Thomas, Conrad, Casler, & Goodman, 2006).

Risky and Problem Behaviours

For a majority of youth, risky behaviour is experimental and a natural manifestation of emerging independence. Behaviours such as drug use, gambling, and criminal activity are typically “adolescent limited” – most likely to emerge during this period and then subside over time (Moffitt, 1993). However, for a minority, these risky behaviours are the beginning of a life-course trajectory leading to further problems in adulthood (Gotlib & Wheaton, 1997). Multiple risk behaviours, such as concurrent alcohol use, drug use, and gambling, are particularly prevalent among young males (Federal Provincial and Territorial Advisory Committee on Population Health, 1999a).

The magnitude of youth crime and violence can be measured by two sources – confidential self-reports from surveys, and official police records. Both methods present problems (e.g., self-reports are likely to be underestimates, arrest data will reflect more serious offences), yet both are necessary to complete the picture.

A Canadian survey showed that 40% of youth aged 15 to 19 were victims of at least one crime during the previous year, and that youth experience more victimization than older age groups (Statistics Canada, 2001). Another Canadian study found that 22% of 12- and 13-year-olds reported threatening to assault someone, about 15% reported theft, 12% reported vandalism, and 8% reported carrying a knife (Statistics Canada, 2001). A 2006 survey of Toronto students found that 6% of 7th-, 8th-,

and 9th-graders carried a weapon in the past year (Savoie, 2007).

Recent official statistics indicate that the youth (ages 12 to 17) crime rate in Canada is currently lower than the peak seen in the early 1990s (Statistics Canada, 2008). However, the youth violent crime rate is currently higher than the rates seen in the early 1990s, and has largely been driven by increases in assault charges (Canadian Institute of Child Health, 2000; Gannon, 2006; Statistics Canada, 2008).

Although there are no Canadian national survey trend data, American data from a high school survey show that weapon carrying and assault declined over the 1990s and have generally remained stable during this decade (Centers for Disease Control and Prevention, 2010).

Bullying has become an important public health issue because of the widespread prevalence of bullying behaviour and the many harmful consequences to the victim, the bully, and the society (Feder, 2007). A 2006 Canadian survey of students in grades 6 to 10 found that about one-third of all students bullied others, and a similar proportion were victims of bullying (Craig & McCuaig-Edge, 2008). A 2006 survey of Toronto students in grades 7, 8, and 9 showed that about one-fifth of students are bullied (Savoie, 2007).

Gambling among youth, which is illegal in Ontario for those under age 19, is a growing concern given that a large majority of North American adolescents gamble (Hardoon & Derevensky, 2002). More worrisome is that the rates of gambling problems may be higher among adolescents than adults (Shaffer, Hall, & Vander Bilt, 1999), and that future gambling disorders likely originate during this time period (Gupta & Derevensky, 1998). Estimates of pathological or problem gambling among North American youth range from about 2% to 8% (Derevensky, Gupta, & Winters, 2003; Dickson & Derevensky, 2006; Huang & Boyer, 2007). The negative consequences associated with problem gambling include an increased likelihood of delinquent and criminal behaviour, problems with family, work and schools, and

mental health problems (Dickson & Derevensky, 2006).

Social Health

Social well-being is a relatively recent addition to the definition of health. It refers to adequate integration and adjustment in a person's social environment, the extent of social support available, and the quality of one's relationships. Indeed, studying quality of life is increasingly becoming an important area of health research.

A strong social support network is important in its own right, and it also appears to be a buffer against physical and mental health problems at all ages. Social support has been correlated with lower reported depression and anxiety (Cohen & Wills, 1985; Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007). Similarly, a strong bond with one's parents has been associated with better mental and physical health (Canadian Institute for Health Information, 2005; Dishion & Kavanagh, 2000; Webster-Stratton, 1998). The degree of school connectedness is another area of increasing study, and may be an important protective factor against poor mental health and risk behaviours (Bond et al., 2007; Bonny, Britto, Klostermann, Hornung, & Slap, 2000; Canadian Institute for Health Information, 2005; Faulkner, Adlaf, Irving, Allison, & Dwyer, 2009; Resnick et al., 1997).

Risk and Protective Factors

Studies of risk and protective factors in the areas of mental health and risk behaviour among youth have identified several cross-cutting predictors at the level of the individual, the family, the peer context, and the broader environment (Clayton, 1992; Hawkins, Catalano, & Miller, 1992; Kraemer et al., 1997; Masten & Coatsworth, 1998).

In addition to age and sex, **individual**-level factors include genetics, temperament, problem-

solving and coping skills, social skills and a sense of self-efficacy. **Family**-related factors include family structure, marital discord, parent-child attachment, frequency and quality of communication, parental monitoring, parental modelling, and abusive or neglectful treatment.

In the **peer and school context** such factors as peer behaviour, peer rejection and level of social support, and academic achievement and attitudes toward school have been shown to be influential.

Some **environmental** factors associated with psychosocial problems and risk behaviours include poverty, legal policies affecting availability and access (e.g., in the cases of substance use, gambling), the media and wider cultural norms (e.g., in the cases of substance use, eating disorders).

Of course, experiencing a stressful or traumatic event during childhood, such as the death of a parent or a natural disaster, can also lead to emotional and behavioural problems.

Why Monitor the Mental Health and Well-Being of Students?

The OSDUHS is a population health-oriented survey. The “population health approach” is defined as follows:

Population health refers to the health of a population as measured by health status indicators and as influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development, and health services (Federal Provincial and Territorial Advisory Committee on Population Health, 1999b, p. 7).

The ultimate goal is to maintain and improve the health of an entire population. This approach is evidenced-based, and as such, requires the surveillance of a broad set of health indicators and determinants. The resulting body of knowledge is applied to develop and implement

policies and programs to improve the well-being of the population.

Surveys are one source of information about health indicators and determinants among the general population. Important reasons for survey monitoring include:

- ❑ to assess changes in health status
- ❑ to assess changes among the determinants of health (e.g., family structure)
- ❑ Because surveys have a scientific basis and a known representativeness, they can provide data that can confirm or challenge anecdotal and media reports.
- ❑ Surveys also provide a basis for program and policy evaluation of goals established by governmental and non-governmental agencies.
- ❑ Other specific initiatives such as active lifestyle government programs and media campaigns or changes in the youth criminal justice system can be assessed using scientific survey trend data.

Ultimately, we are hopeful that the information provided in this report and subsequent reports will enrich our ability to enhance the well-being of children and adolescents.

What Student Health Surveys Tell Us

Student health surveys provide important information that serves as a basis for understanding:

- ❑ the size of the adolescent student population (both the percentage and absolute number) currently experiencing physical and mental health problems;
- ❑ changes over time;
- ❑ the factors that correlate with these problems;

- and, the identification of high-risk groups.

It is also important to note that repeated cross-sectional surveys (repeated surveys of different students each time), such as the OSDUHS, can assess only specific types of change. Because the same students are not surveyed over time, repeated cross-sectional surveys cannot evaluate developmental patterns or individual change, nor can they fully resolve issues of causal order (e.g., whether poor grades cause depression or vice versa). However, repeated cross-sectional surveys are especially efficient at identifying and measuring aggregate period trends (e.g., changes in the percentage of the population rating their health as poor). Indeed, in comparison to longitudinal follow-up designs, the advantages of repeated cross-sectional designs are, firstly, that each survey takes into account population changes; and secondly, that estimates combine effects of changing beliefs and behaviours and changing populations, and therefore provide an efficient estimate of net (i.e., population) change.

What Student Health Surveys Do Not Tell Us

Because school-based surveys are based on adolescents who are in school, their data cannot fully measure the totality of health problems among youth. Student surveys cannot address the following:

- the extent of problems among non-students, such as youth who are homeless, incarcerated, in group homes, or have left school;
- the causes of any problem indicator or why the changes have occurred over time.

History of the Ontario Student Drug Use and Health Survey

The OSDUHS is the longest ongoing school survey in Canada. In 1967, several school boards in Metropolitan Toronto approached the Addiction Research Foundation (now CAMH) for assistance in determining the extent of drug use among Toronto students. Under the direction of Dr. Reginald Smart, four surveys from 1968 to 1974 monitored the extent of alcohol, tobacco and other drug use among Toronto students in grades 7, 9, 11 and 13 (Ontario Academic Credit; OAC).

In 1977, the study was expanded to include students throughout the province of Ontario. In 1999, the OSDUHS was again expanded to include students in grades 7 through to 13 (OAC). In 2003, the OSDUHS excluded grade 13 (because it was eliminated in the province of Ontario), and increased the number of classes surveyed in secondary schools.

Since 1977, the study has surveyed thousands of students every two years and, to date, has surveyed over 80,000 students in Ontario. During the 1990s, the content of the OSDUHS was expanded to include an array of health measures, in addition to substance use. Expanded areas include mental and emotional well-being, social health, and physical health.

The OSDUHS Mental Health and Well-Being Report

In this report we describe current physical and mental health indicators among Ontario students in grades 7 to 12 using data from the 2009 cycle of the OSDUHS. The mental health indicators are divided into internalizing and externalizing indicators. By internalizing indicators we mean emotional health problems such as depression and low self-esteem. By externalizing indicators we mean overt risky behaviours such as aggression, theft, and drug use. We also present trend data spanning back to 1991, where possible. New indicators in this report include

estimates of overweight and obese students, and sedentary behaviour (also called “screen time”).

It is important to note that the mental health indicators in the OSDUHS generally assess moderate functional impairment, rather than psychiatric disorders based on clinical criteria. Restricting attention to those experiencing current psychiatric disorders would underestimate the extent of mental health problems, since a sizeable percentage experience impaired functioning without meeting the clinical criteria for a diagnosis. Moreover, restricting attention to psychiatric disorders would overlook the fact that mental well-being exists as a continuum, spanning optimum mental health to mental illness to severe disorders. Further, monitoring broad mental health indicators provides more useful information for service planners and providers.

Readers should note that there is a separate published report based on the 2009 OSDUHS detailing the extent of licit and illicit drug use among Ontario students over the past 32 years. This report entitled “*Drug Use Among Ontario Students, 1977-2009: Detailed OSDUHS Findings*” is available at: www.camh.net/research/osdus.html.

2. METHOD

Sampling Design

Target Population

For each of the 17 surveys, the target population was composed of all students enrolled in Ontario’s public and Catholic regular school

systems. Thus it excludes those enrolled in private schools, those institutionalized for correctional or health reasons, those on First Nations reserves, military bases, and in the far northern region of Ontario (a total of about 7% of Ontario students).

Table 2.1 Thirty-Two Years of the OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	
No. Boards	20	20	31	31	20	24	25	27	25	20	22	38	41	37	42	43	47	
No. Schools	104	87	182	227	193	170	171	179	165	137	168	111	106	126	137	119	181	
No. Classes	196	195	198	261	205	215	224	221	233	223	234	285	272	383	445	385	573	
No. Students	4686	4794	3270	4737	4154	4267	3915	3945	3571	3870	3990	4894	4211	6616	7726	6323	9112	
Design Features	Multi-stage selection (board; school; class), stratified by grade and region. Grades 7, 9, 11 and 13. Self-weighted estimates.		Single-stage selection (board clusters), stratified by grade and region. Grades 7, 9, 11 and 13 (OAC). Weighted estimates.									Two-stage selection (school, class), stratified by region and school type. North over-sampled. Six public health regions over-sampled in 2009. Weighted estimates.						
												Grades 7 to 13 (OAC).		Grades 7 to 12 (OAC dropped in 2003).				

Past Survey Designs

As seen in Table 2.1, each survey was based on a random probability design. The 1977 and 1979 surveys were based on a stratified (region by grade) multistage design. The proportional allocation of students by grade and region allowed for self-weighted estimates. To incorporate improvements which would provide estimates with greater precision and efficiency, in 1981 the sample design was modified to a stratified single-stage cluster design, which

resulted in the selection of more school boards and schools. Since 1981 this survey has been administered by staff at the Institute for Social Research (ISR), York University.

In survey designs prior to 1999, the allocation of students from Northern Ontario was proportional to population. Thus, the sample for this region was smaller than other regions.

Current Survey Design ¹

Beginning in 1999, the OSDUHS employs a stratified (region and school type), two-stage (school, class) cluster sample design, and over-samples students in Northern Ontario in order to provide better estimates for that region. Further, rather than surveying students only in grades 7, 9, and 11 (and grade 13 before it was eliminated), the revised design surveys students in grades 7 through to 12, inclusive. This change provides greater age variation, and thus more developmentally-based detail on the relationship between well-being indicators and age. It also allows for more direct grade comparisons to American and other international studies. Another design change incorporated in 1999 was to use a probability sample of schools, regardless of the school board designation, rather than the selection of school board clusters. Consequently, more students per school are sampled. The advantages include a greater geographical dispersion of schools and school boards, and better school-level estimates.

School Selection

Schools in the public and Catholic school systems in Ontario were eligible to participate. Private schools, schools on Native reserves, Canadian Forces Bases, and certain geographically inaccessible northern schools were excluded. The 2009 school sample is based on a longitudinal sample commencing in 2001. This feature of overlapping schools provides more efficient estimates of change over time (Kish, 1965). Ninety-five (52%) of the schools in the 2009 survey were brand new to the study – that is, they had never participated.

The school sample selection occurred as follows:

- a) To select the initial 2001 sample, schools were drawn from Ontario's Ministry of Education and

Training's enrolment data, and were stratified according to the four design regions.

- b) Within each regional stratum, a random selection of schools was chosen, separately for elementary/middle schools and secondary schools. Schools were selected with probability proportional to enrolment size (meaning that larger schools have a greater probability of being selected). The schools that participated in 2001 were invited to participate in cycles since then, including the 2009 cycle. In addition, in 2009 new schools were also selected for specific regional over-samples (see below).
- c) If a selected school could not participate, or if it had closed, a replacement school from the same region was selected. The sampling frame for new schools and replacement schools was based on the Ministry of Education and Training's 2006/2007 enrolment data (most recently available), again with probability of selection proportional to size.

Class Selection

Within each selected school, classes were randomly selected by ISR. In elementary/middle schools, two classes were randomly selected – one 7th-grade and one 8th-grade. In secondary schools, four classes were randomly selected, one in each grade between 9 and 12 from either a list of classes in a required subject (e.g., English), or a required period (e.g., homeroom). All students in the selected classes were eligible to be surveyed. Special education classes, English as a Second Language (ESL) classes, and classes in which there were fewer than five students were excluded from selection. If a selected class was unable to participate, a replacement class was randomly selected whenever possible.

OSDUHS Regions

Historically, the survey design divided Ontario into four regional strata based on the following boundaries: Toronto; Northern Ontario (Parry Sound District, Nipissing District and farther north); Western Ontario (Peel District, Dufferin

¹ In addition to the authors, the 2009 OSDUHS sample design team, headed by Michael Ornstein, also included John Pollard and David Northrup, all from the Institute for Social Research, York University.

County and farther west); and Eastern Ontario (Simcoe County, York County and farther east).

Over-Sampling Buy-Ins for Ontario Public Health Units in 2009

In addition to the four regions described above, the 2009 OSDUHS incorporated six Ontario public health regions as regional strata. The over-sampling of students in these public health regions was conducted in order to provide better regional estimates for the health units. Schools in the following areas of the province were over-sampled: Haliburton-Kawartha-Pine Ridge, Leeds-Grenville-Lanark, Durham Region, York Region, the City of Ottawa, and the City of Hamilton. The class selection procedure in the secondary school over-samples did not differ from the standard procedure. However, in the elementary/middle schools, rather than the standard selection of one class per grade, *two* 7th-grade and *two* 8th-grade classes were selected to participate (or all students in these grades if there was less than two classes in each).

Procedures

The 2009 OSDUHS protocol was approved by the research ethics boards at CAMH and York University.

For each school board associated with a randomly-selected school, permission to survey students was first requested from the Director of Education. Depending on the school board's policy, agreement to participate was conditional upon approval from board research review committees (20 reviewed the protocol), as well as school principals, classroom teachers, and parents. If a school board did not allow its schools to participate, replacement schools from the same stratum were randomly selected and the respective boards were contacted again for permission. ISR randomly selected the classes to survey in each school.

All schools were provided with copies of the active parental consent form, which was available in several languages. Consent forms were distributed to students, who, in turn, sought

the signature of one parent/guardian if they were under age 18. Students themselves were also required to provide a signature of assent. Those who did not return a signed consent form before the survey date were not allowed to participate. If a student did not participate, no substitution took place. Instead, the data were statistically weighted to correct for nonresponse.

Survey administration procedures were designed to protect students' privacy by allowing for anonymous and voluntary participation. The survey was administered by trained ISR field staff in the classrooms of the randomly-selected classes between November 2008 and June 2009. The data collectors read a standardized script to participating students explaining the history of the study, its purpose, and emphasizing the anonymity of the survey. Students were told that participation was completely voluntary and anonymous, and were instructed not to write their names on the questionnaires. Student responses were recorded directly on to the questionnaire. Teachers were not required to remain in the classrooms during administration, but most chose to do so. Neither schools nor students were paid to participate in the survey.

The ISR field staff collected the completed questionnaires, which were then taken to ISR for data entry. The quality of the data entry was checked by random verification of 10% of all the questionnaires.

The Questionnaire

In addition to alcohol and other drug use, the OSDUHS covers an array of health-related issues. To cover as many content areas as possible in a fixed time period, we employed two versions of the questionnaire, Form A and Form B (www.camh.net/research/osdus.html). In each classroom, half the students were randomly assigned either Form A or Form B. Form A contained 167 items and Form B contained 169 items, with about two-thirds of the content overlapping. The questionnaire, printed in booklet format, took about 30 to 40 minutes to complete (average time was 32 minutes). Skip patterns were not included in the questionnaire

in order to protect students' privacy by ensuring that all students took about the same time to complete the study.

Most of the OSDUHS questionnaire items were derived from other large-scale student surveys such as the American Monitoring the Future (MTF) survey, the American Youth Risk Behavior Survey (YRBS), and the international Health Behaviour of School-Aged Children (HBSC) survey, and have been shown to produce valid and reliable data (Brener et al., 2002; Currie et al., 2008; Johnston, O'Malley, Bachman, & Schulenberg, 2008; O'Malley, Bachman, & Johnston, 1983). Also included were valid and reliable screeners and scales, such as the WHO's Alcohol Use Disorders Identification Test ("AUDIT") to assess drinking problems, and the "CRAFFT" screener to assess drug use problems. All new items in the 2009 questionnaire were pre-tested by ISR, using a small convenience sample of young adolescents. An evaluation of the readability of the 2009 questionnaire showed a Grade 7 level according to the Flesch-Kincaid score. French-translated questionnaires were also available to schools.

Data Quality

2009 Sample Participation and Characteristics

The target number of students for the 2009 survey was 10,700. To achieve this student sample size, the target number of schools was estimated to be 178. Assuming that about one-third of schools would not be able to participate, 268 schools were initially selected. In the end, a total of 181 schools (80 elementary/middle and 101 secondary) in 47 school boards participated in the survey. The most common reasons for school refusals were that they were too busy, or that they had already committed to other external research projects. Although we could not carry out a systematic follow-up, we do not expect these refusals to have created a substantial bias as this group of schools did not significantly differ from participating schools with respect to region, school type

(elementary/middle versus secondary), or public versus Catholic.

A total of 573 classes participated in the survey (207 from elementary/middle schools, 366 from secondary schools). It is important to note here that 84 classes were not randomly selected. Rather, these classes were convenient same-grade replacements, typically identified by principals, for classes that were originally selected but could not participate for logistic reasons.²

Finally, of the 14,196 students enrolled in these classes, 9,241 participated in the survey. The student participation rate was 65%. Thirteen percent (13%) were lost due to absenteeism and 22% were lost due to either unreturned consent forms or parents' refusal.³ Whereas the proportion of absent students has remained constant over the decades, the proportion of consent form loss has been increasing across all grades and all regions. The reasons for this are unclear. This problem of declining response rates is common to the survey research field generally and not unique to the OSDUHS (de Leeuw & de Heer, 2002; Dey, 1997; Porter, 2004). Still, our rate of 65% is above average for a student survey with active consent (Courser, Shamblen, Lavrakas, Collins, & Ditterline, 2009; White, Hill, Effendi, 2004), and above the 61% participation rate in Health Canada's 2006/2007 *Youth Smoking Survey*, which was based on a combination of active and passive consent procedures (Centre for Behavioural Research and Program Evaluation, 2008).

It is important to note that a low response rate does not necessarily imply that the data are characterized by a high level of nonresponse bias, as bias is a function of both the size of the nonresponse rate and the differences between respondents and nonrespondents on the measures of interest (Groves, 2006). Existing

² An evaluation showed that drug use did not differ between classes that were selected randomly versus non-randomly. Therefore, all classes remained in the final data file.

³ For more details about the 2009 sample selection and participation rates, please see Pollard, Ornstein, & Northrup (2009).

research examining the impact of consent form loss on estimates of student drug use and other risk behaviours has not been conclusive. Some studies have found that students who do not return signed consent forms are more likely to use substances and to engage in risk behaviours than students who return signed forms (Anderman, Cheadle, Curry, & Diehr, 1995; Courser et al., 2009; White et al., 2004), while others have found no such differences (Eaton, Lowry, Brener, Grunbaum, & Kann, 2004).

While we could not compare students who returned a signed consent form with those who did not, we did assess substance use, delinquent behaviour, and indicators of poor mental health in classes in which the response rate was below 70% and compared these estimates with those from classes in which response rates were above 70%. If students who do not return consent forms are indeed “high-risk” youth, then we would expect classes with low participation rates to have smaller prevalence estimates (less likely) for risk behaviours (e.g., drug use, delinquent behaviours) and for poor physical and mental health indicators compared with classes that had high or full participation. We found no significant differences between classes with low and high participation rates regarding substance use, delinquency, mental health problems, or demographic factors, suggesting that students who participated in the survey were not only “low-risk” youth.

As was done in previous OSDUHS cycles, exclusion criteria were established to enhance data quality. Students were excluded from the final analytic sample if they (1) did not report a valid age; (2) did not report a valid sex; (3) reported the use of a fictitious drug; (4) reported using 10 or more of 13 illicit drugs (excluding cannabis) 40 or more times during the past year (“faking bad”); or (5) did not respond to half or more of the core substance use questions. If a case met any one of these criteria, then it was excluded. In 2009, 129 cases were dropped from the data set, which is a similar proportion to past survey cycles. This resulted in **9,112 minimally complete cases** used in the data analyses. Form A was completed by 4,851 students, and Form B was completed by 4,261 students.

Both the single item nonresponse rate and overall item nonresponse rate were low. Item nonresponse averaged less than 1%. Across all the core questions (i.e., both forms), the average proportion of unanswered questions was 1.5%. All core substance use questions were answered by 96% of respondents. Missing responses to questions were not statistically imputed.

We compared our 2009 OSDUHS sample to the most current school enrolment data from the Ministry of Education and Training based on the 2007/2008 academic year. Table 2.2 shows that there were slight discrepancies between the 2009 sex-by-grade weighted total sample distribution and the provincial enrolment numbers. However, larger discrepancies were found within certain regional strata when compared to the provincial distribution. For example, in certain regions younger males were overrepresented, while in other regions older females were overrepresented. Therefore, post-stratification weights were calculated for the sex-by-grade distributions within each regional stratum separately to restore each region’s structure to the population structure. The final post-stratified weighted total sample distribution is shown in Table 2.2 (far-right columns). The OSDUHS weighted total sample is similar to the Ontario population. Table 2.3 shows the demographic characteristics of the final weighted sample.

Table 2.2 The 2009 OSDUHS Sample vs. Ontario 2007/2008 School Enrolment

	OSDUHS Pre-Adjusted		Enrolled		OSDUHS Post-Stratification Adjusted	
	% Male	% Female	% Male	% Female	% Male	% Female
Grade 7	7.1	8.0	7.6	7.3	7.2	6.9
Grade 8	6.6	8.6	7.8	7.4	7.4	7.0
Grade 9	7.6	8.7	8.2	7.7	8.4	7.9
Grade 10	8.2	8.2	8.4	7.9	8.6	8.1
Grade 11	7.3	9.2	8.4	8.1	8.6	8.2
Grade 12	10.1	10.3	11.3	9.9	11.6	10.1
Total	46.9	53.1	51.8	48.2	51.8	48.2

Notes: (1) OSDUHS cell entries are total sample percentages and are based on weighted data; (2) enrolment cell entries are total enrolment percentages and are based on 1,023,900 students enrolled in Ontario's publicly-funded schools in the 2007/2008 academic year.

Table 2.3 Sample Characteristics, 2009 OSDUHS

	Final Number in the Sample	Weighted %
Total	9,112	
Males	4,341	51.8
Females	4,771	48.2
Grade 7	1,632	14.1
Grade 8	1,697	14.3
Grade 9	1,414	16.3
Grade 10	1,534	16.7
Grade 11	1,378	16.9
Grade 12	1,457	21.7
Toronto	836	16.7
North	649	6.4
West	2,368	38.8
East	492	12.9
Ottawa	1,200	6.5
Leeds-Grenville-Lanark District	872	1.3
Haliburton-Kawartha-Pine Ridge District	730	1.8
Durham Region	883	6.0
York Region	589	5.4
Hamilton	493	4.2

Notes: (1) mean age was 15.0 years (SD=1.9); (2) the 10 regional strata are mutually exclusive; (3) for the regional drug use estimates presented in this report, the "West" region includes Hamilton (combined N=2,861), and the "East" region includes Ottawa, Leeds-Grenville-Lanark District, Haliburton-Kawartha-Pine Ridge District, Durham Region, and York Region (combined N=4,766).

Data Analysis, Interpretation and Presentation

Data Weighting

For several reasons, including the over-sampling of schools/students in various regions, the sample design requires weights to ensure the proper representation of students to the Ontario student population. For each student, the weight is based on the product of five factors: (1) the probability of a school being selected, with probability proportional to size; (2) the probability of a class being selected; (3) a student nonresponse correction factor; (4) a regional post-stratification adjustment to restore regional representation; and (5) a final post-stratification adjustment to restore the sex distribution by grade, using the most current provincial enrolment numbers. Therefore, our weighted estimates are representative of all students in grades 7 to 12 enrolled in publicly-funded schools in Ontario. In other words, our sample of 9,112 students represents about 1,023,900 Ontario students in grades 7 to 12.

Survey Estimates

Before turning to the survey results, it is important to first briefly discuss the meaning, interpretations and limitations of survey results as they pertain to our data. The main goal of sample surveys is to estimate the “true” value of a particular characteristic in the population – in our case, the percentage of Ontario students who report using a given drug. Because we do not survey all students in the province, this “true” population percentage is unknown and must be estimated from a sample. Consequently, every estimate from a sample has associated with it some degree of sampling error. The accuracy of a percentage, i.e., the difference between the obtained sample percentage and the “true” population percentage is determined by the degree of precision and bias.

Precision refers to the “probable accuracy” of a percentage; those summarized in the present report include a range, or confidence interval, around percentage values, which indicate the interval within which the true population

percentage probably lies. The reason for employing confidence intervals arises from the uncertainty, or sampling error, associated with using the results obtained from a single sample to draw conclusions about the entire population from which the sample was drawn. If we had surveyed another sample, using identical procedures, the results would probably have differed slightly from those we obtained from our present sample.

The confidence interval around a percentage indicates the range of variation in percentage values that would have been obtained from most (in our case, 95 out of 100) of the other equivalent samples that we might have studied. The confidence interval (in our case, a 95% confidence interval is presented) can also be interpreted as being 95% likely to include the percentage value we would have obtained if we had studied every member of the target population. When we indicate that the percentage of students who report an attempted suicide in the past year was 2.8% (95% CI: 2.2%-3.5%), we mean that there is a 95% chance that the actual or true percentage of students in the population of Ontario students who attempted suicide falls between 2.2% and 3.5%. Smaller (or narrower) confidence intervals imply greater precision, or less sampling error.

In our case, the size of the interval depends on three factors: the number of students interviewed – other things being equal, the larger the sample size the smaller or more precise is the interval; second, the size of the percentage – other things being equal, percentages around 50% have the largest interval while percentages approaching 0% and 100% have the smallest interval; and third, design effects – in our design, other things being equal, the greater the similarity (or correlation) of responses within schools and classrooms the wider is the interval. Changes in any of these three factors affect the size of the confidence interval. Also, because of this last factor the confidence intervals can vary, even though both the size of sample and percentage remain constant.

Bias, in contrast to precision, refers to sources of error that may inflate or deflate estimates from

the true percentage. Such sources of non-sampling error include underreporting of drug use and sensitive behaviours, memory effects, nonresponse, and other sources of systematic error. Thus, a percentage may have a high degree of precision (a small confidence interval) but may still be biased (not covering the true value). The degree of survey error we present in this report is restricted to precision and not bias. That is, the margins of error, or confidence intervals, we present in this report include only sampling error. Confidence intervals do not include errors due to non-sampling factors such as the underreporting of illegal/stigmatized behaviours or errors of memory or recall.

We made full effort to elicit truthful responses by repeatedly ensuring students of complete anonymity and confidentiality of the results. Still, the research evidence suggests that self-reported drug use estimates and related problems are generally underreported due to the sensitive and mostly illegal behaviours being studied (Adlaf, 2005; Brener, Billy, & Grady, 2003; Hibell et al., 2003). Further, students absent from class are somewhat more likely to use or have used substances compared with students who are consistently in class (Bovet, Viswanathan, Faeh, & Warren, 2006; Centers for Disease Control and Prevention, 1994; Eaton, Brener, & Kann, 2008; Michaud, Delbos-Piot, & Narring, 1998). Therefore, the survey results should be viewed as conservative. However, assuming that underreporting and absenteeism remains more or less constant across years, then the biases in the estimates will be consistent across time. Therefore, the trends should not be affected by any such biases. Indeed, the steady and consistent nature of our trend curves provides support for this assertion.

2009 Analysis

All 2009 confidence intervals were corrected for characteristics of the sampling design (i.e., stratification, clustering and weighting) using *Stata 11.0* Taylor series survey routines (StataCorp, 2009). The analysis was based on a

design with 19 strata (region * school type),⁴ 181 primary sampling units (schools), and 9,112 students.

The statistical significance of subgroup (i.e., sex, grade, region) differences in 2009 was assessed using univariate Pearson chi-square tests corrected for the survey design, at the $p < .05$ level of significance.

Trend Analysis

It is important to note that the tests comparing 2007 and 2009 estimates and also estimates between 1999 and 2009 are based on grades 7 to 12. However, the long-term trend tests (1991-2009) are based on only grades 7, 9 and 11.

Although we highlight dominant long-term trends, we pay particular attention to changes since the previous survey (i.e., 2009 versus 2007), and since 1999 because this was the year the survey design first included all grades between 7 and 12, inclusive. To examine whether or not significant changes in mental health and well-being indicators occurred over time, a merged data file was utilized and logistic regression analyses were conducted using year as the independent variable. All estimates spanning back to 1991 were corrected for the respective survey design effects. Only changes among the total student sample were assessed in the long-term trend analyses.

For all tests comparing percentages across time, we used the more conservative $p < .01$ significance level. Because only a sample of all students in Ontario is surveyed, sampling error is involved in every estimate. Consequently, absolute differences between two percentages cannot necessarily be interpreted as indicating true or real differences in the population. Therefore, if a test comparing estimates from two years reached statistical significance, we also examined whether or not the 95% confidence intervals overlapped. If they did not overlap, this was used to determine that temporal changes had occurred. For example,

⁴ Elementary/middle schools were not sampled in one regional stratum (York Region).

37.4% (35.2%-39.6%) of students reported a physical injury in 2007. This percentage increased to 40.5% (38.5%-42.5%) in 2009, showing an increase of three percentage points. However, because these two intervals overlap, we cannot be confident that they are different in the population (Fleiss, 1981). Using this conservative approach of non-overlapping confidence intervals increases the validity of our findings about temporal changes.

Readers should also note the following regarding our analyses:

- Statistically significant differences must be carefully evaluated. First, our analysis does not consider the large number of statistical tests performed. For example, for every 20 statistical tests, one significant difference could occur by chance. Second, outcomes that are statistically significant tell us only that the difference is probably not due to chance. Whether a difference is of practical importance to public health policy is a matter that requires both statistical and non-statistical evaluation.
- Our report is descriptive. Associations found in these data do not imply causal relationships. For example, regarding regional differences, we can only determine if a difference in a given indicator exists and describe the difference. Because many other factors may cause regional differences (e.g., socio-economic status), we cannot attribute such differences solely to the geographical location of students.
- Small percentages and estimates based on a small number of respondents can produce wide confidence intervals and are likely unstable. In this report, estimates were suppressed due to unreliability (unstable) if they met any one of the following conditions:
 - (i) the estimate was less than 0.5%;
 - (ii) the base sample size was less than 50 students; or
 - (iii) the relative standard error, also known as the coefficient of variation, was greater than a value of 33.3.

Table 2.4 Definition of Terms Used in the Report

Term	Definition
Poor Self-Rated Physical Health	Rating one's physical health as either "fair" or "poor"
Daily Physical Activity	Reporting 7 days of physical activity (defined as a total of at least 60 minutes of activity per day) during the 7 days before the survey
Physically Inactive	Reporting no days of physical activity (defined as a total of at least 60 minutes of activity per day) during the 7 days before the survey
Sedentary Behaviour (Screen Time)	Reporting watching TV and/or on a computer for 7 hours or more per day, on average, during the 7 days before the survey
Overweight or Obese	Exceeding the age-and-sex-specific body mass index (BMI) cut-off values as established for children and adolescents and recommended by the International Obesity Task Force, based on self-reported height and weight
No Physical Health Doctor Visits	Reporting no visits to a doctor for physical health reasons, not even for a check-up, during the 12 months before the survey
Mental Health Professional Visit	Reporting at least one visit to a doctor, nurse, or counsellor for emotional or mental health reasons during the 12 months before the survey
Medical Drug Use	Reporting use of the prescription drug with a doctor's prescription at least once in the 12 months before the survey
Poor Self-Rated Mental Health	Rating one's mental or emotional health as either "fair" or "poor"
Low Self-Esteem	Reporting at least 3 out of 6 items from the Rosenberg Self-Esteem Scale
Depressive Symptoms	Reporting "often" or "always" experiencing all 4 symptoms on the Centre for Epidemiological Studies Depression (CES-D) subscale during the past 7 days
Elevated Psychological Distress	Reporting experiencing at least 3 of the 12 symptoms on the General Health Questionnaire (GHQ). The GHQ measures symptoms of anxiety, depression, and social dysfunction during the few weeks before the survey
Suicide Ideation	Reporting having seriously considered suicide during the 12 months before the survey
Delinquent Behaviour	Reporting at least 3 of the following 11 delinquent behaviours in the 12 months before the survey: vandalized property, theft of goods worth less than \$50, theft of goods worth \$50 or more, stole a car/joyriding, break and entering, sold cannabis, sold other drugs, ran away from home, assaulted someone (not a sibling), gang fighting, carried a weapon
Fire Setting Behaviour	Reporting setting something on fire (that they were not supposed to) at least once during the 12 months before the survey
Carried a Weapon	Reporting carrying a weapon, such as a gun, knife, or club, at least once during the 12 months before the survey
Bully Victim	Reporting being bullied at school since September in any one of the following manners: verbally, physically, or being a victim of theft/vandalism
Bully Perpetrator	Reporting bullying others at school since September in any one of the following manners: verbally, physically, or stealing/damaging something of theirs
Any Gambling Activity	Reporting gambling money at 1 or more of 10 gambling activities during the 12 months before the survey
Multi-Gambling Activity	Reporting gambling money at 5 or more of 10 gambling activities during the 12 months before the survey
Gambling Problem	Reporting at least 2 of 6 items from the South-Oaks Gambling Screen Revised for Adolescents (SOGS-RA), which measures problems due to gambling during the 12 months before the survey
Video Gaming Problem	Reporting at least 5 out of the 9 items on the Problem Video Playing (PVP) Scale, which measures problems with preoccupation, tolerance, and disruption to school/family due to video gaming during the 12 months before the survey
Hazardous/Harmful Drinking	Scoring at least 8 out of 40 (Likert scoring) on the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) screen, which measures heavy drinking and alcohol-related problems during the 12 months before the survey
Drug Use Problem	Reporting experiencing at least 2 of the 6 items on the "CRAFTT" screener, which measures a drug use problem that may require treatment (in the past 12 months)
3 or All 4 Coexisting Problems	Reporting 3 or all 4 of the following problems: elevated psychological distress, hazardous/harmful drinking problem, drug use problem, and delinquent behaviour

The following table outlines the topics covered in this report:

Table 2.5 Outline of Topics Presented by Survey Year

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
3.1 Family and School Life										
Family Living Arrangement	•	•	•	•	•	•	•	•	•	✓
Relationship with Parents	•	•	•	•	•	•	•	•	•	✓ ^B
School Performance and Attitudes	✓	✓	✓	✓	✓	✓ ^B	✓ ^B	✓ ^B	✓ ^B	✓ ^B
School Suspensions	•	•	•	•	•	•	•	✓	✓	✓ ^B
School Climate	•	•	•	•	✓	✓	✓	✓	✓	✓
3.2 Physical Health										
Self-Rated Physical Health	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Physical Activity	•	•	•	•	•	•	•	•	•	✓
Physical Activity at School	•	•	•	•	✓ ^A	✓ ^A	✓	✓	✓	✓
Sedentary Behaviour (“Screen Time”)	•	•	•	•	•	•	•	•	•	✓
Overweight or Obese	•	•	•	•	•	•	•	•	•	✓
Participated in the “Choking Game”	•	•	•	•	•	•	•	•	✓ ^A	✓ ^A
3.3 Health Care Utilization										
Physical Health Doctor Visit	•	•	•	•	✓	✓	✓	✓	✓	✓
Treated for a Physical Injury	•	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^B	✓ ^B
Mental Health Professional Visit	•	•	•	•	✓	✓	✓	✓	✓	✓
Medical Opioid Pain Reliever Use	•	•	•	•	•	•	•	•	✓	✓
Medical ADHD Drug Use	•	•	•	•	•	•	•	•	✓	✓
Medical Tranquillizer/Sedative Use	✓	✓	✓	✓	✓	✓	✓ ^B	✓ ^A	✓ ^A	✓ ^A
Prescription for Depression/Anxiety	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Use of a Telephone Crisis Helpline	•	•	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A
3.4 Internalizing Indicators										
Self-Rated Mental Health	•	•	•	•	•	•	•	•	✓ ^A	✓ ^A
Low Self-Esteem	•	✓	✓	✓	✓	✓	✓	✓	✓ ^A	✓ ^A
Depressive Symptoms	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Elevated Psychological Distress	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Suicide Ideation	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Suicide Attempt	•	•	•	•	•	•	•	•	✓ ^A	✓ ^A
Body Image	•	•	•	✓ ^A	•	✓ ^B	✓ ^B	✓ ^B	✓ ^B	✓ ^B
3.5 Externalizing Indicators										
Non-Violent Delinquent Behaviour	✓	✓	✓	✓ ^B	✓ ^B	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Fire Setting Behaviour	•	•	•	•	•	•	•	•	✓ ^A	✓ ^A
Violent/Aggressive Behaviour	✓	✓	✓	✓ ^B	✓ ^B	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Gang Membership	•	•	•	•	•	•	•	•	✓ ^A	✓ ^A
Violence on School Property	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Bullying Behaviour at School	•	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A
3.6 Gambling and Video Gaming										
Gambling Activities	•	•	•	•	•	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Gambling Problems	•	•	•	•	✓ ^B	✓ ^A	✓ ^A	✓ ^A	✓ ^A	✓ ^A
Video Gaming Problems	•	•	•	•	•	•	•	•	✓ ^B	✓ ^B
3.7 Co-existing Problems							✓ ^A	✓ ^A	✓ ^A	✓ ^A
3.8 Overview by Ontario’s LHINs										✓

• not available; ^A Form A random half sample; ^B Form B random half sample

3. RESULTS

3.1 Family and School

3.1.1 Family Living Arrangement

Family structure is an important factor in child and youth development. Indeed, family structural factors, such as an “intact” family – defined by the presence of two (or more) parents (including a step-parent) – can increase or decrease the economic, emotional and cognitive resources available to children, thereby affecting their well-being (Coleman, 1988; Gore, Aseltine, & Colton, 1992; Johnson, Hoffmann, & Gerstein, 1996; Wells & Rankin, 1991).

Between 1993 and 1995, family living arrangement was measured with the question “*Do you currently live with both parents?*” In 1997, this was revised to “*With whom are you currently living?*” In 2007 the question was revised again to “*Which of the following adults live with you in your main home?*” Students were instructed to check all that apply from the following: biological mother, stepmother, adoptive mother, biological father, stepfather, adoptive father, grandparent(s), other adult relative(s), foster parent(s), others. We also asked whether the student lives in one home only, or splits time between two or more homes.

2009 (Grades 7 to 12):

- ❑ Overall, 24.3% (95% CI: 22.5%-26.2%) of students report that they live with one parent only or with no parent (that is, neither a biological parent, nor an adoptive parent, nor a step-parent).
- ❑ About 14.0% (95% CI: 12.7%-15.4%) of students report that they split their time between two or more homes.

3.1.2 Relationship with Parents

Parents are the most important people in children’s lives, but as children become adolescents, peers will increasingly play an influential role. Nevertheless, the relationship quality between young people and their parents remains a significant factor in healthy psychosocial development.

We use three questions to assess the quality of relationships between adolescents and their parents. Students were asked how well they are getting along with their mother, how well they are getting along with their father, and whether one of their parents knows their whereabouts when away from home.

2009 (Grades 7 to 12):

- ❑ About 5.4% (95% CI: 4.7%-6.1%) of students say that they do not get along with their mother. About 7.8% (95% CI: 6.9%-8.8%) do not get along with their father.
- ❑ The majority of students (87.0%; 95% CI: 86.0%-88.0%) report that at least one parent “always” or “usually” knows where they are when away from home.

3.1.3 School Performance and Attitudes (Table A3.1.1)

School is one of the major socializing agents in adolescent development. In addition to academic learning, school fosters social skills, a personal sense of competence, and influences health-related behaviours.

From 1991 to 2009, the OSDUHS included several questions about students' school experiences including: school marks and performance, expecting to graduate, time spent on homework, and how much students like school.

2009 (Grades 7 to 12):

- ❑ Overall, 46% of students report usually receiving marks over 80% in their subjects; 45% report usually receiving marks between 67%-79%; 7% of students report marks between 60%-66%; and about 2% report usually receiving marks below 59%.
- ❑ Over half (59%) report above or slightly above average academic performance relative to other students; 27.2% report average performance; and 13.8% report performing either slightly below or below average.
- ❑ A majority (83%) of students expect to graduate high school; 15.5% report that they are fairly likely to graduate, while 1.2% report they are unlikely to graduate.
- ❑ Almost one-quarter (23.4%) of students spend less than one hour on homework per week, outside of school. One-tenth (10.5%) report spending 7 hours or more on homework weekly.
- ❑ Almost one-fifth (17.9%) of students do not like school very much or at all.

3.1.4 School Suspensions

Starting in 2005, students were asked how many times they were suspended from school since September. We present the percentage that reported being suspended at least once.

- ❑ Overall, 4.9% (95% CI: 3.7%-6.5%) of all students report being suspended from school at least once during the 2008/2009 academic year.
- ❑ Males are more likely than females to report a school suspension (7.2% vs 2.4%, respectively).
- ❑ There are no significant differences among the grades, or among the regions.

2005–2009 (Grades 7 to 12):

- ❑ Overall, the percentage reporting being suspended from school at least once in 2009 (4.9%) is similar to the 2007 estimate (6.4%), but is significantly lower than the 2005 estimate (8.0%).

3.1.5 School Climate

(Table 3.1.1; Figure 3.1.1)

School climate is a complex construct, usually referring to the physical, organizational, and cultural elements of a school (Anderson, 1982). Examples of school climate characteristics include school size, policies and enforcement, teaching quality, level of student misconduct, and level of attachment to school. School climate can influence not only academic performance, but also skill development, social behaviour, and emotional health (Bond et al., 2007; Bonny et al., 2000; Saab & Klinger, 2010; Welsh, 2000).

Starting in 1999, the OSDUHS asked students to indicate their level of agreement (ranging from strongly agree to strongly disagree) with the following statements:

- *I feel close to people at this school.*
- *I feel like I am part of this school.*
- *I feel safe in my school.*
- *Most teachers in my school are excellent.*
- *Most classes offered in my school are challenging.*

In addition, students were asked “*At school, how worried are you that someone will harm you, threaten you, or take something from you?*” We present the percentage of students who are “very worried” or “somewhat worried.”

2009 (Grades 7 to 12):

School Attachment

- A majority of students feel close to people at their school (89.3%), and feel like they are part of their school (85.8%).

School Academic Rating

- Overall, 82.0% of students rate their teachers as excellent, and 72.3% feel that the classes offered are challenging.

School Safety

- An overwhelming majority (93.8%) of students generally feel safe in their school. However, 12.3% (95% CI: 11.2%-13.5%) are worried about being harmed or threatened at school. This percentage represents about 125,000 Ontario students.
- Males (11.6%) and females (13.0%) are equally likely to be worried about their personal safety at school.
- Younger students are more likely to be worried than older students (e.g., 18.6% of 7th-graders vs 8.8% of 12th-graders).
- There is a significant regional effect, with students in Toronto (18.0%) most likely to report being worried about being harmed or threatened at school, compared with students in the other three regions (about 10%-12%).

1999–2009 (Grades 7 to 12):

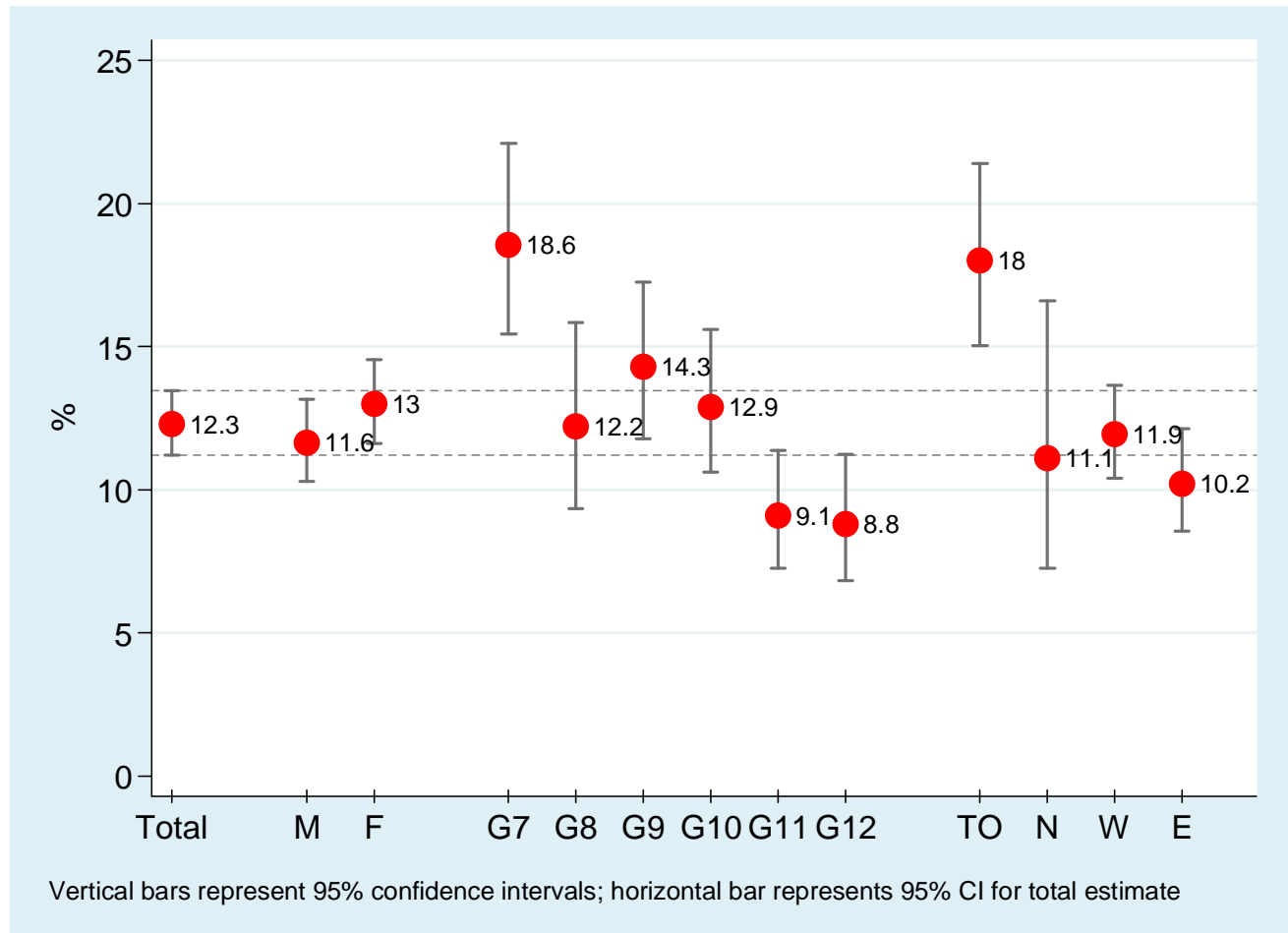
- Among the school climate indicators in 2009, none is significantly different than the respective estimate from 1999.

Table 3.1.1 School Climate Indicators, 1999–2009 (Grades 7 to 12)

	1999 %	2001 %	2003 %	2005 %	2007 %	2009 %
TOTAL SAMPLE (N=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)
I feel close to people at this school	85.4	87.8	86.9	88.7	89.7	89.3
I feel like I am part of this school	83.8	84.9	82.7	85.7	87.1	85.8
Most teachers in my school are excellent	72.5	74.4	75.4	79.4	80.7	82.0
Most classes offered in my school are challenging	78.2	79.6	78.1	76.0	72.3	72.3
I feel safe in my school	90.4	91.4	90.9	92.6	92.7	93.8
% worried that will be harmed/ threatened at school	14.2	13.1	12.4	12.8	11.7	12.3

Notes: entries are percentages that reflect “agree” or “somewhat agree” to the statement; N=number surveyed; no significant changes over time.
 Source: OSDUHS, Centre for Addiction and Mental Health

Figure 3.1.1
 Percentage Reporting Worrying About Being Harmed or Threatened at School by Sex, Grade and Region, 2009 OSDUHS



3.2 Physical Health

3.2.1 Self-Rated Physical Health

(Figures 3.2.1, 3.2.2; Table A3.2.1)

One of the more frequently used indicators of a person's current physical health is perceived or self-rated health. Despite its simplicity, this global assessment of health has been shown to be a reliable measure and a valid predictor of physical health and emotional well-being among adolescents (Fosse & Haas, 2009).

From 1991 to 2009, self-rated health was measured with the question: "*How would you rate your physical health?*" The response options are: poor, fair, good, very good, or excellent. We use the term "poor health" to reflect responses of poor or fair.

2009 (Grades 7 to 12):

- ❑ Over half of students perceive their health as excellent (21.0%) or very good (32.2%). At the risk end, about one-in-seven (14.5%) report poor health. This estimate represents 146,000 Ontario students who rate their health as poor.
- ❑ Females are significantly more likely than males to report poor health (18.5% vs. 10.8%, respectively).
- ❑ Poor health significantly increases with grade: 7th-graders (6.3%) are the least likely to report poor health, whereas 12th-graders (19.8%) are the most likely.
- ❑ Reports of poor health significantly vary by region: students in the Eastern region (12.3%) are least likely to report poor health, whereas students in Toronto (17.9%) are most likely.

1999–2009 (Grades 7 to 12):

- ❑ Among all students, reports of poor health significantly increased between 1999 (8.9%) and 2009 (14.5%).
- ❑ The following subgroups show a significant increase in self-rated poor health between 1999 and 2009:
 - females (from 9.2% to 18.5%)
 - 12th-graders (from 10.9% to 19.8%)
 - Toronto students (from 9.2% to 17.8%)
 - Northern students (from 7.9% to 16.0%)
 - Western students (from 9.7% to 14.7%)
 - Eastern students (from 8.0% to 12.3%).

1991–2009 (Grades 7, 9, 11 only):

- ❑ Among the total sample, poor self-rated health was lowest in 1991, at 5.8%. This estimate significantly increased until 2003, and has since remained stable and elevated.
- ❑ Among all subgroups, estimates of poor self-rated health are currently higher compared with the respective estimates from 1991.

Figure 3.2.1
 Percentage Reporting Poor Health by Sex, Grade and Region, 2009 OSDUHS

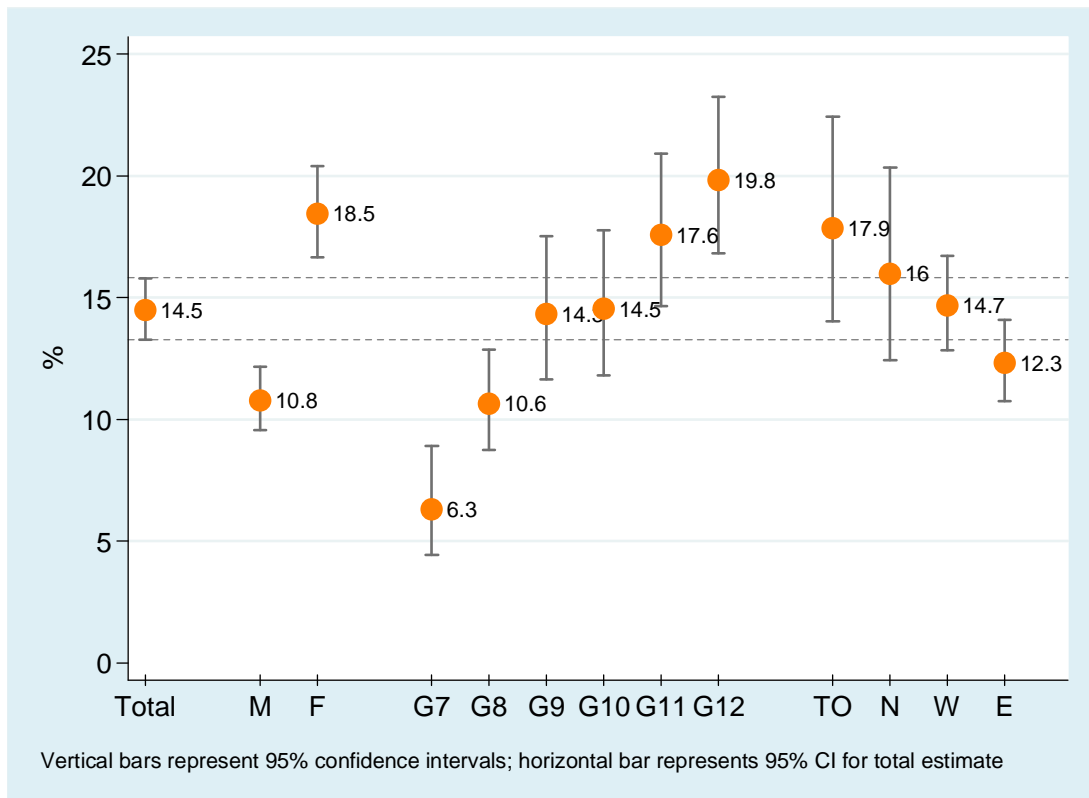
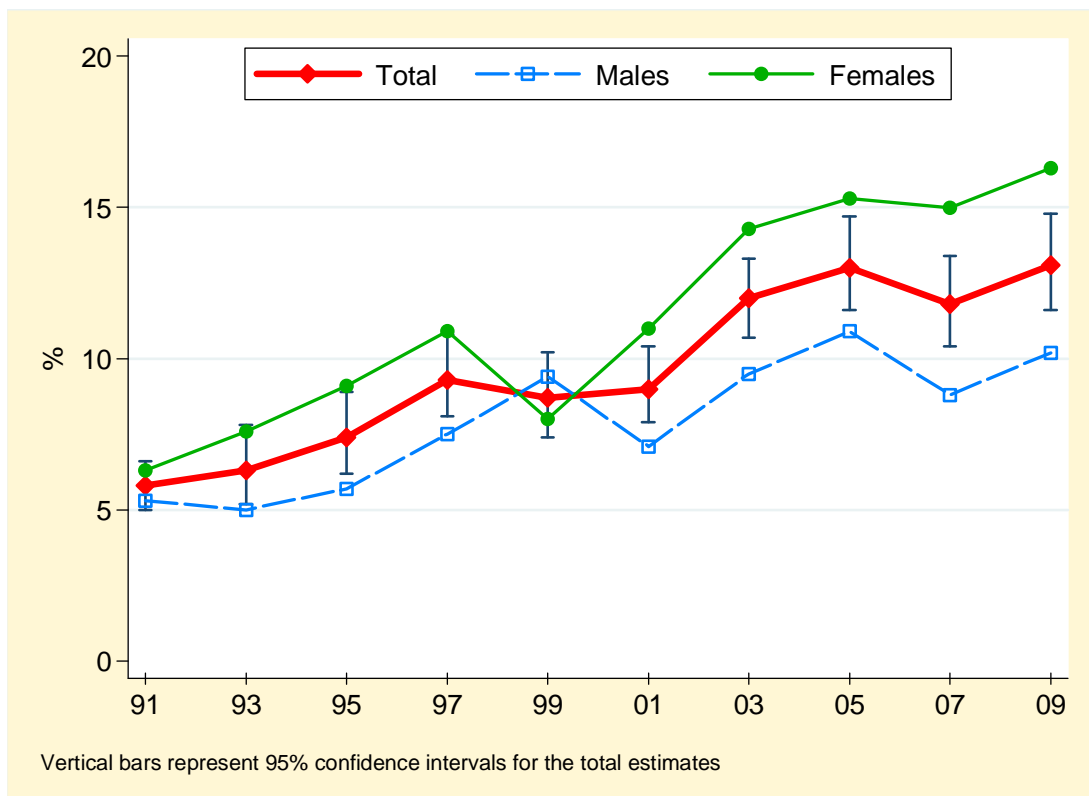


Figure 3.2.2
 Percentage Reporting Poor Health by Sex, 1991-2009 OSDUHS (Grades 7, 9, 11 only)



3.2.2 Daily Physical Activity

(Figure 3.2.3)

Regular physical activity offers short-term physical and mental health benefits, such as reducing the risk of obesity and stress, and improving self-esteem (Faulkner et al., 2007; Ferreira et al., 2007; Keays & Allison, 1995; Petty, Davis, Tkacz, Young-Hyman, & Waller, 2009; Stephens, 1988). Moreover, an active lifestyle established during adolescence is likely to extend into adulthood (Singh et al., 2008). A minimum of 60 minutes of physical activity per day is recommended for children and youth (Janssen, 2007).

The OSDUHS asked students about physical activity during the seven days before the survey. For the first time in 2009, students were asked to report on how many days of the past seven they were physically active “*for a total of at least 60 minutes each day. Please add up all the time you spent on any kind of physical activity that increased your heart rate and made you breathe hard some of the time. (Some examples are brisk walking, running, rollerblading, biking, dancing, skateboarding, swimming, soccer, basketball, football.) Please include both school and non-school activities.*” In this section, we present the percentage of students who reported this level of activity on all seven days.

2009 (Grades 7 to 12):

- ❑ Among all students, 20.8% (95% CI: 19.6%-22.2%) report being physically active daily.
- ❑ Males (26.2%) are significantly more likely than females (15.2%) to be active daily.
- ❑ Daily physical activity significantly decreases as grade increases, from a high of 28.2% among 7th-graders to a low of 14.1% among 12th-graders.
- ❑ There are no significant regional differences.

3.2.3 Physical Inactivity

(Figure 3.2.4)

This section presents the percentage of students who reported no days of physical activity (defined as at least 60 minutes in total per day) during the seven days before the survey.

2009 (Grades 7 to 12):

- ❑ About one-in-twelve (8.5%; 95% CI: 7.6%-9.5%) students was not physically active on at least one day during the seven days before the survey. This estimate represents about 85,000 Ontario students.
- ❑ Males (7.9%) and females (9.1%) are equally likely to be inactive.
- ❑ Students in grade 12 (11.4%) are significantly more likely to be inactive compared with the younger grades.
- ❑ Students in Toronto (11.2%) are most likely to be inactive compared with students in the other three regions (about 7%-8%).

Figure 3.2.3
 Percentage Reporting Daily Physical Activity During the Past Week by Sex,
 Grade, and Region, 2009 OSDUHS

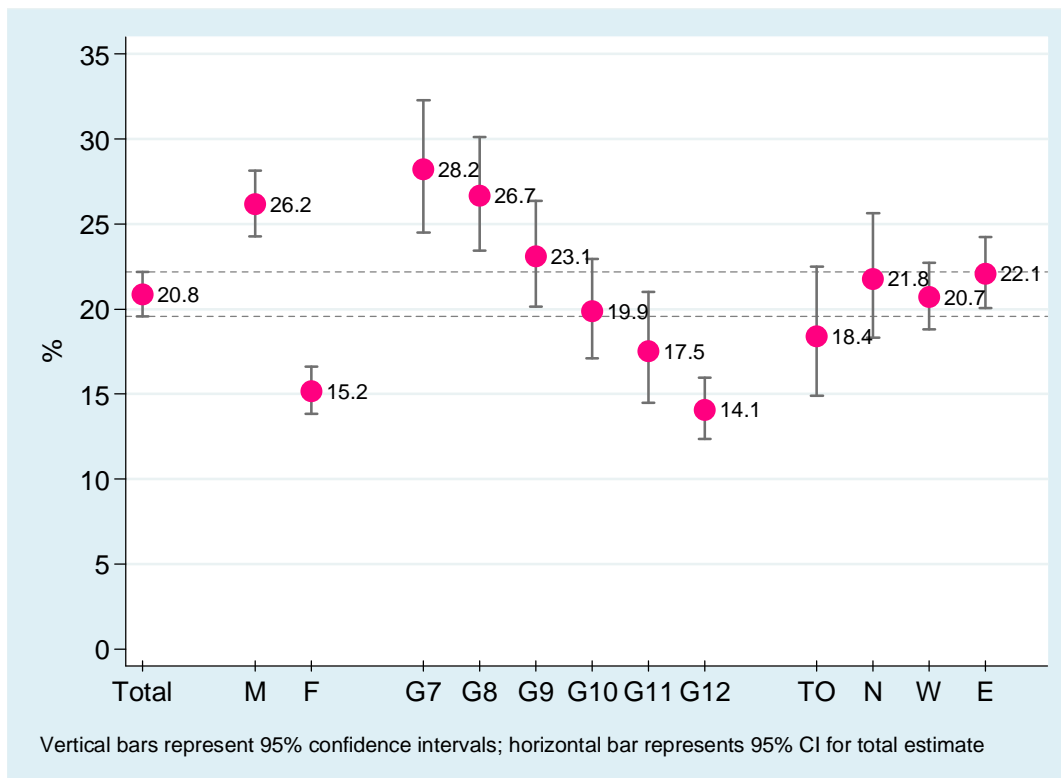
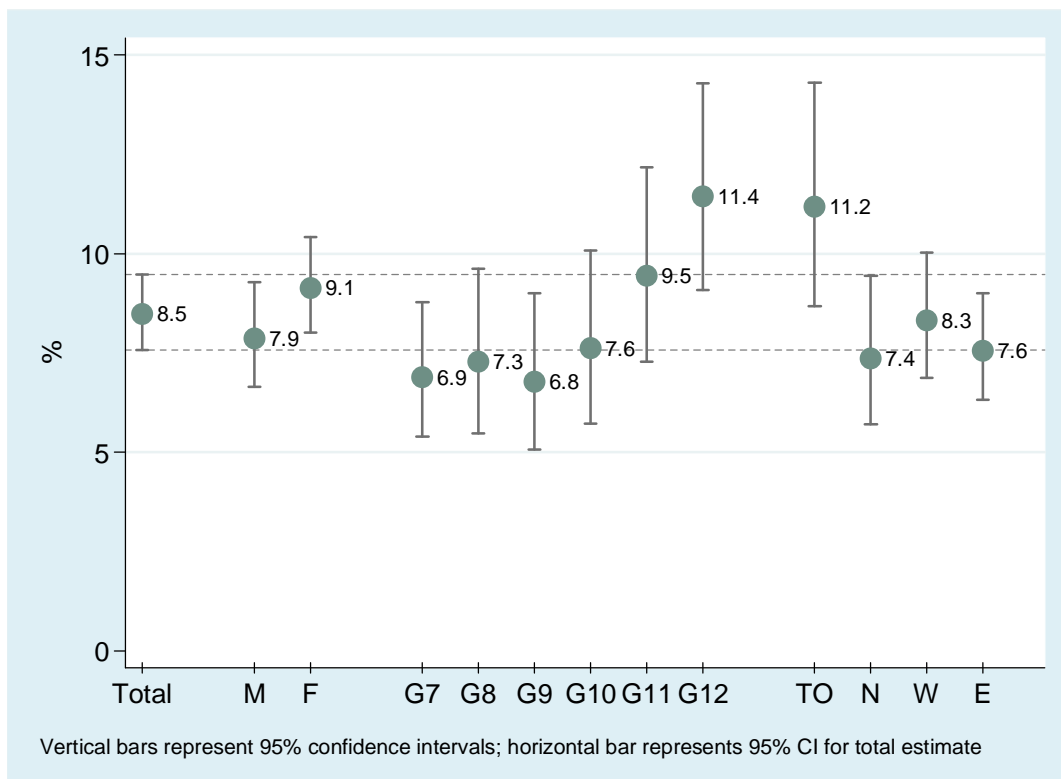


Figure 3.2.4
 Percentage Reporting No Physical Activity During the Past Week by Sex,
 Grade, and Region, 2009 OSDUHS



3.2.4 Physical Inactivity at School

(Table A3.2.2)

Students were also asked about physical activity at school, specifically in physical education class. The question was: “*On how many of the last 5 school days did you participate in physical activity for at least 20 minutes that increased your heart rate and made you breathe hard some of the time in physical education class in your school?*” In this section we present the percentage of students who reported no days of physical activity at school. Note that this estimate includes those students who reported that they were not enrolled in physical education class at the time of the survey (these were coded as no days of activity).

2009 (Grades 7 to 12):

- ❑ Almost half (45.5%; 95% CI: 43.4%-47.6%) of all students are physically inactive at school.
- ❑ Females are significantly more likely than males to be inactive at school (49.0% vs 42.2%, respectively).
- ❑ Inactivity at school significantly varies by grade, ranging from a low of about 13%-15% among 7th- and 8th-graders up to 66.3% among 12th-graders.
- ❑ There are no significant regional differences regarding rates of inactivity at school.

1999–2009 (Grades 7 to 12):

- ❑ The percentage of students in 2009 (45.5%) who were not physically active at school was similar to the percentage found in 1999 (43.8%).

3.2.5 Sedentary Behaviour (“Screen Time”)

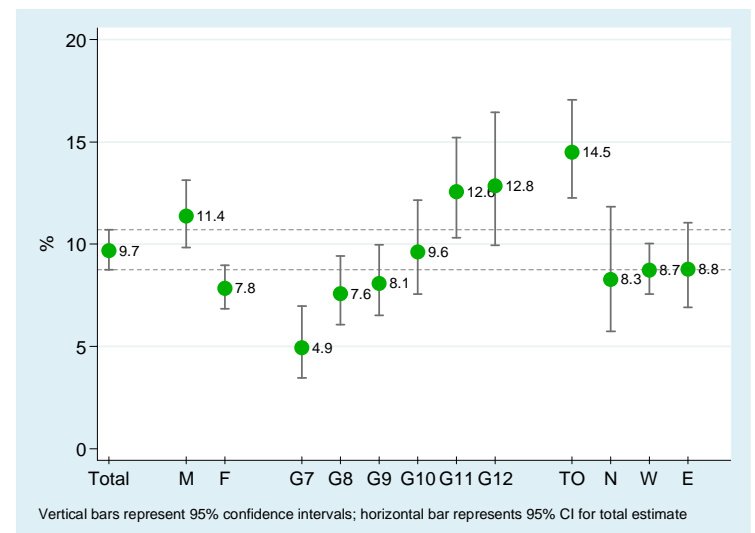
(Figure 3.2.5)

For the first time in 2009, students were asked about the usual amount of time they spend in front of a computer or television (i.e., “screen time”). The question was “*In the last 7 days, about how many hours a day, on average, did you spend: watching TV/movies, playing video/computer games, on a computer chatting, emailing, or surfing the internet?*” Here we present the percentage who reported that they spent seven or more hours a day, on average, either watching TV or at a computer.

2009 (Grades 7 to 12):

- ❑ Among all students, 9.7% (95% CI: 8.7%-10.7%) spend at least seven hours a day in front of a TV or computer. This estimate represents about 93,000 Ontario students.
- ❑ Males (11.4%) are significantly more likely than females (7.8%) to spend at least seven hours in front of a TV or computer daily.
- ❑ There is a significant grade effect, with 11th- and 12th-graders most likely to report at least seven hours of screen time daily.
- ❑ Among the regions, Toronto students (14.5%) are most likely to be sedentary.

Figure 3.2.5
Percentage Reporting Sedentary Behaviour (“Screen Time”) by Sex, Grade, and Region, 2009 OSDUHS



3.2.6 Overweight or Obese

(Figures 3.2.6, 3.2.7)

Studies have shown that Canadian children and adolescents today are more likely to be overweight or obese compared with their counterparts decades ago (Shields, 2006; Tremblay et al., 2010). This is a public health concern because obesity during childhood significantly increases the likelihood of obesity during adulthood, a host of illnesses, and premature mortality (Cali & Caprio, 2008; Reilly, 2006). Furthermore, youth who are overweight/obese are more likely to concurrently experience psychosocial problems, such as low self-esteem, bully victimization, or frequent substance use (Farhat, Iannotti, & Simons-Morton, 2010; Zimetkin, Zoon, Klein, & Munson, 2004).

The OSDUHS asked students to report their current height and weight, using closed-ended response options. From these responses, body mass index (BMI) was calculated as weight in kilograms divided by height in metres squared. Students without valid height and weight responses (n=537, or 4.6% of the total sample) were excluded from the analysis. BMI is the most commonly used indicator to measure adiposity status among children and adolescents. The age-and-sex specific BMI cut-off points created by Cole and colleagues (2000), and recommended by the International Obesity Task Force, were used. It should be noted here that BMI based on self-reported height and weight usually underestimates the true percentage overweight and obese (Brenner, McManus, Galuska, Lowry, & Wechsler, 2003; Elgar & Stewart, 2008; Tsigilis, 2006).

2009 (Grades 7 to 12):

- ❑ Among the total sample, 18.1% (95% CI: 17.0%-19.3%) are considered to be overweight, while 7.1% (95% CI: 6.4%-7.9%) are considered obese. Putting the two together, 25.2% (95% CI: 23.8%-26.7%) of students are either overweight or obese. This estimate represents about 246,000 students in Ontario.
- ❑ Males (30.0%) are significantly more likely than females (20.1%) to be overweight or obese.
- ❑ There are no significant differences among the grades with respect to the proportion overweight or obese.
- ❑ Students in the North (31.4%) are significantly more likely to be overweight/obese compared with students in the other three regions (about 24%-26%).

Figure 3.2.6
 Percentage Estimated to be Normal Weight, Overweight, and Obese,
 2009 OSDUHS (Grades 7 to 12)

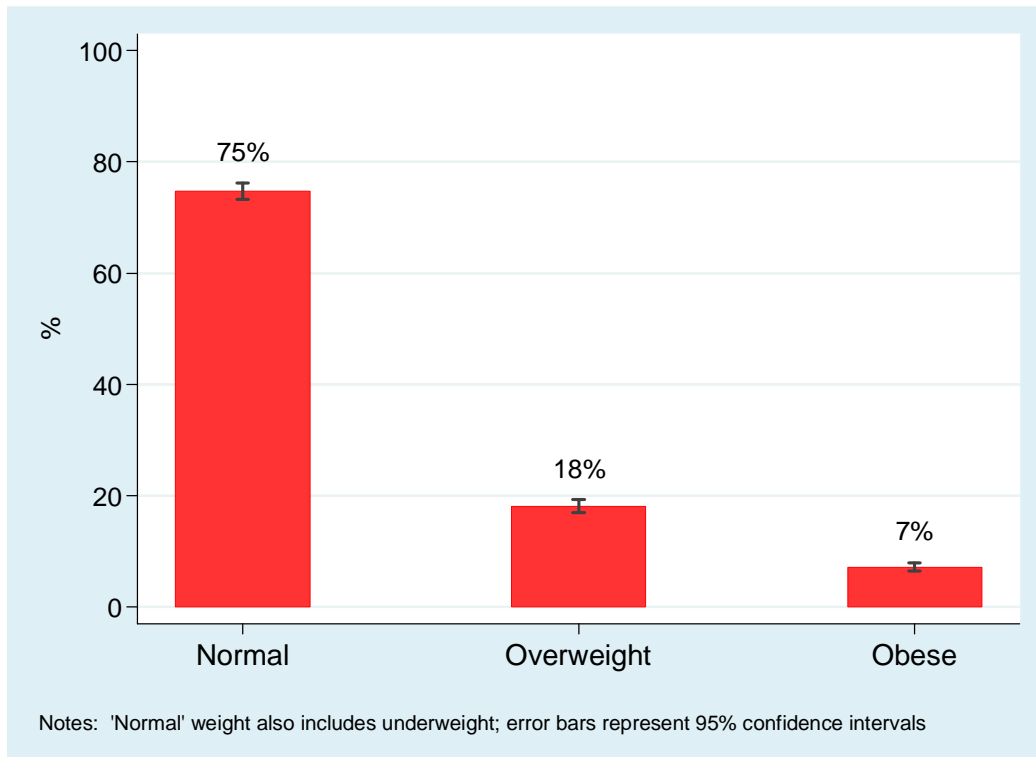
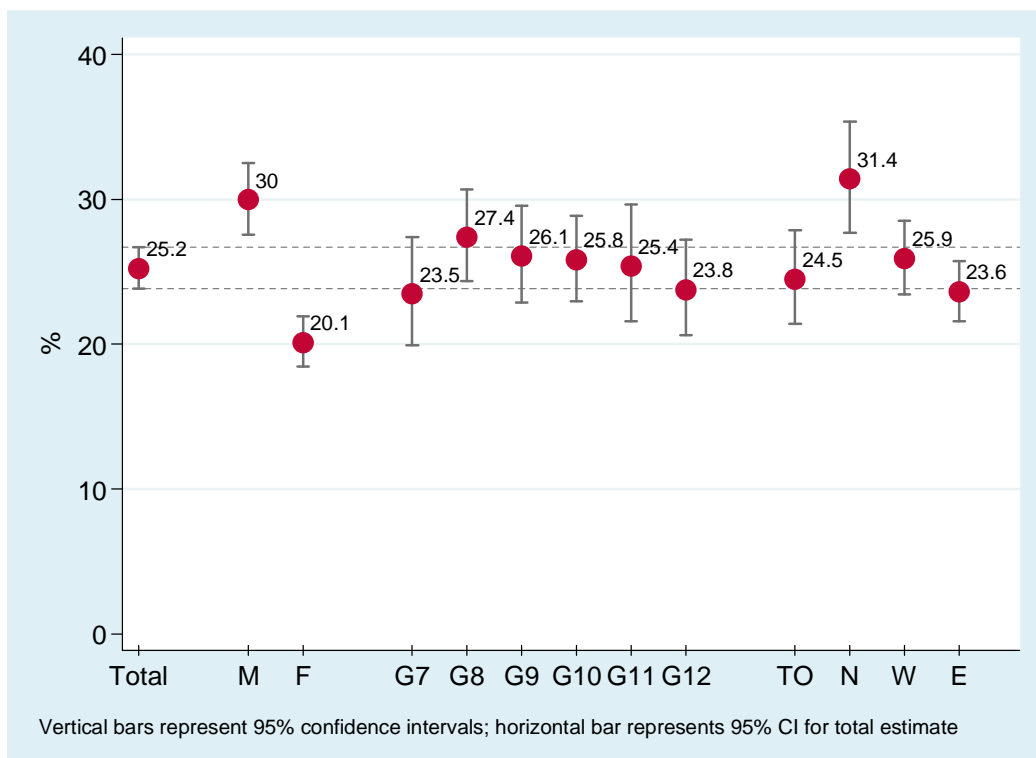


Figure 3.2.7
 Percentage Overweight or Obese by Sex, Grade, and Region, 2009 OSDUHS



3.2.7 The “Choking Game”

(Figure 3.2.8)

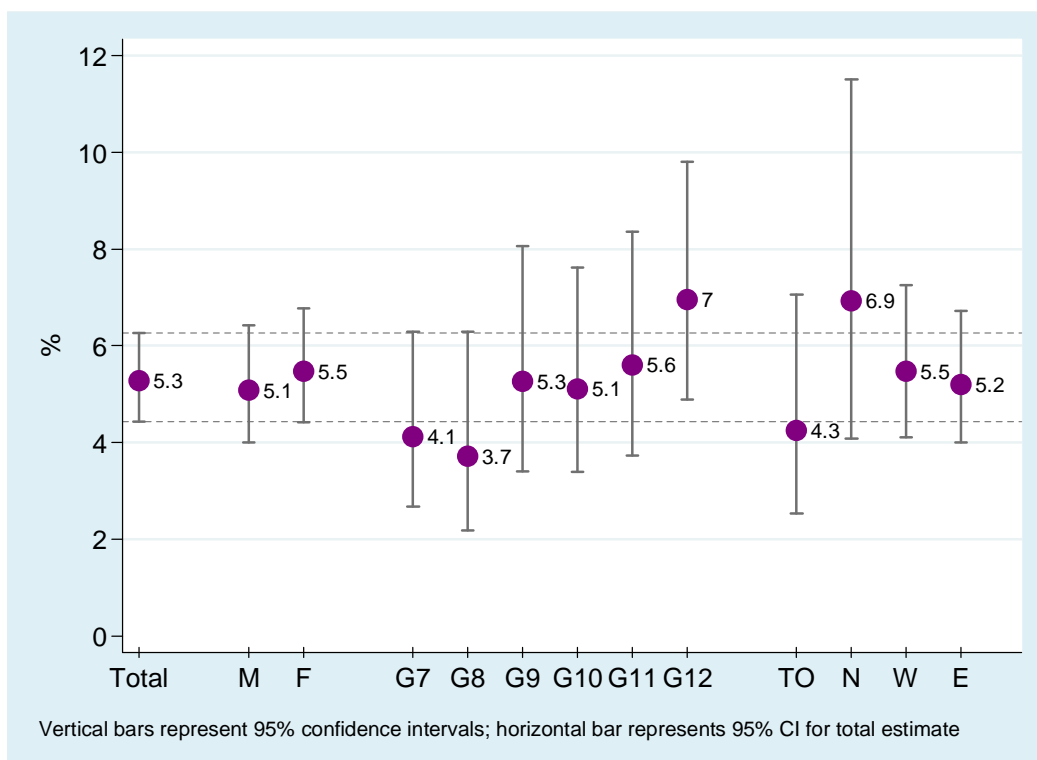
Self-asphyxiation among children and adolescents for the purpose of a euphoric feeling (or “a high”), commonly referred to as “the choking game,” is a highly risky behaviour. Acting alone or with friends, the goal is to use belts, cords, ties or bare hands to choke oneself or others and constrict blood flow enough to nearly pass out, and then release. The reduced blood flow and lack of oxygen to the brain causes light-headedness and the release allows a surge of blood back to the brain, which causes a “rush.” This is extremely dangerous because it can lead to brain damage or death.

The OSDUHS asked a random half sample of students whether they had ever engaged in this behaviour, and whether it was in the past year. Specifically, the question used was: “*Sometimes kids do risky things to ‘get high’ or to seek thrills. Have you ever been choked by someone or tried to choke yourself on purpose (like with a belt, your hands) for a short time in order to ‘get high’ or feel dizzy?*”

2009 (Grades 7 to 12):

- ❑ Overall, 1.8% (95% CI: 1.4%-2.5%) of students report participating in the choking game at least once in the past year. This estimate represents about 19,000 Ontario students.
- ❑ About 5.3% (95% CI: 4.4%-6.3%) of students report that they have participated at least once in their lifetime. This estimate represents about 55,000 Ontario students.
- ❑ Males (5.1%) and females (5.5%) are equally likely to report ever participating in the choking game.
- ❑ Despite some variation, there are no significant differences among the grades regarding the likelihood of participating in the choking game.
- ❑ The regional differences are not statistically significant.

Figure 3.2.8
Percentage Reporting Ever Participating in the “Choking Game” by Sex, Grade, and Region, 2009 OSDUHS



3.3 Health Care Utilization

In this section we examine students' visits to health care professionals, treatment for an injury, past year use of prescription medication, whether or not students were prescribed medication for depression or anxiety, and use of a telephone crisis helpline.

3.3.1 Physical Health Doctor Visit

(Figure 3.3.1; Table A3.3.1)

Starting in 1999, the OSDUHS asked students about visits to a doctor about their physical health, including just a check-up, during the past 12 months. Students were asked: *"In the last 12 months, how many times have you seen a doctor about your physical health or for a check-up?"* In this section, we present the proportion of students who reported not visiting a doctor in the past 12 months.

2009 (Grades 7 to 12):

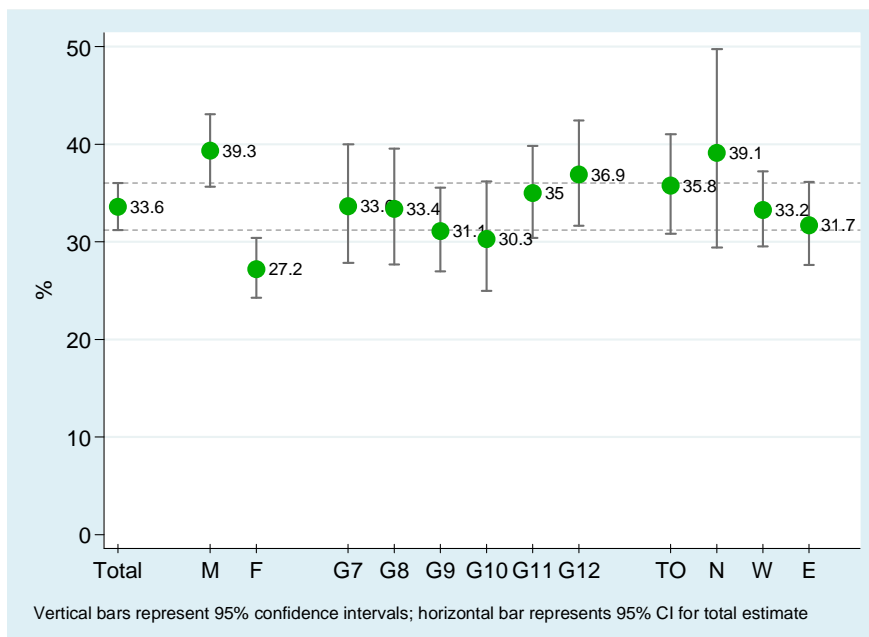
- Among the total sample, 33.6% (95% CI: 31.2%- 36.0%) did not see a doctor, not even for a check-up, in the past year. This estimate represents about 306,000 students in Ontario.

- Males (39.3%) are significantly more likely than females (27.2%) to report no doctor visits.
- There are no significant grade differences.
- There are no significant differences among the regions.

1999–2009 (Grades 7 to 12):

- Between 1999 and 2007, there was a significant increase in the percentage of students who did not visit a doctor for their physical health, including for a check-up (from 30% in 1999 up to 39% in 2007). However, in 2009 the prevalence declined back to a level similar to the levels seen a decade ago.

Figure 3.3.1
Percentage Reporting No Visits to a Doctor for Physical Health Reasons During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.3.2 Treated for a Physical Injury

(Figure 3.3.2; Table A3.3.2)

Starting in 2003, the OSDUHS asked students about physical injuries during the past year. The question was: “*In the last 12 months, how many times were you hurt or injured, and had to be treated by a doctor or nurse?*” Response options were: not treated for an injury in the last 12 months, one time, two times, three times, four or more times.

- ❑ Males (43.0%) are significantly more likely than females (37.6%) to report being treated for a physical injury at least once in the past year.
- ❑ There is no significant grade variation.
- ❑ There is significant regional variation, with students in the East most likely to report being treated for an injury.

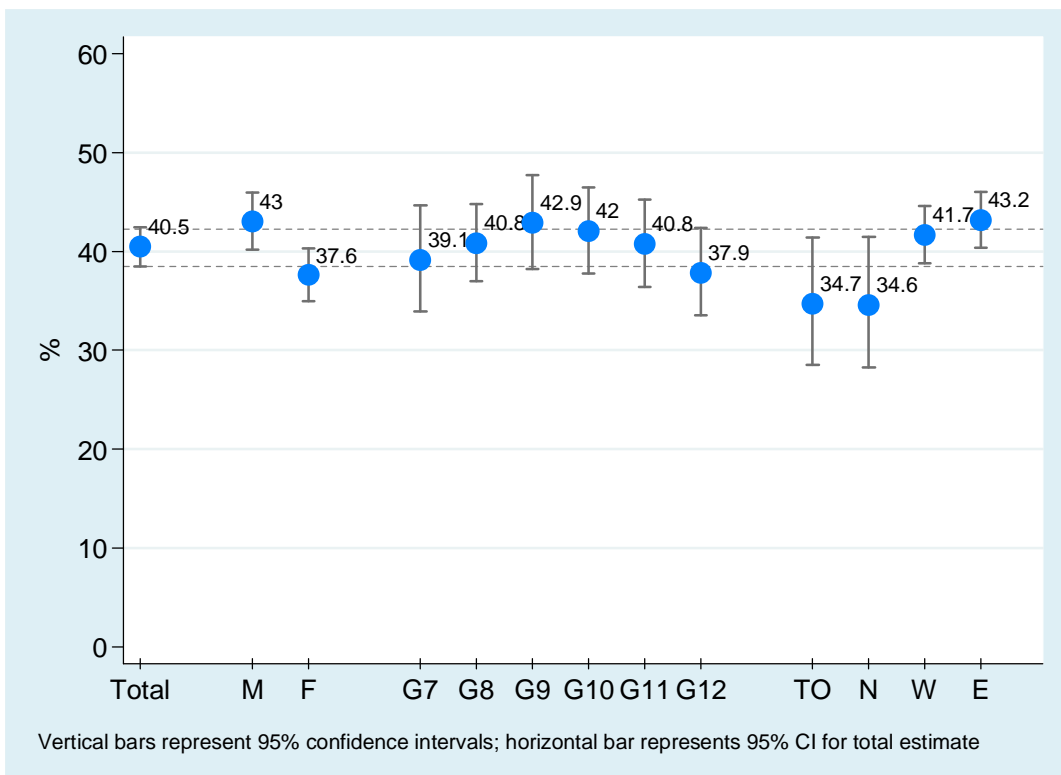
2009 (Grades 7 to 12):

- ❑ Among the total sample, 40.5% (95% CI: 38.5%-42.5%) were treated for an injury at least once in the 12 months before the survey. This represents about 386,000 students across Ontario. More specifically, 22.9% were treated just once, 10.5% were treated twice, 3.7% were treated three times, and 3.4% were treated four or more times.

2003–2009 (Grades 7 to 12):

- ❑ Among the total sample of students, the percentage who reported being treated for a physical injury in 2009 (40.5%) is significantly higher than the estimate found in 2003 (35.4%) and the estimate in 2005 (33.8%).

Figure 3.3.2
Percentage Reporting Being Treated for a Physical Injury at Least Once During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.3.3 Mental Health Professional Visit

(Figure 3.3.3; Table A3.3.3)

Starting in 1999, the OSDUHS asked students about consulting a professional about a mental health issue. Specifically, the question was “*In the last 12 months, how often have you seen a doctor, nurse, or counsellor about your emotional or mental health?*” In this section, we present the percentage who reported at least one visit in the past year.

2009 (Grades 7 to 12):

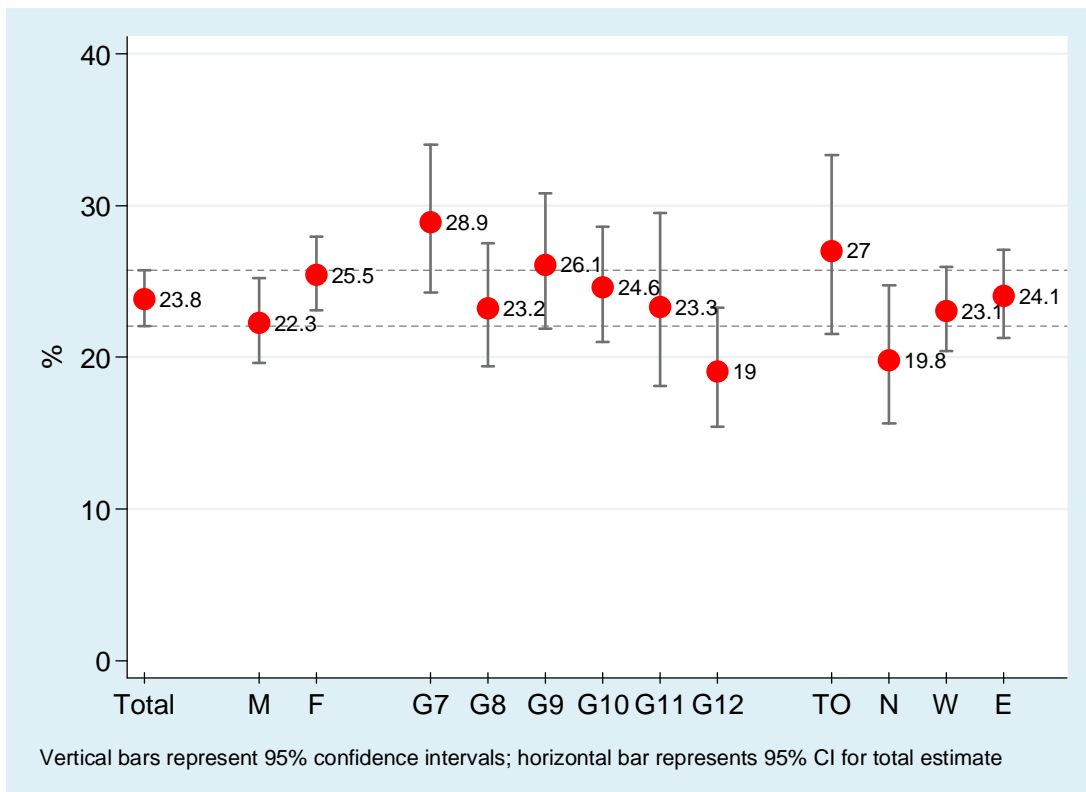
- Among the total sample 23.8% (95% CI: 22.0%-25.8%) report visiting a professional for a mental health issue at least once in the past year. This estimate represents about 253,000 students in Ontario.

- Females (25.4%) and males (22.3%) are equally likely to report a mental health visit.
- Despite some variation among the grades, there is no significant grade effect.
- There are no significant differences among the regions.

1999–2009 (Grades 7 to 12):

- The percentage of students who reported seeking help for a mental health issue was stable between the years 1999 and 2005, at around 11% to 12%. However, in 2007 the estimate jumped to 21.2%, and remained steady in 2009 at 23.8%.

Figure 3.3.3
Percentage Reporting at Least One Mental Health Care Visit During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.3.4 Medical Drug Use

(Figures 3.3.4 to 3.3.7; Tables A3.3.4 to A3.3.6)

This section presents the past year prevalence rates for three types of prescription drug classes for medical purposes: opioid pain relievers, drugs to treat Attention Deficit Hyperactivity Disorder (ADHD), and tranquilizers/sedatives. Questions about the first two drug classes were first included in the 2007 survey, while the medical tranquilizer question spans back to 1977. The following questions were asked:

- *In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin, codeine) with a prescription of because a doctor told you to take them?*
- *Sometimes doctors give medicine to students who are hyperactive or have problems concentrating in school. This is called Attention Deficit Hyperactivity Disorder (ADHD). In the last 12 months, how often did you use medicine to treat ADHD (such as Ritalin, Concerta, Adderall, Dexedrine) with a prescription or because a doctor told you to take it?*
- *Sedatives or tranquilizers are sometimes prescribed by doctors to help people sleep, calm them down, or to relax their muscles. In the last 12 months, how often did you use sedatives or tranquilizers (such as Valium, Ativan, Xanax) with a prescription or because a doctor told you to take them?* [Note that “sedatives” was added to the question in 2007.]

2009 (Grades 7 to 12):

- Among the total sample, 31.8% (95% CI: 30.3%-33.3%) used opioid pain relievers medically, that is by prescription, at least once in the past 12 months (representing about 320,000 students in Ontario); 2.7% (95% CI: 2.1%-3.5%) used an ADHD drug medically (about 28,000 students); and 3.7% (95% CI: 3.0%-4.7%) used tranquilizers/sedatives medically (about 39,000 students).
- Females are significantly more likely than males to report using an opioid pain reliever medically (37.3% vs 26.7%, respectively), and to report using a tranquilizer/sedative medically (4.7% vs 2.8%, respectively). Males are significantly more likely than

females to report using an ADHD drug medically (3.9% vs 1.4%, respectively).

- Students in grades 7 and 8 are less likely to use opioid pain relievers medically compared with older students. Medical tranquilizer/sedative use also significantly increases with grade. Despite some variation, medical ADHD drug use does not significantly vary by grade.
- Students in Toronto (26.9%) are significantly less likely to report using opioid pain relievers medically, whereas students in the East are most likely (34.1%). There is no significant regional effect for medical ADHD drug use, or for medical tranquilizer/sedative use.

2009 vs. 2007 (Grades 7 to 12):

- Among the total sample, medical opioid pain reliever use significantly declined between 2007 (40.6%) and 2009 (31.8%).
- Among the total sample, medical ADHD use remained stable between 2007 (2.3%) and 2009 (2.7%).

1999–2009 (Grades 7 to 12):

- Among the total sample, medical tranquilizer use in 2009 (3.7%) is not significantly different than the estimate from 2007 (4.5%), or from 1999 (3.2%).

1977–2009 (Grades 7, 9, 11 only):

- Historically, the medical use of tranquilizers peaked in the late 1970s, declined throughout the 1980s, and stabilized in the 1990s and 2000s, at around 2% or 3%.

Figure 3.3.4
 Percentage Reporting Medical Opioid Pain Reliever Use During the Past Year by Sex, Grade and Region, 2009 OSDUHS

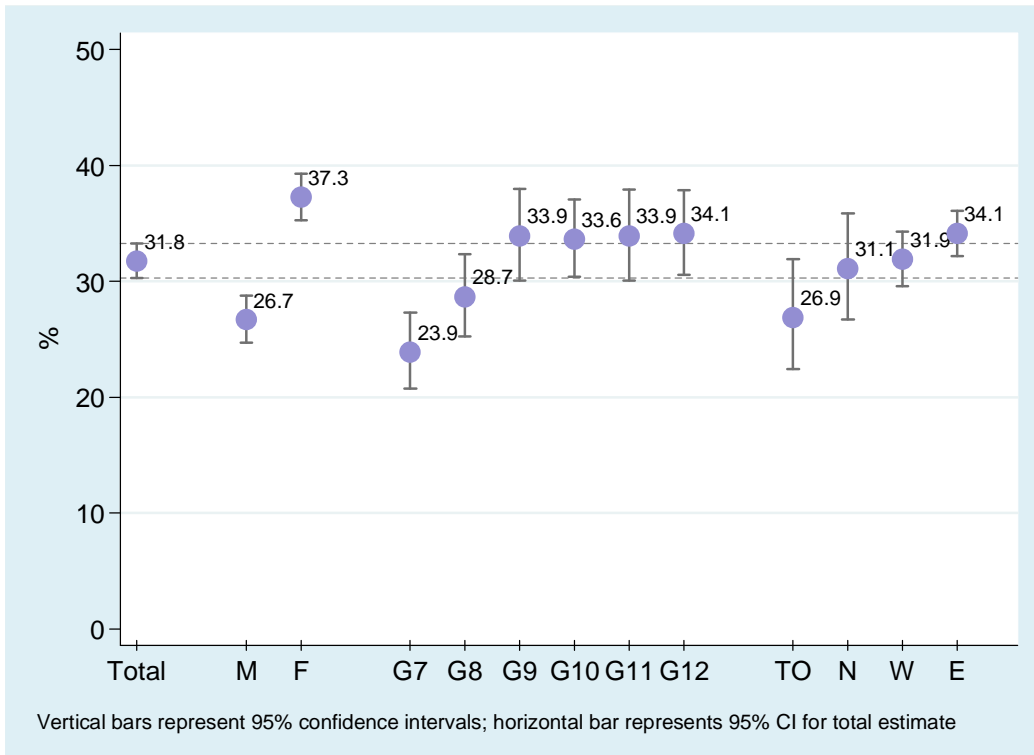


Figure 3.3.5
 Percentage Reporting Medical ADHD Drug Use During the Past Year by Sex, Grade and Region, 2009 OSDUHS

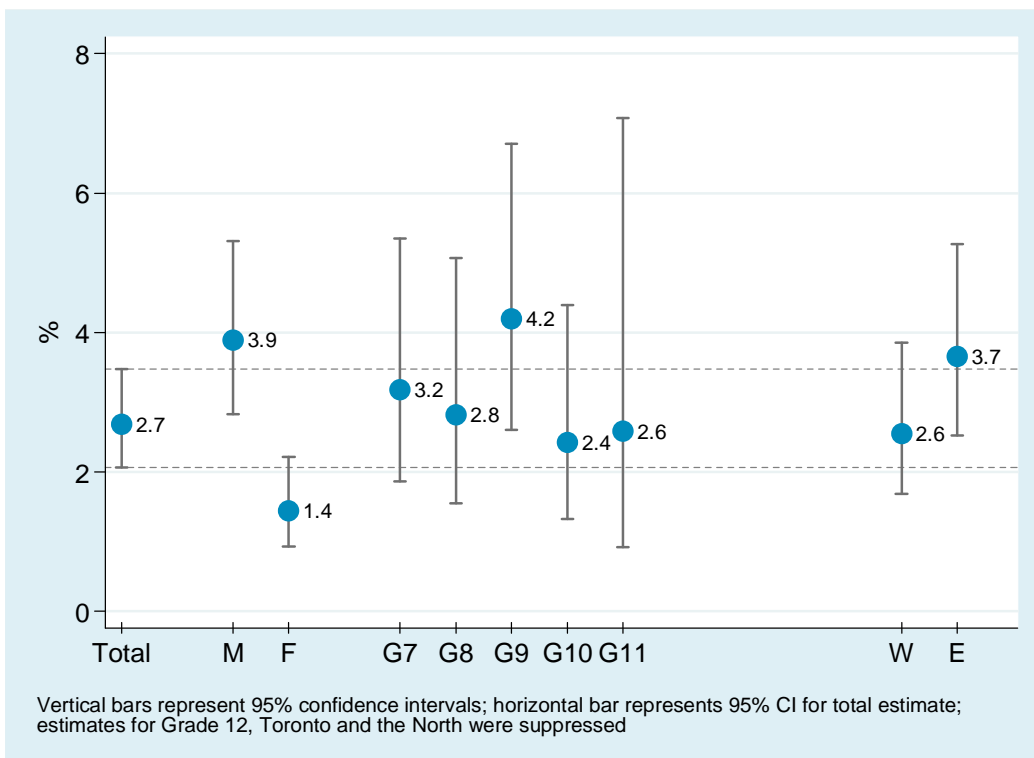


Figure 3.3.6
 Percentage Reporting Medical Tranquillizer/Sedative Use During the Past Year by Sex,
 Grade and Region, 2009 OSDUHS

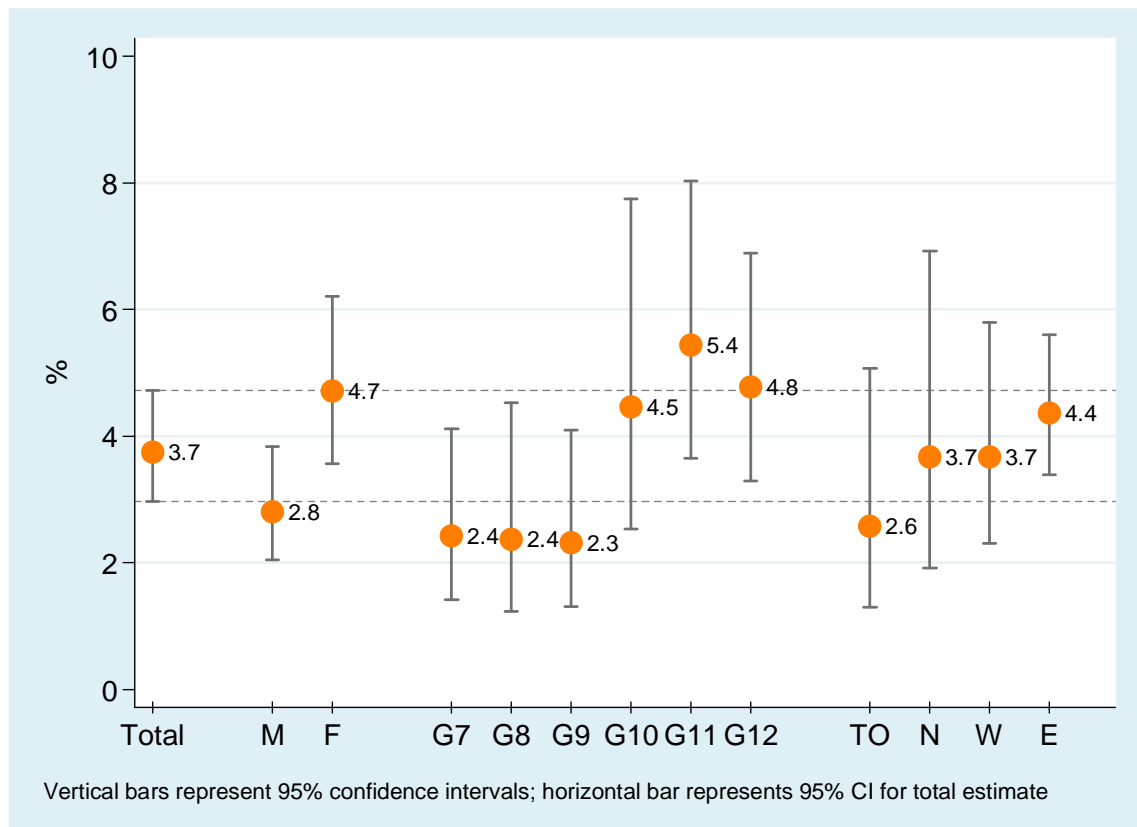
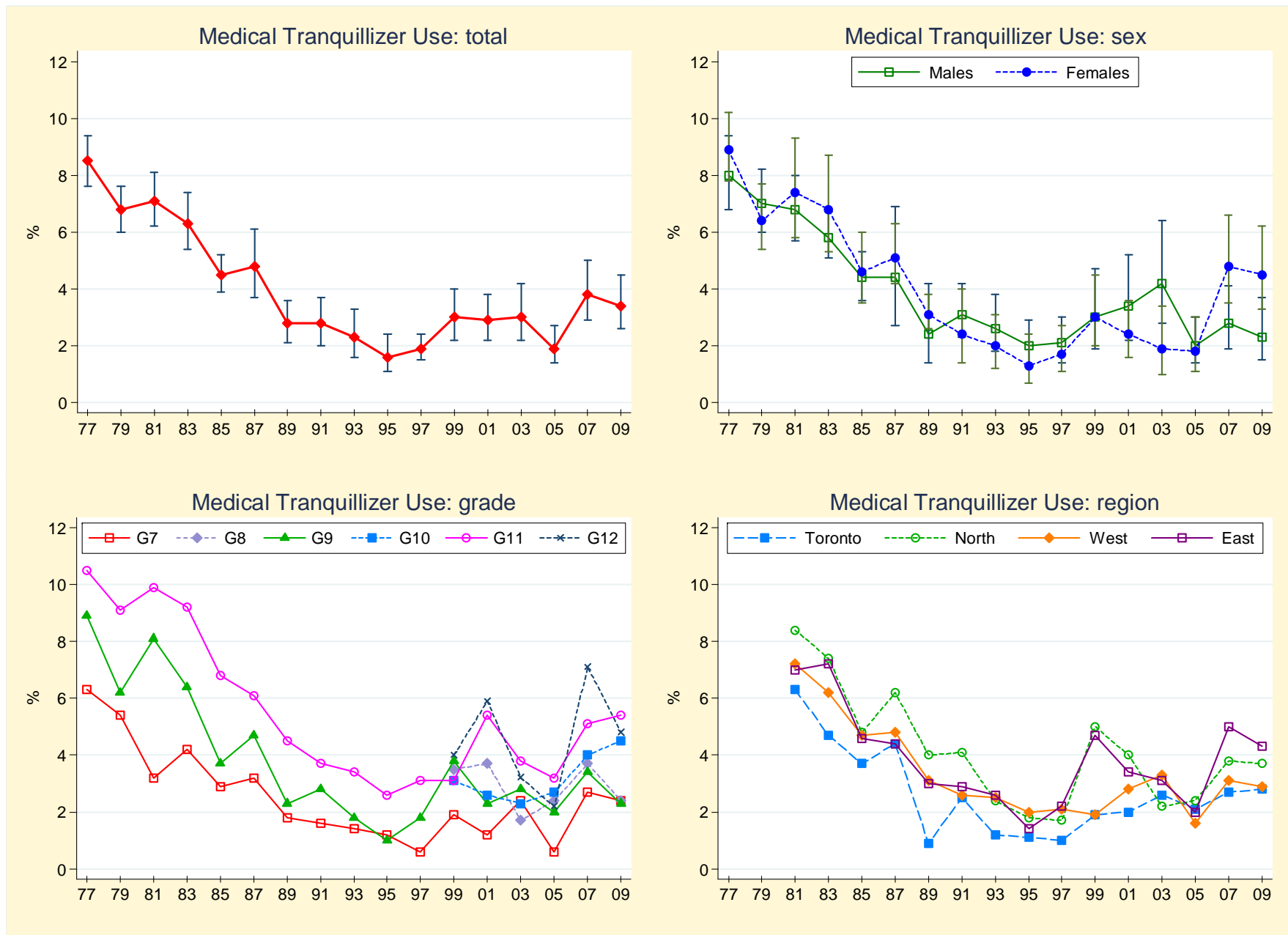


Figure 3.3.7
 Past Year Medical Tranquillizer/Sedative Use, 1977–2009 OSDUHS (Grades 7, 9, 11 only)



3.3.5 Prescription Medication to Treat Anxiety or Depression

(Figure 3.3.8)

Starting in 2001, the OSDUHS asked a random half sample of students about prescription medication for anxiety or depression. The question was “*In the last 12 months, have you been prescribed medicine to treat anxiety or depression?*” The four response options were: yes for anxiety only; yes for depression only; yes for both; or no.

2009 (Grades 7 to 12):

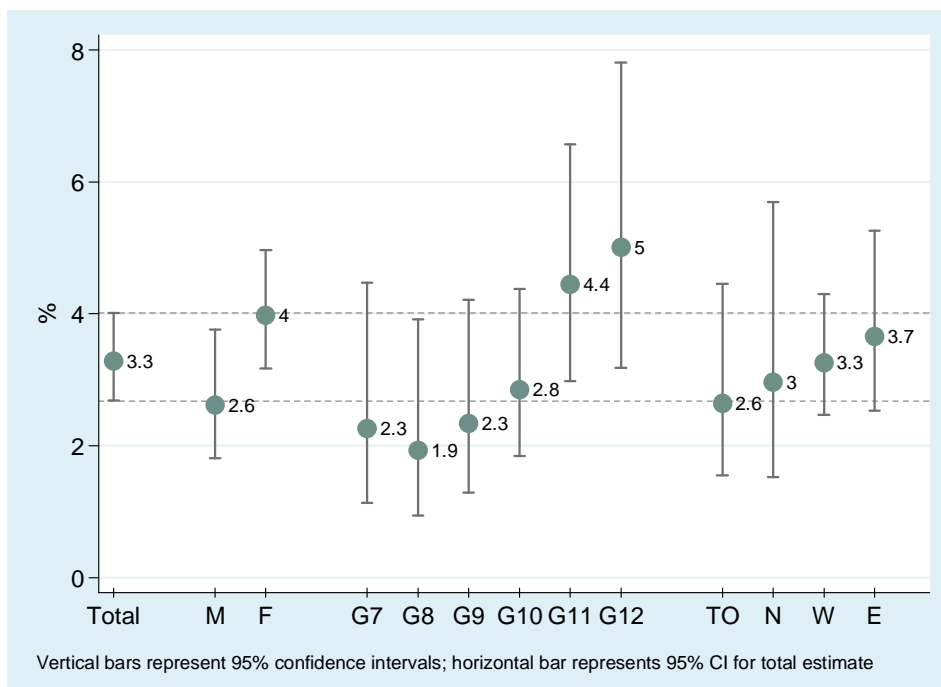
- ❑ About 1% of students report that they had been prescribed medication to treat anxiety in the past year. About 1% of students were prescribed medication to treat depression only. Another 1.3% was prescribed medication for *both* anxiety and depression.
- ❑ Combining the response options, 3.3% (95% CI: 2.7%-4.0%) report they were prescribed medication to treat anxiety, depression, or both of these problems. This percentage represents about 34,000 students in Ontario.

- ❑ Although the proportion of females (4.0%) who report being prescribed medication to treat anxiety, depression, or both problems is slightly higher than males (2.6%), the difference is not statistically significant.
- ❑ The likelihood of being prescribed medication to treat anxiety/depression significantly increases with grade, peaking among 12th-graders at 5.0%.
- ❑ Despite some variation, there are no significant regional differences.

2001–2009 (Grades 7 to 12):

- ❑ There has been no significant change since 2001 among the total sample of students regarding being prescribed medication to treat anxiety, or depression, or both, as rates have been stable at around 3% to 4%.

Figure 3.3.8
Percentage Reporting Having Been Prescribed Medication to Treat Either Anxiety or Depression or Both Problems During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.3.6 Use of a Telephone Crisis Helpline (Figure 3.3.9)

Starting in 2005, the OSDUHS asked a random half sample of students whether they have used any telephone crisis helpline. Specifically, the question was “*In the last 12 months, have you phoned any telephone crisis helpline (for example, Kids Help Phone) because you needed to talk to someone about a problem?*” Response options were yes or no.

2009 (Grades 7 to 12):

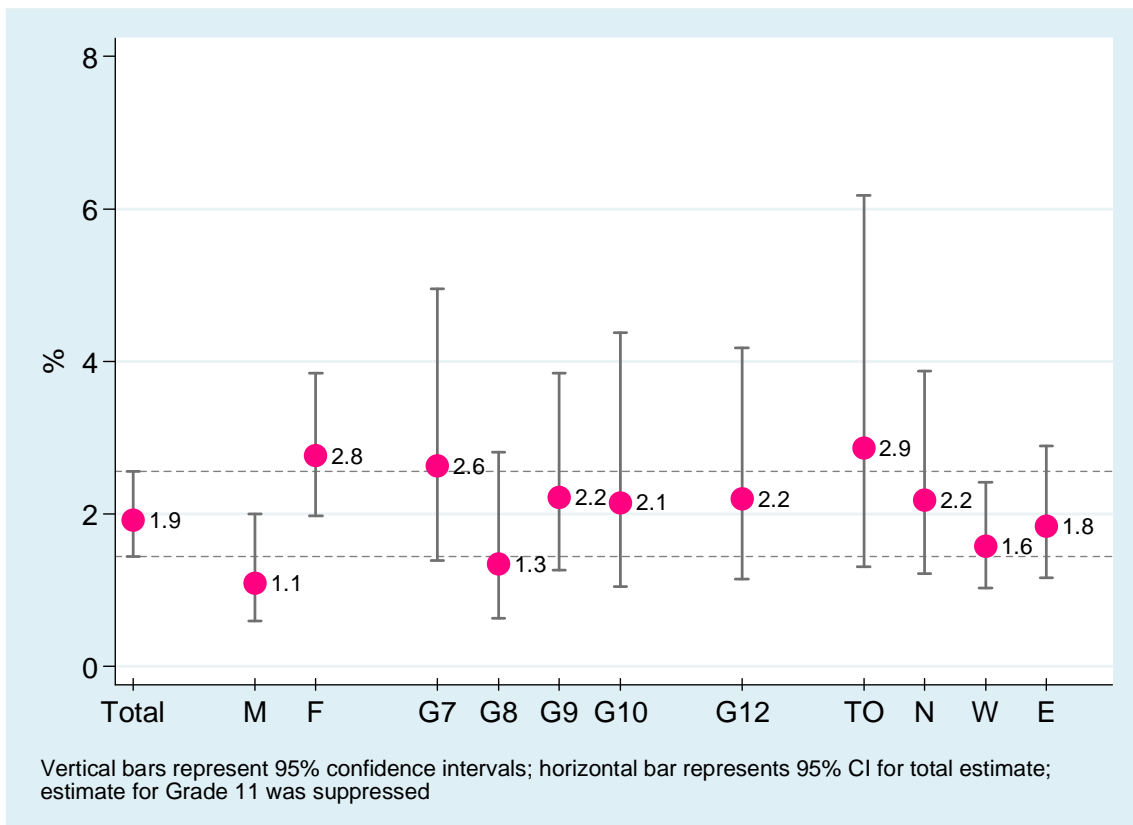
- Among all students, 1.9% (95% CI: 1.4%-2.6%) report using a crisis helpline to discuss a problem during the past year. This percentage represents about 20,000 students across Ontario.

- Females are more likely than males to use a crisis helpline (2.8% vs 1.1%, respectively).
- Despite some fluctuation, there are no significant grade or region differences in the use of a crisis helpline.

2005–2009 (Grades 7 to 12):

- The percentage of students who report using a crisis helpline in 2009 is similar to the estimate from 2007 (1.9%; 95% CI: 1.5%-2.5%), as well as the estimate from 2005 (1.8%; 95% CI: 1.4%-2.4%).

Figure 3.3.9
Percentage Reporting Use of a Telephone Crisis Helpline During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.4 Internalizing Indicators

Internalizing mental health indicators are emotional states or psychological traits that can adversely affect all life areas. Some examples include low self-esteem, depression and anxiety.

3.4.1 Self-Rated Mental Health

(Figure 3.4.1; Table A3.4.1)

Starting in 2007, we asked students to rate their mental health using the question: “How would you rate your emotional or mental health?” Response options were: poor, fair, good, very good, excellent. We use the term “poor mental health” to reflect responses of poor or fair.

2009 (Grades 7 to 12):

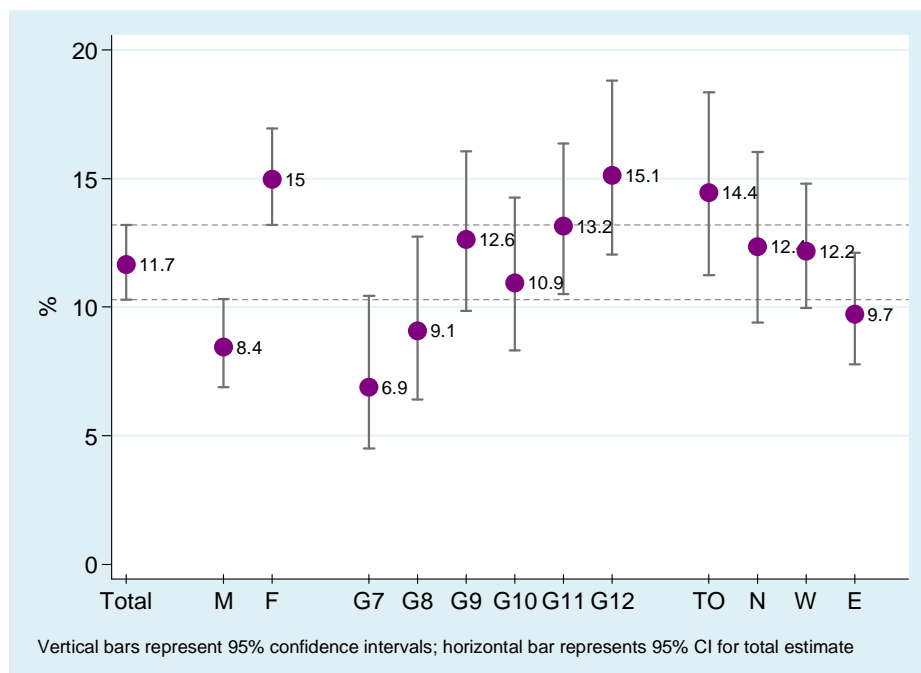
- About 11.7% (95% CI: 10.3%-13.2%) of students report poor mental health. This estimate represents about 122,000 students in Ontario.

- Females (15.0%) are significantly more likely than males (8.4%) to rate their mental health as poor.
- Reports of poor mental health significantly increase with grade, ranging from a low of 6.9% among 7th-graders to a high of 15.1% among 12th-graders.
- Despite some variation among the regions, the differences are not significant.

2009 vs. 2007 (Grades 7 to 12):

- The percentage of students reporting poor mental health in 2009 (11.7%) is not significantly different than the estimate from 2007 (11.4%).

Figure 3.4.1
Percentage Reporting Poor Mental Health by Sex, Grade and Region,
2009 OSDUHS



3.4.2 Low Self-Esteem

(Figures 3.4.2, 3.4.3; Table A3.4.2)

Low self-esteem, or self-worth, has been shown to be associated not only with risky health behaviours such as illicit drug use (Clayton, 1992), but also with poor physical and mental health, and poor school and personal achievement (Masten & Coatsworth, 1998, Mechanic & Hansell, 1987; Park, 2003).

Items adapted from the *Rosenberg Self-Esteem Scale* (Rosenberg, Schooler, & Schoenback, 1989) have been in the OSDUHS since 1993. The following six items were used:

- *I feel good about myself*
- *I feel that I am a person of worth*
- *I am able to do most things as well as other people can*
- *Sometimes I feel that I can't do anything right*
- *I feel I do not have much to be proud of*
- *Sometimes I think I am no good at all*

Each item has a 5-point response scale, ranging from “never true” to “almost always true.” An overall indicator for low self-esteem is defined here as responding negatively (lower esteem) to at least three of the six items listed above (i.e., “always” or “often true” for negative statements; “never” or “seldom true” for positive statements). The reliability coefficient (α) for these 6 items is 0.73.

2009 (Grades 7 to 12):

- Under one-in-ten (8.3%; 95% CI: 7.3%-9.5%) students indicate low self-esteem.
- Specifically, 14.5% of students feel they do not have much to be proud of; 12.5% feel that they cannot do anything right; 10.2% do not feel that they are a person of worth; 8.9% feel that they are no good at all; 8.7% seldom or never feel good about themselves; and 7.1% do not feel that they can do most things as well as others can.
- Females are significantly more likely than males to indicate low self-esteem (10.1% vs 6.5%, respectively).
- There are no significant grade differences.
- There are no significant region differences.

1999–2009 (Grades 7 to 12):

- Low self-esteem remained stable between 1999 (10.1%) and 2009 (8.3%) among the total sample.

1995–2009 (Grades 7, 9, 11 only):

- Low self-esteem remained stable between 1995 and 2009 among the total sample.

Figure 3.4.2
Rosenberg's Six Self-Esteem Items by Sex, 2009 OSDUHS (Grades 7 to 12)

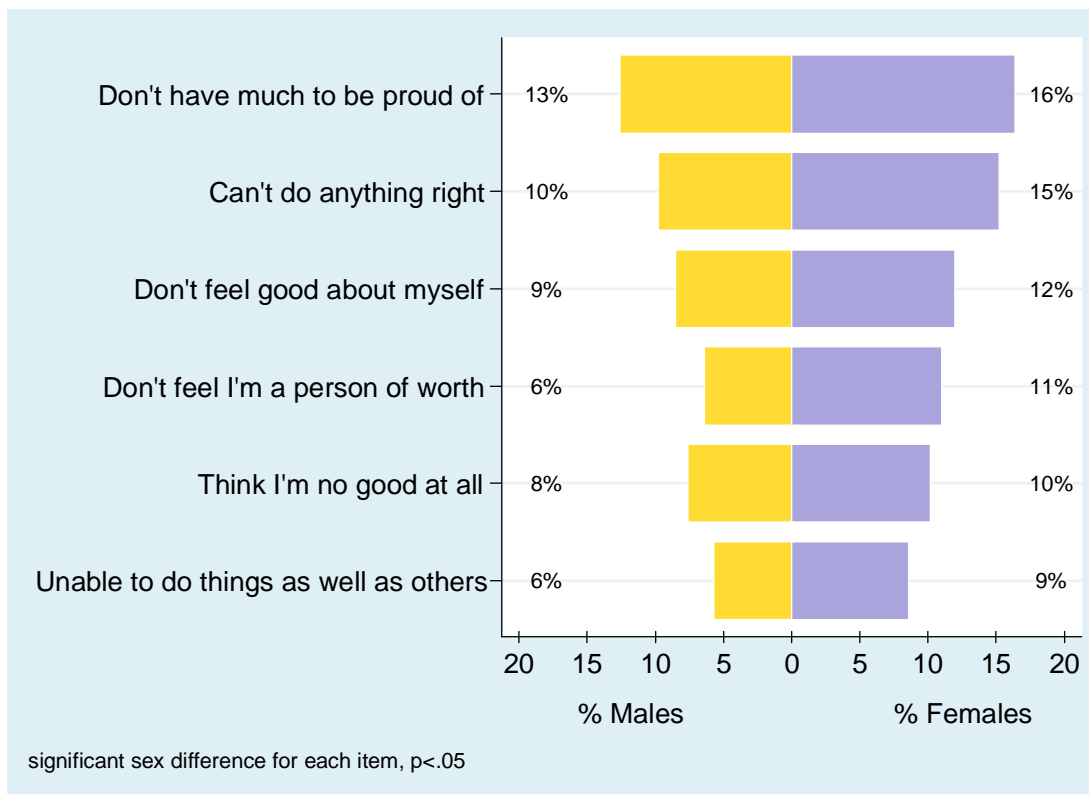
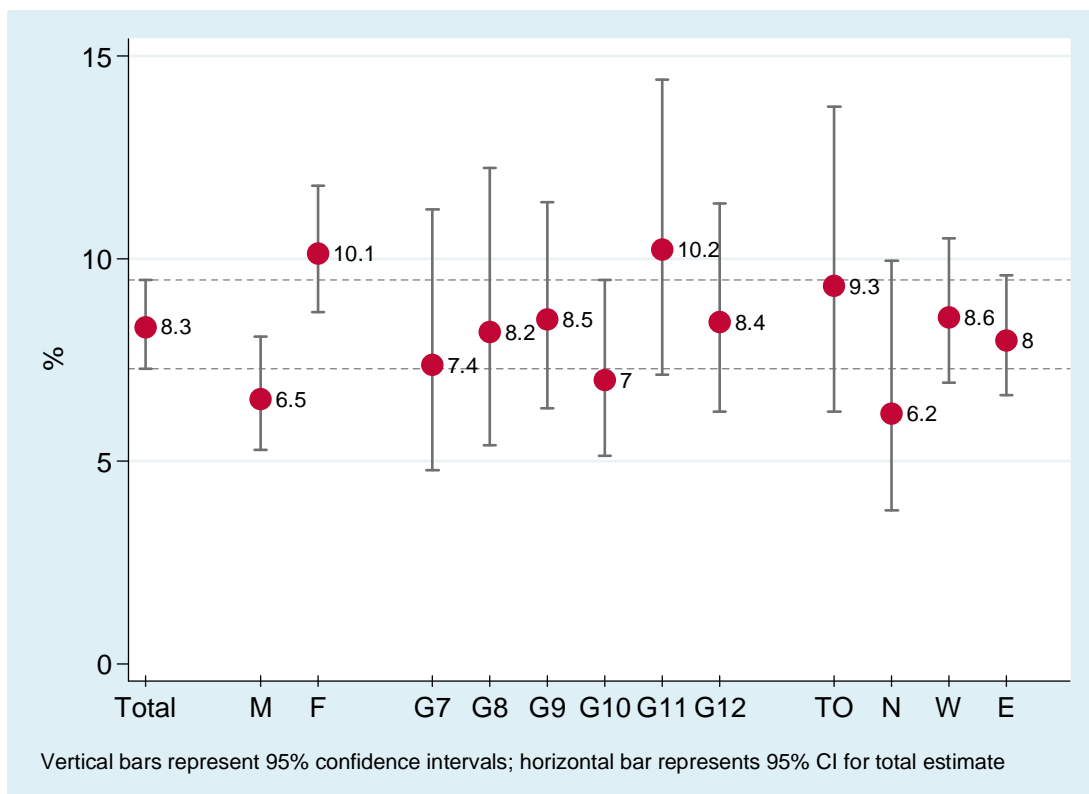


Figure 3.4.3
Percentage Indicating Low Self-Esteem by Sex, Grade and Region, 2009 OSDUHS



3.4.3 Depressive Symptoms

(Figures 3.4.4, 3.4.5; Table A3.4.3)

Depressed mood is a relatively common occurrence during adolescence and is characterized by pervasive feelings of sadness and worthlessness, loss of interest in activities, and disturbances in sleep, appetite, and concentration. Depression can range from mild to severe, and can adversely affect all areas of life. Typically, the onset of depression occurs during adolescence, affecting more females than males (Cicchetti & Toth, 1998; US Department of Health and Human Services, 1999a).

The *Center for Epidemiologic Studies Depression* (CES-D) subscale is a self-report scale used to screen for depressive symptomatology in the general population (Radloff, 1977). Note that this is a screening tool and cannot be used for a clinical diagnosis of depression.

The following four CES-D questions were asked, with the time referent being the “past 7 days.”

- *How often have you felt sad?*
- *How often have you felt lonely?*
- *How often have you felt depressed?*
- *How often have you felt like crying?*

The response options were based on a 4-point scale, ranging from “never or rarely” to “always”. To gain a sense of the prevalence of depression in the student population, we provide a measure of depressive symptoms as indicated by those responding “often” or “always” on all 4 symptoms. The reliability coefficient (α) for these four items is 0.85.

2009 (Grades 7 to 12):

- ❑ Overall, 16.4% of students felt sad often or always during the seven days before the survey; 12.8% felt lonely; 11.4% felt depressed; and 13.3% felt like crying often or always during the past seven days.
- ❑ About one-in-twenty (5.4%; 95% CI: 4.4%-6.6%) students report depressive symptoms (this represents about 56,000 Ontario students).
- ❑ Females are more likely than males to report depressive symptoms (8.1% vs 2.8%, respectively).
- ❑ There are no significant differences among the grades.
- ❑ There are no significant differences among the regions.

1999–2009 (Grades 7 to 12):

- ❑ Between 1999 and 2009, there was no significant change in the depression indicator among the total sample (stable at around 5%), or among the subgroups.

Figure 3.4.4
 Percentage Reporting Depression Items on the CES-D Subscale by Sex,
 2009 OSDUHS (Grades 7 to 12)

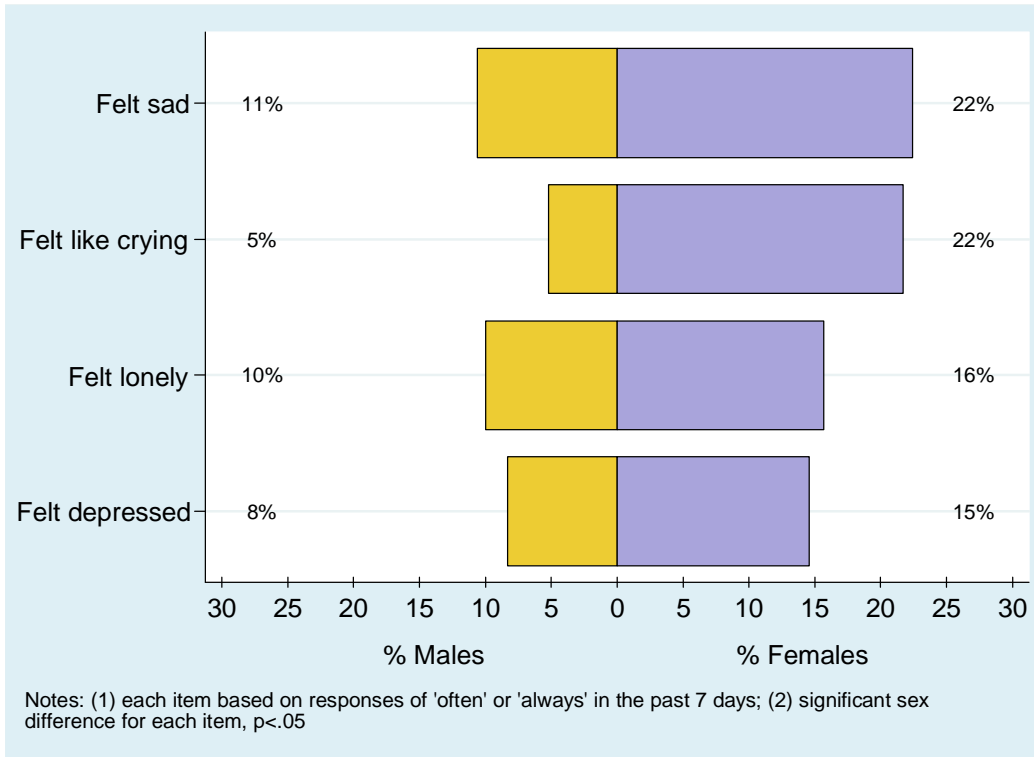
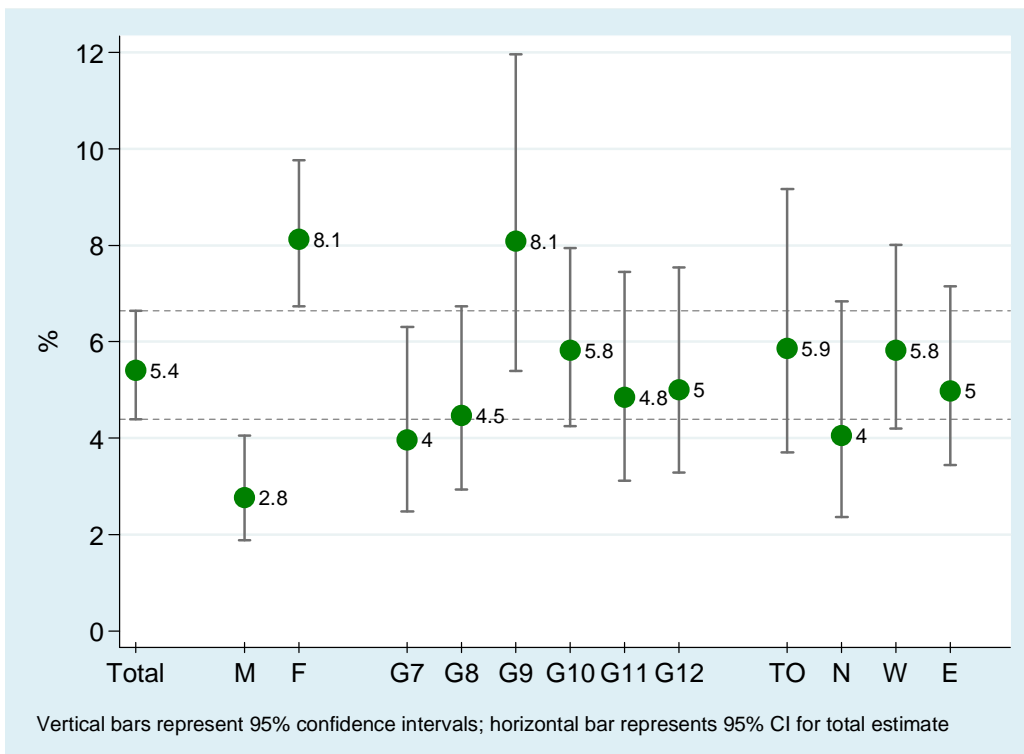


Figure 3.4.5
 Percentage Reporting Depressive Symptoms by Sex, Grade and Region,
 2009 OSDUHS



3.4.4 Elevated Psychological Distress (Figures 3.4.6, 3.4.7; Table A3.4.4)

The *General Health Questionnaire* (GHQ; Goldberg et al., 1997; Goldberg & William, 1988) is a screening instrument used to detect current psychological distress. The GHQ-12 uses 12 items to screen for three overarching problems: depressed mood, anxiety, and problems with social functioning. Note that this instrument is used as a screener and not for clinical diagnoses.

The GHQ-12 was first in the OSDUHS in 1999. The item wording took the form: “*Over the last few weeks, have you....*” Response categories are on a 4-point scale ranging from “better [more so] than usual” to “much less than usual”; or “not at all” to “much more than usual.” The following items were used:

- *been able to concentrate on whatever you’re doing*
- *felt that you are playing a useful part in things*
- *felt capable of making decisions about things*
- *been able to enjoy your normal day-to-day activities*
- *been able to face up to your problems*
- *been feeling reasonably happy, all things considered*
- *lost much sleep because you were worried about something*
- *felt constantly under stress*
- *felt you couldn’t overcome difficulties*
- *been feeling unhappy and depressed*
- *been losing confidence in yourself*
- *been thinking of yourself as a worthless person*

The GHQ-12 also yields a summary measure to estimate the percentage experiencing elevated psychological distress, defined as reporting at least 3 of the 12 symptoms (positive statements were reverse-coded). The reliability coefficient (α) for these 12 items is 0.87.

2009 (Grades 7 to 12):

- ❑ Among the total sample of students, the three most common symptoms experienced are: feeling constantly under stress (36.2%), followed by losing sleep because of worrying (26.8%), and feeling unhappy and depressed (24.9%).
- ❑ Elevated psychological distress is reported by 31.0% (95% CI: 29.1%-32.9%) of students. This represents about 327,000 Ontario students.
- ❑ Females are more likely to report elevated psychological distress compared with males (38.8% vs 23.4%, respectively). Indeed, females are significantly more likely to report 11 of the 12 symptoms.
- ❑ Psychological distress significantly increases with grade, peaking in the 11th- and 12th-grade (about 38%).
- ❑ There is substantial grade variation for 10 of the 12 symptoms, generally showing increasing distress with increasing grade. For example, constantly feeling stressed increases dramatically with grade, with only 18.6% of 7th-graders reporting so versus 48.6% of 12th-graders.
- ❑ There is no significant regional variation regarding elevated psychological distress.

1999–2009 (Grades 7 to 12):

- ❑ Elevated psychological distress has remained stable among the total sample since 1999, at around 30%.
- ❑ Over the past decade there have been fluctuations in elevated psychological distress within some subgroups, but generally the 2009 estimates do not significantly differ from the respective estimates found in 2007 or in 1999.

Figure 3.4.6
 GHQ Symptoms Experienced Over the Past Few Weeks by Sex, 2009 OSDUHS
 (Grades 7 to 12)

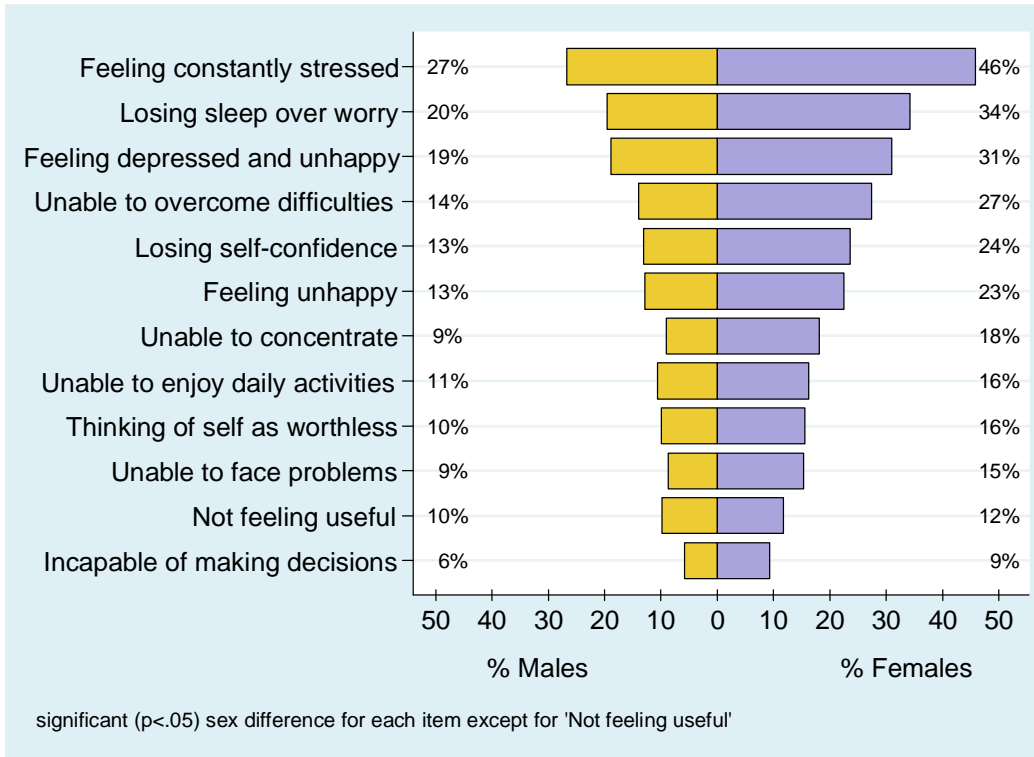
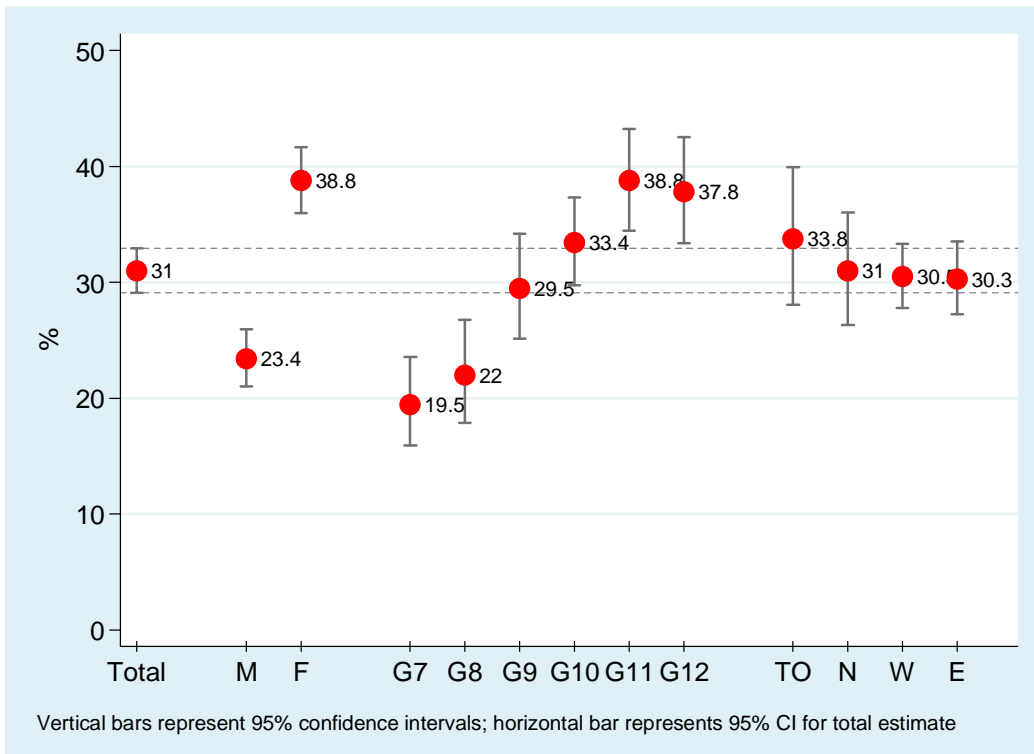


Figure 3.4.7
 Percentage Reporting Elevated Psychological Distress (GHQ 3+) by Sex,
 Grade and Region, 2009 OSDUHS



3.4.5 Suicide Ideation and Attempt

(Figures 3.4.8, 3.4.9; Table A3.4.5)

Starting in 2001, the OSDUHS included a question about suicide ideation. Specifically, students were asked: “*In the last 12 months, did you ever seriously consider attempting suicide?*” Starting in 2007, students were also asked about attempts: “*In the last 12 months, did you actually attempt suicide?*” Response options to both questions were yes or no.

2009 (Grades 7 to 12):

- ❑ About 9.5% (95% CI: 8.3%-10.8%) of students reported that they had seriously considered suicide in the past year. This percentage represents about 99,000 Ontario students. About 2.8% (95% CI: 2.2%-3.5%) of students report attempting suicide in the past year. This represents about 29,000 Ontario students.
- ❑ Females are significantly more likely than males to report suicide ideation (11.4% vs 7.6%, respectively). However, no significant difference was found regarding a reported suicide attempt (3.1% of females, 2.5% of males).
- ❑ Despite some variation, neither of the two measures significantly differs by grade.
- ❑ Neither of the two measures significantly differs by region.

2001–2009 (Grades 7 to 12):

- ❑ Between 2001 (11.4%) and 2009 (9.5%), there was no significant change in the percentage of students who reported contemplating suicide.
- ❑ The percentage of students reporting at least one suicide attempt did not significantly change between 2007 (3.3%) and 2009 (2.8%).

Figure 3.4.8
 Percentage Reporting Suicide Ideation During the Past Year by Sex, Grade and Region, 2009 OSDUHS

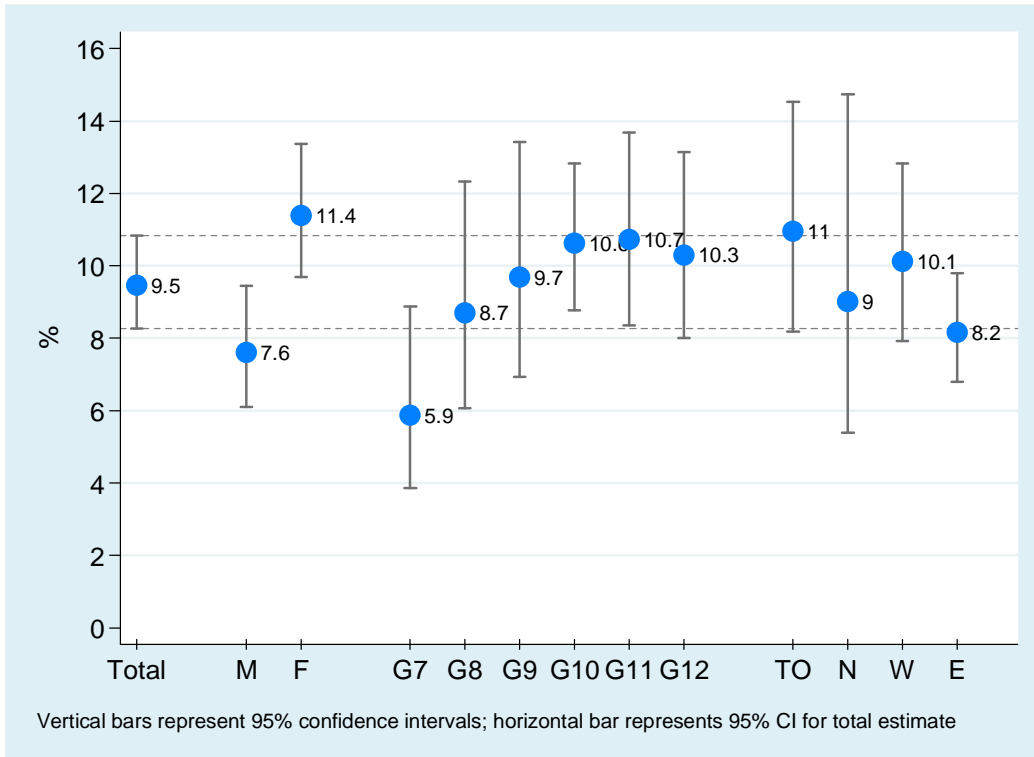
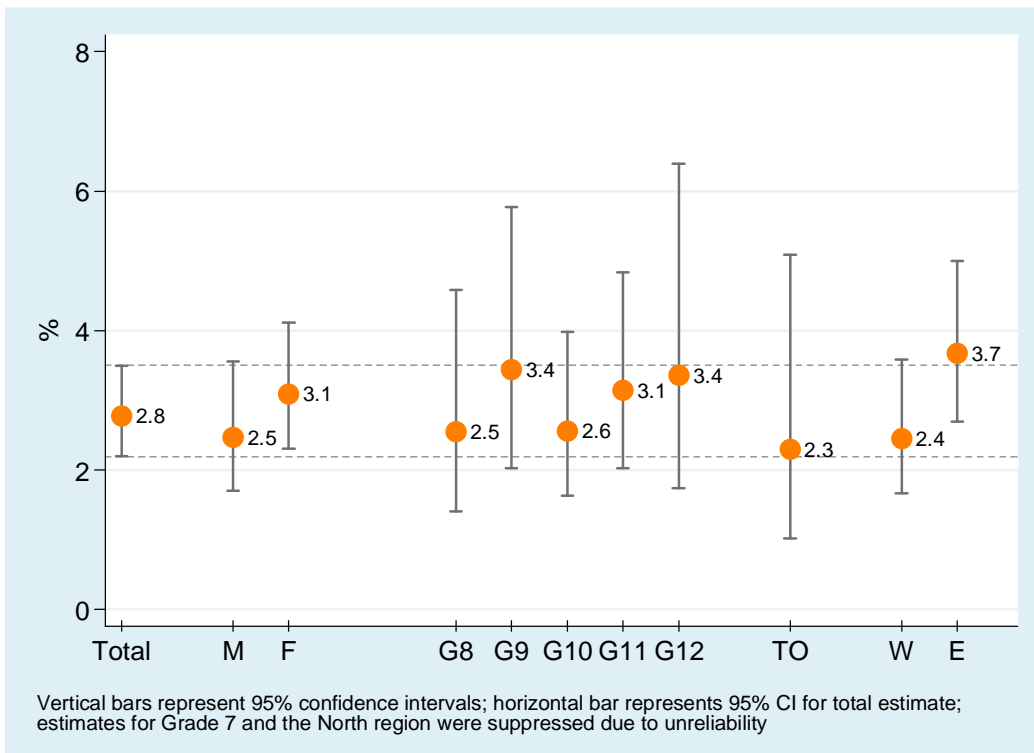


Figure 3.4.9
 Percentage Reporting a Suicide Attempt During the Past Year by Sex, Grade and Region, 2009 OSDUHS



3.4.6 Body Image and Desired Change in Weight

(Figure 3.4.10; Table A3.4.6)

The issues surrounding body image and weight become increasingly prominent during the adolescent years. Teenagers, especially females, can become preoccupied with achieving an “ideal” body, which can subsequently cause physical and mental health problems. In the extreme, a fixation on body image can lead to eating disorders such as anorexia nervosa or bulimia.

Since 2001, the OSDUHS included questions concerning beliefs about personal weight and desired change in weight. Two questions were asked: (1) *“Do you think of yourself as being too thin, about the right weight, or too fat?”* and (2) *“Which of the following are you doing about your weight: not doing anything, trying to lose weight, trying to keep from gaining weight, or trying to gain weight?”*

2009 (Grades 7 to 12):

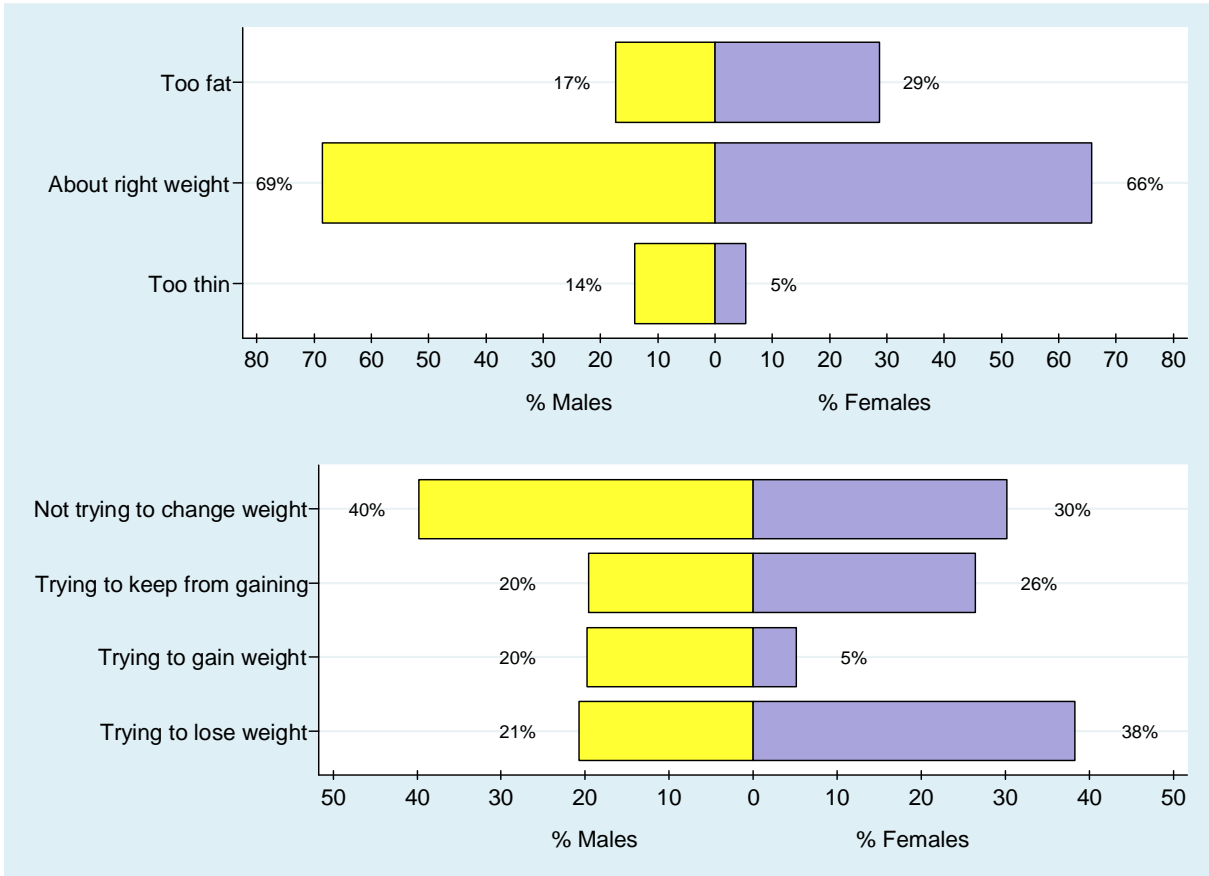
- ❑ Over two-thirds (67.3%) of students are satisfied with their weight. One-fifth (22.7%) believe they are too fat, while one-tenth (10.0%) believe they are too thin.
- ❑ Females are significantly more likely than males to believe that they are too fat, (28.7% vs 17.4%, respectively), whereas males are more likely than females to believe that they are too thin (14.0% vs 5.4%, respectively).
- ❑ Satisfaction with weight significantly decreases with grade level: about 75% of students in grades 7 and 8 are satisfied with their weight and this percentage declines to about 64% among students in grades 11 and 12.

- ❑ About one-third (35.3%) of students are not trying to do anything about their weight. Another 29.0% are trying to lose weight; 22.8% want to keep from gaining weight, and 12.9% want to gain weight.
- ❑ Females are significantly more likely than males to report that they are trying to lose weight (38.3% vs 20.7%, respectively), whereas males are more likely than females to report that they are trying to gain weight (19.8% vs 5.1%, respectively).
- ❑ As grade increases, so does the desire to change one’s weight: reports of trying to gain weight increase with grade, from about 8% of 7th- and 8th-graders up to about 16% to 19% of 11th- and 12th-graders. However, further analysis that controlled for sex, showed that this grade effect is only evident among males, and not females.
- ❑ There are no significant regional differences for these two items.

2001–2009 (Grades 7 to 12):

- ❑ There is no significant change between 2001 and 2009 among the total sample regarding body image or the desire to change one’s weight. Further, there are no changes among females or among males.

Figure 3.4.10
 Body Image and Desired Change in Weight by Sex, 2009 OSDUHS (Grades 7 to 12)



3.5 Externalizing Indicators

This chapter examines externalizing problem indicators that are risky behaviours, or conduct problems, such as delinquency, violence, and bullying. These behaviours have a negative impact not only on the individuals involved, but also on society as a whole.

3.5.1 Delinquent Behaviour

Since 1991, the OSDUHS has asked students about engaging in violent and non-violent delinquent behaviours. This section looks at the percentage of students engaging in delinquent behaviours at least once during the past year. Specifically, the questions used were: “*How often (if ever) in the last 12 months have you done each of the following...?*”

Non-Violent Acts:

- *taken a car without permission*
- *banged up or damaged something on purpose (vandalism)*
- *sold marijuana or hashish*
- *taken things worth \$50 or less*
- *taken things worth more than \$50*
- *broken into a locked building (excluding home)*
- *sold drugs other than marijuana or hashish*
- *ran away from home*
- *set something on fire that you weren't supposed to (added in 2007)*

Violent Acts:

- *beat up or hurt anyone (excluding sibling fights)*
- *taken part in gang fights*
- *carried a weapon (e.g., gun or knife)*
- *carried a handgun (added in 2005)*

An overall measure of delinquency was created, based on the 11 items used since 1991 (this excludes setting something on fire and carried a handgun). Overall delinquent behaviour is defined here as participating in 3 or more of the 11 acts at least once during the past year.

Overall Delinquent Behaviour

(Figures 3.5.1, 3.5.2; Tables A3.5.1a, A3.5.1b)

2009 (Grades 7 to 12):

- Among all students, the 13 behaviours ranked in the following manner, from most to least prevalent:

Fire setting.....	14.5%
Theft of goods worth \$50/less .	14.1%
Vandalism.....	13.5%
Assault	9.8%
Ran away	9.6%
Carried a weapon.....	7.3%
Car theft/Joyride.....	6.9%
Sold cannabis.....	6.4%
Theft of goods worth > \$50	5.2%
Break and entering.....	4.4%
Gang fighting.....	2.8%
Sold other drugs.....	2.2%
Carried a handgun	1.4%

- Overall, 10.7% (95% CI: 9.3%-12.2%) of students report delinquent behaviour (defined as 3 or more of 11 behaviours asked about over time). This percentage represents about 113,000 students.
- Males are significantly more likely than females to engage in delinquent behaviour (14.1% vs 7.2%, respectively).
- Students in grades 10 to 12 are the most likely to engage in delinquent behaviour (about 14%-15%).
- Despite some variation, there are no significant differences among the regions.

1999–2009 (Grades 7 to 12):

- ❑ Among the total sample of students, overall delinquent behaviour is significantly lower today compared to the estimate from a decade ago (17.5% in 1999 vs. 10.7% in 2009).
- ❑ There was a significant decline among males over the past decade, from 24.7% in 1999 to 14.1% in 2009, but not among females.
- ❑ Among the grades, only students in grade 8 and in grade 10 showed a significant decline in delinquent behaviour since 1999.
- ❑ Regionally, only the West and East regions showed a statistically significant decline in delinquent behaviour between 1999 and 2009.

1993–2009 (Grades 7, 9, 11 only):

Note: 1991 is excluded due to the absence of the weapon carrying question.

- ❑ The 2009 estimate (9.2%) for overall delinquent behaviour among grades 7, 9, and 11 only is significantly lower than the estimate found in 1993 (17.1%).

Figure 3.5.1
 Percentage Reporting Engaging in Delinquent Behaviours at Least Once
 During the Past Year by Sex, 2009 OSDUHS

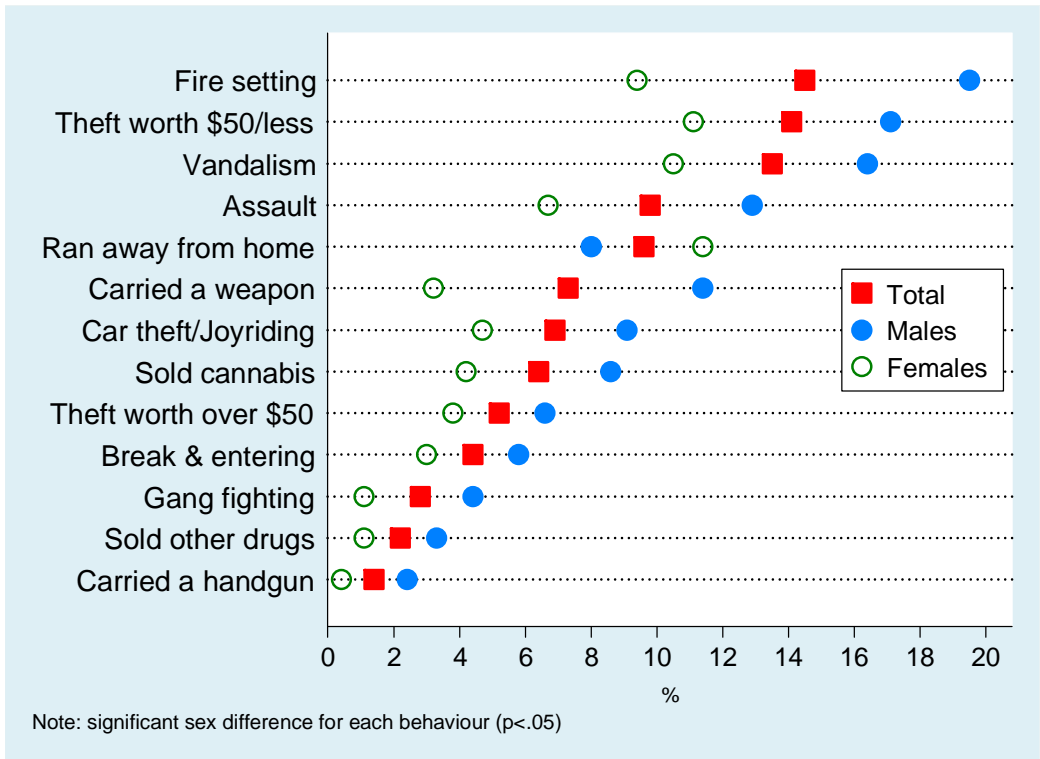
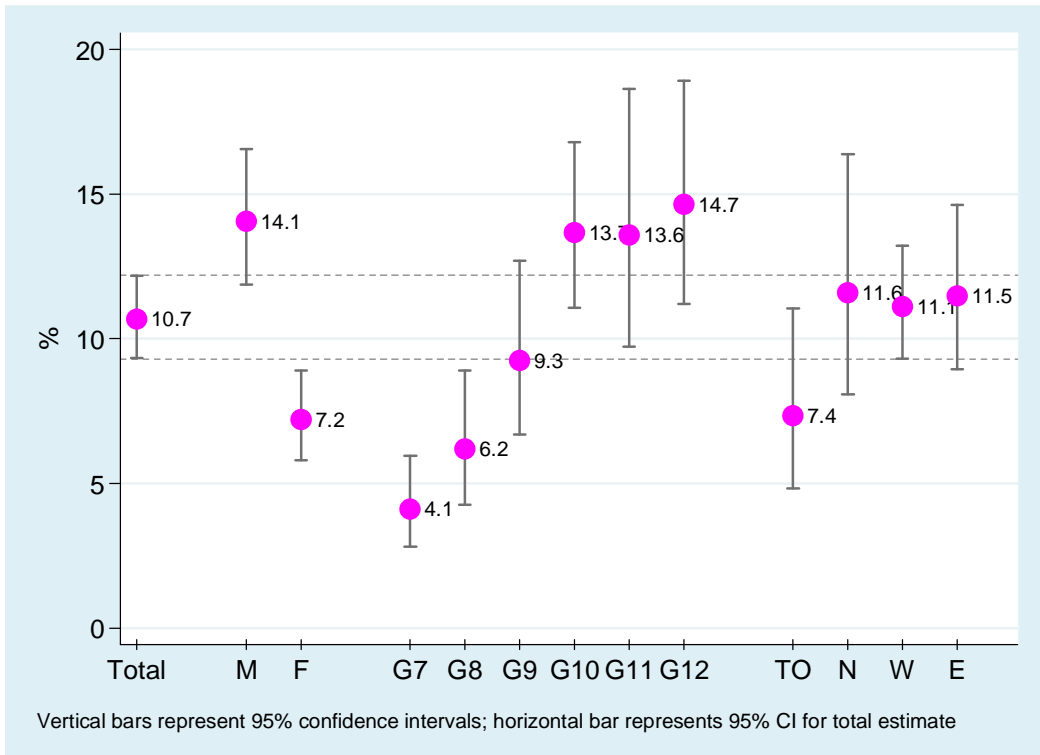


Figure 3.5.2
 Percentage Reporting Delinquent Behaviour (3+ of 11 Behaviours) During
 the Past Year by Sex, Grade, and Region, 2009 OSDUHS



3.5.2 Non-Violent Delinquent Behaviours

(Figures 3.5.1, 3.5.3, 3.5.4; Tables A3.5.1a, A3.5.1b)

- None of the nine non-violent behaviours significantly varies by region.

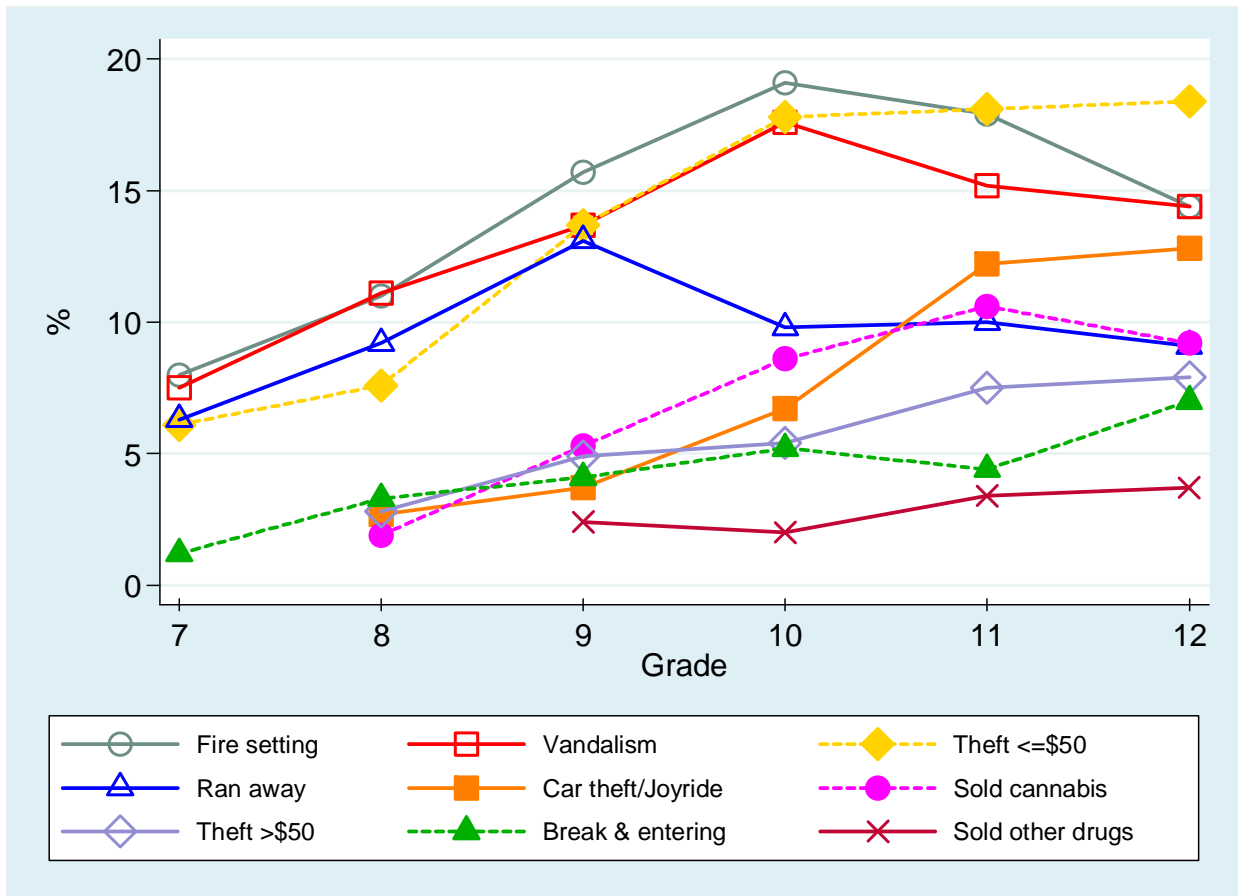
2009 (Grades 7 to 12):

- Males are significantly more likely than females to report eight of the nine non-violent behaviours. Females are more likely to report running away from home.
- Eight of the nine non-violent behaviours are significantly related to grade. Generally, the behaviours are most likely to be reported by students in grades 10 to 12. Running away from home does not significantly vary by grade.

1999–2009 (Grades 7 to 12):

- Between 1999 and 2009, reported acts of vandalism among the total sample significantly decreased (from 24.1% down to 13.5%).

Figure 3.5.3
Grade Profile: Percentage Reporting Non-Violent Delinquent Behaviours at Least Once During the Past Year, 2009 OSDUHS

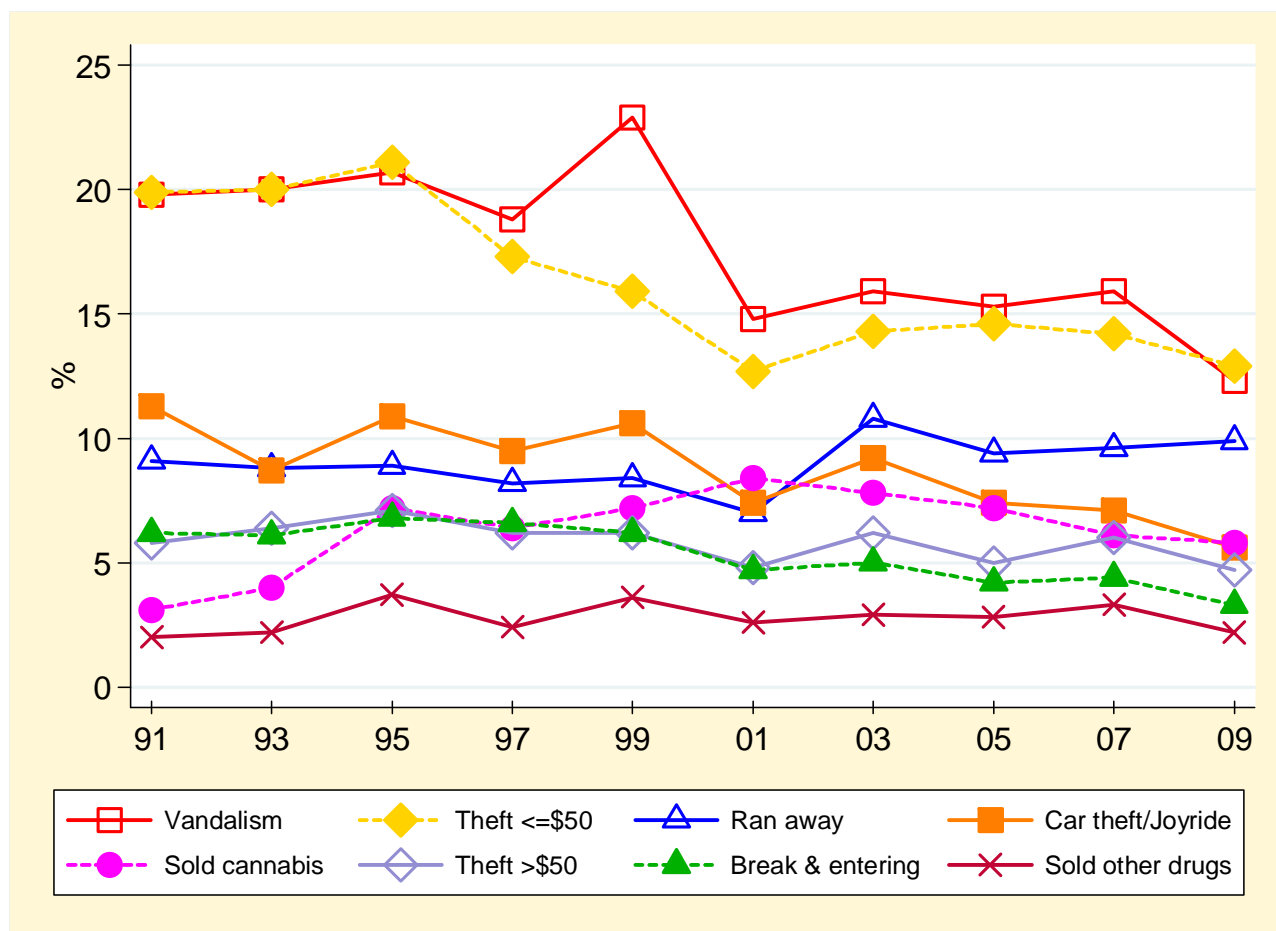


1991–2009 (Grades 7, 9, 11 only):

Over the long-term, four non-violent behaviours significantly changed among the total sample of students in grades 7, 9, and 11:

- Vandalism among the total sample significantly increased between 1991 and 1999, but then dropped in 2001 and has since remained stable. The 2009 estimate is significantly lower than that found in 1991.
- Among the total sample, theft under \$50 significantly declined between 1991 and 2001 and has since remained stable. The 2009 estimate is significantly lower than that found in 1991.
- The percentage of students reporting car theft/joyriding remained stable over the 1990s and early 2000s. However, the 2009 estimate is significantly lower than that found in 1991.
- The percentage of students reporting selling cannabis significantly increased between 1991 and 2001, and has since remained stable. The 2009 estimate is significantly higher than that found in 1991.

Figure 3.5.4
Percentage Reporting Non-Violent Delinquent Behaviours, 1991-2009 OSDUHS
(Grades 7, 9, and 11 only)



3.5.3 Aggressive and Violent Behaviours

(Figures 3.5.5 to 3.5.9; Tables A3.5.1a, A3.5.1b)

In this section, we present the past year prevalence of assault, gang fighting, carrying a weapon, and carrying a handgun.

2009 (Grades 7 to 12):

Assault

- ❑ Among all students, 9.8% (95% CI: 8.7%-11.2%) report assaulting someone at least once during the 12 months before the survey. This percentage represents about 104,000 students.
- ❑ Males are significantly more likely than females to report assaulting someone (12.9% vs 6.7%, respectively).
- ❑ Assault does not significantly vary by grade, or by region.

Gang Fighting

- ❑ Among all students, 2.8% (95% CI: 2.2% - 3.5%) report gang fighting at least once during the past 12 months. This percentage represents about 29,000 students in Ontario.
- ❑ Gang fighting is significantly more prevalent among males than females (4.4% vs 1.1%, respectively).
- ❑ Gang fighting does not significantly vary by grade, or by region.

Weapon Carrying

- ❑ Overall, 7.3% (95% CI: 6.2%-8.6%) of students report carrying a weapon, such as a knife or gun, at least once during the 12 months before the survey. This percentage represents about 78,000 students in Ontario.
- ❑ Males are significantly more likely than females to report carrying a weapon (11.4% vs 3.2%, respectively).
- ❑ Weapon carrying does not significantly vary by grade, or by region.

Carrying a Handgun

- ❑ Overall, 1.4% (95% CI: 1.0%-1.9%) of students report carrying a handgun at least once during the 12 months before the survey. This percentage represents about 14,000 students in Ontario.
- ❑ Males are significantly more likely than females to report carrying a weapon (2.4% vs less than 0.5%, respectively).
- ❑ Although there is grade variation, the differences are not statistically significant.
- ❑ No significant regional differences are evident.

1999–2009 (Grades 7 to 12):

- ❑ The percentage of students reporting assaulting someone significantly declined over the past decade, from 19.9% in 1999 down to 9.8% in 2009.
- ❑ The 2009 estimate (2.8%) for gang fighting among the total sample of students is significantly lower than the estimate from 2007 (4.8%) and that from 1999 (7.7%).
- ❑ The percentage of students reporting carrying a weapon significantly declined over the past decade, from 13.5% in 1999 down to 7.3% in 2009.

Figure 3.5.5
 Percentage Reporting Assaulting Someone at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS

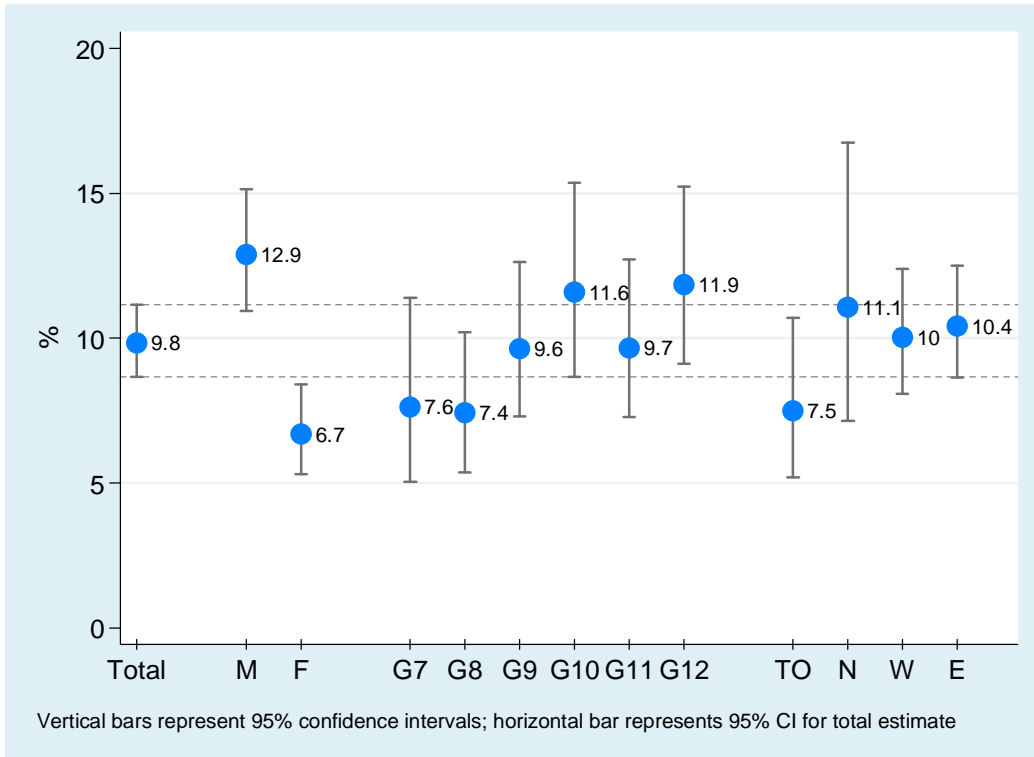


Figure 3.5.6
 Percentage Reporting Gang Fighting at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS

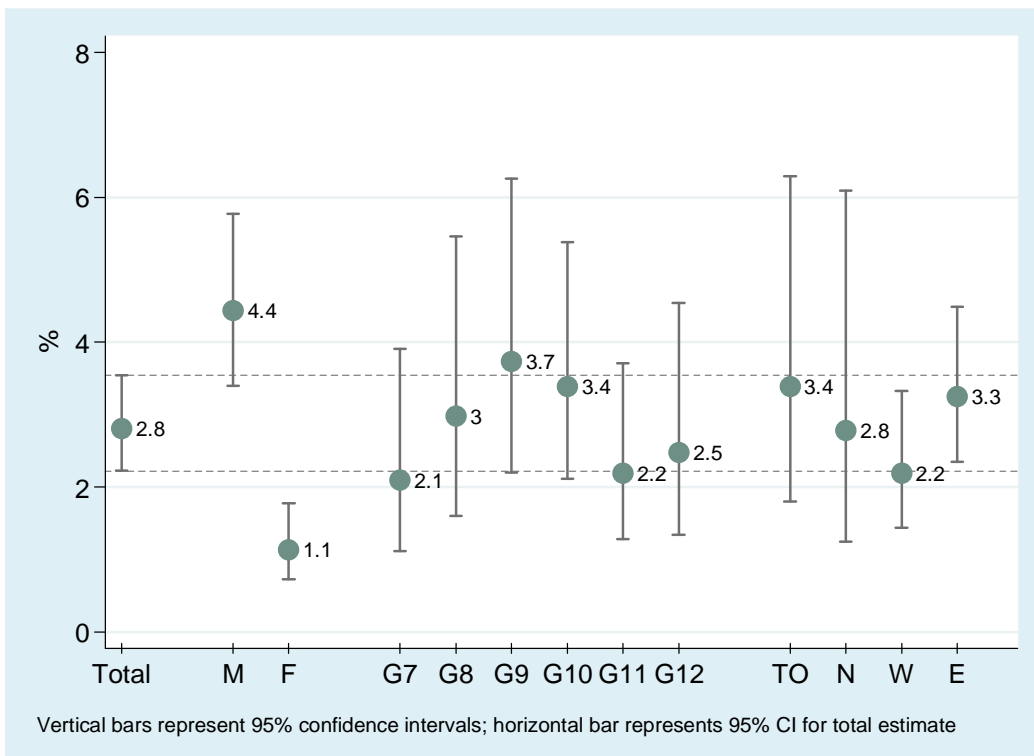


Figure 3.5.7
 Percentage Reporting Carrying a Weapon (i.e., knife or gun) at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS

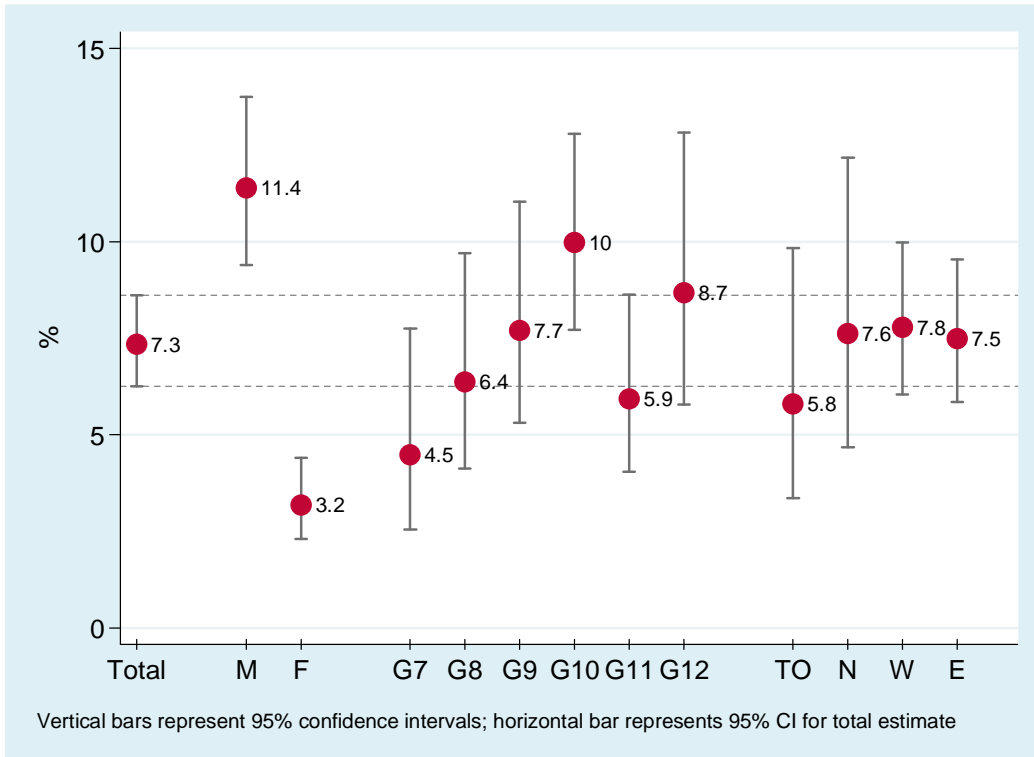
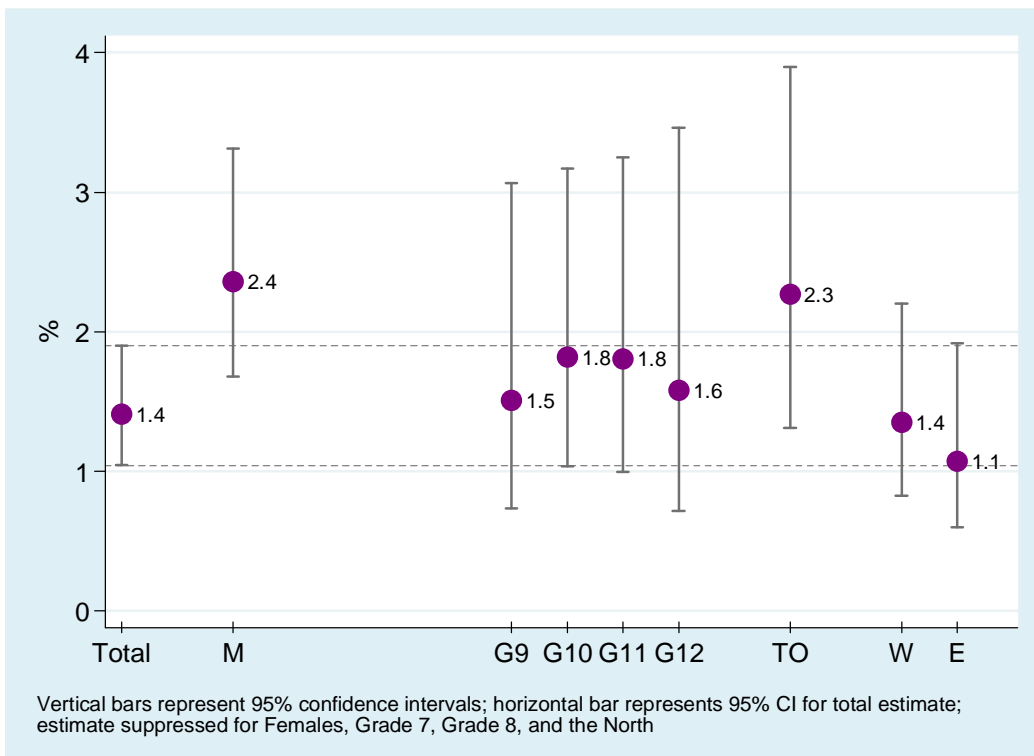


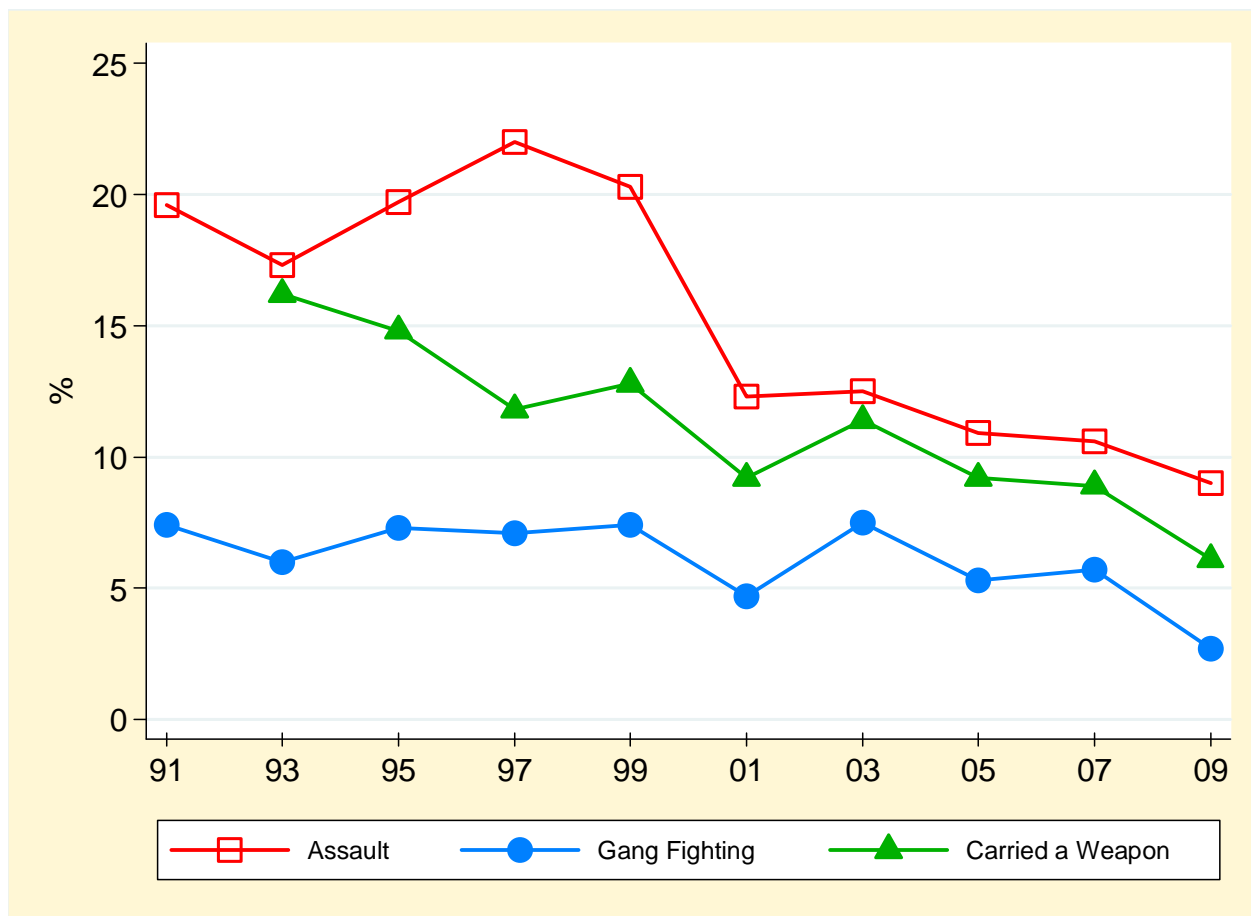
Figure 3.5.8
 Percentage Reporting Carrying a Handgun at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS



1991–2009 (Grades 7, 9, 11 only):

- Reports of assaulting someone peaked in the late 1990s, declined sharply in 2001, and have since remained relatively stable. The 2009 estimate is significantly lower than that found in 1991.
- Reports of gang fighting remained stable between 1991 and 2007. However, in 2009 this percentage significantly declined.
- Carrying a weapon, such as a knife or gun, was highest in 1993 and has since steadily declined. The 2009 estimate is significantly lower than that found in 1993.

Figure 3.5.9
Percentage Reporting Violent Behaviours, 1991-2009 OSDUHS (Grades 7, 9, 11 only)



3.5.4 Gang Membership

(Figure 3.5.10)

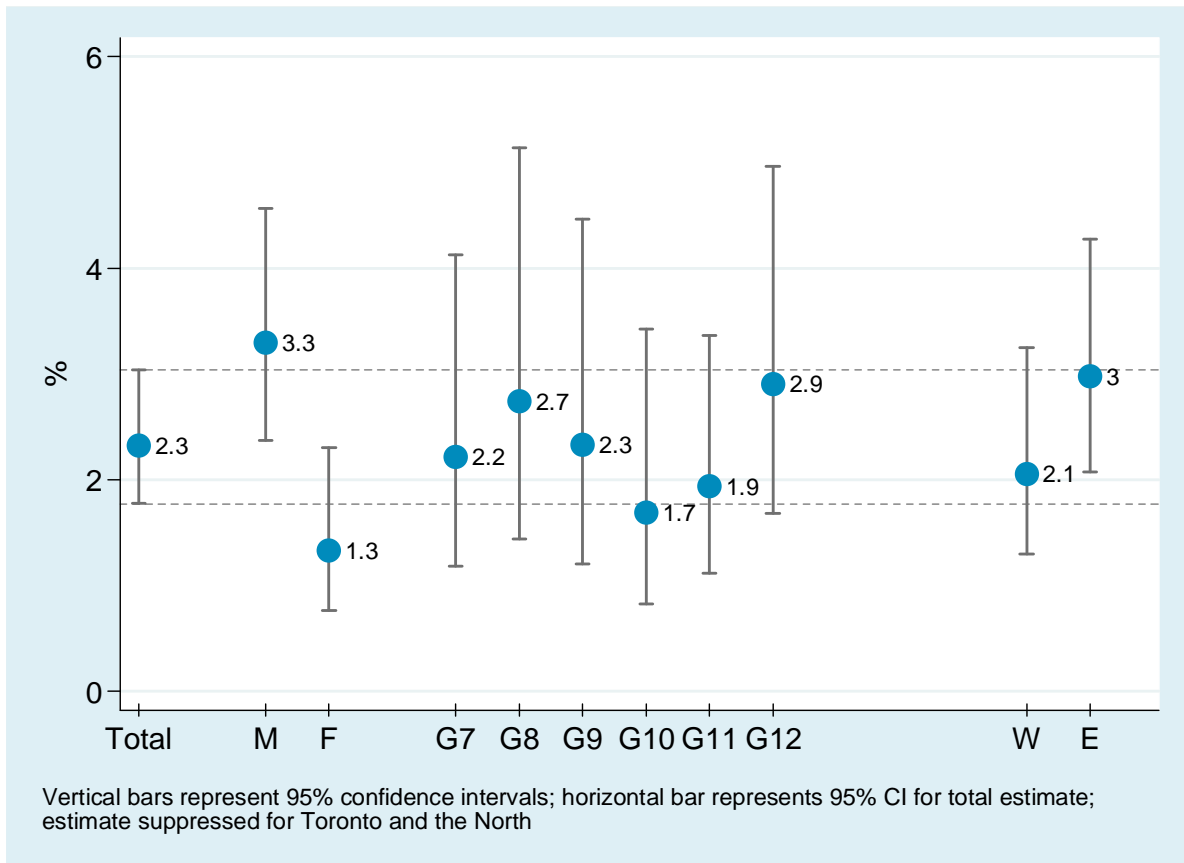
A random half sample of students was asked about gang membership with the use of the question: “Do you belong to a gang right now?”

2009 (Grades 7 to 12):

- Among the total sample of students, 2.3% (95% CI: 1.8%-3.0%) report that they do belong to a gang of some type. This estimate represents about 24,000 students in Ontario.

- Males are significantly more likely than females to report belonging to a gang (3.3% vs 1.3%, respectively).
- There are no significant differences among the grades.
- There are no significant differences among the regions.

Figure 3.5.10
Percentage Reporting Belonging to a “Gang” by Sex, Grade, and Region, 2009 OSDUHS



3.5.5 Violence on School Property

(Figures 3.5.11, 3.5.12; Table A3.5.2)

Starting in 2001, the OSDUHS included a question about fighting on school property: *“During the last 12 months, how many times were you in a physical fight on school property?”* In this section, we present the percentage reporting at least one occasion during the past year.

Starting in 2003, the OSDUHS asked students about being threatened with a weapon on school property. Specifically, the question was: *“During the last 12 months, how many times has someone threatened or injured you with a weapon, such as a gun, knife or club on school property?”* In this section, we describe the percentage reporting at least one occasion during the past year.

2009 (Grades 7 to 12):

Physical Fighting

- ❑ Among the total sample, 15.1% (95% CI: 13.4%-16.9%; about 156,000 students) report fighting on school property at least once in the past 12 months (9.5% report one time only, while 5.6% report two or more times).
- ❑ There is a significant sex difference, with males much more likely to report fighting at school than females (23.3% vs 6.7%, respectively).
- ❑ Fighting at school significantly decreases with grade. Students in grades 7 and 8 (about 22%) are most likely to fight at school, whereas 12th-graders are the least likely (10.0%).
- ❑ There are no significant differences among the regions.

Threatened or Injured with a Weapon

- ❑ Among the total sample, 6.8% (95% CI: 5.7%-8.1%; about 70,000 students) report having been threatened or injured with a weapon on school property at least once in the past 12 months (4.1% report that this occurred only one time, while 2.7% report two or more times).
- ❑ Males are significantly more likely than females to report being threatened or injured with a weapon at school (8.5% vs 5.1%, respectively).
- ❑ There is a significant grade effect, with 7th-graders less likely than older students to report being threatened with a weapon on school property.
- ❑ There are no significant differences among the regions.

2001–2009 (Grades 7 to 12):

- ❑ There have been no significant changes over this past decade regarding fights at school or being threatened with a weapon at school among the total sample of students. Further, no significant changes among subgroups are evident.

Figure 3.5.11
 Percentage Reporting Physically Fighting at School at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS

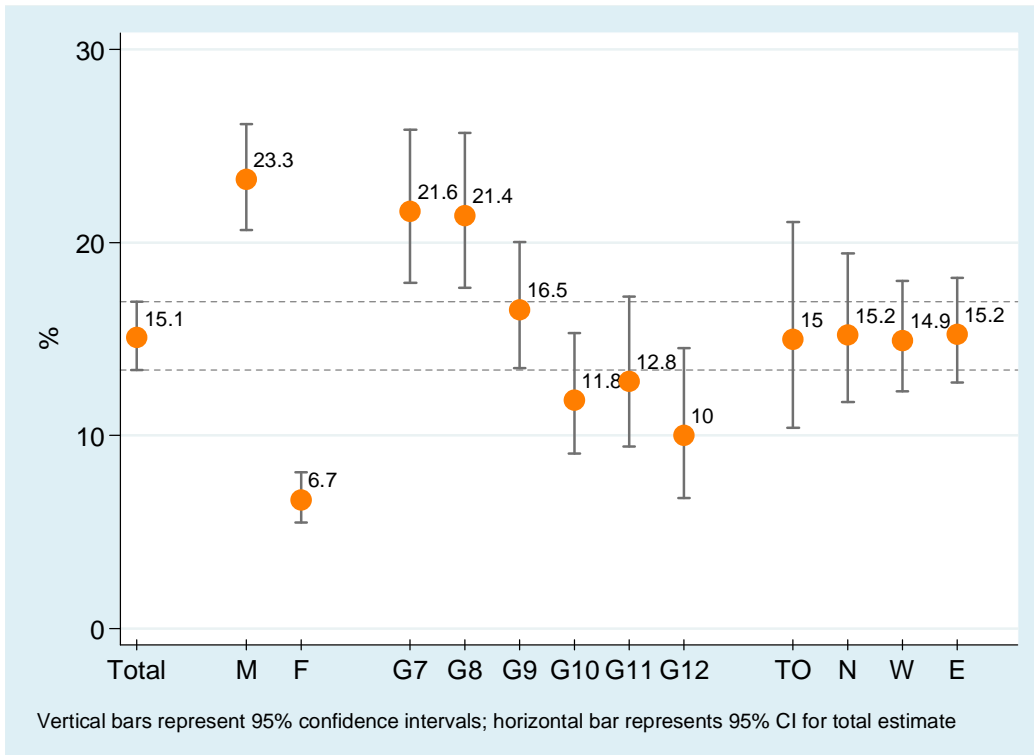
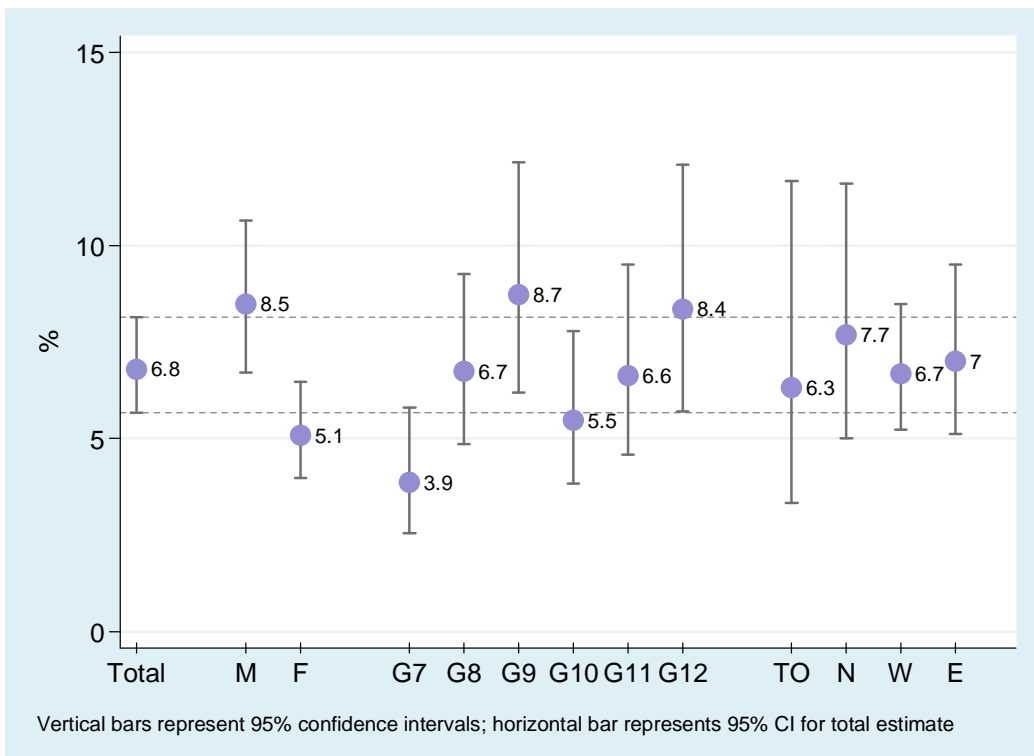


Figure 3.5.12
 Percentage Reporting Having Been Threatened or Injured with a Weapon at School at Least Once During the Past Year by Sex, Grade, and Region, 2009 OSDUHS



3.5.6 Bullying at School

(Figures 3.5.13 to 3.5.15; Table A3.5.3)

Beginning in 2003, the OSDUHS included four questions about bullying. Bullying was defined in the questionnaire as “...when one or more people tease, hurt or upset a weaker person on purpose, again and again. It is also bullying when someone is left out of things on purpose.” Note that the last sentence was added in 2005.

Students were asked about the typical way they were bullied at school, and the typical way they bullied others, if at all. The questions were: “*In what way were you bullied the most at school?*” and “*In what way did you bully other students the most at school?*” For each of these questions, students were asked to choose only one among the following four response options: was not involved in bullying at school; *physical attacks* (for example, beat up, pushed or kicked); *verbal attacks* (for example, teased, threatened, spread rumours); or *stole or damaged* possessions. The prevalence rates for bullying victim and perpetrator are based on these modal questions.

Students were also asked about the frequency of bullying with the questions: “*Since September, how often have you been bullied at school?*” and “*Since September, how often have you taken part in bullying other students at school?*” The response options were: was not bullied at school; daily or almost daily; about once a week; about once a month; or less than once a month.

2009 (Grades 7 to 12):

Bullying Victims at School

- ❑ Among all students in grades 7 to 12, 28.9% (95% CI: 26.9%-31.0%) report being bullied at school since September. This represents about 300,000 students in Ontario.
- ❑ The most prevalent form of victimization is verbal (23.6%), while 2.9% are mainly

bullied physically, and 2.4% are mainly victims of theft or vandalism.

- ❑ About 8.1% of students report being bullied on a daily or weekly basis, and about 19.7% are bullied monthly or less often.
- ❑ Females are more likely than males to report being bullied in any manner (31.4% vs 26.5%, respectively). Females are more likely to be bullied verbally than males (28.1% vs 19.1%), while males are more likely to be bullied physically than are females (4.1% vs 1.7%). Both are equally likely to be victims of theft or vandalism (1.5% for females, 3.3% for males).
- ❑ There is significant grade variation, with students in grades 7 to 10 most likely to be bullied (about one-third) in any manner, while 12th-graders (22.6%) are least likely. Grade 7 and 8 students are the most likely to be bullied physically. These youngest grades are also most likely to be bullied on a daily/weekly basis (about 12%).
- ❑ Among the regions, Toronto students (23.0%) are the least likely to be bullied, compared with students in the other three regions (about 30%).

Bullying Perpetrators at School

- ❑ Among all students, 25.1% (95% CI: 23.2%-27.2%) report bullying other students at school. This represents about 260,000 students in Ontario.
- ❑ The most prevalent form of bullying others is through verbal attacks (21.3%), followed by physical attacks (3.5%). Theft or damage to others’ property is reported by less than 1% of students.
- ❑ About 6.2% of students report bullying others on a daily or weekly basis, and 18.8% report doing so monthly or less often.

- ❑ Males are significantly more likely than females to report bullying others (28.1% vs 22.1%, respectively).
- ❑ There are no significant differences among the grades.
- ❑ There are no significant regional differences.

- ❑ There has been no significant change in reports about the main way students were bullied, or in the frequency of being bullied.
- ❑ Among the total sample, the percentage reporting bullying others in 2009 (25.1%) is significantly lower than the estimate from 2003 (29.7%). Again, males show a decline over time, but not females.

2003–2009 (Grades 7 to 12):

- ❑ There has been a slight decrease in the prevalence of being bullied between 2003 and 2009 among the total sample of students, but this decline is not statistically significant. However, the decline is significant among males, but not among females. The declining trend is also significant among the youngest grade in our sample, the 7th-graders.

- ❑ There has been no change in the main way students report bullying others, or in the frequency of bullying others.

Figure 3.5.13
Percentage Reporting the Most Common Way They Were Bullied at School by Sex, 2009 OSDUHS

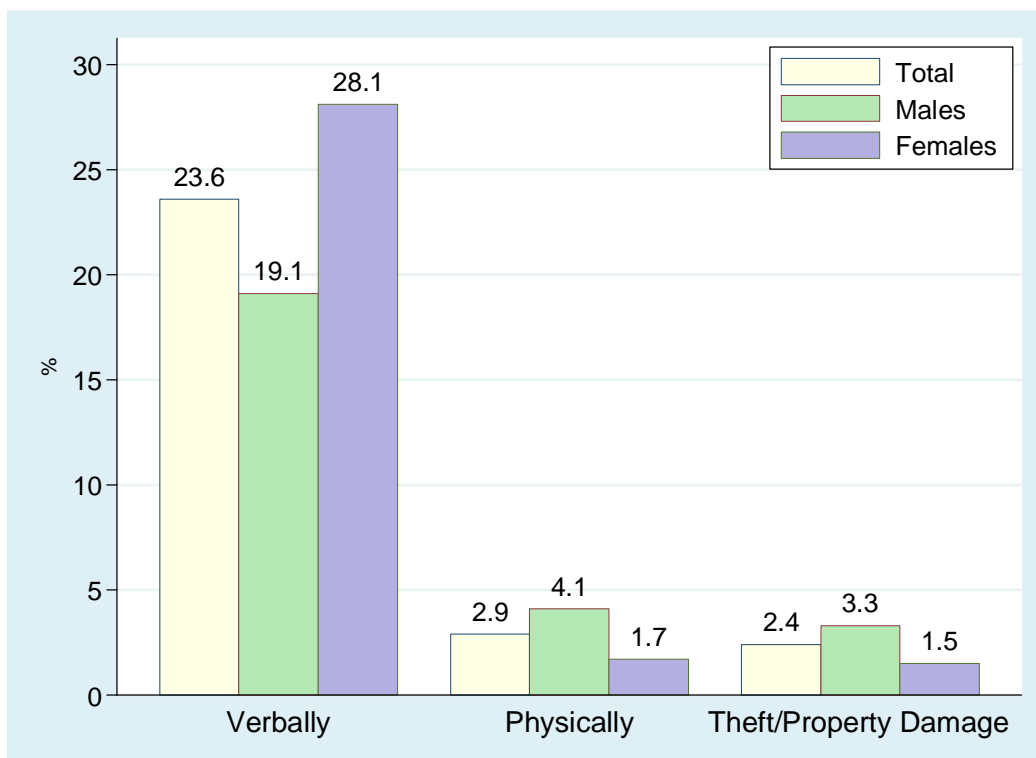


Figure 3.5.14
 Percentage Reporting Being Bullied at School (in Any Manner) Since September
 by Sex, Grade, and Region, 2009 OSDUHS

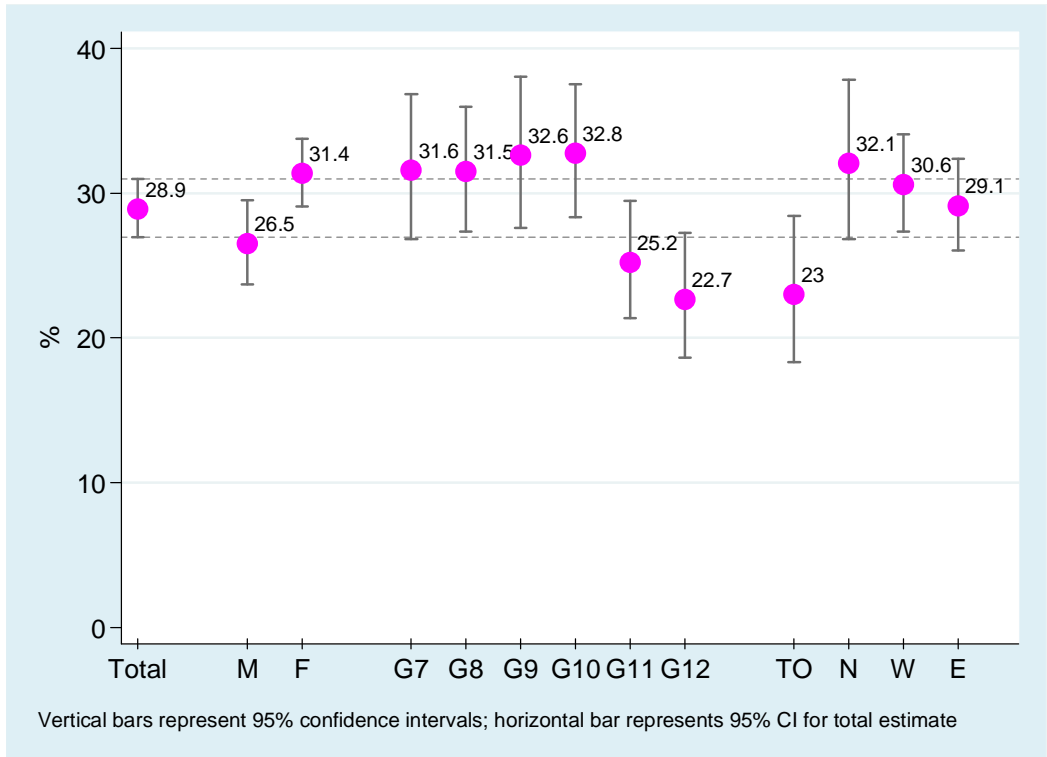
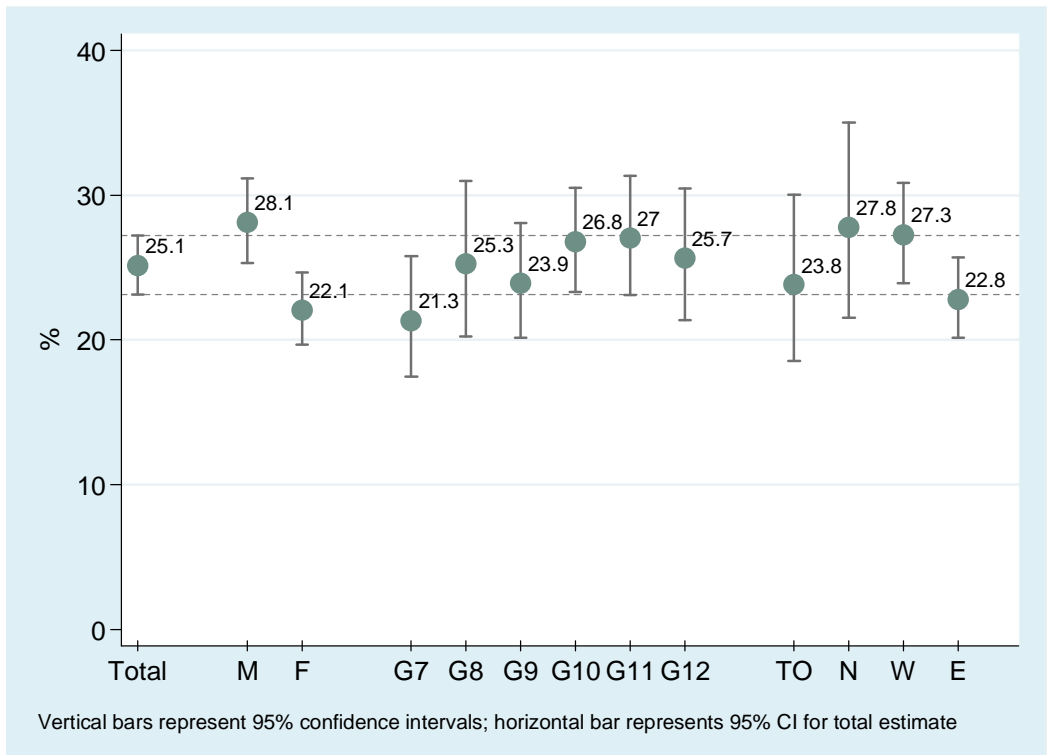


Figure 3.5.15
 Percentage Reporting Bullying Others at School (in Any Manner) Since September
 by Sex, Grade, and Region, 2009 OSDUHS



3.6 Gambling and Video Gaming

3.6.1 Gambling Activity

(Figures 3.6.1 to 3.6.4; Table A3.6.1)

Starting in 2001, the OSDUHS included questions about gambling activity during the past year. A random half sample of students was asked “*How often (if ever) in the last 12 months have you done each of the following?*” The 11 activities listed below were asked about in 2009.

- *played cards for money?*
- *played bingo for money?*
- *played dice for money (added in 2003)*
- *bet money in sports pools?*
- *bought sports lottery tickets (such as Sports Select or Proline)?*
- *bought any other lottery tickets, including instant lottery (such as 6-49, Scratch & Win, pull-tabs)?*
- *bet money on video gambling machines, slot machines, or other gambling machines?*
- *bet money at a casino in Ontario?*
- *bet money over the Internet (added in 2003)*
- *bet money on poker over the Internet (added in 2007)*
- *bet money in other ways (added in 2003)*

In this section, we present the percentage of students who report gambling money on each activity at least once in the past 12 months, and the percentage who report at least one of 10 activities (excluding internet poker). In addition, the percentage reporting gambling on 5 or more out of 10 activities (excluding internet poker) is also presented as an indicator of multi-gambling activity.

Individual Gambling Activities in 2009 (Grades 7 to 12):

- Among all students, the 11 activities ranked as follows:

Cards	20.2%
Gambled in other ways.....	18.8%
Lottery tickets.....	15.5%
Sports pools	12.6%
Bingo	7.2%
Dice	6.1%
Sports lottery tickets.....	5.1%
Video gambling machines ...	3.9%
Any internet gambling.....	3.0%
Internet poker	2.7%
Ontario casinos.....	1.3%

- Eight of the 11 gambling activities significantly vary by sex. Males are significantly more likely than females to: play cards for money; play dice for money; bet in sports pools; buy sports lottery tickets; play video gambling machines or slots; bet over the internet; bet at internet poker; and to gamble in other ways not listed. The activities that do not differ by sex are playing bingo, buying lottery tickets, and betting in casinos.
- There are significant grade differences for 6 of the 11 gambling activities: playing cards, sports pools, sports lottery tickets, other lottery tickets, casino gambling, and playing dice. Generally, these activities increase with grade and peak in grade 12.
- Only two gambling activities significantly vary by region. Toronto students are least likely to gamble at sports pools compared with students in the other regions. Northern students and Western students are most likely to gamble at video gaming machines.

Figure 3.6.1
 Percentage Reporting Gambling Activities in the Past Year by Sex, 2009 OSDUHS

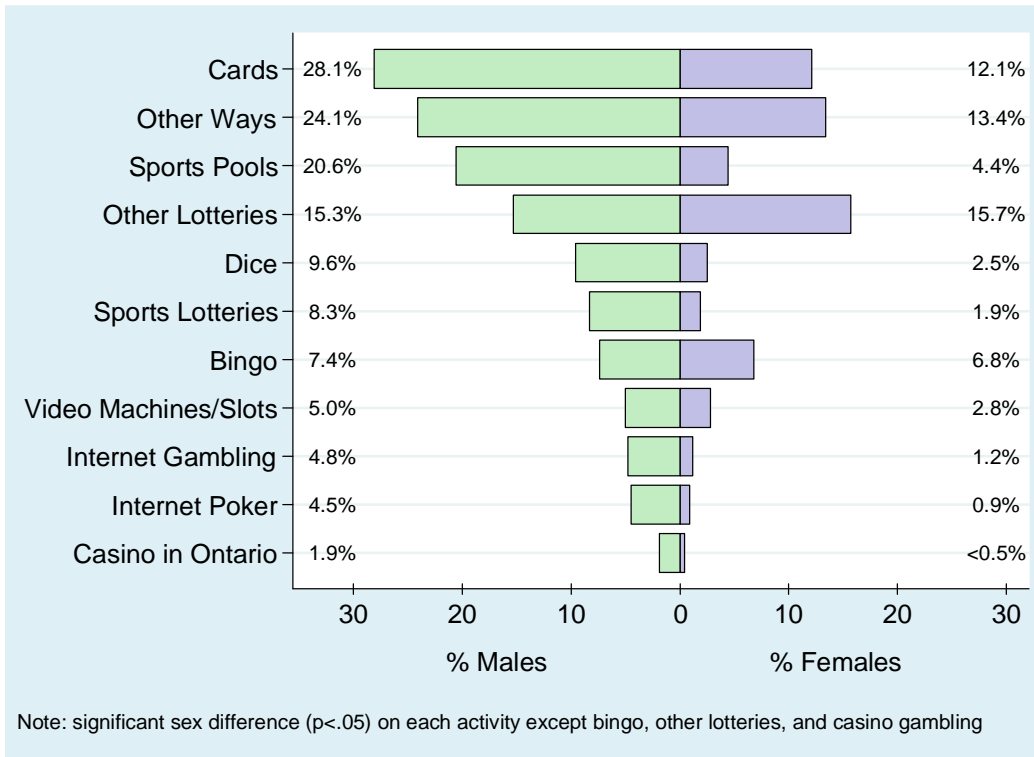
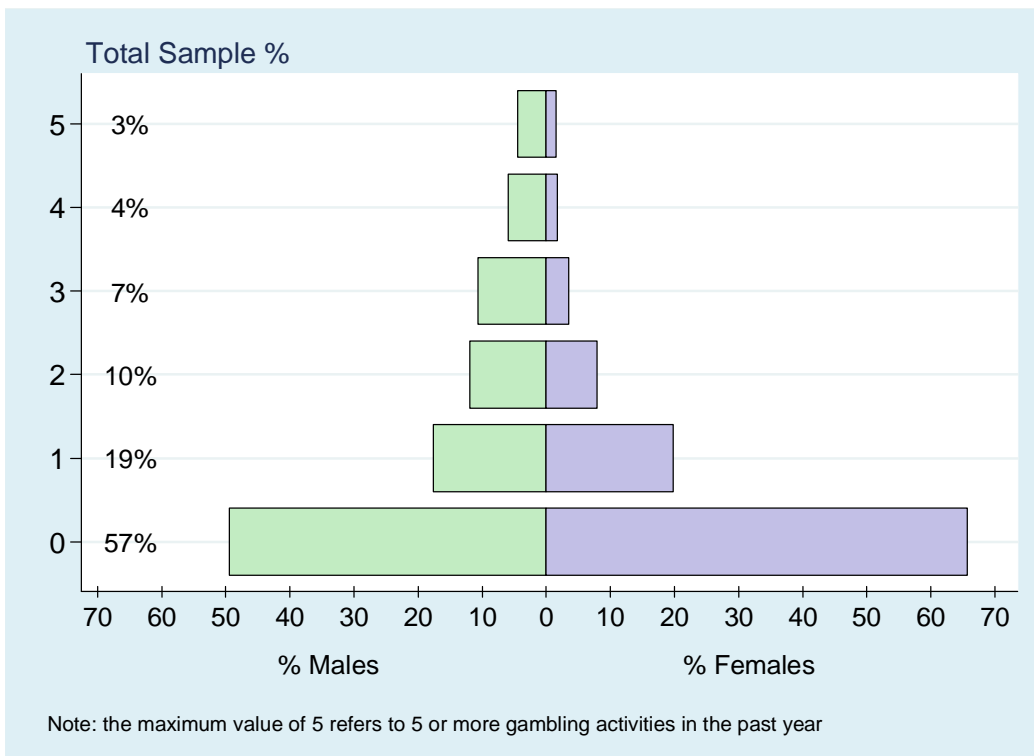


Figure 3.6.2
 Percentage Reporting Number of Gambling Activities (of 10) in the Past Year by Sex, 2009 OSDUHS



Any Gambling Activity in 2009 (Grades 7 to 12)

- ❑ Among all students, 42.6% (95% CI: 40.2%-45.0%) report at least 1 of 10 gambling activities during the past 12 months. This percentage represents about 452,000 students across Ontario.
- ❑ Males are more likely to report any gambling activity than females (50.5% vs 34.3%, respectively).
- ❑ There is variation by grade, with 12th-graders (56.0%) most likely to report any gambling activity.
- ❑ There are no significant differences among the regions.

Multi-Gambling Activity in 2009 (Grades 7 to 12):

- ❑ Among all students, 3.0% (95% CI: 2.2%-4.0%) gambled at five or more activities during the past 12 months. This percentage represents about 32,000 students across Ontario.
- ❑ Males are more likely to report multi-gambling activity than females (4.5% vs 1.5%, respectively).
- ❑ Despite some variation among the grades regarding multi-gambling activity, these differences are not statistically significant.
- ❑ There are no significant differences among the regions.

2001–2009 (Grades 7 to 12):

- ❑ Among the total sample, no individual gambling activity increased in 2009. In fact, several activities significantly decreased in 2009 compared with estimates from earlier years: cards, bingo, sports pools, sports lottery tickets, other lottery tickets, video gambling machines, dice, and other gambling activities. The percentage gambling over the internet, and the percentage gambling in casinos remained stable over time.
- ❑ The percentage of the total sample reporting any gambling activity in 2009 (42.6%) is significantly lower than the estimate from 2007 (53.2%) and that from 2003 (57.3%).
- ❑ There has been a significant decrease in multi-gambling activity between 2003 (6.1%) and 2009 (3.0%).

Figure 3.6.3
 Percentage Reporting Any Gambling Activity (of 10 Activities) in the Past Year
 by Sex, Grade, and Region, 2009 OSDUHS

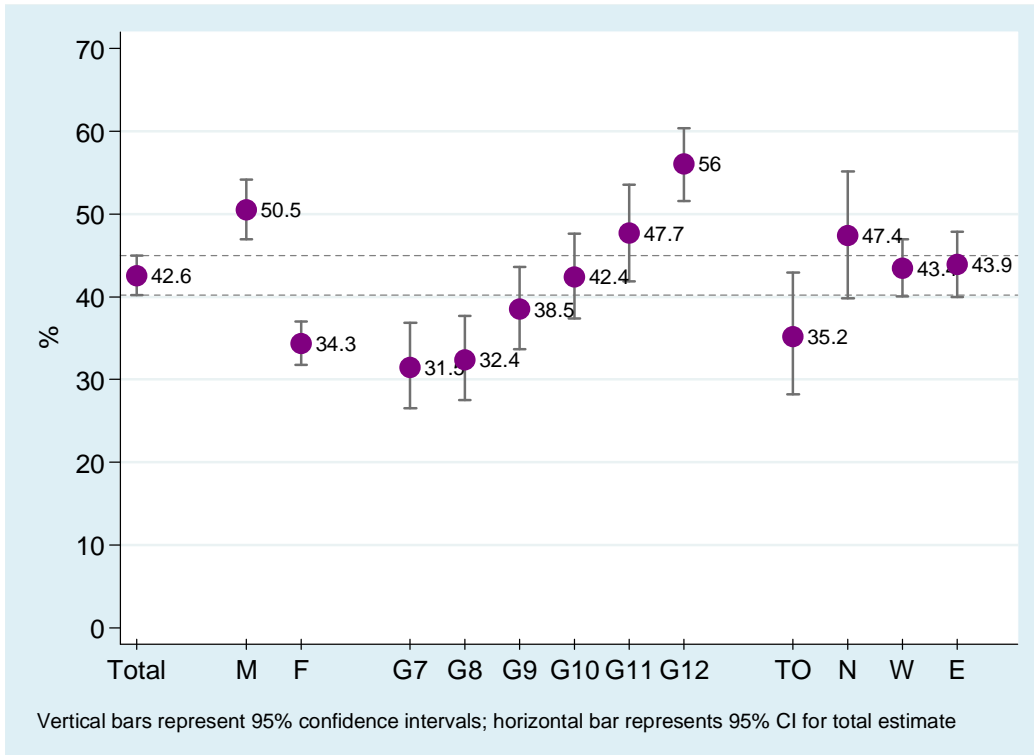
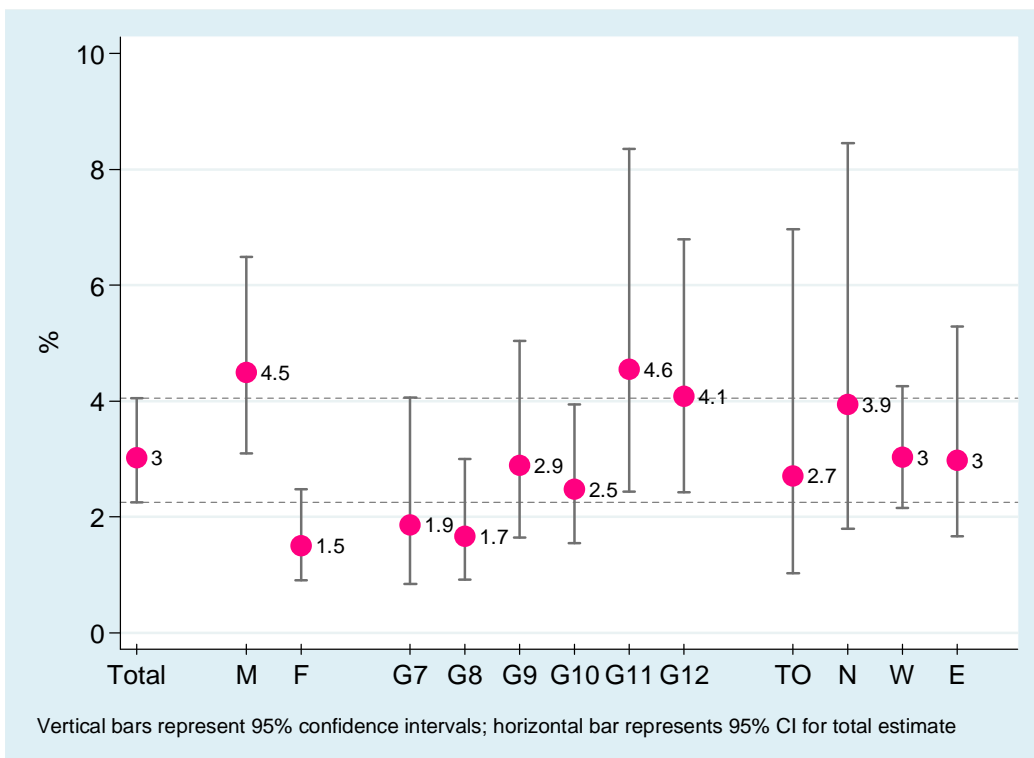


Figure 3.6.4
 Percentage Reporting Multi-Gambling Activity (5+ /10 Activities) in the Past Year
 by Sex, Grade, and Region, 2009 OSDUHS



3.6.2 Gambling Problems

(Figure 3.6.5; Tables 3.5.1, A3.6.2)

Starting in 1999, students were asked about gambling problems using the *South Oaks Gambling Screen Revised for Adolescents* (SOGS-RA; Winters, Stinchfield, & Fulkerson, 1993). Between 1999 and 2003, the 12-item screen was used, but in 2005 this was reduced to six items.⁵ The following six questions were asked, each referring to the past 12 months:

- *Has your betting ever caused any problems for you such as arguments with family/friends, problems at school/work?*
- *Have you ever gambled more than you had planned to?*
- *Has anyone criticized your betting or told you that you had a gambling problem, regardless of whether you thought it was true or not?*
- *Have you had arguments with family/friends because of the money you spend on gambling?*
- *Have you ever skipped or been absent from school or work due to betting activities?*
- *Have you borrowed money or stolen something in order to bet or to cover gambling debts?*

Students were also asked what was the largest amount of money gambled in the past 12 months, with response options ranging from \$1 or less, up to \$200 or more.

To identify those who may have a gambling problem, we examined the percentage that answered positive to two or more of the six questions. The reliability coefficient (α) for these items is 0.71.

2009 (Grades 7 to 12):

- ❑ Among only those students who report gambling in the past year, the majority (87%) report that the largest amount of money gambled was less than \$50. About 6% report gambling between \$50 and \$99; 2% report between \$100 and \$199; and another 5% report spending \$200 or more.
- ❑ Overall, 2.8% (95% CI: 2.0%-3.9%) of students have a gambling problem. This percentage represents about 29,000 Ontario students.
- ❑ Males are more likely than females to be at risk for a gambling problem (4.3% vs 1.2%, respectively).
- ❑ Although there is some variation among the grades regarding the likelihood of a gambling problem, these differences are not statistically significant.
- ❑ There is no significant variation by region.

1999–2009 (Grades 7 to 12):

- ❑ The percentage of all students indicating a gambling problem was significantly lower in 2009 (2.8%) compared with the estimate from 1999 (6.8%).
- ❑ The decrease in problem gambling over the past decade is evident among both male and female students.
- ❑ Students in grades 9 and 10 show significant decreases over the past decade.
- ❑ Only students in the West region show a significantly lower estimate in 2009 compared with the respective estimate from 1999.

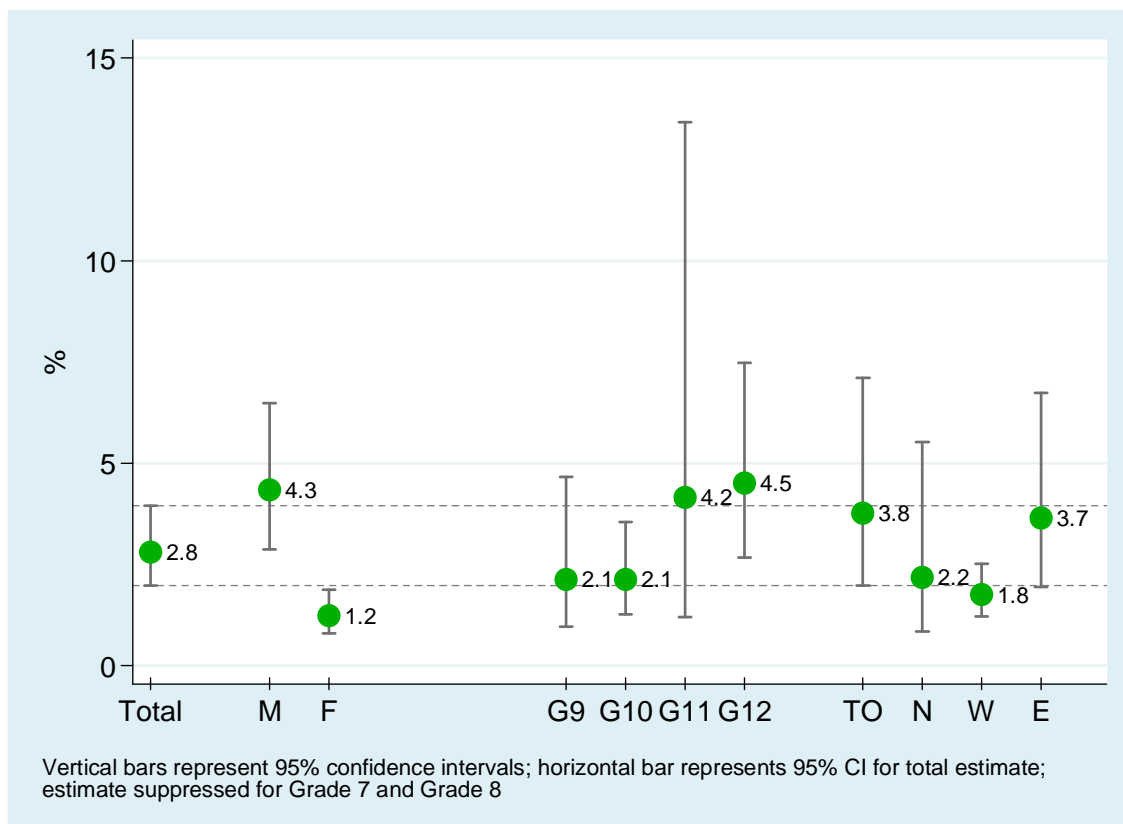
⁵ A ROC analysis on the 2003 data was performed to reduce the number of SOGS items from 12 to 6 in 2005, and to determine the corresponding cut-off for a gambling problem.

Table 3.6.1: Percentage of All Students Reporting SOGS-RA Gambling Problem Indicators Experienced During the Past Year, 2009 OSDUHS (Grades 7 to 12)

South Oaks Gambling Screen Items (Reduced)	Total Sample (N=4,851)	Males (N=2,286)	Females (N=2,565)
1. Gambled more than you had planned to	4.3	7.0	1.6 *
2. Betting caused problems such as arguments with family/friends, problems at school/work	1.9	2.6	1.3 *
3. Skipped or been absent from school or work due to betting activities	1.9	2.6	1.2
4. Anyone criticized your betting or told you that you had a gambling problem, regardless of whether you thought it was true or not	1.6	2.6	0.5 *
5. Borrowed money/stolen something in order to bet or to cover gambling debts	1.5	2.0	1.0
6. Had arguments with family/friends because of the money you spend on gambling	1.4	2.1	0.6 *

Notes: (1) entries are the percentages responding "Yes"; (2) N=number of students surveyed; (3) * indicates significant sex difference, $p < .05$; (4) based on a random half sample

Figure 3.6.5
Percentage of All Students Indicating a Gambling Problem (Reduced SOGS-RA) by Sex, Grade, and Region, 2009 OSDUHS



3.6.3 Video Gaming

(Figure 3.6.6; Tables 3.6.2, A3.6.3)

Starting in 2007, the OSDUHS asked a random half sample of students about video game playing (either on a computer, TV, or in an arcade) and related problems using the 9-item *Problem Video Playing (PVP)* scale (Tejeiro Salguero & Bersabe Moran, 2002). The scale measures the dimensions of preoccupation, tolerance, loss of control, withdrawal, escape, disregard for consequences, and disruption to family/school. The following nine questions were asked:

- *When you were not playing video games, did you keep thinking about them (such as planning your next game, remembering past games)?*
- *Did you spend an increasing amount of time playing video games?*
- *Did you try to control, cut back, or stop playing video games, or play for longer than you planned to?*
- *Did you get restless or irritated when you could not play video games?*
- *Did you play video games more often when you felt bad (sad, angry or nervous) or had problems?*
- *When you lost in a game or did not get the results you wanted, did you play again to achieve your target?*
- *Did you skip school or work, or lie or steal, or argue with someone so that you could play video games?*
- *Did you ignore homework, or go to bed late, or spend less time with family and friends because of your video game playing?*
- *Did you ever hide your video game playing from your family or friends?*

Each question referred to the past 12 months and each had the response options of “yes,” “no,” or “don’t play video games.” Reporting five or more of the nine problems was used to indicate a video gaming problem. The reliability coefficient (α) for these items is 0.76. Also included was a question about frequency of playing video games during the past 12 months.

Frequency of Playing Video Games 2009 (Grades 7 to 12):

- Among the total sample, 11.3% report that they do not play video games; 29.2% report

playing about 3 times a month or less often; 10.5% play once a week; 16.0% play 2 to 3 times a week; 13.2% play 4 to 5 times a week; and 19.8% play daily or almost daily.

- Males are significantly more likely than females to play video games daily (32.4% vs. 5.9%, respectively).
- Despite some variation, there are no significant differences among the grades in the percentage that play daily.
- There are significant regional differences, with students in Toronto (16.6%) least likely to play daily, whereas Northern students (25.6%) are most likely. Students in the West and East regions fall in between (about 20%).

Video Gaming Problems 2009 (Grades 7 to 12):

- The percentage of students reporting each of the nine individual problems is presented in Table 3.6.2. Males are significantly more likely than females to report each problem.
- Among the total sample, 10.3% (95% CI: 9.0%-11.7%) have a video gaming problem. This represents about 97,000 students.
- Males are significantly more likely than females to indicate a problem with video gaming 16.0% vs 4.0%, respectively).
- There are no significant differences among the grades.
- There are no significant differences among the regions.

2009 vs. 2007 (Grades 7 to 12):

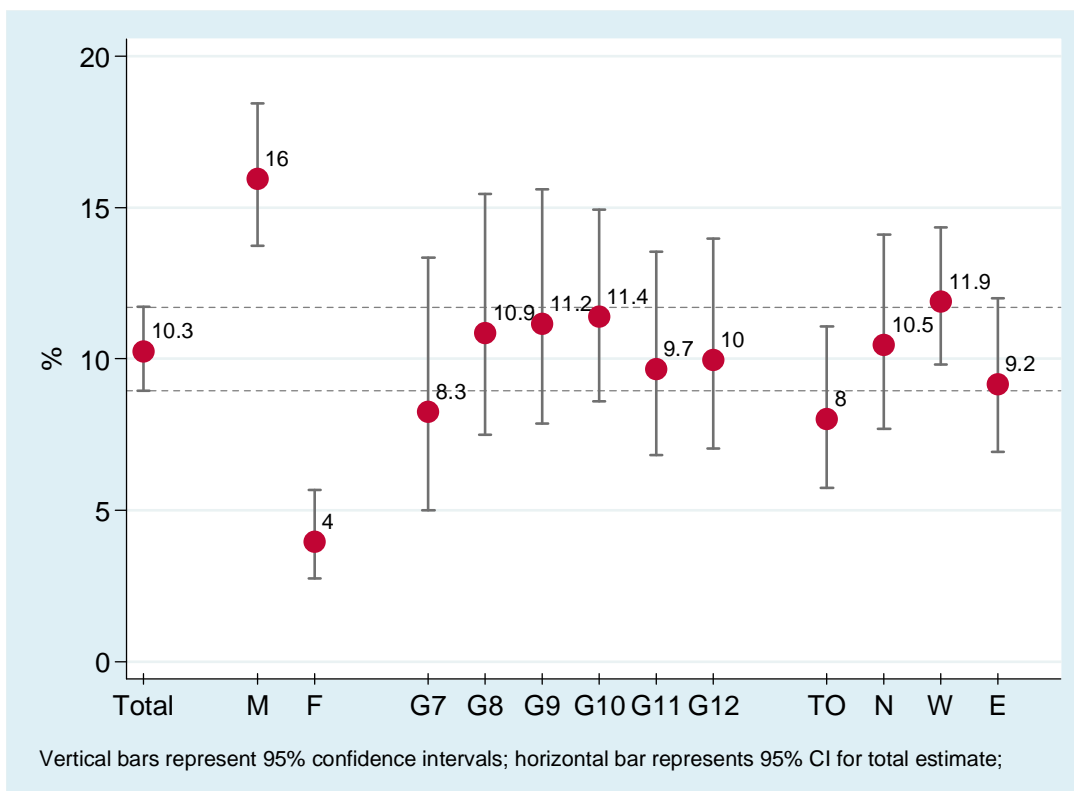
- There was no significant change in the percentage of all students indicating a video gaming problem between 2007 (9.4%) and 2009 (10.3%).

Table 3.6.2: Percentage of All Students Reporting Video Game Playing Problem Indicators During the Past Year, 2009 OSDUHS (Grades 7 to 12)

Problem Video Game Playing (PVP) Scale Items	Total Sample (N=2,935)	Males (N=1,450)	Females (N=1,485)
1. Kept thinking about playing video games, when not playing	22.7	35.1	9.0
2. Spent an increasing amount of time playing video games	18.4	27.2	8.7
3. Tried to control, cut back, stop playing video games, or played for longer than intended	21.5	30.3	11.7
4. Became restless or irritated when could not play video games	10.5	15.0	5.7
5. Played more often when felt bad (sad, angry or nervous) or had problems	15.3	21.4	8.6
6. When lost in a game or did not get the desired results, played again to achieve the target	48.0	62.7	31.8
7. Skipped school or work, or lied/stole/argued with someone in order to play	4.7	7.2	2.0
8. Ignored homework, went to bed late, or spent less time with family and friends because of video game playing	22.0	32.8	10.3
9. Hid video game playing from family or friends	6.2	9.6	2.4

Notes: (1) entries are the percentages responding “Yes”; (2) N= number of students surveyed; (3) significant sex difference for each item, $p < .05$; (4) based on a random half sample

Figure 3.6.6
Percentage of All Students Indicating a Video Gaming Problem (PVP Scale) by Sex, Grade, and Region, 2009 OSDUHS



3.7 Co-Existing Problems

This chapter examines the overlap between substance use problems, mental health problems, and delinquent behaviour. Given the potential array of mental health and substance use problems, it is important to consider the co-occurrence of problems experienced by students.

Research on co-existing substance use and mental disorders among clinical samples indicate that this problem is not uncommon. Epidemiological estimates, however, are less conclusive mainly due to the lack of general population surveys on adolescents in Canada and the United States. Much is yet to be understood about the prevalence of co-existing disorders, patterns of onset, and the specific combinations of substances and mental health problems.

A Canadian study of adolescents found a strong association between an existing mental disorder (e.g., conduct disorder) and substance use (Boyle & Offord, 1991). An American study found that adolescents with severe emotional or behavioural problems were much more likely to be dependent on alcohol or illicit drugs, than those without problems (US Department of Health and Human Services, 1999b). The *National Comorbidity Survey* found that half of those aged 15-54 who had a mental disorder during their lifetime also had a history of substance use disorder (Kessler et al., 1994). Notably, studies have shown that younger age groups have a higher likelihood of co-existing disorders than older age groups (Kessler et al., 1994; Wang & El-Guebaly, 2004).

In general, mental health problems (e.g., anxiety disorders, conduct disorder, depression) are thought to precede the onset of substance abuse (Clark et al., 1997; Kessler et al., 1996; Kessler et al., 2005; Kumpulainen, 2000). Some have explained this via the “self-medicating hypothesis” which argues that substance abuse is a coping strategy. Another theory is the “common cause hypothesis” that suggests pre-

existing factors common to both mental health and substance abuse, such as stress, play a role in the onset of both conditions (US Department of Health and Human Services, 1999b).

3.7.1 Configurations of Risk

(Figures 3.7.1, 3.7.2; Tables A3.7.1, A3.7.2)

This section presents the degree of overlap among the following four problems: (1) **elevated psychological distress** (as indicated by a score of 3 or more on the GHQ-12 screener – see Chapter 3.4); (2) **hazardous/harmful drinking** (indicated by a score of 8 or more on the AUDIT screener); (3) a **drug use problem** (indicated by a score of 2 or more on the CRAFFT-D screener)⁶; and (4) **delinquent behaviour** (indicated by engaging in 3 or more of 11 delinquent acts – see Chapter 3.5). This section examines the nature of the overlap, and the group of students who report three or all four of these problems.

2009 (Grades 7 to 12):

- ❑ Overall, the majority (53%) of students report none of the four problems. About 27.5% report one problem, 10.9% report two problems, 6.1% report three problems, and 2.3% report all four problems.
- ❑ By far, the most prevalent configuration is psychological distress only, reported by 19% of students. The remaining configurations, such as hazardous/harmful drinking only or drug problem only, are reported by 6% or less of students (see Table A3.7.1 for all configurations).

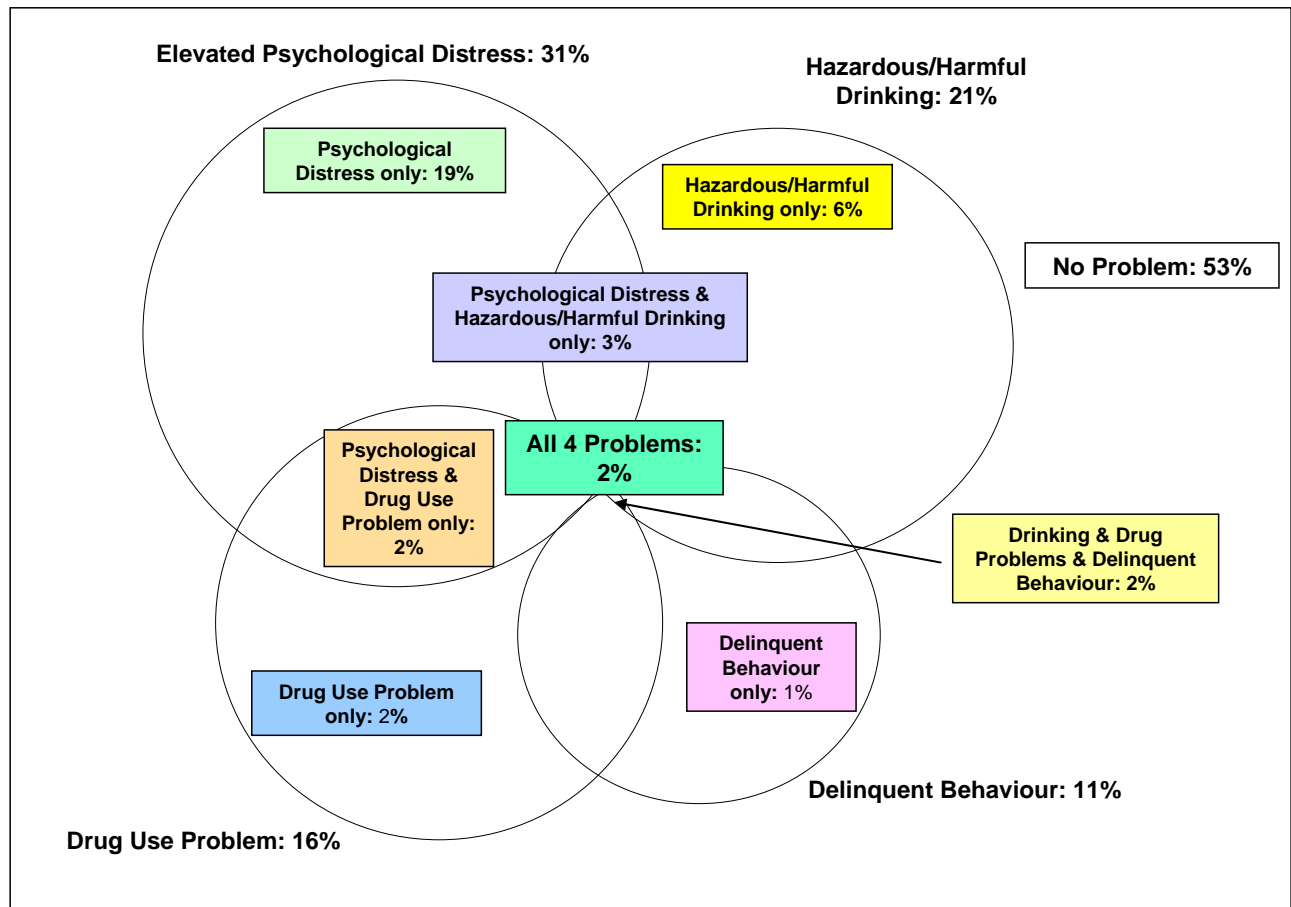
⁶ Details about the AUDIT and CRAFFT-D screeners can be found in the companion OSDUHS drug use report “*Drug Use Among Ontario Students, 1977-2009: Detailed OSDUHS Findings*” available on our website: http://www.camh.net/research/population_life_course.html

- ❑ The percentage reporting three or all four problems is 8.4% (95% CI: 7.3%-9.7%), representing about 89,000 students across Ontario.
- ❑ There is no significant sex difference in the likelihood of experiencing three or all four of these problems (8.7% for males, 8.2% for females).
- ❑ There is significant grade variation, with 12th-graders (15.5%) most likely to indicate three or all four of these problems.
- ❑ Despite some variation, the differences among the regions are not statistically significant.

2003–2009 (Grades 7 to 12):

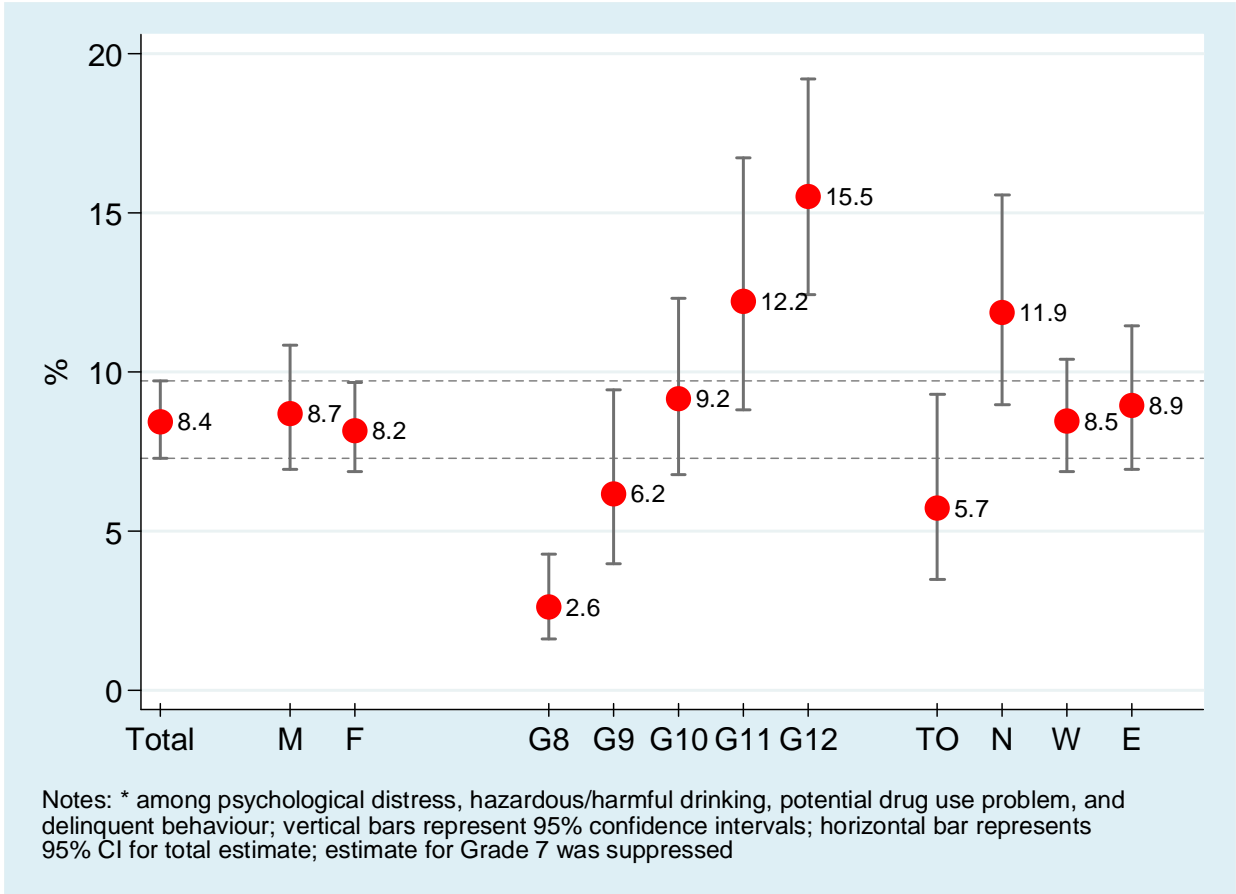
- ❑ Since 2003, there has been no significant change in the percentage of students indicating three or all four problems.

Figure 3.7.1
Co-Existing Problems: Elevated Psychological Distress, Hazardous/Harmful Drinking, Drug Use Problem, and Delinquent Behaviour, 2009 OSDUHS (Grades 7 to 12)



Notes: (1) based on a random half sample (N=4,851); (2) not all combinations are shown

Figure 3.7.2
 Percentage Indicating Three or All Four Problems* by Sex, Grade, and Region, 2009 OSDUHS



3.8 Overview by Ontario LHINs

In 2006, the province designated 14 geographic areas each to function as health systems that plan, integrate and fund local health services. These areas are called Local Health Integration Networks or LHINs (see <http://www.lhins.on.ca>). This section provides the 2009 estimates for selected mental health and well-being indicators **among high school students only (grades 9 to 12)** according to the LHINs. Students in grade 7 and 8 were excluded from the analysis because of a considerable imbalance of the number of elementary/middle schools across the LHINs. For the present analysis, students were assigned to LHINs using the six-digit postal code of the school. Due to small sample sizes, some adjacent LHINs were merged. The 11 LHIN areas presented here are:

- Erie St. Clair & South West (merged)
- Waterloo Wellington
- Hamilton Niagara Haldimand Brant
- Central West
- Mississauga Halton
- Toronto Central
- Central
- Central East & North Simcoe Muskoka (merged)
- South East
- Champlain
- North East & North West (merged)

Figure 3.8.1
Local Health Integration Networks of Ontario

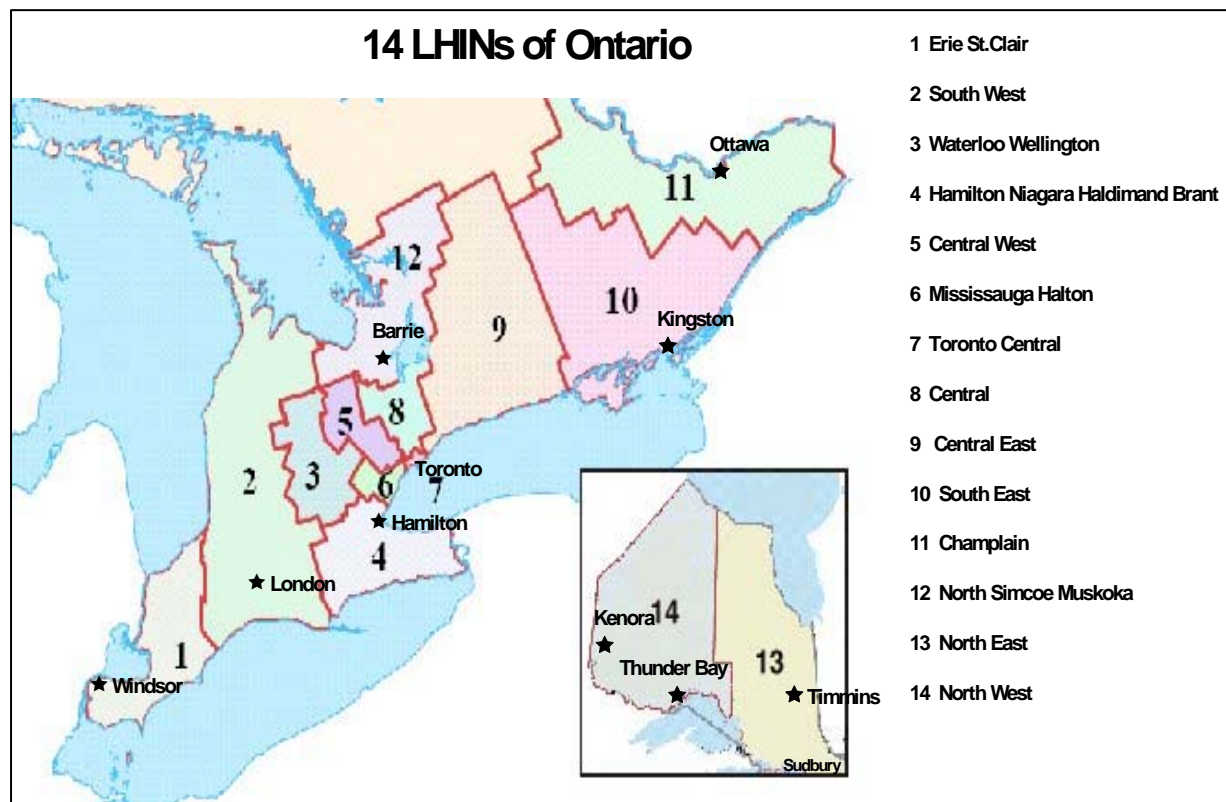


Table 3.8.1: Percentage of Secondary School Students (**Grades 9 to 12**) Reporting Mental Health and Well-Being Indicators, by Ontario Local Health Integration Network, 2009 OSDUHS

	Erie St. Clair + South West	Waterloo Wellington	Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central	Central	C. East + N. Simcoe Muskoka	South East	Champlain	N. East + N. West	Ontario
<i>(Student N)</i>	<i>(308)</i>	<i>(457)</i>	<i>(496)</i>	<i>(230)</i>	<i>(436)</i>	<i>(226)</i>	<i>(741)</i>	<i>(1,040)</i>	<i>(256)</i>	<i>(1,156)</i>	<i>(437)</i>	<i>(5,783)</i>
<i>(School N)</i>	<i>(6)</i>	<i>(6)</i>	<i>(12)</i>	<i>(4)</i>	<i>(6)</i>	<i>(4)</i>	<i>(10)</i>	<i>(22)</i>	<i>(6)</i>	<i>(16)</i>	<i>(9)</i>	<i>(101)</i>
Poor Self-Rated Physical Health	16.2 (12.6-20.7)	17.5 (13.2-22.9)	15.5 (11.8-20.1)	20.8 (12.5-32.6)	16.3 (12.9-20.5)	15.7 (11.4-21.2)	14.4 (9.1-22.1)	21.2* (17.3-25.8)	12.8** (11.4-14.3)	12.5** (10.7-14.5)	19.3 (14.7-24.8)	16.8 (15.2-18.5)
Inactive (past week)	7.1 (5.0-10.0)	11.0 (6.3-18.6)	5.8* (4.0-8.3)	12.2 (5.9-23.6)	9.4 (7.3-11.9)	13.7* (8.8-20.7)	7.8 (4.6-13.2)	10.4 (8.2-13.1)	† (7.3-10.7)	8.8 (7.3-10.7)	7.4 (5.6-9.6)	9.0 (7.9-10.3)
Sedentary Behaviour (Screen Time)	7.9 (5.8-10.8)	12.1 (8.4-17.1)	10.3 (8.3-12.8)	10.0 (6.2-15.6)	9.5 (6.4-14.1)	15.2 (9.8-22.9)	11.6 (8.5-15.6)	13.5* (11.4-15.8)	16.4 (9.4-26.9)	5.8** (3.6-9.2)	9.2 (6.0-13.7)	11.0 (9.8-12.3)
Overweight or Obese	23.4 (17.3-30.9)	28.2 (20.4-37.7)	27.1 (23.2-31.5)	25.2 (19.4-32.1)	20.4 (14.9-27.4)	19.7 (13.0-28.8)	24.1 (20.1-28.6)	26.5 (23.4-30.0)	21.3* (19.1-23.7)	24.8 (21.6-28.4)	32.0** (28.4-35.8)	25.2 (23.5-26.9)
Treated for Injury	40.5 (31.7-49.9)	40.5 (35.0-46.3)	47.4 (39.8-55.1)	34.9* (29.2-41.0)	44.0 (36.4-51.9)	47.7* (41.2-54.3)	40.8 (34.4-47.6)	34.6* (29.4-40.2)	48.7** (43.2-54.2)	39.7 (36.0-43.6)	32.4* (25.0-40.8)	40.6 (38.2-43.1)
No Physical Health Doctor Visits	30.1 (18.4-45.1)	28.5 (24.4-33.1)	41.2* (33.5-49.4)	41.7* (33.7-50.1)	29.4 (25.1-34.0)	27.2 (18.0-38.9)	28.7 (22.7-35.6)	36.1 (31.5-41.0)	36.8 (18.4-60.0)	26.6 (19.5-35.1)	38.3 (26.8-51.3)	33.6 (30.7-36.7)
Medical Use of Opioid Pain Relievers	38.6 (31.1-46.7)	31.5 (23.5-40.7)	37.2 (33.0-41.5)	27.5* (22.9-32.5)	31.8 (27.1-37.0)	25.0 (17.8-34.1)	35.9 (32.9-39.0)	33.2 (29.6-37.1)	35.4 (30.4-40.7)	38.7* (35.5-42.0)	32.2 (26.6-38.3)	33.9 (32.2-35.7)
Medical Use of Sedatives/Tranqs	†	†	8.2 (4.3-15.2)	†	†	†	†	4.4 (3.0-6.4)	†	6.8* (5.3-8.8)	†	4.3 (3.3-5.6)
“Choking Game” in Lifetime	†	7.8 (4.1-14.2)	7.6 (4.9-11.6)	†	7.8 (4.2-14.3)	†	3.1 (1.7-5.6)	6.8 (4.4-10.3)	†	6.3 (4.5-8.7)	7.7 (3.8-15.0)	5.8 (4.8-7.1)
1+ Mental Health Professional Visits	22.5 (13.6-34.8)	22.2 (16.2-29.4)	21.0 (17.3-25.3)	25.2 (20.1-31.2)	21.9 (17.4-27.1)	24.6 (21.6-27.9)	22.3 (17.6-27.8)	23.6 (17.1-31.7)	20.3 (14.5-27.7)	27.3 (21.8-33.5)	17.8 (12.1-25.5)	23.0 (20.8-25.2)
Poor Self-Rated Mental Health	16.3 (11.8-22.1)	12.5 (8.8-17.6)	15.9 (11.3-22.0)	11.4 (6.3-19.7)	12.8 (6.7-22.9)	17.9 (12.4-25.1)	10.0 (6.3-15.6)	14.0 (11.0-17.6)	12.6 (5.1-27.9)	8.3 (4.7-14.3)	16.0 (13.6-18.8)	13.1 (11.4-15.1)
Depressive Symptoms	†	†	10.0* (5.9-16.5)	†	6.6 (4.1-10.4)	†	4.4 (3.2-6.1)	6.6 (4.6-9.4)	†	3.2* (2.0-5.1)	4.6 (2.5-8.2)	5.9 (4.6-7.5)
Psychological Distress	35.0 (31.0-39.2)	28.3* (22.4-35.0)	36.4 (30.0-43.3)	35.3 (27.0-44.5)	39.0 (32.7-45.6)	34.7 (24.8-46.0)	33.9 (28.6-39.7)	36.7 (31.3-42.4)	44.5 (25.8-64.9)	29.9 (24.7-35.8)	39.6 (35.7-43.7)	35.1 (32.7-37.6)
Suicide Ideation	†	8.9 (7.0-11.2)	14.4** (10.9-18.7)	†	19.4** (12.5-28.9)	16.0** (11.0-22.8)	8.3 (5.8-11.8)	9.0 (6.8-11.9)	†	8.9 (7.4-10.7)	9.9 (5.2-18.2)	10.3 (8.8-12.0)
Suicide Attempt	†	†	4.0 (2.3-6.8)	†	4.8* (2.5-9.0)	†	†	4.0 (1.8-8.7)	†	4.1 (2.4-6.9)	†	3.1 (2.4-4.1)
Delinquent Behaviour (3+/11)	11.6 (8.5-15.6)	11.6 (7.1-18.4)	15.9 (11.8-21.2)	7.7 (2.9-18.8)	16.5 (11.0-23.8)	9.5 (4.7-18.0)	14.8 (8.1-25.4)	10.2 (7.2-14.1)	17.3** (15.3-19.4)	13.2 (9.4-18.2)	14.2 (10.0-19.6)	12.9 (11.1-15.0)
Carried a Weapon (gun or knife)	13.8 (7.3-24.5)	10.2 (6.6-15.4)	10.6 (7.3-15.1)	†	†	8.7 (3.5-19.7)	5.2* (3.9-6.9)	7.0 (4.2-11.5)	16.8** (13.9-20.1)	7.7 (6.0-9.9)	9.0 (4.8-16.2)	8.1 (6.8-9.8)

(Continued...)

	Erie St. Clair + South West	Waterloo Wellington	Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central	Central	C. East + N. Simcoe Muskoka	South East	Champlain	N. East + N. West	Ontario
<i>(Student N)</i>	<i>(308)</i>	<i>(457)</i>	<i>(496)</i>	<i>(230)</i>	<i>(436)</i>	<i>(226)</i>	<i>(741)</i>	<i>(1,040)</i>	<i>(256)</i>	<i>(1,156)</i>	<i>(437)</i>	<i>(5,783)</i>
<i>(School N)</i>	<i>(6)</i>	<i>(6)</i>	<i>(12)</i>	<i>(4)</i>	<i>(6)</i>	<i>(4)</i>	<i>(10)</i>	<i>(22)</i>	<i>(6)</i>	<i>(16)</i>	<i>(9)</i>	<i>(101)</i>
1+ School Fights	9.0 (4.1-18.6)	16.6 (8.7-29.4)	11.7 (7.2-18.5)	13.3 (9.8-17.9)	14.1 (11.0-17.8)	19.3 (10.9-31.9)	14.8 (9.7-22.1)	10.4 (6.6-16.1)	8.3 (7.4-9.3)	10.2 (7.4-13.7)	13.0 (9.2-18.1)	12.6 (10.7-14.8)
Threatened/Injured with Weapon at School	7.2 (3.9-13.1)	7.6 (3.3-16.4)	5.2 (2.6-10.2)	†	9.2 (6.8-12.4)	13.4 (5.9-27.4)	6.2 (3.5-10.8)	8.6 (4.5-15.8)	†	4.8 (3.2-7.1)	8.6 (5.2-13.8)	7.4 (5.9-9.2)
Been Bullied	38.6** (31.0-46.8)	26.3 (22.3-30.7)	36.4** (28.9-44.7)	25.6 (20.1-32.0)	24.9 (19.4-31.3)	15.9** (12.9-19.5)	22.6 (18.8-26.9)	29.6 (23.6-36.3)	22.0 (12.6-35.7)	26.6 (23.4-30.0)	30.8 (23.6-39.1)	27.9 (25.4-30.5)
Bullied Others	38.3** (30.0-47.4)	27.0 (19.1-36.7)	30.4 (23.2-38.7)	25.5 (18.4-34.2)	28.1 (20.7-36.8)	23.9 (16.3-33.5)	21.1 (15.6-27.9)	23.3 (19.3-27.8)	15.3 (3.4-48.4)	23.3 (19.7-27.4)	27.6 (19.6-37.4)	25.8 (23.4-28.4)
Any Gambling Activity (of 10)	43.6 (35.3-52.3)	46.3 (36.4-56.5)	52.3 (45.1-59.3)	48.2 (35.4-61.2)	49.1 (45.2-53.0)	53.7 (42.2-64.8)	46.7 (36.5-57.2)	39.2* (34.3-44.4)	39.0 (30.1-48.8)	48.2 (41.7-54.8)	52.2 (41.2-63.1)	46.9 (44.0-49.8)
Multi-Gambling Activity (5+/10)	†	†	4.3 (2.6-7.0)	†	†	†	5.3 (1.9-14.0)	2.3 (1.3-3.9)	†	†	4.9 (1.9-11.9)	3.5 (2.5-4.9)
Gambling Problem	†	†	†	†	†	†	†	3.9 (1.8-8.2)	†	2.7 (1.9-3.8)	†	3.3 (2.2-4.9)
Video Gaming Problem	13.3 (8.2-20.9)	11.0 (6.5-18.0)	11.7 (7.7-17.4)	8.9 (4.9-15.6)	15.6* (10.8-22.1)	8.8 (4.7-15.9)	11.9 (9.0-15.6)	6.0* (4.0-8.9)	14.3 (8.4-23.3)	7.9 (5.6-10.9)	9.3 (6.7-12.8)	10.5 (9.0-12.2)
3 or All 4 Coexisting Problems	9.0 (6.2-13.0)	12.1 (7.7-18.6)	13.2 (9.4-18.3)	†	13.3 (8.9-19.3)	9.0 (5.9-13.6)	13.6 (8.4-21.4)	9.5 (6.2-14.2)	9.8 (7.8-12.3)	10.9 (8.9-13.3)	16.6** (13.0-21.1)	11.1 (9.6-12.8)

Notes: (1) due to small sample sizes, the Erie St. Clair LHIN (n=84) was merged with the South West LHIN, the North Simcoe Muskoka LHIN (n=14) was merged with the Central East LHIN, and the North West LHIN (n=130) was merged with the North East LHIN; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) for indicator definitions, please see Table 2.4 or the individual chapters; (5) many of the indicators are based on a random half-sample; (6) *p<.05, **p<.01 significant difference, LHIN vs. Ontario.

Source: OSDUHS, Centre for Addiction & Mental Health

4. SUMMARY

The Public Health Approach to Mental Health and Risk Behaviour Problems

Designating mental health problems and risk behaviours as public health issues enables health professionals from various disciplines to work together on prevention. Preventing problems from occurring, or reducing the risk, is preferable over treating problems, both on an individual and a societal level.

The OSDUHS performs several public health functions, namely: identifying the pervasiveness of problem indicators among the general student population; tracking changes over time; and identifying risk and protective factors. As well, the OSDUHS provides a knowledge-base for designing prevention and health promotion programs; informing public health policy; evaluating the efficacy of a policy or program on a population level; and disseminating information to the general public.

Study Limitations

Before discussing our findings, it is important to first highlight some of the limitations of this study. First, we must recognize that these data are based on self-reports and are, therefore subjective and not based on clinical evaluation. Second, we must acknowledge that self-reports of height and weight (used to calculate BMI), illegal behaviours (e.g., theft, drug use) and sensitive issues (e.g., suicide) likely underestimate the true rate by some unknown magnitude (Brener et al., 2003; Brener, Billy & Grady, 2003; Elgar & Stewart), but the extent of underreporting is not likely to vary over time. Thus, estimates of change should remain valid and unaffected by bias. Third, our sample excludes absent students and those who did not return a signed parental consent form. We do not

know whether these non-respondents differ from respondents in some way. It is possible that absent students, suspended students, and those who did not want to participate are more likely to have physical and mental health problems than those who did participate. We do know, however, that the rate of student absenteeism in the OSDUHS has remained fairly stable across time and so the trends reported should be valid. Fourth, the data reflect a snapshot in time and consequently, because we do not follow the same students across time, we cannot identify causes of change or the temporal ordering of effect. Also, we cannot determine from these data to what extent our findings are adolescent-limited, for example, to what extent delinquent activities decline or cease with transition into young adulthood.

The array of findings in such a large study can be numerous and complex. Indeed, some findings are more reliable than others. For example, random variation causes us to be cautious in interpreting change between two points in time only. Therefore, we place more emphasis on steady trends over time.

Despite these limitations, such population surveillance studies excel at identifying the extent and change of various health problems that have important current and future implications for adolescent well-being. These studies help to identify which groups are at the greatest risk for health problems, help to identify areas requiring more research, and help to identify potential future trends that may have implications for future service and programming needs.

Some Encouraging Findings

There are many findings in this report that should be viewed as encouraging. The majority of students:

- ❑ get along very well with their parents;
- ❑ like school and report a positive school climate – that is, a feeling of connectedness to others in their school, feeling that the teachers are excellent, and feeling safe at school;
- ❑ rate their health as excellent or very good;
- ❑ are satisfied with their weight; and
- ❑ do not report internalizing problems (e.g., symptoms of depression or anxiety) or externalizing problems (e.g., violent behaviour).

In addition, we found several improvements over time:

- ❑ Delinquent behaviour has been decreasing over the past two decades. More specifically, fewer students today report behaviours such as vandalism, assaulting others, gang fighting, and weapon carrying compared with their counterparts from the early 1990s.
- ❑ Gambling has declined over the past few years, and the proportion of students indicating a problem with gambling shows a decline over the past decade.
- ❑ The percentage of students who visited a doctor, nurse or counsellor for a mental health issue significantly increased over this decade. This can be construed as a positive finding in that adolescents are seeking assistance and seem to be willing to talk to someone about mental health issues. This interpretation is supported by the observation that our mental health problem measures did not significantly increase over the same time period.

Some Public Health Concerns

Although the majority of students do not report a problem, a considerable minority report some form of impaired well-being or functioning (Figure 4.1).

About one-in-three students report...

- ❑ being bullied at school
- ❑ elevated psychological distress
- ❑ being treated for one or more physical injuries in the past year
- ❑ gambling in the past year

About one-in-four students ...

- ❑ can be considered overweight or obese

About one-in-five to one-in-eight students report...

- ❑ hazardous/harmful drinking
- ❑ a drug use problem
- ❑ fighting at school
- ❑ poor physical health
- ❑ poor mental health

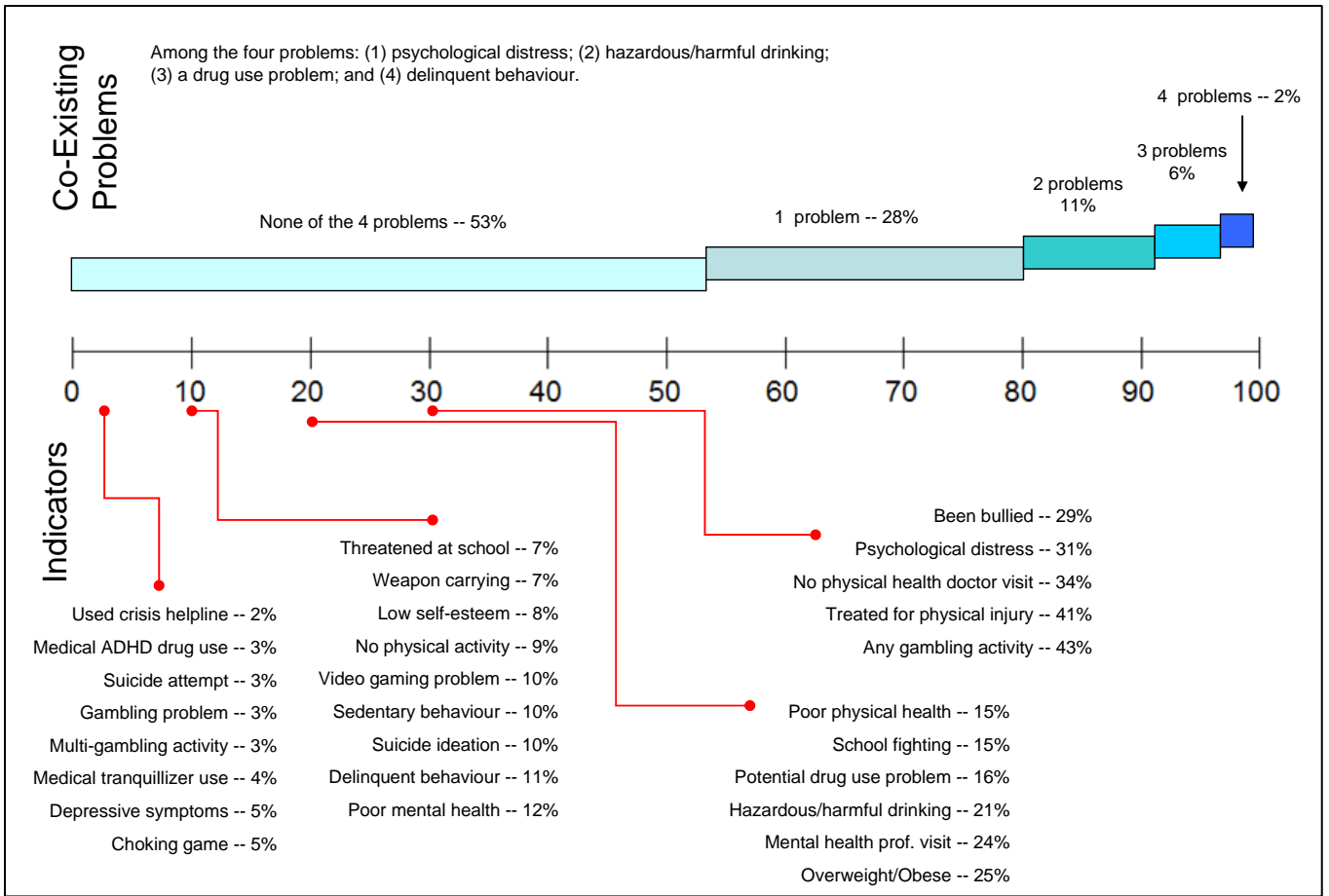
About one-in-ten students report...

- ❑ suicide ideation
- ❑ carrying a weapon
- ❑ being threatened or injured at school with a weapon
- ❑ co-existing problems

In addition, some findings point to concerning trends:

- ❑ Students today are much more likely to rate their physical health as poor compared with their counterparts from about two decades ago.
- ❑ Reports of physical injuries have increased over recent years.

Figure 4.1
 Overview of Mental Health and Well-Being Indicators, 2009 OSDUHS (Grades 7 to 12)



Demographic Correlates

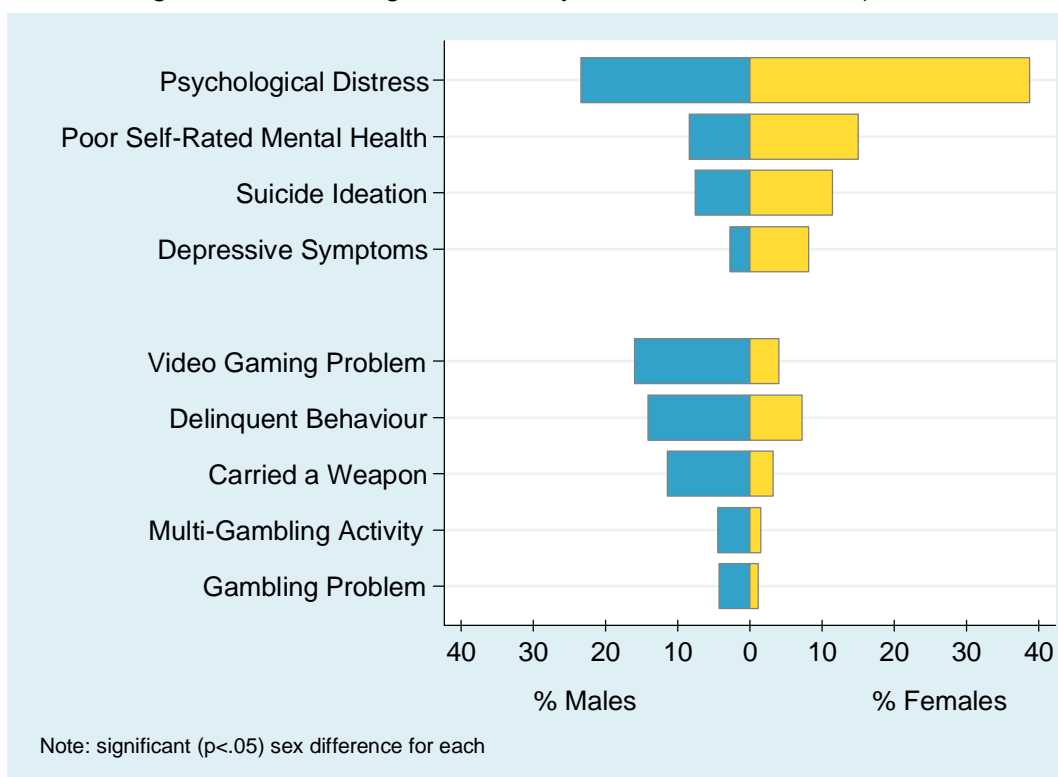
The present report found that well-being varies greatly depending on sex, even after controlling for grade and region. As seen in Figure 4.2 and Table 4.2, the general pattern shows that females are more likely to experience internalizing problems (such as depression, psychological distress, and suicide ideation), whereas males are more likely to exhibit risky or externalizing behaviours (such as delinquent behaviour and gambling).

Age/grade is also significantly related to mental health and well-being. Generally, poor physical health indicators (e.g., inactivity, sedentary behaviour, injuries), internalizing problem indicators (e.g., medications for depression/anxiety, psychological distress), delinquent behaviour, gambling, and co-existing problems increase with grade and tend to peak in late adolescence. Bullying behaviour and fighting at school peak among the younger grades studied and tend to subside in later adolescence.

Only a few indicators in the report significantly differ according to region:

- ❑ Compared to the provincial average, **Toronto students** are more likely to be worried over being threatened or harmed at school; to rate their physical health as poor; to engage in no physical activity; and to report a high level of “screen time” (that is, to be sedentary). However, Toronto students are less likely to report medical use of prescription opioid pain relievers, and to report being bullied at school.
- ❑ Compared to the provincial average, **Northern Ontario** students are more likely to be overweight or obese.
- ❑ **Western Ontario** students do not significantly differ from the province on any measure.

Figure 4.2
Internalizing and Externalizing Indicators by Sex, 2009 OSDUHS (Grades 7 to 12)



- ❑ Compared to the provincial average, **Eastern** Ontario students are more likely to report medical use of prescription opioid pain relievers, and to report sustaining an injury that required treatment. Students in the East are less likely to rate their physical health as poor, and to be overweight or obese.

Future OSDUHS Monitoring

The purpose of this report was to provide a snapshot of Ontario students' mental and physical well-being and to assess whether changes have occurred over time. A major strength of these data is that they are not based on a selective sample of adolescents already experiencing emotional or other difficulties – rather they are based on a large representative sample of the population. Consequently, our findings should be highly generalizable.

Our findings are consistent with many expectations of the adolescent stage of life. The majority of students report positive indicators of well-being and a minority report negative indicators. However, this minority can be sizeable – for example, about one-in-ten Ontario students (representing about 99,000) report suicide ideation and one-in-twenty (about 56,000) report symptoms of depression. These large magnitudes should remind us of the vulnerability of this age group. Although several recent government initiatives have been made in the area of targeted intervention programs with infants and children (e.g., Better Beginnings, Better Futures; Healthy Babies, Healthy Children), few universal programs have been developed for adolescence, a period known for the onset of emotional difficulties and psychological disorders. Canadian public health policy does not appear to prioritize prevention programs that focus on the spectrum of mental disorders among adolescents (Waddell, McEwan, Peters, Hua, & Garland, 2007), although a national mental health strategy is currently in development (Mental Health Commission of Canada, 2009).

The 2009 OSDUHS found continuing increases in self-rated poor health and injuries requiring treatment. This report also provided the first OSDUHS estimate of overweight and obese students in Ontario. Generally, the current status of students' physical health is concerning, and some mental health indicators remain elevated, such as suicide ideation and psychological distress. Therefore, continued and enhanced surveillance is warranted. Still, our findings show that some encouraging improvements in well-being have occurred over the past decade or so, in particular declines in delinquency and bullying perpetration. Ongoing monitoring will assess whether these trends continue.

Table 4.1: Changes Over Time for Selected Indicators by Subgroup, 2009 vs. 2007 and 2009 vs. 1999, OSDUHS (Grades 7 to 12)

	Poor Self-Rated Physical Health	Injury Required Treatment	Mental Health Prof. Visit	Delinquent Behaviour Index	Carried a Weapon	Been Bullied at School	Any Gambling Activity	Multi-Gambling Activity	Gambling Problem
Total	△	△	△	▽	▽		↓▽	▽	▽
Males			△	▽	▽	▽	↓▽	▽	▽
Females	△		△				↓▽		▽
Grade 7			△			▽	▽		
Grade 8			△	▽	▽		↓▽		
Grade 9			△				↓▽		▽
Grade 10			△	▽	▽		▽		▽
Grade 11					▽		▽		
Grade 12	△		△				▽		
Toronto	△		△				↓▽		
North	△		△						
West	△		△	▽	▽		↓▽	▽	▽
East	△		△	▽			↓▽		

Notes: (1) for indicator definitions, please see Table 2.4 or individual chapters; (2) ↓ significant decrease in 2009 vs. 2007, p<.01; (3) △▽ significant increase or decrease in 2009 vs. 1999, p<.01 (vs. 2003 for Been Bullied, Any Gambling Activity, and Multi-Gambling Activity); (4) the following major indicators showed no change and, therefore, are not presented: poor self-rated mental health, depressive symptoms, elevated psychological distress, suicide ideation, suicide attempt, fighting at school, threatened/injured with a weapon at school, video gaming problem, and co-existing problems.

Source: OSDUHS, Centre for Addiction & Mental Health

Table 4.2: Subgroup Differences for Selected Indicators, 2009 OSDUHS (Grades 7 to 12)

	Poor Self-Rated Physical Health	Inactive	Injury	Overweight or Obese	Poor Self-Rated Mental Health	Depressive Symptoms	Psychological Distress	Suicide Ideation	Delinquent Behaviour Index	Carried a Weapon	Been Bullied at School	Any Gambling Activity	Multi-Gambling Activity	Gambling Problem	Video Gaming Problem	Co-Existing Problems
Sex Effect	**	ns	**	***	***	*	***	**	***	***	**	***	***	***	***	ns
	F ↑		M ↑	M ↑	F ↑	F ↑	F ↑	F ↑	M ↑	M ↑	F ↑	M ↑	M ↑	M ↑	M ↑	
Grade Effect	**	*	ns	ns	*	ns	***	ns	***	ns	**	***	ns	ns	ns	***
(compared with previous grade)	8 ↑ 7															
	9 ↑ 8						9 ↑ 8									9 ↑ 8
									10 ↑ 9							
											11 ↓ 10					
												12 ↑ 11				
Region Effect	*	*	*	**	ns	ns	ns	ns	ns	ns	**	ns	ns	ns	ns	ns
(region compared with Ontario)	TO ↑	TO ↑									TO ↓					
				N ↑												
	E ↓		E ↑	E ↓												

Notes: (1) for indicator definitions, please see Table 2.4 or individual chapters; (2) overall tests of effect are based on a univariate chi-square statistic, *p<.05, **p<.01, ***p<.001; (3) subgroup comparisons are based on adjusted logistic regression analyses; (4) ns=non-significant; (5) TO=Toronto, N=North, E=East.

Source: OSDUHS, Centre for Addiction & Mental Health

5. REFERENCES

- Adlaf, E. M. (2005). Collecting drug use data from different populations. In Z. Sloboda (Ed.), *Epidemiology of drug abuse* (pp. 99-111). New York: Springer.
- Anderman, C., Cheadle, A., Curry, S., Diehr, P., Shultz, L., & Wagner, E. (1995). Selection bias related to parental consent in school-based survey research. *Evaluation Review, 19*, 663-674.
- Anderson, C. S. (1982). The search for school climate: A review of the research. *Review of Educational Research, 52*, 368-420.
- Bierman, K. L., Coie, J. D., Dodge, K. A., Foster, E. M., Greenberg, M. T., Lochman, J. E., et al. (2004). The effects of the Fast Track Program on serious problem outcomes at the end of elementary school. *Journal of Clinical Child and Adolescent Psychology, 33*, 650 - 661.
- Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., et al. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent Health, 40*, 357-375.
- Bond, L., Toumbourou, J. W., Thomas, L., Catalano, R. F., & Patton, G. (2005). Individual, family, school, and community risk and protective factors for depressive symptoms in adolescents: A comparison of risk profiles for substance use and depressive symptoms. *Prevention Science, 6*, 73-88.
- Bonny, A. E., Britto, M. T., Klostermann, B. K., Hornung, R. W., & Slap, G. B. (2000). School disconnectedness: Identifying adolescents at risk. *Pediatrics, 106*, 1017-1021.
- Bovet, P., Viswanathan, B., Faeh, D., & Warren, W. (2006). Comparison of smoking, drinking, and marijuana use between students present or absent on the day of a school-based survey. *Journal of School Health, 76*, 133-137.
- Boyle, M. H., & Offord, D. R. (1991). Psychiatric disorder and substance use in adolescence. The *Canadian Journal of Psychiatry, 36*, 699-705.
- Brener, N., Kann, L. K., McManus, T., Kinchen, S., Sundberg, E., & Ross, J. (2002). Reliability of the 1999 Youth Risk Behavior Survey questionnaire. *Journal of Adolescent Health, 31*, 336-342.
- Brener, N. D., Billy, J. O. G., & Grady, W. R. (2003). Assessment of factors affecting the validity of self-reported health-risk behavior among adolescents: Evidence from the scientific literature. *Journal of Adolescent Health, 33*, 436-457.
- Brener, N. D., McManus, T., Galuska, D. A., Lowry, R., & Wechsler, H. (2003). Reliability and validity of self-reported height and weight among high school students. *Journal of Adolescent Health, 32*, 281-287.
- Cali, A. M. G., & Caprio, S. (2008). Obesity in children and adolescents. *Journal of Clinical Endocrinology & Metabolism November, 93*(11) (Supplement 1), S31-S36.
- Canadian Institute for Health Information. (2005). *Improving the health of young Canadians*. Ottawa: Canadian Institute for Health Information.

- Canadian Institute of Child Health. (2000). *The health of Canada's children: A CICH Profile, 3rd Edition*. Ottawa: Canadian Institute of Child Health.
- Canadian Paediatric Society. (2009). *Are we doing enough? A status report on Canadian public policy and child and youth health*. Ottawa: Canadian Paediatric Society.
- Carriere, G. (2003). Parent and child factors associated with youth obesity. *Supplement to Health Reports, (Statistics Canada Catalogue 82-003)*, 29-39.
- Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Annals of the American Academy of Political and Social Science, 591*, 98-124.
- Centers for Disease Control and Prevention. (1994). Health risk behaviors among adolescents who do and do not attend school -- United States, 1992. *Morbidity and Mortality Weekly Report, 43*, 129-132.
- Centers for Disease Control and Prevention. (2010). Youth Risk Behavior Surveillance -- United States, 2009. *Morbidity and Mortality Weekly Report Surveillance Summaries, 59*(No. SS-5), 1-142.
- Centre for Behavioural Research and Program Evaluation. (2008). *2006-2007 Youth Smoking Survey: Main microdata user guide*. Waterloo, ON: Centre for Behavioural Research and Program Evaluation, University of Waterloo. Retrieved from <http://www.yss.uwaterloo.ca>.
- Cicchetti, D., & Toth, S. L. (1998). The development of depression in children and adolescents. *American Psychologist, 53*, 221-241.
- Clark, D. B., Pollack, N., Bukstein, O. G., Mezzich, A. C., Bromberger, J. T., & Donovan, J. E. (1997). Gender and comorbid psychopathology in adolescents with alcohol dependence. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 1195-1203.
- Clayton, R. R. (1992). Transitions in drug use: Risk and protective factors. In M. Glantz & R. Pickens (Eds.), *Vulnerability to drug abuse*. Washington, DC: American Psychological Association.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.
- Cole, T. J., Bellizzi, M. C., Flegal, K. M., & Dietz, W. H. (2000). Establishing a standard definition for child overweight and obesity worldwide: International survey. *British Medical Journal, 320*, 1240-1243.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(Supplement), S95-S120.
- Collishaw, S., Maughan, B., Goodman, R., & Pickles, A. (2004). Time trends in adolescent mental health. *Journal of Child Psychology and Psychiatry, 45*, 1350-1362.
- Courser, M. W., Shamblen, S. R., Lavrakas, P. J., Collins, D., & Ditterline, P. (2009). The impact of active consent procedures on nonresponse and nonresponse error in youth survey data evidence from a new experiment. *Evaluation Review, 33*, 370-395.

- Craig, W. M., & McCuaig-Edge, H. (2008). Bullying and fighting. In W. F. Boyce, M. A. King & J. Roche (Eds.), *Healthy settings for young people in Canada*. Ottawa: Public Health Agency of Canada.
- Currie, C., Gabhainn, S. N., Godeau, E., Roberts, C., Smith, R., Currie, D., et al. (Eds.). (2008). *Inequalities in young people's health: HBSC international report from the 2005/2006 survey*. Copenhagen: WHO Regional Office for Europe.
- de Leeuw, E., & de Heer, W. (2002). Trends in household survey nonresponse: A longitudinal and international comparison. In R. M. Groves, D. A. Dillman, J. L. Eltinge & R. J. A. Little (Eds.), *Survey nonresponse* (pp. 41-54). New York: Wiley.
- Derevensky, J. L., Gupta, R., & Winters, K. (2003). Prevalence rates of youth gambling problems: Are the current rates inflated? *Journal of Gambling Studies, 19*, 405-425.
- DeWit, D. J. (1998). Frequent childhood geographic relocation: Its impact on drug use initiation and the development of alcohol and other drug-related problems among adolescents and young adults. *Addictive Behaviors, 23*, 623-634.
- Dey, E. L. (1997). Working with low survey response rates: The efficacy of weighting adjustments. *Research in Higher Education, 38*, 215-227.
- Dickson, L., & Derevensky, J. L. (2006). Equipping school psychologists to address another risky behavior: The case for understanding youth problem gambling. *Canadian Journal of School Psychology, 21*, 59-72.
- Dishion, T. J., & Kavanagh, K. (2000). A multilevel approach to family-centered prevention in schools: Process and outcome. *Addictive Behaviors, 25*, 899-911.
- Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent behavior problems: A conceptual and empirical formulation. *Clinical Child and Family Psychology Review, 1*, 61-75.
- Eaton, D. K., Brener, N., & Kann, L. K. (2008). Associations of health risk behaviors with school absenteeism. Does having permission for the absence make a difference? *Journal of School Health, 78*, 223-229.
- Eaton, D. K., Lowry, R., Brener, N. D., Grunbaum, A., & Kann, L. (2004). Passive versus active parental permission in school-based survey research: Does the type of permission affect prevalence estimates of risk behaviors? *Evaluation Review, 28*, 564-577.
- Elgar, F. J., & Stewart, J. M. (2008). Validity of self-report screening for overweight and obesity: Evidence from the Canadian Community Health Survey. *Canadian Journal of Public Health, 99*, 423-427.
- Farhat, T., Iannotti, R. J., & Simons-Morton, B. G. (2010). Overweight, obesity, youth, and health-risk behaviors. *American Journal of Preventive Medicine, 38*, 258-267.
- Faulkner, G. E. J., Adlaf, E. M., Irving, H., Allison, K. R., Dwyer, J. J., & Goodman, J. (2007). The relationship between vigorous physical activity and juvenile delinquency: A mediating role for self-esteem? *Journal of Behavioral Medicine, 30*, 155-163.

- Faulkner, G. E. J., Adlaf, E. M., Irving, H. M., Allison, K. R., & Dwyer, J. (2009). School disconnectedness: Identifying adolescents at risk in Ontario, Canada. *Journal of School Health, 79*, 312-318.
- Feder, L. (2007). Bullying as a public health issue. *International Journal of Offender Therapy and Comparative Criminology, 51*, 491-494.
- Federal Provincial and Territorial Advisory Committee on Population Health. (1999a). *Statistical report on the health of Canadians*. Ottawa: Health Canada.
- Federal Provincial and Territorial Advisory Committee on Population Health. (1999b). *Toward a healthy future: Second report on the health of Canadians*. Ottawa: Health Canada.
- Ferreira, I., van der Horst, K., Wendel-Vos, W., Kremers, S., van Lenthe, F. J., & Brug, J. (2007). Environmental correlates of physical activity in youth - a review and update. *Obesity Reviews, 8*, 129-154.
- Fleiss, J. L. (1981). *Statistical methods for rates and proportions* (2nd ed.). New York: Wiley.
- Fosse, N. E., & Haas, S. A. (2009). Validity and stability of self-reported health among adolescents in a longitudinal, nationally representative survey. *Pediatrics, 123*(3), e496-e501. doi: 410.1542/peds.2008-155.
- Fox, K. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition, 2*(3a), 411-418.
- Fulgini, A. J. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. *Child Development, 68*, 351-363.
- Galambos, N. L., Leadbeater, B. J., & Barker, E. T. (2004). Gender differences in and risk factors for depression in adolescence: A 4-year longitudinal study. *International Journal of Behavioral Development, 28*, 16-25.
- Gannon, M. (2006). *Crime statistics in Canada, 2005* (Juristat Catalogue no. 85-002-XIE). Ottawa: Statistics Canada.
- Goldberg, D. P., Gater, R., Sartorius, N., Ustun, T. B., Piccinelli, M., Gureje, O., et al. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological Medicine, 27*, 191-197.
- Goldberg, D. P., & William, P. (1988). *A user's guide to the General Health Questionnaire*. Windsor: NFER-Nelson.
- Gore, S., Aseltine, R. H., & Colton, M. E. (1992). Social structure, life stresses and depressive symptoms in a high school-aged population. *Journal of Health and Social Behavior, 33*, 97-113.
- Gotlib, I. H., & Wheaton, B. (Eds.). (1997). *Stress and adversity over the life course: Trajectories and turning points*. Cambridge: Cambridge University Press.

- Griffin, K. W., Botvin, G. J., Scheier, L. M., Diaz, T., & Miller, N. L. (2000). Parenting practices as predictors of substance use, delinquency, and aggression among urban minority youth: Moderating effects of family structure and gender. *Psychology of Addictive Behaviors, 14*, 174-184.
- Groves, R. M. (2006). Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly, 70*, 646-675.
- Gupta, R., & Derevensky, J. L. (1998). Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *Journal of Gambling Studies, 14*, 319-345.
- Hallal, P., Victora, C., Azevedo, M., & Wells, J. (2006). Adolescent physical activity and health: A systematic review. *Sports Medicine, 36*, 1019-1030.
- Hall-Lande, J. A., Eisenberg, M. E., Christenson, S. L., & Neumark-Sztainer, D. (2007). Social isolation, psychological health, and protective factors in adolescence. *Adolescence, 42*, 265-286.
- Hardoon, K. K., & Derevensky, J. L. (2002). Child and adolescent gambling behavior: Current knowledge. *Clinical Child Psychology and Psychiatry, 7*, 263-281.
- Hawkins, J. D., Catalano, R. F., Kosterman, R., Abbott, R., & Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives of Pediatric Adolescent Medicine, 153*, 226-234.
- Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*, 64-105.
- Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2005). Promoting positive adult functioning through social development intervention in childhood. *Archives of Pediatric Adolescent Medicine, 159*, 25-31.
- Health Canada. (2002). *A report on mental illness in Canada*. Ottawa: Health Canada.
- Herrenkohl, T. I., Maguin, E., Hill, K. G., Hawkins, J. D., Abbott, R. D., & Catalano, R. F. (2000). Developmental risk factors for youth violence. *Journal of Adolescent Health, 26*, 176-186.
- Hibell, B., Adlaf, E. M., Andersson, B., Bjarnason, T., Delapenha, C., Hasbun, J., et al. (2003). *Conducting school surveys on drug abuse. Toolkit module 3*. Vienna: United Nations Office on Drugs and Crime.
- Huang, J., & Boyer, R. (2007). Epidemiology of youth gambling problems in Canada: A national prevalence study. *Canadian Journal of Psychiatry, 52*, 657-665.
- Janssen, I. (2007). Physical activity guidelines for children and youth. *Applied Physiology, Nutrition, and Metabolism, 32*(S2E), S109-S121.
- Janssen, I. (2008). Healthy living and healthy weight. In W. F. Boyce, M. A. King & J. Roche (Eds.), *Healthy settings for young people in Canada*. Ottawa: Public Health Agency of Canada.

- Johnson, R. A., Hoffmann, J. P., & Gerstein, D. R. (1996). *The relationship between family structure and adolescent substance use*. Rockville, MD: U. S. Department of Health and Human Services.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2008). *Monitoring the Future national survey results on drug use, 1975–2007: Volume I, Secondary school students* (NIH Publication No. 08-6418A). Bethesda, MD: National Institute on Drug Abuse.
- Keays, J., & Allison, K. (1995). The effects of regular moderate to vigorous physical activity on student outcomes: A review. *Canadian Journal of Public Health, 86*, 62-65.
- Kelleher, K. J., McInerney, T. K., Gardner, W. P., Childs, G. E., & Wasserman, R. C. (2000). Increasing identification of psychosocial problems: 1979-1996. *Pediatrics, 105*, 1313-1321.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593-602.
- Kessler, R. C., McKonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry, 51*, 8-19.
- Kessler, R. C., Nelson, C. B., McKonagle, K. A., Edlund, M. J., Frank, R. G., & Leaf, P. J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry, 66*, 17-31.
- 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.
- Kish, L. (1965). *Survey sampling*. New York: Wiley & Sons.
- Kraemer, H. C., Kazdin, A. E., Offord, D. R., Kessler, R. C., Jensen, P. S., & Kupfer, D. J. (1997). Coming to terms with the terms of risk. *Archives of General Psychiatry, 54*, 337-343.
- Kumpulainen, K. (2000). Psychiatric symptoms and deviance in early adolescence predict heavy alcohol use 3 years later. *Addiction, 95*, 1847-1857.
- Lewinsohn, P. M., Rohde, P., Seeley, J. R., & Fischer, S. A. (1993). Age-cohort changes in the lifetime occurrences of depression and other mental disorders. *Journal of Abnormal Psychology, 102*, 110-120.
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments. *American Psychologist, 53*, 205-220.
- Mechanic, D., & Hansell, S. (1987). Adolescent competence, psychological well-being, and self-assessed physical health. *Journal of Health and Social Behavior, 28*, 364-374.
- Mental Health Commission of Canada. (2009). *Toward recovery and well-being: A framework for a mental health strategy for Canada*. Ottawa: Mental Health Commission of Canada.

- Michaud, P. A., Delbos-Piot, I., & Narring, F. (1998). Silent dropouts in health surveys: Are nonrespondent absent teenagers different from those who participate in school-based health surveys? *Journal of Adolescent Health, 22*, 326-333.
- Moffitt, T. E. (1993). Adolescent-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100*, 674-701.
- Motl, R. W., Birnbaum, A. S., Kubik, M. Y., & Dishman, R. K. (2004). Naturally occurring changes in physical activity are inversely related to depressive symptoms during early adolescence. *Psychosomatic Medicine, 66*, 336-342.
- Offord, D. R. (1995). Child psychiatric epidemiology: Current status and future prospects. *Canadian Journal of Psychiatry, 40*, 284-288.
- Offord, D. R., Boyle, M. H., Campbell, D., Goering, P., Lin, E., Wong, M., et al. (1996). One-year prevalence of psychiatric disorder in Ontarians 15 to 64 years of age. *Canadian Journal of Psychiatry, 41*, 559-563.
- Olfson, M., Blanco, C., Liu, L., Moreno, C., & Laje, G. (2006). National trends in the outpatient treatment of children and adolescents with antipsychotic drugs. *Archives of General Psychiatry, 63*, 679-685.
- O'Malley, P. M., Bachman, J. G., & Johnston, L. D. (1983). Reliability and consistency in self-reports of drug use. *International Journal of the Addictions, 18*, 805-824.
- Ortega, F., Ruiz, J., Castillo, M., & Sjöström, M. (2008). Physical fitness in childhood and adolescence: a powerful marker of health. *International Journal of Obesity, 32*, 1-11.
- Pan, S. Y., Desmeules, M., Morrison, H., Semenciw, R., Ugnat, A.-M., Thompson, W., et al. (2007). Adolescent injury deaths and hospitalization in Canada: Magnitude and temporal trends. *Journal of Adolescent Health, 41*, 84-92.
- Park, J. (2003). Adolescent self-concept and health into adulthood. *Supplement to Health Reports, (Statistics Canada Catalogue 82-003)*, 41-52.
- Parks-Thomas, C., Conrad, P., Casler, R., & Goodman, E. (2006). Trends in the use of psychotropic medications among adolescents, 1994-2001. *Psychiatric Services, 57*, 63-69.
- Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *Lancet, 369*, 1302-1313.
- Petty, K. H., Davis, C. L., Tkacz, J., Young-Hyman, D., & Waller, J. L. (2009). Exercise effects on depressive symptoms and self-worth in overweight children: A randomized controlled trial. *Journal of Pediatric Psychology, 34*, 929-939.
- Porter, S. R. (2004). Raising response rates: What works? *New Directions for Institutional Research, 121*, 5-21.
- Public Health Agency of Canada. (2009). *Child and youth injury in review, 2009 edition – spotlight on consumer product safety*. Ottawa: Public Health Agency of Canada.

- Radloff, L. (1977). The CES-D scale: A self report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.
- Reilly, J. J. (2006). Obesity in childhood and adolescence: evidence based clinical and public health perspectives. *Postgraduate Medical Journal, 82*, 429-437.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., et al. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association, 278*, 823-832.
- Ringback Weitoft, G., Hjern, A., Haglund, B., & Rosen, M. (2003). Mortality, severe morbidity, and injury in children living with single parents in Sweden: A population-based study. *Lancet, 361*, 289-295.
- Romano, E., Tremblay, R. E., Vitaro, F., Zoccolillo, M., & Pagani, L. (2001). Prevalence of psychiatric diagnoses and the role of perceived impairment: findings from an adolescent community sample. *Journal of Child Psychology and Psychiatry, 42*, 451-461.
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. *American Sociological Review, 54*, 1004-1018.
- Saab, H., & Klinger, D. (2010). School differences in adolescent health and wellbeing: Findings from the Canadian Health Behaviour in School-aged Children study. *Social Science & Medicine, 70*, 850-858.
- Savoie, J. (2007). *Youth self-reported delinquency, Toronto, 2006* (Juristat Catalogue no. 85-002-XPE, vol. 27, no. 6). Ottawa: Statistics Canada.
- Shaffer, H. J., Hall, M. N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: A research synthesis. *American Journal of Public Health, 89*, 1369-1376.
- Shields, M. (2006). Overweight and obesity among children and youth. *Health Reports (Statistics Canada, Catalogue 82-003), 17(3)*, 27-42.
- Simmons, R. G., Burgeson, R., Carlton-Ford, S., & Blyth, D. A. (1987). The impact of cumulative change in early adolescence. *Child Development, 58*, 1220-1234.
- Singh, A. S., Mulder, C., Twisk, J. W. R., van Mechelen, W., & Chinapaw, M. J. M. (2008). Tracking of childhood overweight into adulthood: A systematic review of the literature. *Obesity Reviews*. doi:10.1111/j.1467-789X.2008.00475.x.
- Sprott, J. B., Jenkins, J. M., & Doob, A. N. (2000). *Early offending: Understanding the risk and protective factors of delinquency* (HRDC Catalogue No. W-01-1-9E). Ottawa: Human Resources Development Canada.
- StataCorp. (2009). *Stata statistical software: Release 11.0*. College Station, TX: Stata Corporation.
- Statistics Canada. (1999, July 6). National Longitudinal Survey of Children and Youth: Transition into adolescence. *The Daily*. Retrieved from <http://www.statcan.gc.ca/dai-quo/index-eng.htm>

- Statistics Canada. (2001). *Children and youth in Canada. Canadian Centre for Justice Statistics profile series* (Catalogue No. 85F0033MIE). Ottawa: Ministry of Industry.
- Statistics Canada. (2008, May 16). Youth crime. *The Daily*. Retrieved from <http://www.statcan.gc.ca/dai-quo/index-eng.htm>
- Stephens, T. (1988). Physical activity and mental health in the United States and Canada: Evidence from four population surveys. *Preventive Medicine, 17*, 35-47.
- Stephens, T., Dulberg, C., & Joubert, N. (1999). Mental health of the Canadian population: A comprehensive analysis. *Chronic Diseases in Canada, 20*, 118-126.
- Tejeiro Salguero, R. A., & Bersabé Morán, R. M. (2002). Measuring problem video game playing in adolescents. *Addiction, 97*, 1601-1606.
- Thompson, A. H., & Cui, X. (2000). Increasing childhood trauma in Canada: Findings from the National Population Health Survey, 1994/95. *Canadian Journal of Public Health, 91*, 197-200.
- Tremblay, M. S., Shields, M., Laviolette, M., Craig, C. L., Janssen, I., & Connor-Gorber, S. (2010). Fitness of Canadian children and youth: Results from the 2007-2009 Canadian Health Measures Survey. *Health Reports (Statistics Canada, Catalogue 82-003-XPE), 21*(1), 1-14.
- Tremblay, S., Dahinten, S., & Kohen, D. (2003). Factors related to adolescents' self-perceived health. *Supplement to Health Reports, (Statistics Canada Catalogue 82-003)*, 7-16.
- Tsigilis, N. (2006). Can secondary school students' self-reported measures of height and weight be trusted? An effect size approach. *European Journal of Public Health, 16*, 532-535.
- Twenge, J. M. (2000). The age of anxiety? Birth cohort change in anxiety and neuroticism, 1952-1993. *Journal of Personality and Social Psychology, 79*, 1007-1021.
- US Department of Health and Human Services. (1999a). *Mental health: A report of the Surgeon General*. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.
- US Department of Health and Human Services. (1999b). *The relationship between mental health and substance abuse among adolescents*. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
- Waddell, C., McEwan, K., Peters, R. D., Hua, J. M., & Garland, O. (2007). Preventing mental disorders in children: A public health priority. *Canadian Journal of Public Health, 98*, 174-178.
- Wang, J. L., & El-Guebaly, N. (2004). Sociodemographic factors associated with comorbid major depressive episodes and alcohol dependence in the general population. *Canadian Journal of Psychiatry, 49*, 37-44.
- Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: Strengthening parenting competencies. *Journal of Consulting and Clinical Psychology, 66*, 715-730.

- Wells, L. E., & Rankin, J. E. (1991). Families and delinquency: A meta-analysis of the impact of broken homes. *Social Problems, 38*, 71-93.
- Welsh, W. N. (2000). The effects of school climate on school disorder. *Annals of the American Academy of Political and Social Science, 567*, 88-107.
- White, V. M., Hill, D. J., & Effendi, Y. (2004). How does active parental consent influence the findings of drug-use surveys in schools? *Evaluation Review, 28*, 246-260.
- Winters, K. C., Stinchfield, R. D., & Fulkerson, J. (1993). Toward the development of an adolescent gambling problem severity scale. *Journal of Gambling Studies, 9*, 63-84.
- Wood, D., Halfon, N., Scarlata, D., Newacheck, P., & Nessim, S. (1993). Impact of family relocation on children's growth, development, school function, and behaviour. *Journal of the American Medical Association, 270*, 1334-1338.
- World Health Organization. (1948). *Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948*. Geneva: World Health Organization.
- Zametkin, A. J., Zoon, C. K., Klein, H. W., & Munson, S. (2004). Psychiatric aspects of child and adolescent obesity: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry, 43*, 134-150.

6. APPENDIX TABLES

Table A3.1.1 School Performance and Attitudes, 1991–2009

	Grades 7, 9, 11 only										Grades 7-12							
	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	1999	2001	2003	2005	2007	2009		
	(Total N=)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
Marks Usually Receive in All Subjects																		
A (80%-100%)	(2961)	28.4	29.0	32.3	35.5	39.1	37.5	34.8	37.0	43.4	44.3	(4447)	37.8	36.4	36.2	40.5	43.8	45.9
B (67%-79%)	(2617)	46.3	48.8	44.9	42.3	42.0	46.0	46.2	46.4	44.8	47.2	(3898)	43.5	45.1	45.7	44.3	44.9	44.7
C (60%-66%)	(2907)	20.2	18.5	17.6	17.9	13.4	12.1	13.8	13.3	9.4	6.9	(6616)	13.8	13.6	13.6	12.0	9.0	7.3
D (50%-59%)	(3072)	4.7	3.4	4.9	3.8	5.0	3.6	4.7	2.9	2.1	1.4	(7726)	4.3	4.2	4.1	3.0	2.0	1.8
< D (below 50%)	(2421)	†	†	†	0.6	0.5	0.7	0.5	†	†	†	(6323)	0.5	0.6	†	†	†	†
	(2013)																	
	(3389)																	
	(3969)																	
	(3215)																	
	(4424)																	
Likely to Graduate																		
very likely	(2069)	83.3	85.2	85.8	84.7	85.6	85.0	84.6	84.1	87.5	81.2	(2148)	85.8	86.4	86.3	86.3	89.0	83.3
fairly likely	(1168)	15.0	13.1	12.8	13.6	12.0	12.4	12.9	13.7	10.0	17.6	(1837)	11.7	11.2	11.6	11.5	8.9	15.5
not very likely/not at all	(953)	1.7	1.7	1.4	1.7	2.4	2.6	2.5	2.2	2.5	1.2	(1488)	2.5	2.5	2.1	2.2	2.1	1.2
	(1862)																	
	(1488)																	
	(2069)																	
Relative School Performance *			(1241)	(1453)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	
above average		—	28.8	35.3	32.7	30.2	31.2	29.4	30.5	34.2	34.1	30.6	31.0	30.5	31.7	33.7	34.0	
slightly above		—	27.8	25.5	26.8	25.6	24.8	23.3	23.6	24.4	23.5	24.2	24.7	23.0	24.1	23.6	25.0	
average		—	35.5	30.8	31.0	32.6	32.5	34.7	33.5	30.9	29.1	33.8	33.1	33.3	31.6	30.9	27.2	
slightly below		—	5.9	6.6	6.4	7.8	7.8	8.9	8.5	7.0	9.3	7.7	7.7	8.9	8.2	7.8	9.4	
below average		—	1.9	1.7	3.1	3.8	3.7	3.7	4.0	3.4	4.0	3.7	3.6	4.3	4.4	3.9	4.4	
Hours of Homework Per Week *																		
0 or less than 1 hour		—	16.9	15.3	17.6	21.2	15.0	19.7	21.4	21.9	22.3	22.2	16.3	19.3	20.7	21.1	23.4	
1-2 hours		—	24.3	27.2	24.6	28.7	28.3	28.6	26.4	29.2	28.4	28.4	27.5	27.0	25.7	28.1	26.9	
3-4		—	27.6	29.4	28.8	26.1	28.6	26.1	26.7	25.8	23.1	24.8	28.6	25.8	26.1	25.5	24.2	
5-6		—	19.5	18.2	18.4	14.9	16.6	14.9	15.7	13.9	16.2	15.0	16.6	15.9	16.1	15.3	15.0	
7+		—	11.7	9.9	10.6	9.1	11.5	10.8	9.9	9.2	10.0	9.6	10.9	12.1	11.4	10.0	10.5	
Feelings about School *																		
like it a lot/very much		—	36.0	34.7	35.6	32.2	28.7	28.6	29.8	33.7	37.5	29.6	26.8	28.3	30.6	33.3	35.5	
like it somewhat		—	51.1	49.7	47.4	50.7	51.6	49.4	49.9	46.7	45.4	51.8	52.8	49.9	48.8	48.9	46.6	
do not like it very much/at all		—	12.9	15.5	17.0	17.2	19.8	22.0	20.4	19.7	17.1	18.5	20.4	21.8	20.6	17.8	17.9	

Notes: * Question asked of a random half sample in each year; numbers in parentheses are numbers surveyed; — indicates data not available for that year; † indicates data suppressed due to unreliability.
 Qs: Overall, what marks do you usually get in school?; How likely is it that you will stay in school until you graduate?; Compared to other students in your school, how do you rate yourself in the school work you do?; On average, how much time do you spend doing homework each week outside school?; How do you feel about going to school?
 Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.2.1 Percentage Reporting Poor Health, 1991–2009

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
(N ¹)					(4447)	(3898)	(6616)	(7726)	(6323)	(9112)
(N ²)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)
Total¹	—	—	—	—	8.9	10.3	12.6	13.1	12.9	14.5 ^b
(95% CI)					(7.9-10.1)	(9.1-11.7)	(11.7-13.7)	(12.0-14.3)	(11.8-14.2)	(13.3-15.8)
Total²	5.8	6.3	7.4	9.3	8.7	9.0	12.0	13.0	11.8	13.1
(95% CI)	(5.0-6.6)	(5.2-7.8)	(6.2-8.9)	(8.1-10.8)	(7.4-10.2)	(7.9-10.4)	(10.7-13.3)	(11.6-14.7)	(10.4-13.4)	(11.6-14.8)
Males¹	—	—	—	—	8.7	8.3	9.9	10.5	9.6	10.8
(95% CI)					(7.3-10.4)	(6.8-10.1)	(8.7-11.3)	(9.3-11.7)	(8.3-11.1)	(9.6-12.2)
Males²	5.3	5.0	5.7	7.5	9.4	7.1	9.5	10.9	8.8	10.2
(95% CI)	(4.1-6.8)	(3.6-7.0)	(4.4-7.2)	(5.8-9.7)	(7.5-11.7)	(5.3-9.3)	(7.8-11.4)	(9.2-12.8)	(7.1-10.9)	(8.4-12.3)
Females¹	—	—	—	—	9.2	12.3	15.2	15.9	16.6	18.5 ^b
(95% CI)					(7.8-10.8)	(10.1-14.8)	(13.7-16.7)	(14.2-17.8)	(14.8-18.4)	(16.7-20.4)
Females²	6.3	7.6	9.1	10.9	8.0	11.0	14.3	15.3	15.0	16.3
(95% CI)	(5.0-7.9)	(5.7-10.1)	(7.6-10.8)	(9.5-12.5)	(6.3-10.0)	(9.1-13.2)	(12.3-16.6)	(13.2-17.6)	(12.9-17.3)	(14.1-18.7)
Grade 7	3.9	5.5	5.0	5.8	3.8	6.2	6.8	5.5	4.1	6.3
(95% CI)	(2.7-5.0)	(1.5-9.6)	(2.5-7.5)	(4.1-7.5)	(2.7-5.5)	(4.6-8.3)	(5.0-9.2)	(4.0-7.5)	(2.8-6.1)	(4.4-8.9)
Grade 8	—	—	—	—	7.2	7.5	9.8	8.1	7.8	10.6
(95% CI)					(5.5-9.4)	(5.6-9.9)	(7.4-12.9)	(6.3-10.3)	(5.8-10.5)	(8.8-12.9)
Grade 9	6.9	5.8	6.6	10.0	9.8	8.9	11.4	14.6	11.7	14.3
(95% CI)	(5.0-8.8)	(3.0-8.6)	(5.4-7.7)	(7.2-12.8)	(7.7-12.4)	(7.1-11.2)	(9.5-13.5)	(12.6-17.0)	(9.7-14.1)	(11.6-17.5)
Grade 10	—	—	—	—	10.0	13.0	14.8	15.3	14.1	14.5
(95% CI)					(7.2-13.7)	(10.1-16.7)	(12.3-17.6)	(13.2-17.7)	(11.9-16.5)	(11.8-17.8)
Grade 11	6.4	7.5	10.3	11.8	11.5	12.2	16.6	18.7	18.9	17.6
(95% CI)	(3.3-9.6)	(4.0-11.0)	(7.7-12.9)	(9.8-13.9)	(8.8-14.8)	(9.5-15.5)	(14.3-19.3)	(16.0-21.8)	(16.1-21.9)	(14.7-20.9)
Grade 12	—	—	—	—	10.9	15.1	14.9	15.7	18.6	19.8 ^b
(95% CI)					(8.3-14.2)	(10.9-20.6)	(12.4-17.8)	(13.2-18.5)	(16.1-21.9)	(16.8-23.2)
Toronto¹	—	—	—	—	9.2	9.3	13.7	13.6	13.3	17.8 ^b
(95% CI)					(7.7-10.8)	(7.1-12.2)	(10.8-17.3)	(10.3-17.8)	(9.8-17.8)	(14.0-22.4)
Toronto²	6.5	6.5	7.4	7.1	7.4	7.5	13.4	15.2	13.0	16.1
(95% CI)	(5.1-8.2)	(4.6-9.1)	(3.9-13.8)	(5.5-9.2)	(5.1-10.7)	(5.6-10.0)	(9.8-17.9)	(10.9-20.9)	(9.3-17.9)	(12.4-20.5)
North¹	—	—	—	—	7.9	10.0	12.9	10.5	16.0	16.0 ^b
(95% CI)					(6.2-9.9)	(7.8-12.7)	(10.1-16.5)	(8.3-13.2)	(12.8-19.7)	(12.4-20.3)
North²	3.4	1.8	6.3	6.3	7.0	11.0	14.2	10.7	14.0	14.0
(95% CI)	(1.1-10.1)	(1.1-2.8)	(2.6-14.4)	(4.8-8.2)	(4.8-10.0)	(7.8-15.2)	(10.3-19.4)	(7.1-15.6)	(9.3-20.4)	(10.8-17.9)
West¹	—	—	—	—	9.7	11.2	13.3	14.2	13.0	14.7 ^b
(95% CI)					(7.8-12.0)	(9.3-13.4)	(12.0-14.6)	(12.6-16.0)	(11.2-15.0)	(12.8-16.7)
West²	5.7	5.9	8.2	10.9	9.4	10.0	13.1	14.0	12.5	13.8
(95% CI)	(4.7-6.8)	(3.7-9.3)	(6.6-10.1)	(8.5-13.9)	(7.3-12.0)	(7.9-12.5)	(11.2-15.3)	(11.8-16.5)	(10.4-14.9)	(11.2-16.8)
East¹	—	—	—	—	8.0	9.7	11.0	12.0	12.1	12.3 ^b
(95% CI)					(6.4-9.9)	(7.3-12.8)	(9.3-12.9)	(10.2-14.0)	(10.6-13.8)	(10.8-14.1)
East²	6.1	8.3	6.6	9.3	8.8	8.5	8.7	11.3	10.0	10.7
(95% CI)	(4.6-8.1)	(7.1-9.6)	(5.6-7.9)	(7.6-11.4)	(6.6-11.7)	(6.6-11.0)	(7.1-10.6)	(9.2-13.8)	(7.6-12.9)	(8.8-12.9)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, 11 only (long-term sample); (3) N=total number of students surveyed; (4) entries in brackets are 95% confidence intervals; (5) no significant differences, 2009 vs. 2007; (6) ^b 2009 vs. 1999 significant difference, p<.01.

Q: *How would you rate your physical health?* (Poor health is defined as a rating of “fair” or “poor”)

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.2.2 Percentage Reporting Days of Physical Activity in Physical Education Classes at School During the Past 5 School Days, 1999-2009 (Grades 7 to 12)

		1999	2001	2003	2005	2007	2009
TOTAL	(N=)	(2229)	(2061)	(6616)	(7726)	(6373)	(9112)
0 days		43.8	44.2	46.4	49.5	44.5	45.5
1 day		8.5	10.8	8.8	9.2	7.9	6.0
2 days		13.4	12.1	12.4	10.5	11.3	9.7
3 days		13.4	11.6	10.3	8.9	10.8	10.6
4 days		6.4	4.7	5.9	5.9	5.4	5.5
5 days		14.4	16.3	16.3	16.0	20.2	22.7
MALES		(1151)	(1018)	(3163)	(3720)	(3068)	(4341)
0 days		41.2	39.0	43.5	45.9	40.6	42.2
1 day		7.4	8.4	8.1	8.1	8.0	5.6
2 days		11.9	11.6	11.4	10.0	9.9	8.4
3 days		14.2	14.2	11.0	9.6	10.5	10.8
4 days		7.2	5.8	5.8	6.7	5.6	5.7
5 days		18.2	20.9	20.3	19.6	25.5	27.2
FEMALES		(1148)	(1043)	(3453)	(4006)	(3255)	(4771)
0 days		46.5	49.4	49.0	53.4	48.6	49.0
1 day		9.5	13.1	9.5	10.3	7.8	6.4
2 days		15.0	12.6	13.2	11.0	12.8	11.0
3 days		12.7	9.0	9.7	8.1	11.1	10.4
4 days		5.7	4.1	6.0	5.1	5.2	5.4
5 days		10.5	11.8	12.6	12.0	14.6	17.8
GRADE 7		(397)	(404)	(947)	(961)	(721)	(1632)
0 days		30.0	20.0	27.9	26.4	21.6	15.4
1 day		13.5	18.8	14.0	18.8	13.8	9.2
2 days		21.5	23.2	22.8	15.8	17.6	18.9
3 days		15.1	15.8	13.6	14.2	17.2	19.5
4 days		6.9	5.9	6.8	9.1	8.2	8.5
5 days		13.0	16.3	14.8	15.8	21.6	28.5
GRADE 8		(407)	(379)	(976)	(971)	(768)	(1697)
0 days		23.9	21.8	22.3	29.9	16.5	12.8
1 day		11.9	13.8	16.4	16.2	12.4	11.6
2 days		23.8	23.6	22.3	18.4	23.5	20.4
3 days		18.6	16.4	16.5	13.1	15.0	17.4
4 days		8.6	7.2	7.3	7.6	6.8	9.2
5 days		13.1	17.2	15.1	14.8	25.8	28.6
GRADE 9		(463)	(368)	(1254)	(1471)	(1221)	(1414)
0 days		35.6	44.9	43.5	45.1	43.1	40.9
1 day		7.8	11.4	8.2	7.5	6.4	4.6
2 days		12.4	6.2	7.8	9.2	9.6	7.5
3 days		18.7	12.5	10.5	10.6	12.0	12.0
4 days		5.3	5.0	7.1	5.3	5.0	6.8
5 days		20.2	20.1	23.0	22.2	24.0	28.2
GRADE 10		(342)	(422)	(1181)	(1427)	(1105)	(1534)
0 days		55.7	57.6	55.9	63.3	57.4	58.9
1 day		5.5	7.3	5.6	4.5	5.5	4.7
2 days		8.5	6.6	7.9	6.8	5.6	5.2
3 days		9.2	8.3	7.0	5.6	8.2	8.3
4 days		6.1	5.2	5.3	4.8	3.4	3.7
5 days		15.0	15.1	18.3	15.0	19.8	19.1

(Continued...)

	1999	2001	2003	2005	2007	2009
GRADE 11	(393)	(288)	(1188)	(1537)	(1273)	(1378)
0 days	57.2	61.3	59.8	60.8	58.3	61.8
1 day	7.2	5.6	5.1	4.9	4.8	4.9
2 days	8.6	7.0	9.2	7.2	6.6	5.5
3 days	10.0	9.7	8.2	6.4	7.7	5.6
4 days	6.1	3.6	4.0	4.0	4.4	3.2
5 days	11.0	12.8	13.5	16.7	18.3	18.9
GRADE 12	(297)	(200)	(1270)	(1359)	(1235)	(1457)
0 days	64.7	62.2	60.8	67.7	61.6	66.3
1 day	4.6	7.0	6.2	4.5	5.9	3.2
2 days	5.7	8.6	8.1	6.6	7.2	5.2
3 days	6.6	5.3	7.9	4.5	6.5	5.1
4 days	6.0	1.6	5.1	5.0	5.0	3.4
5 days	12.3	15.2	12.0	11.8	13.8	16.8
TORONTO	(371)	(267)	(1097)	(1172)	(943)	(836)
0 days	44.3	39.6	48.5	49.0	41.2	46.3
1 day	13.0	15.8	8.0	10.8	8.5	8.0
2 days	15.1	16.2	13.9	12.7	11.2	12.1
3 days	13.8	10.5	10.5	9.9	14.7	11.8
4 days	6.2	4.8	4.0	4.0	5.4	4.4
5 days	7.6	13.1	15.2	13.5	18.9	17.3
NORTH	(424)	(599)	(1285)	(1245)	(797)	(649)
0 days	49.1	46.9	45.6	42.3	47.6	49.5
1 day	7.1	9.7	7.2	11.4	9.7	6.8
2 days	12.7	9.2	13.0	9.0	8.8	11.1
3 days	9.9	8.6	7.7	9.4	5.7	7.8
4 days	5.7	5.2	6.6	6.5	6.4	3.7
5 days	15.4	20.4	19.9	21.4	21.8	21.1
WEST	(769)	(718)	(2513)	(2865)	(2639)	(2861)
0 days	45.6	44.1	46.4	51.4	43.7	47.4
1 day	6.7	10.5	9.6	8.2	7.4	5.5
2 days	11.0	12.3	12.2	10.8	11.0	9.5
3 days	12.1	12.0	9.9	8.6	10.8	9.6
4 days	7.0	5.3	6.4	6.0	5.6	5.5
5 days	17.7	15.8	15.5	15.0	21.4	22.5
EAST	(735)	(477)	(1721)	(2444)	(1944)	(4766)
0 days	39.8	46.7	45.2	49.0	46.5	41.9
1 day	8.6	8.2	8.6	9.0	7.8	5.5
2 days	15.9	10.1	11.4	9.2	12.2	8.4
3 days	16.1	12.7	11.5	8.7	9.6	11.8
4 days	6.1	4.5	6.0	6.6	4.8	6.5
5 days	13.5	17.8	17.2	17.5	19.1	25.9

Notes: (1) numbers in parentheses are the numbers surveyed; (2) data based on a random half sample in 1999 and 2001; (3) students who were not enrolled in a Physical Education class were coded as "0 days."

Q: "On how many of the last 5 school days did you participate in physical activity for at least 20 minutes that made you sweat and breathe hard in physical education class in your school?"

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.1 Percentage Reporting No Visits to a Doctor for their Physical Health or for a Check-Up During the Past Year, 1999–2009 (Grades 7 to 12)

	(N=)	1999 (4447)	2001 (3898)	2003 (6616)	2005 (7726)	2007 (2935)	2009 (4261)
Total (95% CI)		30.0 (28.2-31.9)	34.0 (31.8-36.2)	39.8 (38.3-41.3)	38.9 (37.0-40.8)	39.0 (36.6-41.5)	33.6^a (31.2-36.0)
Sex	Males	34.0 (31.7-36.5)	38.9 (35.9-41.9)	46.2 (44.1-48.4)	43.4 (40.6-46.3)	44.6 (40.9-48.2)	39.3 (35.6-43.1)
	Females	25.9 (23.6-28.4)	29.2 (27.0-31.6)	33.8 (31.9-35.8)	34.0 (32.0-36.1)	32.8 (30.0-35.8)	27.2 (24.3-30.4)
Grade	7	33.6 (29.5-38.0)	33.8 (29.0-38.9)	42.6 (37.9-47.5)	44.8 (38.6-51.2)	40.9 (34.7-47.3)	33.6 (27.8-40.0)
	8	31.5 (27.9-35.2)	33.0 (28.4-38.0)	43.2 (39.4-47.1)	44.0 (39.1-49.1)	45.5 (38.6-52.6)	33.4 (27.7-39.6)
	9	31.4 (28.6-34.3)	35.3 (31.3-39.5)	39.4 (35.7-43.2)	37.1 (33.6-40.8)	42.4 (37.4-47.5)	31.1^a (27.0-35.6)
	10	26.9 (22.5-31.9)	36.0 (31.3-41.0)	38.4 (34.8-42.1)	36.7 (33.5-40.0)	35.4 (30.5-40.7)	30.3 (25.0-36.2)
	11	26.9 (22.6-31.6)	29.3 (24.2-34.9)	37.8 (34.4-41.3)	35.8 (32.9-38.7)	31.1 (27.2-35.2)	35.0 (30.4-39.8)
	12	29.6 (24.2-35.5)	35.0 (29.6-42.8)	38.6 (34.5-42.8)	35.9 (33.0-39.0)	39.7 (35.2-44.4)	36.9 (31.7-42.4)
Region	Toronto	25.5 (21.7-29.8)	30.3 (26.7-34.2)	38.7 (36.8-40.6)	36.1 (31.5-41.1)	39.2 (32.3-46.5)	35.8^b (30.8-41.0)
	North	39.5 (35.4-43.7)	39.7 (35.1-44.4)	45.9 (43.5-48.2)	49.3 (43.8-54.8)	47.5 (40.8-54.2)	39.1 (29.4-49.8)
	West	32.4 (29.2-35.7)	37.5 (34.1-41.1)	42.0 (39.9-44.2)	41.4 (39.0-43.8)	40.1 (37.1-43.3)	33.2 (29.5-37.2)
	East	26.6 (23.8-29.6)	29.2 (24.9-33.9)	35.5 (31.9-39.2)	35.1 (31.6-38.8)	35.2 (30.5-40.1)	31.7 (27.6-36.1)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) asked of a random half sample in 2007 and 2009; (4) ^a 2009 vs. 2007 significant difference, $p < .01$; (5) ^b 2009 vs. 1999 significant difference, $p < .01$.

Q: *In the last 12 months, how many times have you seen a doctor about your physical health or for a check-up?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.2 Percentage Reporting Having Been Treated for a Physical Injury at Least Once During the Past Year, 2003–2009 (Grades 7 to 12)

(N=)		2003 (6616)	2005 (7726)	2007 (2935)	2009 (4261)
Total % (95% CI)		35.4 (33.7-37.1)	33.8 (32.2-35.5)	37.4 (35.2-39.6)	40.5^b (38.5-42.5)
Sex	Males	38.0 (35.6-40.5)	37.9 (35.8-40.0)	39.4 (36.3-42.6)	43.0 (40.2-46.0)
	Females	33.0 (30.9-35.2)	29.5 (27.6-31.4)	35.2 (32.2-38.2)	37.6 (35.0-40.3)
Grade	7	32.5 (27.9-37.4)	29.6 (26.7-32.6)	31.3 (25.3-37.9)	39.1 (33.9-44.6)
	8	36.3 (32.2-40.5)	35.3 (31.2-39.6)	31.4 (26.8-36.3)	40.8 (37.0-44.8)
	9	38.3 (34.9-41.8)	35.1 (32.2-38.1)	39.9 (34.4-45.7)	42.9 (38.2-47.7)
	10	35.1 (31.6-38.8)	33.3 (30.1-36.6)	37.7 (33.5-42.1)	42.0 (37.8-46.5)
	11	36.0 (32.2-40.0)	33.1 (30.1-36.4)	38.9 (34.7-43.2)	40.8 (36.4-45.3)
	12	33.6 (30.1-37.4)	36.0 (32.1-40.0)	42.7 (37.3-48.3)	37.8 (33.5-42.4)
Region	Toronto	26.4 (22.4-31.0)	26.7 (22.7-31.1)	33.0 (27.9-38.6)	34.7 (28.6-41.4)
	North	41.8 (38.1-45.6)	39.1 (35.7-42.7)	40.7 (33.9-47.8)	34.6 (26.3-41.5)
	West	36.2 (33.4-39.0)	33.5 (31.0-36.2)	38.4 (35.6-41.4)	41.7 (38.8-44.6)
	East	38.1 (35.0-41.3)	36.8 (34.5-39.3)	37.8 (33.5-42.3)	43.2 (40.4-46.0)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) asked of a random half sample in 2007 and 2009; (4) no significant differences, 2009 vs. 2007; (5) ^b 2009 vs. 2003 significant difference, p<.01.

Q: *In the last 12 months, how many times were you hurt or injured, and had to be treated by a doctor or nurse?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.3 Percentage Reporting At Least One Visit to a Professional for their Mental Health During the Past Year, 1999–2009 (Grades 7 to 12)

	(N=)	1999 (4447)	2001 (3898)	2003 (6616)	2005 (7726)	2007 (3388)	2009 (4851)
Total % (95% CI)		12.4 (11.3-13.7)	10.9 (9.8-12.2)	11.0 (10.0-12.2)	11.7 (10.5-12.9)	21.2 (19.4-23.1)	23.8^b (22.0-25.8)
Sex	Males	9.5 (8.0-11.2)	8.1 (6.9-9.5)	8.1 (7.1-9.3)	8.7 (7.4-10.2)	19.5 (17.1-22.1)	22.3^b (19.6-25.2)
	Females	15.5 (13.6-17.6)	13.6 (12.0-15.4)	13.7 (12.1-15.4)	14.8 (13.3-16.4)	23.0 (20.7-25.4)	25.4^b (23.1-28.0)
Grade	7	8.9 (7.0-11.3)	7.4 (5.8-9.4)	10.0 (8.2-12.1)	9.8 (7.4-12.9)	23.3 (18.7-28.6)	28.9^b (24.3-34.0)
	8	11.3 (8.9-14.3)	9.3 (7.2-11.9)	10.3 (7.5-14.0)	11.4 (8.6-15.0)	18.5 (14.3-23.6)	23.2^b (19.4-27.5)
	9	14.4 (11.4-18.1)	11.0 (8.9-13.6)	9.0 (7.1-11.3)	11.2 (9.4-13.1)	22.4 (18.8-26.5)	26.1^b (21.9-30.8)
	10	14.8 (11.3-19.1)	12.4 (10.6-14.6)	11.1 (8.5-14.2)	14.2 (12.0-16.7)	19.0 (15.4-23.2)	24.6^b (21.0-28.6)
	11	14.6 (11.2-18.8)	12.4 (10.6-14.6)	14.4 (12.0-17.3)	12.7 (10.2-15.8)	21.3 (17.6-25.6)	23.3 (18.1-29.5)
	12	9.3 (7.2-12.1)	13.0 (7.8-21.0)	11.0 (9.0-13.4)	10.7 (8.9-12.8)	22.5 (18.5-27.1)	19.0^b (15.4-23.3)
Region	Toronto	10.5 (8.3-13.2)	10.8 (9.0-12.8)	8.3 (6.4-10.6)	11.2 (7.9-15.6)	25.2 (20.7-30.3)	27.0^b (21.5-33.3)
	North	11.7 (8.9-15.3)	11.0 (8.8-13.6)	12.0 (10.0-14.4)	14.6 (12.0-17.7)	21.2 (15.8-27.8)	19.8^b (15.6-24.7)
	West	13.5 (11.4-16.0)	10.8 (8.7-13.2)	10.6 (8.9-12.5)	12.1 (10.3-14.1)	18.9 (16.2-21.8)	23.1^b (20.4-26.0)
	East	12.3 (10.6-14.2)	11.2 (9.6-13.2)	13.2 (11.2-15.4)	10.7 (9.3-12.3)	22.0 (18.9-25.4)	24.1^b (21.3-27.1)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) asked of a random half sample in 2007 and 2009; (4) no significant differences, 2009 vs. 2007; (5) ^b 2009 vs. 1999 significant difference, p<.01.

Q: *In the last 12 months, how many times have you seen a doctor, nurse, or counsellor about your emotional or mental health?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.4 Percentage Reporting Medical Use of Prescription Opioid Pain Relievers At Least Once During the Past Year, 2007–2009 (Grades 7 to 12)

		2007 (N=6323)	2009 (N=9112)
Total % (95% CI)		40.6 (39.0-42.1)	31.8^a (30.3-33.3)
Sex	Males	35.8 (33.8-37.9)	26.7^a (24.7-28.8)
	Females	45.7 (43.3-48.1)	37.3^a (35.2-39.3)
Grade	7	33.4 (29.5-37.4)	23.9^a (20.7-27.3)
	8	39.5 (35.7-43.4)	28.7^a (25.2-32.3)
	9	44.6 (41.2-48.0)	33.9^a (30.1-38.0)
	10	44.0 (40.7-47.4)	33.6^a (30.4-37.1)
	11	41.0 (37.7-44.4)	33.9 (30.1-38.0)
	12	40.3 (36.9-43.8)	34.1 (30.6-37.9)
Region	Toronto	36.4 (32.5-40.5)	26.9^a (22.4-31.9)
	North	39.7 (35.7-43.9)	31.1 (26.7-35.9)
	West	40.9 (38.9-42.9)	31.9^a (29.6-34.3)
	East	42.5 (39.3-45.6)	34.1^a (32.2-36.1)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) ^a 2009 vs. 2007 significant difference, p<.01.

Q: *In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin, codeine) with a prescription or because a doctor told you to take them?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.5 Percentage Reporting Medical Use of an ADHD Drug At Least Once During the Past Year, 2007–2009 (Grades 7 to 12)

		2007 (N=6323)	2009 (N=4851)
Total % (95% CI)		2.3 (1.9-2.9)	2.7 (2.1-3.5)
Sex	Males	3.2 (2.5-4.1)	3.9 (2.8-5.3)
	Females	1.3 (0.9-2.0)	1.4 (0.9-2.2)
Grade	7	3.4 (2.1-5.6)	3.2 (1.9-5.4)
	8	1.7 (0.9-3.1)	2.8 (1.5-5.1)
	9	3.0 (1.9-4.4)	4.2 (2.6-6.7)
	10	2.2 (1.4-3.4)	2.4 (1.3-4.4)
	11	1.7 (1.0-2.9)	2.6 (0.9-7.1)
	12	2.1 (1.2-3.6)	1.4 (0.6-2.9)
Region	Toronto	1.3 (0.7-2.2)	†
	North	2.7 (1.4-5.1)	†
	West	2.3 (1.6-3.2)	2.6 (1.7-3.8)
	East	2.8 (2.0-4.0)	3.7 (2.5-5.3)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) ADHD=Attention Deficit Hyperactivity Disorder; (4) †=estimate suppressed due to unreliability; (5) asked of a random half sample in 2009; (6) no significant differences, 2009 vs. 2007.

Q: *Sometimes doctors give medicine to students who are hyperactive or have problems concentrating in school. This is called Attention Deficit Hyperactivity Disorder (ADHD). In the last 12 months, how often did you use medicine to treat ADHD (such as Ritalin, Concerta, Adderall, Dexedrine) with a prescription or because a doctor told you to take it?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.3.6 Percentage Reporting Medical Tranquillizer/Sedative Use At Least Once During the Past Year, 1977–2009

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
(N ¹)												(4447)	(3898)	(3152)	(4078)	(3388)	(4851)
(N ²)	(3927)	(3920)	(3010)	(3614)	(3146)	(3376)	(3340)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(1618)	(2107)	(1727)	(2355)
Total ¹ (95% CI)	—	—	—	—	—	—	—	—	—	—	—	3.2 (2.6-4.0)	3.2 (2.7-3.9)	2.7 (2.2-3.4)	2.2 (1.6-2.9)	4.5 (3.7-5.3)	3.7 (3.0-4.7)
Total ² (95% CI)	8.5 (7.6-9.4)	6.8 (6.0-7.6)	7.1 (6.2-8.1)	6.3 (5.4-7.4)	4.5 (3.9-5.2)	4.8 (3.7-6.1)	2.8 (2.1-3.6)	2.8 (2.0-3.7)	2.3 (1.6-3.3)	1.6 (1.1-2.4)	1.9 (1.5-2.4)	3.0 (2.2-4.0)	2.9 (2.2-3.8)	3.0 (2.2-4.2)	1.9 (1.4-2.7)	3.8 (2.9-4.9)	3.4 (2.6-4.5)
Sex																	
Males ¹	—	—	—	—	—	—	—	—	—	—	—	3.6 (2.6-4.9)	4.1 (3.1-5.4)	3.4 (2.6-4.6)	2.2 (1.5-3.3)	3.2 (2.5-4.2)	2.8 (2.0-3.8)
Males ²	8.0 (6.8-9.4)	7.0 (6.0-8.2)	6.8 (5.7-8.0)	5.8 (5.1-6.7)	4.4 (3.6-5.3)	4.4 (2.7-6.9)	2.4 (1.4-4.2)	3.1 (2.3-4.2)	2.6 (1.8-3.8)	2.0 (1.3-2.9)	2.1 (1.4-3.0)	3.0 (1.9-4.7)	3.4 (2.2-5.2)	4.2 (2.8-6.4)	2.0 (1.4-3.0)	2.8 (1.9-4.1)	2.3 (1.5-3.7)
Females ¹	—	—	—	—	—	—	—	—	—	—	—	2.9 (2.2-3.8)	2.4 (1.8-3.2)	2.1 (1.4-3.0)	2.1 (1.3-3.3)	5.8 (4.6-7.2)	4.7 (3.6-6.2)
Females ²	8.9 (7.8-10.2)	6.4 (5.4-7.7)	7.4 (5.8-9.3)	6.8 (5.3-8.7)	4.6 (3.5-6.0)	5.1 (4.2-6.3)	3.1 (2.6-3.8)	2.4 (1.4-4.0)	2.0 (1.2-3.1)	1.3 (0.7-2.4)	1.7 (1.1-2.7)	3.0 (2.0-4.5)	2.4 (1.6-3.6)	1.9 (1.0-3.4)	1.8 (1.1-3.0)	4.8 (3.5-6.6)	4.5 (3.3-6.2)
Grade																	
7	6.3 (5.2-7.5)	5.4 (4.2-6.8)	3.2 (2.0-5.0)	4.2 (3.0-5.9)	2.9 (1.8-4.7)	3.2 (2.0-5.3)	1.8 (1.2-2.6)	1.6 (0.7-4.0)	1.4 (0.8-2.7)	1.2 (0.5-2.7)	†	1.9 (0.8-4.6)	1.2 (0.6-2.4)	2.4 (1.1-4.8)	†	2.7 (1.4-5.1)	2.4 (1.4-4.1)
8	—	—	—	—	—	—	—	—	—	—	—	3.5 (1.9-6.3)	3.7 (1.9-6.9)	1.7 (0.9-3.4)	2.4 (0.9-6.1)	3.7 (2.2-6.1)	2.4 (1.2-4.5)
9	8.9 (7.4-10.7)	6.2 (4.9-7.7)	8.1 (6.5-10.0)	6.4 (4.6-8.9)	3.7 (2.9-4.7)	4.7 (3.6-6.2)	2.3 (1.4-3.6)	2.8 (1.6-4.9)	1.8 (0.7-4.4)	1.0 (0.5-2.0)	1.8 (1.2-2.6)	3.8 (2.6-5.4)	2.3 (1.4-3.8)	2.8 (1.4-5.4)	2.0 (1.2-3.3)	3.4 (2.2-5.3)	2.3 (1.3-4.1)
10	—	—	—	—	—	—	—	—	—	—	—	3.1 (2.0-4.7)	2.6 (1.8-4.0)	2.3 (1.2-4.2)	2.7 (1.5-4.8)	4.0 (2.6-6.2)	4.5 (2.5-7.7)
11	10.5 (8.8-12.5)	9.1 (7.5-11.1)	9.9 (7.9-12.3)	9.2 (8.2-10.4)	6.8 (5.9-7.9)	6.1 (3.7-9.9)	4.5 (3.0-6.6)	3.7 (2.6-5.4)	3.4 (2.2-5.4)	2.6 (1.6-4.4)	3.1 (2.4-4.2)	3.1 (1.9-5.0)	5.4 (3.6-8.0)	3.8 (2.3-6.2)	3.2 (2.1-4.9)	5.1 (3.4-7.6)	5.4 (3.6-8.0)
12	—	—	—	—	—	—	—	—	—	—	—	4.0 (2.5-6.4)	5.9 (4.1-8.3)	3.2 (1.8-5.6)	2.2 (1.0-4.8)	7.1 (5.0-10.2)	4.8 (3.3-6.9)

(Continued...)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	
(N ¹)												(4447)	(3898)	(3152)	(4078)	(3388)	(4851)	
(N ²)	(3927)	(3920)	(3010)	(3614)	(3146)	(3376)	(3340)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(1618)	(2107)	(1727)	(2355)	
Region																		
Toronto ¹	—	—	—	—	—	—	—	—	—	—	—	—	2.8 (1.7-4.7)	2.5 (1.5-4.2)	2.8 (1.6-4.6)	1.6 (0.6-4.0)	2.8 (1.7-4.8)	2.6 (1.3-5.1)
Toronto ²	—	—	6.3 (4.9-8.0)	4.7 (3.1-7.1)	3.7 (3.2-4.3)	4.4 (2.7-6.9)	0.9 (0.4-2.1)	2.5 (1.6-3.6)	1.2 (0.6-2.4)	1.1 (0.5-2.4)	1.0 (0.4-2.2)	1.9 (0.8-4.5)	2.0 (1.4-3.0)	2.6 (0.9-6.8)	2.1 (1.0-4.3)	2.7 (1.1-6.2)	†	
North ¹	—	—	—	—	—	—	—	—	—	—	—	—	3.7 (1.7-7.7)	3.8 (2.7-5.4)	2.4 (1.2-4.7)	2.0 (1.0-3.9)	3.9 (2.3-6.6)	3.7 (1.9-6.9)
North ²	—	—	8.4 (5.3-13.0)	7.4 (4.3-12.3)	4.8 (3.6-6.4)	6.2 (3.5-10.9)	4.0 (2.7-6.0)	4.1 (1.9-8.5)	2.4 (1.2-4.6)	1.8 (0.5-7.2)	1.7 (1.4-2.2)	5.0 (1.3-17.7)	4.0 (2.6-6.3)	2.2 (1.1-4.4)	2.4 (1.1-5.4)	3.8 (1.8-7.6)	†	
West ¹	—	—	—	—	—	—	—	—	—	—	—	—	2.6 (1.7-4.0)	3.3 (2.4-4.5)	2.7 (1.9-3.9)	1.9 (1.2-3.0)	3.9 (2.7-5.5)	3.7 (2.3-5.8)
West ²	—	—	7.2 (6.1-8.3)	6.2 (5.3-7.4)	4.7 (3.5-6.2)	4.8 (3.0-7.5)	3.1 (2.0-4.8)	2.6 (1.4-4.7)	2.5 (1.5-4.2)	2.0 (1.2-3.3)	2.1 (1.4-3.1)	1.9 (1.1-3.1)	2.8 (1.6-4.9)	3.3 (2.0-5.3)	1.6 (0.8-3.3)	3.1 (2.0-4.9)	2.9 (1.6-5.1)	
East ¹	—	—	—	—	—	—	—	—	—	—	—	—	4.2 (3.2-5.5)	3.5 (2.6-4.7)	2.8 (1.9-4.1)	2.8 (1.6-2.9)	5.9 (4.7-7.3)	4.4 (3.4-5.6)
East ²	—	—	7.0 (4.6-10.4)	7.2 (5.2-10.0)	4.6 (3.6-5.8)	4.4 (2.7-7.4)	3.0 (2.0-4.6)	2.9 (1.9-4.4)	2.6 (1.2-5.8)	1.4 (0.6-3.0)	2.2 (1.5-3.3)	4.7 (3.3-6.6)	3.4 (2.2-5.4)	3.1 (1.6-5.8)	2.0 (1.3-3.2)	5.0 (3.4-7.2)	4.3 (3.2-5.8)	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) N=number of students surveyed; (4) entries in brackets are 95% confidence intervals; (5) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (6)†=estimate suppressed due to unreliability; (7) question asked of a random half sample starting in 2003; (8) no significant differences, 2009 vs. 2007; (9) no significant differences, 2009 vs. 1999.

Q: *Sedatives or tranquillizers are sometimes prescribed by doctors to help people sleep, calm them down, or to relax their muscles. In the last 12 months, how often did you use sedatives or tranquillizers (such as Valium, Ativan, Xanax) with a prescription or because a doctor told you to take them?* (Note that “sedatives” was added to the question in 2007.)

Source: OSDUHS, Centre for Addiction & Mental Health

Table A3.4.1 Percentage Reporting Poor Mental Health, 2007–2009 (Grades 7 to 12)

		2007 (N=3388)	2009 (N=4851)
Total % (95% CI)		11.4 (10.0-12.9)	11.7 (10.3-13.2)
Sex	Males	7.1 (5.7-8.8)	8.4 (6.9-10.3)
	Females	15.8 (13.7-18.2)	15.0 (13.2-17.0)
Grade	7	6.1 (4.0-9.2)	6.9 (4.5-10.4)
	8	9.1 (6.5-12.5)	9.1 (6.4-12.7)
	9	12.4 (9.6-15.9)	12.6 (9.6-16.1)
	10	12.3 (9.2-16.3)	10.9 (8.3-14.3)
	11	12.5 (9.7-16.0)	13.2 (10.5-16.4)
	12	14.5 (11.3-18.4)	15.1 (12.0-18.8)
Region	Toronto	8.8 (5.9-12.9)	14.4 (11.2-18.4)
	North	14.6 (10.7-19.7)	12.3 (9.4-16.0)
	West	12.3 (10.4-14.5)	12.2 (10.0-14.8)
	East	11.0 (8.5-14.1)	9.7 (7.8-12.1)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) question asked of a random half sample in each year; (4) no significant differences, 2009 vs. 2007.

Q: *How would you rate your mental or emotional health?* (Poor mental health is defined as a rating of “poor” or “fair”)

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.4.2 Percentage Reporting Low Self-Esteem, 1995–2009

	1995	1997	1999	2001	2003	2005	2007	2009
(N ¹)			(4447)	(3898)	(6616)	(4078)	(3388)	(4851)
(N ²)	(2907)	(3072)	(2421)	(2013)	(3389)	(2107)	(1727)	(2355)
Total ¹ (95% CI)	—	—	10.1 (9.0-11.3)	9.5 (8.2-10.9)	9.5 (8.6-10.4)	9.6 (8.5-10.8)	8.5 (7.3-9.9)	8.3 (7.3-9.5)
Total ² (95% CI)	10.3 (9.0-11.7)	10.4 (9.3-11.7)	10.0 (8.6-11.5)	10.1 (8.4-12.2)	9.6 (8.6-10.8)	10.9 (9.1-13.0)	8.6 (7.2-10.3)	8.8 (7.2-10.6)
Sex								
Males ¹	—	—	7.3 (6.1-8.8)	8.9 (7.2-11.1)	7.3 (6.3-8.4)	8.2 (6.6-10.3)	6.2 (4.8-8.0)	6.5 (5.3-8.1)
Males ²	7.0 (5.9-8.2)	7.5 (6.0-9.3)	7.8 (6.0-10.2)	9.8 (7.5-12.8)	7.4 (6.1-9.0)	9.4 (6.8-12.9)	5.9 (4.2-8.3)	6.4 (4.5-8.9)
Females ¹	—	—	12.9 (11.2-14.8)	10.0 (8.4-12.0)	11.4 (10.2-12.8)	11.0 (9.5-12.7)	10.9 (9.2-12.9)	10.1 (8.7-11.8)
Females ²	13.5 (11.6-15.6)	13.0 (11.5-14.6)	12.1 (10.2-14.2)	10.4 (8.5-12.7)	11.7 (10.1-13.6)	12.5 (10.3-15.0)	11.4 (9.2-14.0)	11.1 (8.8-14.0)
Grade								
7	9.8 (7.2-13.2)	10.4 (8.0-13.4)	8.1 (5.7-11.4)	8.2 (6.2-10.7)	9.0 (7.5-10.9)	10.8 (7.7-14.8)	7.6 (5.3-10.8)	7.4 (4.8-11.2)
8	—	—	10.9 (8.9-13.2)	8.5 (6.7-10.6)	7.7 (5.6-10.6)	9.9 (6.2-15.5)	8.7 (6.2-12.1)	8.2 (5.4-12.2)
9	11.2 (8.8-14.1)	11.0 (9.2-13.2)	10.7 (8.9-12.9)	14.3 (11.4-17.8)	9.9 (8.1-12.1)	11.8 (9.2-15.0)	10.0 (7.4-13.5)	8.5 (6.3-11.4)
10	—	—	12.7 (9.0-17.6)	10.1 (7.8-13.0)	10.7 (8.6-13.2)	9.9 (7.9-12.3)	8.6 (6.3-11.8)	7.0 (5.1-9.5)
11	9.9 (8.8-11.1)	9.8 (8.5-11.3)	10.6 (8.0-13.8)	6.7 (5.0-8.9)	9.8 (7.9-12.2)	10.0 (7.4-13.5)	8.1 (6.1-10.7)	10.2 (7.1-14.4)
12	—	—	7.2 (4.8-10.6)	6.5 (4.2-10.0)	9.1 (7.1-11.4)	5.6 (3.8-8.2)	8.0 (5.7-11.2)	8.4 (6.2-11.4)
Region								
Toronto ¹	—	—	9.3 (6.5-13.2)	11.4 (8.1-15.8)	8.6 (6.5-11.2)	11.7 (8.1-16.6)	8.7 (5.8-12.7)	9.3 (6.2-13.8)
Toronto ²	10.2 (6.8-15.0)	10.9 (7.8-15.2)	8.9 (6.1-12.9)	11.5 (7.4-17.5)	9.4 (7.0-12.4)	11.7 (7.6-17.6)	8.8 (5.5-13.8)	6.9 (4.1-11.3)
North ¹	—	—	10.3 (7.9-13.3)	9.1 (7.2-11.6)	12.5 (9.5-16.3)	9.7 (7.3-12.8)	10.7 (7.8-14.5)	6.2 (3.8-9.9)
North ²	8.5 (6.0-11.9)	8.1 (6.9-9.4)	11.5 (8.0-16.4)	8.1 (5.4-12.0)	15.2 (11.0-20.7)	10.0 (7.0-14.0)	6.2 (3.3-11.7)	5.4 (2.3-11.8)
West ¹	—	—	9.6 (7.9-11.6)	9.8 (7.9-12.1)	8.9 (7.7-10.3)	8.9 (7.3-10.9)	9.0 (7.1-11.4)	8.6 (6.9-10.5)
West ²	10.9 (9.2-12.9)	10.2 (8.4-12.3)	8.9 (6.8-11.6)	11.1 (8.6-14.0)	9.1 (7.8-10.6)	10.7 (7.8-14.5)	10.0 (7.8-12.8)	10.1 (7.6-13.2)
East ¹	—	—	11.1 (9.4-13.2)	7.9 (6.0-10.3)	10.0 (8.6-11.6)	9.4 (7.8-11.1)	7.5 (5.9-9.6)	8.0 (6.6-9.6)
East ²	10.0 (7.9-12.6)	11.0 (9.7-12.6)	11.6 (9.4-14.2)	7.9 (5.1-12.1)	9.1 (7.2-11.4)	11.0 (8.1-14.7)	7.5 (5.6-10.0)	8.7 (6.0-12.4)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) entries in brackets are 95% confidence intervals; (4) questions asked of a random half sample starting in 2005; (5) no significant change over time.

Qs: (1) *Sometimes I feel that I can't do anything right*; (2) *I feel I do not have much to be proud of*; (3) *Sometimes I think I am no good at all*; (4) *I feel good about myself*; (5) *I feel that I am a person of worth*; (6) *I am able to do most things as well as others*. Items 1, 2, and 3 were binary coded to reflect "always true" or "often true" and items 4, 5, and 6 were binary coded to reflect "seldom true" or "never true." The overall low self-esteem percentage is based on indicating low esteem on 3 or more of the 6 items.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.4.3 Percentage Reporting Depressive Symptoms (CES-D), 1999–2009
(Grades 7 to12)

	(N=)	1999 (2299)	2001 (2061)	2003 (3464)	2005 (4078)	2007 (3388)	2009 (4851)
Total % (95% CI)		4.6 (3.7-5.9)	4.5 (3.3-6.1)	5.6 (4.8-6.6)	5.3 (4.5-6.2)	5.3 (4.4-6.3)	5.4 (4.4-6.6)
Sex	Males	1.8 (1.0-3.1)	2.0 (1.2-3.5)	2.6 (1.8-3.7)	1.9 (1.2-2.8)	2.4 (1.7-3.4)	2.8 (1.9-4.0)
	Females	7.6 (5.9-9.7)	6.9 (4.9-9.8)	8.4 (7.0-10.0)	8.9 (7.5-10.4)	8.3 (6.7-10.1)	8.1 (6.7-9.8)
Grade	7	2.6 (1.2-5.7)	4.5 (2.7-7.5)	4.0 (2.5-6.4)	3.7 (2.2-6.0)	4.5 (2.9-7.0)	4.0 (2.5-6.3)
	8	6.7 (4.1-10.6)	3.2 (1.7-5.9)	8.1 (5.3-12.1)	5.6 (3.5-8.8)	6.2 (4.2-9.1)	4.5 (2.9-6.7)
	9	5.1 (3.4-7.6)	2.8 (1.5-5.4)	4.2 (2.7-6.5)	6.2 (4.3-8.4)	6.0 (4.2-8.5)	8.1 (5.4-12.0)
	10	4.7 (2.9-7.6)	6.3 (3.2-12.3)	5.7 (3.6-8.8)	6.1 (4.4-8.4)	5.5 (4.0-7.6)	5.8 (4.2-7.9)
	11	5.2 (3.5-7.8)	6.5 (4.2-9.9)	7.3 (5.5-7.4)	6.8 (4.8-9.4)	4.5 (3.0-6.8)	4.8 (3.1-7.4)
	12	3.1 (1.6-5.7)	3.3 (1.2-8.4)	4.6 (3.0-7.0)	3.6 (2.2-6.0)	4.9 (3.3-7.2)	5.0 (3.3-7.5)
Region	Toronto	2.8 (1.3-5.7)	4.8 (2.2-10.4)	3.0 (1.7-5.0)	4.9 (2.8-8.6)	4.6 (3.1-6.9)	5.9 (3.7-9.2)
	North	4.3 (2.8-6.5)	5.4 (4.1-7.1)	7.1 (4.8-10.4)	6.4 (4.2-9.5)	7.1 (4.2-11.9)	4.0 (2.4-6.8)
	West	5.1 (3.4-7.5)	4.1 (2.9-5.9)	6.2 (4.9-7.9)	5.9 (4.8-7.1)	4.7 (3.5-6.2)	5.8 (4.2-8.0)
	East	5.2 (3.6-7.4)	4.6 (2.1-9.7)	6.0 (4.6-7.6)	4.6 (3.4-6.1)	5.9 (4.3-8.1)	5.0 (3.4-7.2)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) based on a random half sample in each year; (4) no significant changes between 1999 and 2009.

Qs: CES-D Depression subscale refers to the past 7 days: (1) *How often have you felt sad?*; (2) *How often have you felt lonely?*; (3) *How often have you felt depressed?*; (4) *How often have you felt like crying?*; the percentage reflects “often” or “always” on all 4 items. The percentages reflect responses of “often” or “always” on all four questions.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.4.4 Percentage Reporting Elevated Psychological Distress (GHQ 3+), 1999–2009
(Grades 7 to12)

	(N=)	1999 (2299)	2001 (2061)	2003 (3464)	2005 (4078)	2007 (3388)	2009 (4851)
Total % (95% CI)		30.0 (27.8-32.2)	26.5 (24.2-29.0)	30.8 (28.9-32.8)	29.6 (27.8-31.4)	30.8 (28.8-32.8)	31.0 (29.1-32.9)
Sex	Males	24.3 (21.4-27.6)	23.3 (20.1-26.8)	22.2 (19.8-24.8)	22.2 (20.2-24.5)	19.9 (17.8-22.2)	23.4 (21.0-25.9)
	Females	35.8 (32.8-38.8)	29.6 (26.4-33.2)	38.7 (36.3-41.2)	37.3 (34.4-40.2)	42.0 (39.0-45.1)	38.8 (36.0-41.6)
Grade	7	20.1 (15.7-25.4)	15.9 (12.3-20.3)	20.8 (16.9-25.4)	21.7 (18.1-25.9)	18.5 (14.8-22.8)	19.5 (15.9-23.6)
	8	24.3 (20.4-28.6)	21.9 (17.3-27.4)	23.6 (19.3-28.5)	24.3 (18.3-31.6)	22.7 (18.7-27.2)	22.0 (17.9-26.8)
	9	30.4 (25.1-36.4)	29.8 (25.6-34.4)	26.9 (23.4-30.6)	29.0 (24.8-33.6)	31.1 (26.3-36.4)	29.5 (25.2-34.2)
	10	31.9 (26.8-37.5)	23.8 (19.4-28.9)	38.6 (34.1-43.2)	28.8 (25.1-32.9)	32.5 (27.5-37.9)	33.4 (29.7-37.4)
	11	39.8 (33.8-46.0)	37.8 (31.8-44.1)	38.6 (34.1-43.2)	34.9 (30.7-39.5)	34.9 (30.3-39.9)	38.8 (34.5-43.3)
	12	31.7 (27.0-36.7)	32.9 (26.2-40.5)	37.8 (33.3-42.5)	37.5 (33.0-42.2)	41.1 (36.6-45.8)	37.8 (33.4-42.5)
Region	Toronto	31.4 (26.1-37.2)	27.5 (21.8-32.0)	31.7 (28.1-35.6)	31.7 (28.4-35.1)	27.4 (22.2-33.4)	33.8 (28.1-39.9)
	North	26.9 (21.8-32.7)	24.5 (20.6-28.9)	29.1 (24.4-34.4)	29.3 (23.7-35.6)	36.2 (31.6-41.0)	31.0 (26.3-36.0)
	West	30.7 (27.1-34.6)	26.8 (23.0-31.0)	31.2 (28.1-34.4)	30.6 (28.0-33.2)	28.7 (25.8-31.8)	30.5 (27.8-33.3)
	East	29.2 (25.9-32.7)	26.0 (22.3-30.2)	30.2 (26.7-34.1)	27.6 (24.2-31.2)	33.5 (30.0-37.2)	30.3 (27.2-33.6)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) based on a random half sample in each year; (4) "Elevated Psychological Distress" is defined as experiencing 3 or more of the 12 symptoms in the General Health Questionnaire (GHQ-12) over the past few weeks; (5) no significant differences, 2009 vs. 2007; (6) no significant differences, 2009 vs. 1999.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.4.5 Percentage Reporting Suicide Ideation, 2001–2009 (Grades 7 to 12)

		2001	2003	2005	2007	2009
(N=)		(2061)	(3464)	(4078)	(3388)	(4851)
Total		11.4	12.5	11.2	9.8	9.5
(95% CI)		(9.5-13.8)	(11.1-14.2)	(10.0-12.5)	(8.6-11.1)	(8.3-10.8)
Sex	Males	8.9	7.9	7.0	5.9	7.6
		(7.0-11.3)	(6.4-9.5)	(5.8-8.5)	(4.7-7.5)	(6.1-9.4)
	Females	14.0	16.8	15.5	13.7	11.4
		(11.2-17.3)	(14.6-19.2)	(13.4-17.9)	(11.8-15.9)	(9.7-13.4)
Grade	7	8.4	9.8	8.4	7.9	5.9
		(5.7-12.2)	(6.7-14.0)	(5.7-12.1)	(5.5-11.3)	(3.9-8.9)
	8	12.5	16.7	11.6	9.2	8.7
		(8.2-18.6)	(11.1-24.3)	(8.7-15.2)	(6.6-12.8)	(6.1-12.3)
	9	8.8	11.1	12.6	11.5	9.7
		(4.9-15.3)	(8.9-13.9)	(10.2-15.4)	(8.7-15.2)	(6.9-13.4)
	10	12.8	12.4	13.1	11.4	10.6
		(9.5-17.0)	(9.1-16.8)	(9.8-17.3)	(8.9-14.5)	(8.8-12.8)
	11	13.9	14.8	12.9	10.0	10.7
		(9.8-19.4)	(11.4-18.9)	(10.5-15.8)	(7.8-12.6)	(8.3-13.7)
	12	14.1	10.5	8.8	8.7	10.3
		(9.4-20.5)	(8.1-13.4)	(6.6-11.5)	(6.3-11.8)	(8.0-13.1)
Region	Toronto	11.0	9.3	10.8	6.8	11.0
		(6.7-17.6)	(6.8-12.6)	(8.5-13.5)	(4.8-9.5)	(8.2-14.5)
	North	11.9	13.0	12.0	11.7	9.0
		(9.5-14.8)	(10.2-16.4)	(10.0-14.3)	(8.4-15.9)	(5.4-14.7)
	West	12.1	13.8	12.8	10.1	10.1
		(8.9-16.3)	(11.3-16.7)	(10.5-15.5)	(8.4-12.1)	(7.9-12.8)
	East	10.6	12.5	9.4	10.5	8.2
		(7.6-14.7)	(10.0-15.5)	(7.7-11.5)	(8.3-13.2)	(6.8-9.8)

Notes: (1) N=number of students surveyed; (2) entries in brackets are 95% confidence intervals; (3) asked of a random half sample in each year; (4) no significant changes between 2001 and 2009.

Q: *During the last 12 months, did you ever seriously consider attempting suicide?* (% responding “yes” is shown)

Source: OSDUHS, Centre for Addiction & Mental Health

Table A3.4.6 Body Image Belief and Desired Change in Weight, 2001–2009 (Grades 7 to 12)

		2001 %	2003 %	2005 %	2007 %	2009 %
TOTAL SAMPLE	(N=)	(1837)	(3152)	(3648)	(2935)	(4261)
Belief:	too thin (underweight)	10.3	11.1	10.8	10.3	10.0
	about right weight	70.9	69.0	69.9	70.0	67.3
	too fat (overweight)	18.7	19.9	19.4	19.6	22.7
Trying to:	lose weight	31.3	29.1	28.8	28.0	29.0
	gain weight	12.2	11.6	12.0	13.4	12.9
	keep from gaining weight	18.3	20.8	22.1	22.7	22.8
	not trying to do anything	38.2	38.5	37.1	35.9	35.3
MALES		(899)	(1509)	(1786)	(1450)	(2055)
Belief:	too thin	12.9	15.8	14.8	13.4	14.0
	about right weight	73.4	70.7	70.8	72.0	68.6
	too fat	13.7	13.4	14.5	14.6	17.4
Trying to:	lose weight	21.2	18.4	20.8	20.3	20.7
	gain weight	18.5	18.4	18.2	20.0	19.8
	keep from gaining weight	16.9	14.8	18.6	19.1	19.6
	not trying to do anything	43.4	48.4	42.4	40.6	39.8
FEMALES		(938)	(1643)	(1862)	(1485)	(2206)
Belief:	too thin	7.9	6.7	6.4	6.9	5.4
	about right weight	68.6	67.3	68.9	67.9	65.8
	too fat	23.6	26.0	24.7	25.2	28.7
Trying to:	lose weight	40.9	39.2	37.5	36.7	38.3
	gain weight	6.2	5.4	5.2	6.0	5.1
	keep from gaining weight	19.6	26.3	26.0	26.7	26.4
	not trying to do anything	33.3	29.1	31.3	30.6	30.2
GRADE 7		(346)	(450)	(453)	(338)	(749)
Belief:	too thin	12.1	9.9	6.2	7.2	9.3
	about right weight	76.1	74.3	76.5	79.1	72.2
	too fat	11.8	15.8	17.2	13.6	18.5
Trying to:	lose weight	25.7	22.8	25.4	26.1	25.1
	gain weight	10.5	8.1	5.5	8.5	9.4
	keep from gaining weight	19.2	18.1	22.1	28.0	21.3
	not trying to do anything	44.6	51.1	47.0	33.4	44.2
GRADE 8		(312)	(464)	(470)	(350)	(784)
Belief:	too thin	10.5	9.9	9.4	9.4	5.8
	about right weight	68.1	74.3	75.3	72.7	73.9
	too fat	21.5	15.8	15.3	17.8	20.3
Trying to:	lose weight	32.3	25.2	26.7	25.7	29.8
	gain weight	9.7	8.6	9.4	8.2	7.4
	keep from gaining weight	22.2	25.1	24.8	23.8	23.8
	not trying to do anything	35.8	41.1	39.1	42.3	39.0
GRADE 9		(334)	(600)	(691)	(561)	(661)
Belief:	too thin	7.3	11.6	12.7	11.3	9.9
	about right weight	73.8	70.5	66.8	67.9	65.6
	too fat	18.9	17.9	20.5	20.8	24.6
Trying to:	lose weight	34.3	29.4	28.3	27.4	29.6
	gain weight	9.2	12.3	12.7	13.2	10.5
	keep from gaining weight	18.1	19.6	22.5	19.8	22.8
	not trying to do anything	38.4	38.7	36.5	39.5	37.2

(Continued..)

		2001	2003	2005	2007	2009
		%	%	%	%	%
GRADE 10		(384)	(559)	(685)	(528)	(720)
Belief:	too thin	7.7	11.7	9.9	9.8	8.4
	about right weight	73.8	64.2	68.8	68.7	66.5
	too fat	18.4	24.1	21.2	21.5	25.1
Trying to:	lose weight	34.3	32.2	29.7	28.3	33.6
	gain weight	11.0	11.9	11.3	12.4	11.3
	keep from gaining weight	16.8	21.6	23.6	20.6	21.1
	not trying to do anything	37.8	34.3	35.4	38.7	34.0
GRADE 11		(273)	(568)	(718)	(589)	(659)
Belief:	too thin	12.2	11.6	13.5	12.0	10.6
	about right weight	66.1	65.5	66.1	67.2	64.4
	too fat	21.7	23.0	20.3	20.8	24.9
Trying to:	lose weight	31.1	31.8	30.1	28.2	28.5
	gain weight	17.1	13.9	15.0	18.9	15.8
	keep from gaining weight	16.5	20.1	21.5	20.1	26.3
	not trying to do anything	35.3	34.2	33.4	32.8	29.4
GRADE 12		(188)	(511)	(631)	(569)	(688)
Belief:	too thin	15.4	11.8	12.1	11.4	13.6
	about right weight	63.0	67.0	67.1	66.7	64.5
	too fat	21.6	21.2	20.8	21.9	21.9
Trying to:	lose weight	27.4	31.5	31.7	31.2	27.5
	gain weight	18.5	13.9	16.7	17.0	18.8
	keep from gaining weight	17.6	20.6	18.9	24.2	21.7
	not trying to do anything	36.4	34.0	32.7	27.6	32.1
TORONTO		(266)	(549)	(595)	(473)	(419)
Belief:	too thin	12.4	13.7	14.4	10.6	11.4
	about right weight	74.6	69.7	66.7	72.4	71.5
	too fat	13.0	16.6	18.8	17.0	17.1
Trying to:	lose weight	28.4	26.1	29.9	25.4	30.0
	gain weight	13.6	11.5	14.3	16.2	14.9
	keep from gaining weight	20.8	18.7	20.4	19.8	19.8
	not trying to do anything	37.2	43.7	35.3	38.6	35.2
NORTH REGION		(415)	(539)	(517)	(376)	(290)
Belief:	too thin	8.3	9.7	10.8	9.7	6.7
	about right weight	67.5	70.4	70.8	68.8	68.9
	too fat	24.3	19.8	18.4	21.5	24.4
Trying to:	lose weight	31.2	26.8	27.3	28.1	31.3
	gain weight	11.9	10.6	10.9	9.4	17.1
	keep from gaining weight	19.5	19.9	21.9	22.2	19.6
	not trying to do anything	37.4	42.7	39.9	40.3	32.0
WEST REGION		(707)	(1254)	(1428)	(1316)	(1439)
Belief:	too thin	9.6	11.4	9.0	11.2	10.6
	about right weight	71.3	67.2	70.1	69.0	64.4
	too fat	19.1	21.4	20.9	19.8	25.0
Trying to:	lose weight	31.4	30.6	31.6	28.6	29.7
	gain weight	11.9	11.7	11.3	13.6	12.4
	keep from gaining weight	20.0	21.2	20.2	23.4	24.0
	not trying to do anything	36.8	36.6	36.8	34.4	33.9

(Continued...)

		2001	2003	2005	2007	2009
		%	%	%	%	%
EAST REGION		(449)	(810)	(1108)	(770)	(2113)
Belief:	too thin	10.6	9.3	11.0	8.8	8.9
	about right weight	68.8	70.9	71.4	70.5	68.8
	too fat	20.6	19.8	17.6	20.7	22.3
Trying to:	lose weight	33.4	29.5	24.4	28.9	27.1
	gain weight	11.7	12.0	11.6	12.1	11.6
	keep from gaining weight	13.5	21.7	25.9	23.5	23.5
	not trying to do anything	41.4	36.8	38.0	35.5	37.8

Notes: (1) N=number of students surveyed; (2) data based on a random half sample in each year; (3) no significant changes between 2001 and 2009.

Qs: *Do you think of yourself as being too thin, about the right weight, or too fat?
Which of the following are you doing about your weight?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.5.1a Percentage Reporting Delinquent Behaviours at Least Once During the Past Year by Sex, Grade, and Region, 1999–2009 (Grades 7 to 12)

	1999	2001	2003	2005	2007	2009
TOTAL SAMPLE (N=)	(2148)	(2061)	(3464)	(4078)	(3388)	(4851)
fire-setting	—	—	—	—	15.9	14.5
theft of goods worth \$50/less	17.3	14.1	14.7	14.7	14.0	14.1
vandalism	24.1	16.3	15.1	15.3	15.8	13.5 ^b
assault	19.9	12.8	11.5	11.7	10.6	9.8 ^b
ran away from home	8.4	7.4	10.2	9.2	9.7	9.6
carried a weapon	13.5	10.6	9.6	9.6	8.7	7.3 ^b
car theft/ joyriding	10.2	9.1	9.3	7.8	7.2	6.9
sold marijuana or hashish	7.8	10.1	8.3	7.6	6.8	6.4
theft of goods worth > \$50	6.6	5.8	5.3	5.5	5.1	5.2
break and entering	6.4	5.0	4.4	4.7	4.6	4.4
gang fighting	7.7	5.3	6.4	5.8	4.8	2.8
sold other drugs	3.3	3.2	2.8	2.9	3.0	2.2
carried a handgun	—	—	—	1.9	1.5	1.4
% 3+ behaviours /11 (95% CI)	17.5 (15.4-19.8)	14.5 (12.8-16.4)	13.7 (12.2-15.3)	12.9 (11.4-14.6)	13.1 (11.8-14.6)	10.7^b (9.3-12.2)
MALES	(1101)	(1018)	(1654)	(1934)	(1618)	(2286)
fire-setting	—	—	—	—	19.6	19.5
theft of goods worth \$50/less	20.9	17.5	17.9	16.5	16.2	17.1
vandalism	29.3	21.2	18.2	18.0	19.1	16.4 ^b
assault	29.4	17.1	14.4	15.9	14.3	12.9 ^b
ran away from home	5.6	7.4	7.9	7.4	6.6	8.0
carried a weapon	21.5	17.0	14.9	14.9	13.2	11.4 ^b
car theft/ joyriding	12.5	12.5	12.7	8.8	8.3	9.1
sold marijuana or hashish	11.1	13.8	11.9	9.8	9.0	8.6
theft of goods worth > \$50	9.1	8.2	8.0	6.7	6.2	6.6
break and entering	9.6	6.5	6.7	6.0	5.5	5.8
gang fighting	11.6	8.4	9.0	8.6	7.1	4.4 ^b
sold other drugs	5.2	4.8	4.3	3.9	3.7	3.3
carried a handgun	—	—	—	3.1	2.5	2.4
% 3+ /11 (95% CI)	24.7 (21.5-28.1)	19.9 (17.2-22.9)	17.7 (15.7-19.9)	16.1 (13.8-18.7)	16.1 (14.0-18.4)	14.1^b (11.9-16.6)
FEMALES	(1047)	(1043)	(1810)	(2144)	(1770)	(2565)
fire-setting	—	—	—	—	12.2	9.4
theft of goods worth \$50/less	13.7	10.9	11.8	12.9	11.8	11.1
vandalism	18.9	11.6	12.3	12.4	12.6	10.5 ^b
assault	10.4	8.6	8.9	7.2	6.8	6.7
ran away from home	11.2	7.4	12.3	11.0	13.0	11.4
carried a weapon	5.5	4.5	4.9	4.0	4.2	3.2
car theft/ joyriding	7.8	5.9	6.3	6.7	6.0	4.7
sold marijuana or hashish	4.4	6.5	5.1	5.3	4.5	4.2
theft of goods worth > \$50	4.0	3.4	2.9	4.3	4.0	3.8
break and entering	3.2	3.5	2.4	3.3	3.7	3.0
gang fighting	3.8	2.2	4.1	2.9	2.4	1.1
sold other drugs	1.4	1.6	1.5	2.0	2.2	1.1
carried a handgun	—	—	—	†	†	†
% 3+ /11 (95% CI)	10.2 (8.0-12.8)	9.3 (7.5-11.5)	10.1 (8.4-12.1)	9.6 (7.9-11.5)	10.1 (8.6-11.8)	7.2 (5.8-8.9)

(Continued...)

	1999	2001	2003	2005	2007	2009
GRADE 7	(369)	(404)	(497)	(508)	(383)	(883)
fire-setting	—	—	—	—	6.1	8.0
theft of goods worth \$50/less	9.3	8.1	9.9	7.7	6.0	6.1
vandalism	18.9	10.3	14.7	9.6	6.7	7.5 ^b
assault	17.1	13.5	11.1	8.6	8.1	7.6 ^b
ran away from home	7.4	7.2	9.7	7.4	5.0	6.3
carried a weapon	7.8	5.4	9.9	4.4	4.8	4.5
car theft/ joyriding	†	1.1	1.8	†	†	†
sold marijuana or hashish	†	0.8	2.0	†	†	†
theft of goods worth > \$50	2.4	3.2	3.2	1.9	1.7	†
break and entering	3.1	2.1	2.7	1.7	1.6	1.2
gang fighting	5.9	4.4	7.8	3.4	4.3	2.1
sold other drugs	†	†	2.0	1.1	†	†
carried a handgun	—	—	—	†	†	†
% 3+ /11 (95% CI)	8.1 (5.8-11.3)	7.6 (4.5-12.6)	10.4 (7.0-15.2)	6.4 (4.0-9.9)	5.9 (3.8-9.0)	4.1 (2.8-6.0)
GRADE 8	(391)	(379)	(512)	(501)	(418)	(913)
fire-setting	—	—	—	—	15.3	11.0
theft of goods worth \$50/less	15.6	14.3	13.3	11.1	10.5	7.6
vandalism	26.0	19.5	12.6	15.6	16.6	11.1 ^b
assault	24.8	15.5	12.3	13.6	12.1	7.4 ^b
ran away from home	9.2	9.7	9.5	9.8	9.2	9.2
carried a weapon	15.2	9.6	6.6	8.6	10.2	6.4 ^b
car theft/ joyriding	4.3	4.4	2.2	3.1	†	2.7
sold marijuana or hashish	4.0	4.4	3.8	3.6	†	1.9
theft of goods worth > \$50	4.8	5.5	2.3	3.8	2.2	2.8
break and entering	6.8	4.0	2.2	5.3	2.8	3.3
gang fighting	9.8	4.4	3.7	7.3	5.3	3.0 ^b
sold other drugs	2.3	1.5	2.2	2.1	†	†
carried a handgun	—	—	—	†	†	†
% 3+ /11 (95% CI)	17.6 (12.4-24.4)	15.1 (10.9-20.6)	9.1 (6.0-13.5)	10.7 (7.4-15.3)	9.7 (6.3-14.5)	6.2 ^b (4.3-8.9)
GRADE 9	(442)	(368)	(654)	(780)	(660)	(753)
fire-setting	—	—	—	—	23.8	15.7 ^a
theft of goods worth \$50/less	16.9	15.4	13.7	16.4	17.8	13.7
vandalism	26.8	17.4	16.1	16.6	21.8	13.7 ^{ab}
assault	22.6	13.4	11.0	12.9	11.7	9.6 ^b
ran away from home	7.8	6.9	9.6	10.8	11.9	13.1
carried a weapon	13.4	12.6	12.2	11.5	11.3	7.7
car theft/ joyriding	9.4	7.2	7.8	7.5	5.9	3.7
sold marijuana or hashish	6.5	8.8	7.3	8.2	6.6	5.3
theft of goods worth > \$50	6.3	6.0	5.5	5.3	6.0	4.9
break and entering	4.6	5.0	5.3	6.2	4.8	4.1
gang fighting	8.7	6.4	8.0	6.4	6.3	3.7
sold other drugs	2.0	2.3	2.9	3.4	3.4	2.4
carried a handgun	—	—	—	1.8	2.2	1.9
% 3+ /11 (95% CI)	16.6 (12.6-21.6)	14.9 (12.0-18.3)	13.3 (10.8-16.4)	14.5 (10.8-19.1)	16.9 (13.2-21.3)	9.3 (6.7-12.7)

(Continued...)

	1999	2001	2003	2005	2007	2009
GRADE 10	(296)	(422)	(622)	(742)	(577)	(814)
fire-setting	—	—	—	—	18.8	19.1
theft of goods worth \$50/less	24.8	16.6	17.5	17.1	15.6	17.8
vandalism	34.2	20.0	16.3	17.3	17.0	17.6 ^b
assault	23.5	13.5	10.1	14.4	10.4	11.6 ^b
ran away from home	10.6	7.7	11.6	10.8	11.1	9.8
carried a weapon	18.3	15.9	8.6	12.6	8.6	10.0 ^b
car theft/ joyriding	12.8	14.5	13.3	7.8	7.0	6.7 ^b
sold marijuana or hashish	12.8	15.5	10.4	10.0	9.3	8.6
theft of goods worth > \$50	9.3	8.4	5.1	7.3	6.1	5.4
break and entering	8.1	6.7	4.8	7.5	6.1	5.2
gang fighting	10.3	6.7	5.2	7.0	4.1	3.4
sold other drugs	3.5	4.8	2.3	3.4	3.6	2.0
carried a handgun	—	—	—	2.7	†	1.8
% 3+ /11 (95% CI)	26.4 (20.1-33.8)	17.6 (14.1-21.8)	16.8 (13.3-21.1)	15.4 (12.2-19.3)	14.4 (11.8-17.6)	13.7 ^b (11.1-16.8)
GRADE 11	(357)	(288)	(620)	(819)	(684)	(719)
fire-setting	—	—	—	—	18.8	17.9
theft of goods worth \$50/less	20.1	14.0	18.2	19.5	18.0	18.1
vandalism	21.4	16.0	16.6	19.3	18.1	15.2
assault	20.1	9.5	15.1	11.0	11.9	9.7 ^b
ran away from home	9.8	7.1	12.6	9.9	11.3	10.0
carried a weapon	16.2	8.5	11.8	11.3	10.1	5.9 ^b
car theft/ joyriding	20.1	14.3	16.2	13.8	13.7	12.2
sold marijuana or hashish	13.8	16.1	12.6	12.5	10.2	10.6
theft of goods worth > \$50	9.2	5.1	9.1	7.5	7.7	7.5
break and entering	10.4	7.2	6.4	4.6	6.6	4.4
gang fighting	6.9	2.8	6.8	6.0	6.4	2.2 ^b
sold other drugs	8.3	5.0	3.6	4.0	6.3	3.4
carried a handgun	—	—	—	2.2	2.6	1.8
% 3+ /11 (95% CI)	21.6 (17.0-27.0)	16.2 (11.8-21.9)	17.6 (14.0-21.9)	17.4 (14.6-20.7)	17.3 (13.6-21.7)	13.6 (9.7-18.6)
GRADE 12	(293)	(200)	(559)	(728)	(666)	(769)
fire-setting	—	—	—	—	12.2	14.4
theft of goods worth \$50/less	18.0	15.9	14.0	16.2	14.9	18.4
vandalism	16.7	11.9	13.3	13.2	14.0	14.4
assault	9.0	9.6	9.0	9.5	9.5	11.8
ran away from home	5.6	5.6	7.5	6.5	9.4	9.1
carried a weapon	9.6	8.3	8.0	8.7	7.1	8.7
car theft/ joyriding	12.9	14.4	11.4	12.6	12.0	12.8
sold marijuana or hashish	10.0	15.5	11.6	10.3	10.0	9.2
theft of goods worth > \$50	7.5	7.1	5.4	6.8	6.1	7.9
break and entering	5.5	4.0	4.3	2.8	5.1	7.0
gang fighting	4.4	4.9	6.7	4.7	2.9	2.5
sold other drugs	3.2	5.1	3.7	3.5	3.2	3.7
carried a handgun	—	—	—	2.1	1.0	1.6
% 3+ /11 (95% CI)	14.8 (9.9-21.5)	15.1 (9.3-23.7)	13.0 (10.0-16.8)	12.9 (10.2-16.1)	13.4 (10.6-16.9)	14.7 (11.2-18.9)

(Continued...)

	1999	2001	2003	2005	2007	2009
TORONTO	(369)	(267)	(548)	(577)	(470)	(417)
fire-setting	—	—	—	—	11.7	11.8
theft of goods worth \$50/less	13.0	10.5	14.3	15.8	12.8	12.2
vandalism	17.6	13.0	16.1	15.3	14.4	9.1
assault	17.9	9.1	8.8	11.0	9.6	7.5 ^b
ran away from home	5.4	4.5	6.2	7.6	5.5	7.1
carried a weapon	11.9	7.9	11.4	7.7	8.5	5.8
car theft/ joyriding	8.2	4.1	8.3	8.2	4.6	3.7
sold marijuana or hashish	4.4	5.1	10.6	4.6	4.2	3.3
theft of goods worth > \$50	6.0	5.9	7.4	6.4	6.7	4.8
break and entering	3.3	3.6	3.8	3.9	3.9	4.7
gang fighting	8.7	3.7	6.6	7.4	4.1	3.4
sold other drugs	1.4	1.7	2.0	2.4	1.7	†
carried a handgun	—	—	—	2.2	1.7	2.3
% 3+ /11 (95% CI)	12.8 (9.0-18.0)	11.0 (7.3-16.2)	13.6 (11.0-16.9)	12.4 (9.4-16.3)	10.5 (7.9-13.9)	7.4 (4.8-11.1)
NORTH REGION	(384)	(599)	(746)	(728)	(421)	(359)
fire-setting	—	—	—	—	19.1	10.3 ^a
theft of goods worth \$50/less	16.7	9.6	15.6	15.3	13.4	14.9
vandalism	23.0	15.7	16.6	15.5	19.2	14.8
assault	16.7	13.1	15.1	12.2	10.7	11.1
ran away from home	8.2	6.2	14.8	12.9	11.2	11.4
carried a weapon	12.1	11.3	9.5	9.6	12.0	7.6
car theft/ joyriding	11.9	8.4	9.4	10.5	8.5	6.2
sold marijuana or hashish	7.9	5.8	9.8	8.0	9.2	6.9
theft of goods worth > \$50	4.1	3.8	4.9	4.8	6.9	7.1
break and entering	7.8	5.2	7.6	6.2	6.4	4.2
gang fighting	4.5	5.4	5.4	6.4	4.5	2.8
sold other drugs	3.0	2.1	3.6	2.4	3.3	†
carried a handgun	—	—	—	1.9	†	†
% 3+ /11 (95% CI)	16.2 (12.0-21.7)	11.6 (8.3-15.9)	15.6 (12.3-19.7)	15.6 (11.7-20.6)	15.1 (11.1-20.2)	11.6 (8.1-16.4)
WEST REGION	(763)	(718)	(1259)	(1437)	(1323)	(1422)
fire-setting	—	—	—	—	17.1	16.1
theft of goods worth \$50/less	19.8	16.6	14.4	15.4	15.1	14.4
vandalism	25.6	16.3	14.8	15.5	15.9	14.9 ^b
assault	22.2	13.3	12.0	13.2	11.9	10.0 ^b
ran away from home	8.6	9.7	10.6	9.9	9.2	10.2
carried a weapon	14.5	9.7	9.5	11.7	8.6	7.8 ^b
car theft/ joyriding	10.5	10.9	10.4	8.0	7.7	7.4
sold marijuana or hashish	9.3	13.2	7.8	8.7	6.9	7.5
theft of goods worth > \$50	7.3	5.8	5.1	6.0	4.6	4.9
break and entering	7.5	5.7	4.0	4.8	4.5	3.9
gang fighting	8.9	5.0	6.3	6.3	4.8	2.2 ^b
sold other drugs	4.2	4.6	3.2	3.5	2.7	1.7
carried a handgun	—	—	—	2.2	1.2	1.4
% 3+ /11 (95% CI)	19.0 (15.4-23.2)	16.4 (13.7-19.4)	14.3 (12.1-16.8)	14.8 (12.8-17.1)	13.5 (11.6-15.6)	11.1 ^b (9.3-13.2)

(Continued...)

	1999	2001	2003	2005	2007	2009
EAST REGION	(632)	(477)	(911)	(1336)	(1174)	(2653)
fire-setting	—	—	—	—	15.9	14.7
theft of goods worth \$50/less	16.5	14.5	15.2	13.4	13.5	14.5
vandalism	26.1	18.8	14.4	14.9	15.9	13.6 ^b
assault	18.6	14.4	11.3	10.2	9.6	10.4 ^b
ran away from home	10.0	6.5	10.8	8.2	11.8	9.7
carried a weapon	13.4	13.6	8.8	8.0	8.3	7.5
car theft/ joyriding	10.2	10.3	8.3	6.7	7.4	8.0
sold marijuana or hashish	7.5	10.5	7.3	7.7	7.3	6.5
theft of goods worth > \$50	6.5	6.3	4.5	4.6	4.6	5.5
break and entering	6.4	4.7	4.6	4.5	4.7	5.0
gang fighting	6.4	6.7	6.8	4.3	5.2	3.3
sold other drugs	3.2	2.3	2.6	2.7	3.8	3.2
carried a handgun	—	—	—	1.3	1.7	1.1
% 3+ /11 (95% CI)	18.4 (15.2-22.0)	15.2 (12.0-19.2)	12.3 (9.6-15.7)	10.4 (7.7-13.9)	13.5 (11.1-16.4)	11.5 ^b (9.0-14.6)

Notes: (1) behaviours are listed in descending order according to 2009 total sample percentages; (2) percentages reflect engaging in the behaviour at least once during the 12 months before the survey; (3) N=the number of students surveyed; (4) — indicates data not available; (5) data based on a random half sample in each year; (6) “% 3+/11” shows the percentage reporting 3 or more behaviours out of 11 (excludes carried a handgun and fire-setting); (7) ^a 2009 vs. 2007 significant difference, p<.01; (8) ^b 2009 vs. 1999 significant difference, p<.01.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.5.1b Percentage Reporting Delinquent Behaviours at Least Once During the Past Year by Sex, 1991–2009 (based on Grades 7, 9, and 11 only)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
TOTAL SAMPLE (N=)	(2961)	(2617)	(2907)	(1527)	(1168)	(1060)	(1771)	(2107)	(1727)	(2355)
theft of goods worth \$50/less	19.9	20.0	21.1	17.3	15.9	12.7	14.3	14.6	14.2	12.9
vandalism	19.8	20.0	20.7	18.8	22.9	14.8	15.9	15.3	15.9	12.3
ran away from home	9.1	8.8	8.9	8.2	8.4	7.0	10.8	9.4	9.6	9.9
assault	19.6	17.3	19.7	22.0	20.3	12.3	12.5	10.9	10.6	9.0
carried a weapon	—	16.2	14.8	11.8	12.8	9.2	11.4	9.2	8.9	6.1
sold marijuana or hashish	3.1	4.0	7.2	6.4	7.2	8.4	7.8	7.2	6.1	5.8
car theft/ joyriding	11.3	8.7	10.9	9.5	10.6	7.4	9.2	7.4	7.1	5.6
theft of goods worth > \$50	5.8	6.4	7.1	6.2	6.2	4.8	6.2	5.0	5.3	4.7
break and entering	6.2	6.1	6.8	6.6	6.2	4.7	5.0	4.2	4.4	3.3
gang fighting	7.4	6.0	7.3	7.1	7.4	4.7	7.5	5.3	5.7	2.7
sold other drugs	2.0	2.2	3.7	2.4	3.6	2.6	2.9	2.8	3.3	2.2
% 3+ /11 (95% CI)	—	17.1 (16.0-18.2)	18.0 (16.3-19.7)	15.5 (13.8-17.4)	16.0 (13.8-18.6)	13.0 (11.1-15.1)	14.1 (12.2-16.2)	12.8 (10.8-15.2)	13.7 (11.7-15.9)	9.2 (7.4-11.3)
MALES	(1554)	(1270)	(1412)	(723)	(582)	(529)	(888)	(1024)	(842)	(1107)
theft of goods worth \$50/less	26.1	22.0	25.4	19.0	18.8	15.5	17.4	16.6	15.8	15.7
vandalism	26.3	24.1	27.0	21.4	27.7	20.0	18.6	17.2	18.4	13.9
ran away from home	7.2	5.3	6.6	6.0	6.9	7.6	8.3	7.3	7.2	7.1
assault	26.1	22.6	27.7	29.6	30.6	16.9	14.6	14.8	14.9	10.8
carried a weapon	—	23.6	23.7	18.6	20.8	15.3	16.4	14.7	12.1	9.8
sold marijuana or hashish	4.9	6.0	10.0	10.1	10.6	12.2	11.0	9.2	8.3	7.8
car theft/ joyriding	15.6	11.6	14.4	12.5	15.0	10.2	12.9	8.5	8.8	7.2
theft of goods worth > \$50	8.9	8.8	10.3	9.3	9.0	7.5	8.7	6.2	6.4	5.7
break and entering	9.3	8.9	10.3	8.0	9.2	6.4	6.9	5.1	5.5	4.3
gang fighting	10.7	8.3	10.7	10.4	9.8	8.7	9.6	7.8	8.9	4.3
sold other drugs	2.9	2.3	4.8	4.0	5.9	3.9	4.4	3.7	4.3	3.4
% 3+ /11 (95% CI)	—	22.2 (19.8-24.7)	24.4 (22.0-27.0)	20.2 (17.1-23.6)	22.9 (19.4-26.8)	18.6 (15.5-22.2)	16.9 (14.1-20.1)	15.4 (12.4-19.0)	16.2 (13.4-19.6)	11.4 (9.0-14.5)
FEMALES	(1407)	(1347)	(1495)	(804)	(586)	(531)	(883)	(1083)	(885)	(1248)
theft of goods worth \$50/less	13.2	18.2	17.1	15.8	13.2	9.9	11.2	12.6	12.7	10.2
vandalism	12.6	16.1	14.8	16.4	18.2	9.5	13.2	13.2	13.4	10.8
ran away from home	11.1	12.1	11.1	10.1	9.8	6.5	13.2	11.6	11.9	12.7
assault	12.5	12.2	12.2	15.1	10.0	7.7	10.5	6.9	6.4	7.3
carried a weapon	—	9.2	6.7	5.8	4.9	3.2	6.6	3.5	5.6	2.4
sold marijuana or hashish	1.2	2.1	4.6	3.2	3.9	4.7	4.6	5.0	3.9	3.9
car theft/ joyriding	6.8	6.0	7.8	6.9	6.3	4.6	5.5	6.3	5.4	4.1
theft of goods worth > \$50	2.4	4.0	4.1	3.5	3.4	2.2	3.7	3.6	4.2	3.7
break and entering	2.7	3.4	3.6	5.4	3.2	3.1	3.1	3.4	3.4	2.3
gang fighting	3.8	3.4	4.1	4.1	4.8	0.8	5.4	2.7	2.6	1.1
sold other drugs	1.0	2.2	2.6	1.0	1.2	1.2	1.4	2.0	2.4	1.0
% 3+ /11 (95% CI)	—	12.3 (10.4-14.5)	12.0 (9.6-14.8)	11.4 (9.7-13.2)	9.2 (6.6-12.6)	7.4 (5.2-10.6)	11.3 (8.8-14.3)	10.2 (7.7-13.4)	11.1 (8.6-14.2)	6.9 (5.1-9.2)

Notes: (1) behaviours are listed in descending order according to 2009 total sample percentages; (2) percentages reflect engaging in the behaviour at least once during the 12 months before the survey; (3) N=the number of students surveyed; (4) — indicates data not available; (5) data based on a random half sample in each year starting in 1997; (6) “% 3+/11” shows the percentage reporting 3 or more behaviours out of 11.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.5.2 Percentage Reporting Physical Fighting on School Property, and Percentage Reporting Been Threatened or Injured with a Weapon on School Property at Least Once During the Past Year, 2001–2009 (Grades 7 to 12)

	2001	2003	2005	2007	2009
TOTAL (N=)	(2061)	(3464)	(4078)	(3388)	(4851)
1+ times in a physical fight at school (95% CI)	16.9 (15.0-18.9)	17.6 (15.7-19.6)	18.1 (16.6-19.7)	15.8 (14.2-17.7)	15.1 (13.4-16.9)
1+ times threatened/injured with a weapon (95% CI)	—	7.7 (6.5-9.0)	8.2 (6.9-9.8)	8.6 (7.5-9.8)	6.8 (5.7-8.1)
MALES	(1018)	(1654)	(1934)	(1618)	(2286)
1+ times in a physical fight at school	25.2 (21.9-28.7)	26.8 (24.1-29.8)	27.1 (24.9-29.5)	24.0 (21.4-26.9)	23.3 (20.6-26.1)
1+ times threatened/injured with a weapon	—	10.1 (8.3-12.2)	11.6 (9.6-13.9)	11.0 (9.3-13.1)	8.5 (6.7-10.6)
FEMALES	(1043)	(1810)	(2144)	(1770)	(2565)
1+ times in a physical fight at school	8.8 (6.9-11.1)	9.2 (7.1-11.9)	8.7 (7.2-10.6)	7.5 (6.0-9.4)	6.7 (5.5-8.1)
1+ times threatened/injured with a weapon	—	5.5 (4.0-7.4)	4.8 (3.7-6.2)	6.0 (4.7-7.7)	5.1 (4.0-6.5)
GRADE 7	(404)	(497)	(508)	(383)	(883)
1+ times in a physical fight at school	23.8 (19.4-28.9)	29.7 (23.5-36.8)	30.2 (25.4-35.4)	22.9 (17.5-29.3)	21.6 (17.9-25.8)
1+ times threatened/injured with a weapon	—	7.3 (5.2-10.3)	7.0 (3.6-13.0)	9.3 (6.9-12.4)	3.9 (2.6-5.8)
GRADE 8	(379)	(512)	(501)	(418)	(913)
1+ times in a physical fight at school	25.0 (20.0-30.7)	26.0 (19.7-33.6)	23.4 (17.7-30.3)	26.2 (21.2-32.0)	21.4 (17.7-25.7)
1+ times threatened/injured with a weapon	—	9.8 (6.2-15.1)	8.5 (6.5-11.2)	10.1 (7.0-14.2)	6.7 (4.9-9.3)
GRADE 9	(368)	(654)	(780)	(660)	(753)
1+ times in a physical fight at school	19.5 (15.3-24.7)	19.6 (16.5-23.2)	16.5 (13.5-20.0)	18.1 (14.1-22.8)	16.5 (13.5-20.0)
1+ times threatened/injured with a weapon	—	7.7 (5.8-10.0)	9.2 (6.3-13.3)	10.8 (8.2-14.2)	8.7 (6.2-12.1)
GRADE 10	(422)	(622)	(742)	(577)	(814)
1+ times in a physical fight at school	12.2 (8.5-17.2)	14.5 (11.2-18.7)	15.4 (12.7-18.7)	11.6 (8.8-15.3)	11.8 (9.1-15.3)
1+ times threatened/injured with a weapon	—	10.0 (7.2-13.6)	9.2 (6.9-12.2)	8.2 (5.5-12.2)	5.5 (3.8-7.8)
GRADE 11	(288)	(620)	(819)	(684)	(719)
1+ times in a physical fight at school	8.0 (5.7-11.3)	11.0 (8.3-14.6)	13.0 (10.4-16.1)	12.1 (9.4-15.4)	12.8 (9.4-17.2)
1+ times threatened/injured with a weapon	—	6.8 (4.8-9.6)	9.6 (7.1-13.0)	8.6 (6.4-11.5)	6.6 (4.6-9.5)
GRADE 12	(200)	(559)	(728)	(666)	(769)
1+ times in a physical fight at school	11.3 (5.8-20.7)	8.8 (6.4-12.0)	11.4 (8.7-14.9)	7.4 (4.6-11.7)	10.0 (6.8-14.5)
1+ times threatened/injured with a weapon	—	4.6 (2.8-7.4)	6.1 (4.4-8.4)	5.2 (3.6-7.4)	8.4 (5.7-12.1)

(Continued...)

	2001	2003	2005	2007	2009
TORONTO	(267)	(548)	(577)	(470)	(417)
1+ times in a physical fight at school	13.9 (10.8-17.7)	14.6 (10.3-20.1)	21.1 (15.9-27.4)	17.2 (12.5-23.3)	15.0 (10.4-21.1)
1+ times threatened/injured with a weapon	—	7.8 (5.6-10.7)	9.6 (7.0-13.0)	7.7 (5.3-10.9)	6.3 (3.3-11.7)
NORTH REGION	(599)	(746)	(728)	(421)	(359)
1+ times in a physical fight at school	17.1 (13.2-21.8)	19.7 (15.2-25.1)	16.8 (14.8-19.0)	15.3 (11.7-19.7)	15.2 (11.7-19.5)
1+ times threatened/injured with a weapon	—	7.4 (5.6-9.7)	6.4 (4.0-10.0)	9.0 (5.8-13.7)	7.7 (5.0-11.6)
WEST REGION	(718)	(1259)	(1437)	(1323)	(1422)
1+ times in a physical fight at school	18.4 (15.1-22.1)	19.0 (15.8-22.7)	18.5 (16.3-21.0)	17.3 (14.7-20.2)	14.9 (12.3-18.0)
1+ times threatened/injured with a weapon	—	8.5 (6.7-10.8)	8.1 (6.5-10.0)	9.4 (7.9-11.1)	6.7 (5.2-8.5)
EAST REGION	(477)	(911)	(1336)	(1174)	(2653)
1+ times in a physical fight at school	16.6 (13.5-20.4)	16.7 (14.0-19.8)	16.5 (14.4-18.8)	13.8 (11.4-16.6)	15.2 (12.7-18.2)
1+ times threatened/injured with a weapon	—	6.4 (4.5-9.1)	8.2 (5.4-12.1)	7.9 (6.2-10.2)	7.0 (5.1-9.5)

Notes: (1) N=number of students surveyed; (2) CI=confidence interval; (3) data based on a random half sample in each year; (4) no significant changes between 2001 and 2009.

Qs: *During the last 12 months, how many times were you in a physical fight on school property?*
During the last 12 months, how many times has someone threatened or injured you with a weapon, such as a gun, knife or club on school property?

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.5.3 Percentage Reporting Bullying Behaviour at School since September, 2003–2009
(Grades 7 to 12)

		2003	2005	2007	2009
TOTAL	(N=)	(3464)	(4078)	(3388)	(4851)
Method you were bullied the most:	physical attacks	3.9	3.8	4.2	2.9
	verbal attacks	26.5	24.6	23.1	23.6
	theft/vandalism	2.3	2.5	2.6	2.4
	% bullied in any way (95% CI)	32.7 (30.6-34.9)	30.9 (29.0-32.8)	29.9 (27.8-32.0)	28.9 (27.0-31.0)
Often you've been bullied at school:	daily/weekly	7.7	9.5	8.7	8.1
	monthly or less	21.4	19.5	18.9	19.6
Method you bullied others the most:	physical attacks	3.9	4.5	3.8	3.5
	verbal attacks	24.9	22.2	20.0	21.3
	theft/vandalism	1.0	0.5	1.9	†
	% bullied others in any way (95% CI)	29.7 (27.6-32.0)	27.3 (25.2-29.5)	24.7 (22.8-26.7)	25.1 (23.2-27.2) ^b
Often bullied someone at school:	daily/weekly	7.0	6.5	5.6	6.2
	monthly or less	22.5	22.0	20.5	18.8
MALES		(1654)	(1934)	(1618)	(2286)
Method you were bullied the most:	physical attacks	7.3	5.5	6.4	4.1
	verbal attacks	24.7	19.4	18.1	19.1
	theft/vandalism	3.3	2.9	3.2	3.3
	% bullied in any way (95% CI)	35.3 (32.4-38.3)	27.8 (25.4-30.4)	27.7 (25.1-30.4)	26.5 (23.7-29.5) ^b
Method you bullied others the most:	physical attacks	6.7	7.0	6.2	5.5
	verbal attacks	26.7	21.4	18.6	22.1
	theft/vandalism	1.6	1.0	1.2	0.5
	% bullied others in any way (95% CI)	34.9 (31.7-38.3)	29.4 (26.9-32.0)	26.0 (23.4-28.8)	28.1 (25.3-31.2) ^b
FEMALES		(1810)	(2144)	(1770)	(2565)
Method you were bullied the most:	physical attacks	0.8	1.9	1.9	1.7
	verbal attacks	28.1	30.0	28.3	28.1
	theft/vandalism	1.5	2.0	1.9	1.5
	% bullied in any way (95% CI)	30.3 (27.4-33.4)	34.0 (31.3-36.9)	32.1 (29.1-35.2)	31.4 (29.1-33.8)
Method you bullied others the most:	physical attacks	1.4	2.0	1.3	1.4
	verbal attacks	23.3	23.1	21.4	20.4
	theft/vandalism	†	†	0.7	†
	% bullied others in any way (95% CI)	25.1 (22.3-28.0)	25.2 (22.4-28.1)	23.4 (20.8-26.2)	22.1 (19.7-24.7)
GRADE 7		(497)	(508)	(383)	(883)
Method you were bullied the most:	physical attacks	8.2	7.9	6.0	5.8
	verbal attacks	35.2	27.9	25.0	23.1
	theft/vandalism	3.6	2.5	3.2	2.7
	% bullied in any way (95% CI)	47.1 (39.2-55.0)	38.3 (33.0-43.8)	34.2 (28.4-40.5)	31.6 (26.8-36.9) ^b
Method you bullied others the most:	physical attacks	4.3	4.5	3.6	4.2
	verbal attacks	27.1	21.2	12.9	16.7
	theft/vandalism	†	†	†	†
	% bullied others in any way (95% CI)	31.7 (25.6-38.6)	26.1 (21.0-31.9)	17.2 (13.6-21.4)	21.3 (17.5-25.8)
GRADE 8		(512)	(501)	(418)	(913)
Method you were bullied the most:	physical attacks	5.9	3.0	6.8	5.3
	verbal attacks	29.2	35.5	26.1	24.1
	theft/vandalism	3.6	2.7	1.8	2.1
	% bullied in any way (95% CI)	38.7 (33.2-44.6)	41.2 (37.0-45.6)	34.8 (29.4-40.5)	31.5 (27.4-36.0)
Method you bullied others the most:	physical attacks	5.2	5.7	4.7	5.5
	verbal attacks	26.3	23.4	23.4	18.9
	theft/vandalism	†	1.3	2.2	†
	% bullied others in any way (95% CI)	32.2 (25.9-39.3)	30.4 (22.5-40.0)	30.4 (25.0-36.3)	25.2 (20.3-31.0)

(Continued...)

		2003	2005	2007	2009
GRADE 9		(654)	(780)	(660)	(753)
Method you were bullied the most:	physical attacks	4.2	5.0	5.8	3.6
	verbal attacks	25.8	27.5	27.2	25.7
	theft/vandalism	2.8	2.1	3.7	3.3
% bullied in any way (95% CI)		32.8 (28.6-37.2)	34.6 (30.7-38.7)	36.7 (31.7-42.0)	32.6 (27.6-38.1)
Method you bullied others the most:	physical attacks	3.6	4.0	4.2	3.4
	verbal attacks	28.0	24.9	20.7	19.7
	theft/vandalism	1.1	†	†	†
% bullied others in any way (95% CI)		32.7 (28.8-36.8)	29.3 (25.7-33.3)	25.9 (21.6-30.6)	23.9 (20.2-28.1) ^b
GRADE 10		(622)	(742)	(577)	(814)
Method you were bullied the most:	physical attacks	2.4	2.8	3.1	1.6
	verbal attacks	28.2	20.6	26.8	28.3
	theft/vandalism	1.9	2.8	3.1	2.8
% bullied in any way (95% CI)		32.6 (27.9-37.5)	26.3 (22.5-30.4)	33.0 (28.8-37.4)	32.8 (28.4-37.6)
Method you bullied others the most:	physical attacks	3.2	4.7	3.1	2.4
	verbal attacks	25.2	21.5	23.9	24.0
	theft/vandalism	2.2	†	†	†
% bullied others in any way (95% CI)		30.5 (26.8-34.6)	26.4 (22.4-30.8)	27.8 (23.6-32.4)	26.8 (23.3-30.5)
GRADE 11		(620)	(819)	(684)	(719)
Method you were bullied the most:	physical attacks	2.8	2.1	2.4	1.8
	verbal attacks	24.7	20.8	19.0	21.2
	theft/vandalism	1.2	3.0	2.9	2.2
% bullied in any way (95% CI)		28.7 (24.2-33.7)	25.9 (22.7-29.4)	24.3 (20.9-28.0)	25.2 (21.4-29.5)
Method you bullied others the most:	physical attacks	3.6	3.9	4.2	3.5
	verbal attacks	25.0	25.5	20.0	23.2
	theft/vandalism	†	†	†	†
% bullied others in any way (95% CI)		29.4 (25.7-33.4)	30.1 (26.4-34.0)	24.7 (21.8-27.9)	27.0 (23.1-31.3)
GRADE 12		(559)	(728)	(666)	(769)
Method you were bullied the most:	physical attacks	1.0	2.0	1.6	1.0
	verbal attacks	17.4	16.4	16.5	20.1
	theft/vandalism	1.4	2.1	1.1	1.6
% bullied in any way (95% CI)		19.8 (16.4-23.7)	20.6 (16.6-25.2)	19.2 (15.6-23.4)	22.6 (18.6-27.3)
Method you bullied others the most:	physical attacks	3.6	4.3	2.9	2.5
	verbal attacks	17.8	17.6	18.6	23.2
	theft/vandalism	†	†	†	--
% bullied others in any way (95% CI)		22.1 (17.5-27.5)	22.2 (18.6-26.3)	22.2 (18.4-26.5)	25.7 (21.4-30.5)
TORONTO		(548)	(577)	(470)	(417)
Method you were bullied the most:	physical attacks	2.2	3.8	4.2	†
	verbal attacks	20.7	23.8	16.2	19.5
	theft/vandalism	1.8	2.9	2.7	2.3
% bullied in any way (95% CI)		24.8 (20.4-29.7)	30.5 (26.4-35.0)	23.1 (18.3-28.8)	23.0 (18.3-28.5)
Method you bullied others the most:	physical attacks	3.1	5.3	4.8	3.2
	verbal attacks	17.6	21.3	18.2	20.1
	theft/vandalism	1.2	1.3	†	†
% bullied others in any way (95% CI)		22.0 (18.0-26.7)	27.9 (23.9-32.2)	23.9 (18.9-29.6)	23.8 (18.5-30.0)
NORTH REGION		(746)	(728)	(421)	(359)
Method you were bullied the most:	physical attacks	4.4	4.4	2.3	4.0
	verbal attacks	29.5	25.7	27.0	24.9
	theft/vandalism	4.2	2.1	2.0	3.2
% bullied in any way (95% CI)		38.1 (33.7-42.7)	32.2 (27.6-37.2)	30.3 (24.8-36.5)	32.1 (26.8-37.8)
Method you bullied others the most:	physical attacks	4.9	5.0	3.1	3.6
	verbal attacks	29.4	21.1	21.0	23.8
	theft/vandalism	1.8	†	†	†
% bullied others in any way (95% CI)		36.0 (31.2-41.2)	26.6 (22.6-31.0)	25.4 (20.5-31.0)	27.8 (21.6-35.0)

(Continued...)

	2003	2005	2007	2009
WEST REGION	(1259)	(1437)	(1323)	(1422)
Method you were bullied the most:				
physical attacks	5.2	3.4	5.1	2.8
verbal attacks	25.4	24.4	24.6	25.4
theft/vandalism	2.8	2.4	2.9	2.5
% bullied in any way (95% CI)	33.3 (30.0-36.8)	30.1 (27.3-33.2)	32.7 (29.4-36.0)	30.6 (27.3-34.1)
Method you bullied others the most:				
physical attacks	3.5	4.9	3.7	4.2
verbal attacks	26.1	23.3	22.3	22.8
theft/vandalism	1.0	†	1.0	†
% bullied others in any way (95% CI)	30.7 (27.7-33.8)	28.5 (25.7-31.6)	27.0 (23.7-30.5)	27.3 (23.9-30.9)
EAST REGION	(911)	(1336)	(1174)	(2653)
Method you were bullied the most:				
physical attacks	2.9	4.0	3.4	3.7
verbal attacks	30.5	25.0	23.8	23.1
theft/vandalism	1.5	2.5	2.4	2.3
% bullied in any way (95% CI)	34.9 (30.9-39.1)	31.6 (28.1-35.2)	29.7 (26.2-33.3)	29.1 (26.1-32.4)
Method you bullied others the most:				
physical attacks	4.5	3.6	3.5	2.7
verbal attacks	26.1	21.8	18.1	19.6
theft/vandalism	†	†	0.9	†
% bullied others in any way (95% CI)	31.1 (26.5-36.1)	25.8 (21.7-30.5)	22.5 (19.9-25.4)	22.8 (20.2-25.7) ^b

Notes: (1) N=number of students surveyed; (2) CI=confidence interval; (3) † indicates estimate suppressed due to unreliability; (4) data based on a random half sample in each year; (5) no significant differences, 2009 vs. 2007; (6) ^b 2009 vs. 2003 significant difference, p<.01.

Qs: *Bullying is when one or more people tease, hurt or upset a weaker person on purpose, again and again. It is also bullying when someone is left out of things on purpose. Since September, in what way were you bullied the most at school? Since September, how often were you bullied at school? Since September, in what way did you bully other students the most at school? Since September, how often have you taken part in bullying other students at school?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.6.1 Percentage Reporting Gambling Activities During the Past Year, 2001–2009
(Grades 7 to 12)

	2001	2003	2005	2007	2009
TOTAL (N=)	(2061)	(3464)	(4078)	(3388)	(4851)
Cards	24.9	24.0	32.7	28.7	20.2 ^{ab}
Bingo	11.6	9.9	8.6	7.6	7.2 ^b
Sports Pools	22.3	20.3	17.0	15.6	12.6 ^b
Sports Lottery Tickets	9.9	7.8	7.2	6.1	5.1 ^b
Other Lottery Tickets	22.1	22.4	18.5	18.8	15.5 ^b
Video Gambling or Slot Machines	6.8	6.7	6.2	4.8	3.9 ^b
Casino in Ontario	1.7	1.7	1.1	1.1	1.3
Any Internet Gambling	—	2.5	2.1	3.0	3.0
Internet Poker	—	—	—	3.0	2.7
Dice	—	12.7	14.7	10.7	6.1 ^{ac}
Other ways	—	27.1	23.6	24.1	18.8 ^{ac}
Any Gambling Activity of 10 (95% CI)*	—	57.3 (55.2-59.4)	56.8 (54.5-59.0)	53.2 (50.8-55.5)	42.6 (40.2-45.0) ^{ac}
5+ Gambling Activities of 10 (95% CI)*	—	6.1 (5.0-7.4)	5.9 (4.8-7.1)	4.7 (3.8-5.8)	3.0 (2.2-4.0) ^c
MALES	(1018)	(1654)	(1934)	(1618)	(2286)
Cards	35.4	32.1	44.2	41.0	28.1 ^{ab}
Bingo	12.5	9.5	7.4	6.7	7.4 ^b
Sports Pools	38.1	32.7	26.1	25.4	20.6 ^b
Sports Lottery Tickets	16.3	13.7	11.2	10.0	8.3 ^b
Other Lottery Tickets	23.2	20.4	18.5	18.0	15.3 ^b
Video Gambling or Slot Machines	8.1	8.9	7.4	5.9	5.0
Casino in Ontario	2.6	2.5	1.6	1.4	1.9
Any Internet Gambling	—	3.4	3.0	4.1	4.8
Internet Poker	—	—	—	4.4	4.5
Dice	—	19.1	22.0	16.5	9.6 ^{ac}
Other ways	—	32.9	28.8	30.3	24.1 ^{ac}
Any Gambling Activity of 10 (95% CI)	—	66.2 (63.2-69.1)	66.5 (63.4-69.5)	63.0 (60.0-66.0)	50.5 (46.9-54.1) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	9.6 (7.9-11.6)	9.1 (7.3-11.2)	7.5 (6.1-9.3)	4.5 (3.1-6.5) ^c
FEMALES	(1043)	(1810)	(2144)	(1770)	(2565)
Cards	14.8	16.7	20.8	16.2	12.1 ^a
Bingo	10.6	10.2	9.9	8.4	6.8
Sports Pools	7.3	9.1	7.7	5.6	4.4
Sports Lottery Tickets	3.8	2.4	3.1	2.2	1.9
Other Lottery Tickets	21.0	24.2	18.4	19.5	15.7 ^c
Video Gambling or Slot Machines	5.7	4.7	4.9	3.8	2.8
Casino in Ontario	0.8	1.0	0.6	0.7	†
Any Internet Gambling	—	1.6	1.2	1.9	1.2
Internet Poker	—	—	—	1.7	0.9
Dice	—	7.0	7.1	4.9	2.5 ^{ac}
Other ways	—	21.9	18.2	17.8	13.4 ^{ac}
Any Gambling Activity of 10 (95% CI)	—	49.2 (46.2-52.3)	46.8 (43.7-49.8)	43.1 (40.4-45.9)	34.3 (31.8-37.0) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	3.0 (2.0-4.2)	2.6 (1.8-3.6)	1.8 (1.3-2.7)	1.5 (0.9-2.5)

(Continued....)

	2001	2003	2005	2007	2009
GRADE 7	(404)	(497)	(508)	(383)	(883)
Cards	17.1	19.1	19.4	15.0	10.9
Bingo	8.9	10.3	7.6	8.1	7.3
Sports Pools	10.1	15.8	10.4	9.3	6.5
Sports Lottery Tickets	3.8	4.8	2.7	3.0	3.2
Other Lottery Tickets	13.8	13.6	10.7	12.4	8.9
Video Gambling or Slot Machines	3.1	7.2	6.5	2.6	3.1
Casino in Ontario	†	1.0	†	†	†
Any Internet Gambling	—	3.4	1.4	†	2.4
Internet Poker	—	—	—	†	2.0
Dice	—	9.7	11.9	6.1	2.9
Other ways	—	27.7	20.9	16.6	15.7 ^c
Any Gambling Activity of 10 (95% CI)	—	50.2 (44.6-55.8)	50.4 (42.3-58.4)	41.0 (34.0-48.3)	31.5 (26.6-36.9) ^c
5+ Gambling Activities of 10 (95% CI)	—	6.0 (3.5-10.2)	1.8 (0.9-3.3)	1.3 (0.5-3.2)	1.9 (0.8-4.1)
GRADE 8	(379)	(512)	(501)	(418)	(913)
Cards	24.3	20.0	24.7	24.2	14.7
Bingo	11.6	10.0	11.1	6.0	5.7
Sports Pools	15.5	14.2	15.2	11.4	7.0 ^a
Sports Lottery Tickets	7.9	3.8	4.6	2.5	2.1 ^a
Other Lottery Tickets	16.2	14.9	13.1	11.5	7.2
Video Gambling or Slot Machines	4.8	6.8	6.0	3.3	2.4
Casino in Ontario	0.6	1.6	†	†	†
Any Internet Gambling	—	2.9	2.6	4.4	1.9
Internet Poker	—	—	—	†	1.7
Dice	—	8.3	9.2	7.9	5.4
Other ways	—	28.9	23.7	25.9	14.8 ^{ac}
Any Gambling Activity of 10 (95% CI)	—	51.5 (44.8-58.1)	49.2 (39.0-59.5)	46.9 (42.1-51.8)	32.4 (27.6-37.7) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	4.5 (2.5-8.2)	5.6 (3.3-9.2)	2.5 (1.3-5.0)	1.7 (0.9-3.0)
GRADE 9	(368)	(654)	(780)	(660)	(753)
Cards	24.2	24.1	33.9	27.4	18.2 ^a
Bingo	13.7	9.6	8.9	8.7	8.0
Sports Pools	27.0	23.6	19.3	16.4	10.6 ^b
Sports Lottery Tickets	9.4	7.0	6.0	4.7	3.4
Other Lottery Tickets	18.7	15.9	15.4	17.0	10.3 ^{ab}
Video Gambling or Slot Machines	5.1	5.3	7.5	7.2	2.9
Casino in Ontario	1.2	†	1.3	†	†
Any Internet Gambling	—	3.5	2.9	2.6	3.1
Internet Poker	—	—	—	2.8	3.0
Dice	—	16.7	16.4	12.9	5.3 ^{ac}
Other ways	—	31.2	24.9	28.2	21.7 ^c
Any Gambling Activity of 10 (95% CI)	—	59.2 (54.2-64.1)	55.1 (49.7-60.4)	53.6 (48.8-58.4)	38.5 (33.7-43.6) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	5.9 (3.8-9.0)	6.0 (3.5-10.0)	4.6 (2.9-7.3)	2.9 (1.6-5.0)

(Continued...)

	2001	2003	2005	2007	2009
GRADE 10	(422)	(622)	(742)	(577)	(814)
Cards	29.6	25.3	36.6	29.8	20.2 ^a
Bingo	11.3	9.8	7.6	5.6	5.6 ^b
Sports Pools	28.7	24.1	17.4	15.4	15.2 ^b
Sports Lottery Tickets	10.0	6.9	7.0	4.4	3.5 ^b
Other Lottery Tickets	23.4	18.2	16.0	14.9	11.5 ^b
Video Gambling or Slot Machines	10.4	6.6	6.2	4.9	3.7 ^b
Casino in Ontario	1.4	1.2	1.1	†	†
Any Internet Gambling	—	3.3	2.8	3.0	2.8
Internet Poker	—	—	—	2.9	2.5
Dice	—	12.3	18.5	8.9	7.3 ^c
Other ways	—	26.9	26.2	23.4	20.9
Any Gambling Activity of 10 (95% CI)	—	56.9 (52.3-61.4)	58.6 (53.7-63.4)	51.5 (47.0-56.1)	42.4 (37.4-47.6) ^c
5+ Gambling Activities of 10 (95% CI)	—	4.8 (3.0-7.6)	6.1 (4.2-8.8)	4.1 (2.2-7.5)	2.5 (1.6-3.9)
GRADE 11	(288)	(620)	(819)	(684)	(719)
Cards	28.4	27.0	39.0	36.5	25.2 ^a
Bingo	9.7	9.5	7.4	7.6	7.7
Sports Pools	23.1	20.5	17.1	19.0	7.3
Sports Lottery Tickets	12.8	9.6	9.4	8.9	18.8
Other Lottery Tickets	27.8	28.9	21.4	20.3	5.7
Video Gambling or Slot Machines	7.8	5.2	4.9	5.3	2.0
Casino in Ontario	1.6	1.4	†	1.6	3.6
Any Internet Gambling	—	1.0	1.0	4.7	3.6
Internet Poker	—	—	—	4.6	4.0
Dice	—	14.7	17.2	14.0	9.2
Other ways	—	26.8	22.2	25.6	21.0
Any Gambling Activity of 10 (95% CI)	—	58.8 (54.0-63.4)	60.8 (55.8-65.7)	58.9 (53.5-64.1)	47.7 (41.9-53.5) ^c
5+ Gambling Activities of 10 (95% CI)	—	7.2 (5.1-10.3)	6.8 (5.0-9.0)	6.0 (4.0-8.7)	4.6 (2.4-8.4)
GRADE 12	(200)	(559)	(728)	(666)	(769)
Cards	25.0	26.6	40.6	36.0	27.9
Bingo	14.7	10.3	8.9	9.0	8.1
Sports Pools	28.7	21.3	21.8	20.2	17.9 ^b
Sports Lottery Tickets	19.3	13.8	12.5	11.7	9.3
Other Lottery Tickets	40.3	40.5	32.1	32.6	30.1
Video Gambling or Slot Machines	10.9	9.4	6.0	5.2	5.1
Casino in Ontario	7.8	4.5	2.6	2.3	3.3
Any Internet Gambling	—	1.1	1.8	2.6	3.9
Internet Poker	—	—	—	3.9	2.8
Dice	—	12.8	14.7	13.4	6.1 ^{ac}
Other ways	—	21.2	23.4	24.0	18.4
Any Gambling Activity of 10 (95% CI)	—	65.1 (60.8-69.1)	65.3 (61.2-69.1)	63.3 (58.2-68.1)	56.0 (51.6-60.4) ^c
5+ Gambling Activities of 10 (95% CI)	—	7.9 (5.4-11.5)	8.5 (6.2-11.5)	8.5 (6.3-11.3)	4.1 (2.4-6.8)

(Continued...)

	2001	2003	2005	2007	2009
TORONTO	(267)	(548)	(577)	(470)	(417)
Cards	17.8	22.4	30.4	25.9	15.3 ^a
Bingo	8.7	8.3	7.0	4.9	6.5
Sports Pools	23.4	16.9	12.6	12.0	7.0 ^b
Sports Lottery Tickets	12.1	8.7	7.4	6.9	6.7
Other Lottery Tickets	18.6	19.0	14.6	15.3	13.4
Video Gambling or Slot Machines	5.2	7.9	2.8	3.3	2.5
Casino in Ontario	1.1	1.8	†	†	†
Any Internet Gambling	—	1.9	2.4	3.5	3.8
Internet Poker	—	—	—	3.0	2.7
Dice	—	18.6	17.0	17.4	5.1 ^{ac}
Other ways	—	28.3	22.0	25.2	14.0 ^{ac}
Any Gambling Activity of 10 (95% CI)	—	53.8 (48.2-59.3)	51.0 (45.2-56.7)	50.7 (44.8-56.6)	35.2 (28.2-42.9) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	5.6 (3.6-8.5)	5.2 (3.0-9.0)	4.0 (2.3-6.9)	2.7 (1.0-7.0)
NORTH REGION	(599)	(746)	(728)	(421)	(359)
Cards	30.1	24.2	38.8	38.0	22.0 ^a
Bingo	17.8	12.2	14.7	12.5	11.3
Sports Pools	19.8	17.0	19.0	19.6	11.3
Sports Lottery Tickets	9.4	8.0	8.6	8.7	7.0
Other Lottery Tickets	25.5	27.8	25.9	23.7	20.2
Video Gambling or Slot Machines	10.5	8.1	13.5	5.6	5.1
Casino in Ontario	3.1	1.0	1.4	1.6	†
Any Internet Gambling	—	2.7	2.5	4.7	†
Internet Poker	—	—	—	5.0	†
Dice	—	9.0	16.8	9.6	6.5
Other ways	—	27.1	24.6	22.9	17.5
Any Gambling Activity of 10 (95% CI)	—	59.3 (54.0-64.4)	64.0 (58.8-69.0)	56.6 (49.8-63.2)	47.4 (39.8-55.1)
5+ Gambling Activities of 10 (95% CI)	—	6.2 (4.0-9.3)	9.6 (7.1-12.9)	7.1 (4.6-10.8)	3.9 (1.8-8.4)
WEST REGION	(718)	(1259)	(1437)	(1323)	(1422)
Cards	26.4	22.8	34.1	30.6	21.7 ^a
Bingo	11.7	8.9	9.5	7.5	6.9 ^b
Sports Pools	21.1	20.4	16.7	17.6	15.4
Sports Lottery Tickets	9.4	6.9	8.5	6.5	5.3
Other Lottery Tickets	22.1	22.2	20.6	20.7	16.6
Video Gambling or Slot Machines	6.9	5.3	5.0	3.7	2.4 ^b
Casino in Ontario	1.7	1.2	1.0	†	0.8
Any Internet Gambling	—	2.4	1.9	3.4	2.8
Internet Poker	—	—	—	3.5	2.9
Dice	—	11.5	14.6	10.8	6.8
Other ways	—	26.2	24.1	23.4	20.2 ^c
Any Gambling Activity of 10 (95% CI)	—	56.1 (53.2-59.0)	57.0 (53.8-60.2)	54.3 (50.6-58.0)	43.4 (40.0-46.9) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	5.8 (4.4-7.6)	6.9 (5.5-8.5)	5.2 (3.9-7.0)	3.0 (2.2-4.3) ^c

(Continued...)

	2001	2003	2005	2007	2009
EAST REGION	(477)	(911)	(1336)	(1174)	(2653)
Cards	25.7	26.6	30.8	26.3	20.4
Bingo	11.1	11.6	7.0	7.9	7.0
Sports Pools	24.3	22.9	19.0	14.4	12.2 ^b
Sports Lottery Tickets	9.1	8.5	5.4	5.1	3.9
Other Lottery Tickets	23.3	23.0	16.2	17.3	14.5 ^b
Video Gambling or Slot Machines	6.6	7.5	7.4	6.5	6.0
Casino in Ontario	1.7	2.5	1.4	1.6	2.2
Any Internet Gambling	—	2.9	2.1	2.1	3.1
Internet Poker	—	—	—	2.2	2.7
Dice	—	12.1	13.1	8.1	5.7 ^c
Other ways	—	27.8	23.5	24.3	19.6 ^c
Any Gambling Activity of 10 (95% CI)	—	60.5 (56.1-64.7)	57.6 (53.2-61.9)	52.4 (48.4-56.4)	43.9 (40.0-47.9) ^{ac}
5+ Gambling Activities of 10 (95% CI)	—	6.8 (4.6-10.0)	4.2 (2.5-7.1)	4.1 (2.7-6.1)	3.0 (1.7-5.3)

Notes: (1) * excludes betting on internet poker; (2) N=number of students surveyed; (3) CI=confidence interval; (4) † indicates estimate suppressed due to unreliability; (5) percentages are reports of engaging in the activity at least once in the past 12 months; (6) based on a random half sample in each year; (7) ^a 2009 vs. 2007 significant difference, p<.01; (8) ^b 2009 vs. 2001 significant difference, p<.01; (9) ^c 2009 vs. 2003 significant difference, p<.01.

Qs: *How often in the last 12 months have you done each of the following: Played cards for money?; Played bingo for money?; Bet money on sports pools?; Bought sports lottery tickets (such as Sports Select or Proline)?; Bought any other lottery tickets including instant lottery (such as 6-49, Scratch & Win, pull-tabs)?; Bet money on video gambling machines, slot machines, or any other gambling machines?; Bet money at a casino in Ontario?; Bet money over the Internet (on any game)?; Bet money on poker over the Internet?; Played dice for money?; Bet money in other ways not listed above?*

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.6.2 Percentage of All Students Reporting a Gambling Problem (Reduced SOGS-RA), 1999–2009 (Grades 7 to 12)

		1999	2001	2003	2005	2007	2009
(N=)		(2148)	(2061)	(3464)	(4078)	(3388)	(4851)
Total % (95% CI)		6.8 (5.5-8.3)	3.6 (2.5-5.1)	3.7 (3.0-4.6)	4.5 (3.5-5.9)	2.3 (1.8-2.9)	2.8^b (2.0-3.9)
Sex	Males	10.2 (8.3-12.5)	6.0 (4.0-8.9)	6.5 (5.2-8.2)	7.2 (5.7-9.0)	3.5 (2.7-4.6)	4.3^b (2.9-6.5)
	Females	3.3 (2.0-5.2)	1.2 (0.6-2.5)	1.2 (0.7-2.0)	1.8 (1.1-3.0)	1.1 (0.6-1.8)	1.2^b (0.8-1.9)
Grade	7	3.8 (2.0-7.1)	3.4 (1.8-6.2)	2.9 (1.4-5.7)	3.9 (1.1-12.4)	†	†
	8	5.6 (3.9-8.0)	2.3 (1.0-5.1)	1.9 (0.8-4.9)	4.4 (2.5-7.4)	†	†
	9	7.5 (4.8-11.5)	4.4 (2.1-9.0)	2.8 (1.7-4.6)	3.1 (1.6-5.6)	2.8 (1.6-4.6)	2.1^b (1.0-4.7)
	10	8.5 (4.6-15.3)	4.2 (2.3-7.5)	4.3 (2.8-6.5)	3.2 (1.9-5.1)	1.2 (0.5-2.9)	2.1^b (1.3-3.6)
	11	7.8 (5.0-11.9)	3.3 (0.7-14.3)	4.2 (2.7-6.5)	6.6 (4.8-9.0)	4.1 (2.5-6.7)	4.2 (1.2-13.4)
	12	7.2 (4.2-12.2)	3.6 (1.7-7.3)	5.8 (3.9-8.5)	6.1 (4.3-8.5)	3.2 (2.0-5.0)	4.5 (2.7-7.5)
Region	Toronto	8.0 (5.1-12.4)	5.6 (2.2-13.8)	3.6 (2.2-5.8)	4.3 (2.9-6.3)	2.7 (1.3-5.3)	3.8 (2.0-7.1)
	North	7.0 (4.0-11.9)	4.6 (2.4-8.6)	3.4 (2.0-5.7)	2.5 (1.4-4.4)	2.4 (1.3-4.2)	2.2 (0.8-5.5)
	West	5.8 (4.0-8.4)	3.3 (2.2-5.0)	3.9 (2.9-5.4)	4.4 (3.3-5.8)	2.0 (1.4-2.9)	1.8^b (1.2-2.5)
	East	7.4 (5.3-10.3)	2.3 (1.2-4.0)	3.6 (2.4-5.3)	5.3 (3.1-8.9)	2.4 (1.8-3.4)	3.7 (2.0-6.7)

Notes: (1) "Gambling Problem" is defined as positive responses to 2 or more of the 6 items in the South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA) (reduced scale); (2) N=number of students surveyed; (3) CI=confidence interval; (4) † indicates estimate suppressed due to unreliability; (5) based on a random half sample in each year; (6) no significant differences, 2009 vs. 2007; (7) ^b 2009 vs. 1999 significant difference, p<.01.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.6.3 Percentage of All Students Reporting a Video Gaming Problem (PVP Scale), 2007–2009 (Grades 7 to 12)

		2007 (N=3388)	2009 (N=4261)
Total % (95% CI)		9.4 (8.2-10.8)	10.3 (9.0-11.7)
Sex	Males	15.1 (13.1-17.3)	16.0 (13.7-18.4)
	Females	3.1 (2.3-4.3)	4.0 (2.7-5.7)
Grade	7	10.4 (6.9-15.3)	8.3 (5.0-13.4)
	8	10.8 (7.9-14.8)	10.9 (7.5-15.4)
	9	8.9 (6.4-12.2)	11.2 (7.9-15.6)
	10	9.1 (6.7-12.4)	11.4 (8.6-14.9)
	11	9.2 (6.7-12.7)	9.7 (6.8-13.5)
	12	8.6 (6.4-11.4)	10.0 (7.0-14.0)
Region	Toronto	13.0 (9.9-16.7)	8.0 (5.7-11.1)
	North	7.6 (5.5-10.5)	10.5 (7.7-14.1)
	West	8.7 (7.0-10.7)	11.9 (9.8-14.4)
	East	8.7 (6.4-11.7)	9.2 (6.9-12.0)

Notes: (1) "Video Gaming Problem" is defined as positive responses to 5 or more of the 9 items in the Problem Video Game Playing (PVP) Scale; (2) N=number of students surveyed; (3) entries in brackets are 95% confidence intervals; (4) question asked of a random half sample in each year; (5) no significant differences, 2009 vs. 2007.

Source: OSDUHS, Centre for Addiction and Mental Health

Table A3.7.1: Co-Existing Problems: Percentage Reporting Elevated Psychological Distress, Alcohol Problem, Drug Problem, and Delinquent Behaviour, 2003-2009 (Grades 7 to 12)

	2003 (N=) (3464)	2005 (4078)	2007 (3388)	2009 (4851)
None of the 4 problems	52%	55%	54%	53%
Psychological Distress only	18%	19%	18%	19%
Alcohol Problem only	4%	3%	4%	6%
Drug Problem only	3%	3%	2%	2%
Delinquent Behaviour only	2%	2%	3%	1%
Psychological Distress + Alcohol Problem	2%	2%	3%	3%
Psychological Distress + Drug Problem	2%	2%	1%	2%
Psychological Distress + Delinquent Behaviour	2%	2%	2%	1%
Alcohol Problem + Drug Problem	2%	3%	2%	3%
Alcohol Problem + Delinquent Behaviour	1%	1%	1%	1%
Drug Problem + Delinquent Behaviour	1%	1%	1%	1%
Psychological Distress + Alcohol Problem + Drug Problem	2%	2%	2%	2%
Psychological Distress + Alcohol Problem + Delinquent Behaviour	1%	1%	1%	0.5%
Psychological Distress + Delinquent Behaviour + Drug Problem	1%	1%	1%	1%
Alcohol Problem + Drug Problem + Delinquent Behaviour	3%	2%	2%	2%
All 4 Problems	3%	2%	3%	2%

Notes: (1) Elevated Psychological Distress is indicated by a score of 3 or more on the GHQ-12 screener (see Chapter 3.4); (2) Alcohol Problem refers to hazardous/harmful drinking and is indicated by a score of 8 or more on the AUDIT screener; (3) Drug Problem is indicated by a score of 2 or more on the CRAFFT-D screener; (4) Delinquent Behaviour is defined as reporting 3 or more of 11 delinquent behaviours (see Chapter 3.5); (5) N=number of students surveyed; (6) based on a random half sample in each year.

Source: OSDUHS, Centre for Addiction & Mental Health

Table A3.7.2: Percentage Reporting Three or All Four Co-Existing Problems,*
2003–2009 (Grades 7 to 12)

		2003	2005	2007	2009	
		(N=)	(3464)	(4078)	(3388)	(4851)
Total %		10.0	8.4	9.0	8.4	
(95% CI)		(8.7-11.4)	(7.2-9.8)	(7.9-10.2)	(7.3-9.7)	
Sex	Males	10.3	8.7	8.4	8.7	
		(8.5-12.4)	(7.2-10.5)	(7.0-10.0)	(6.9-10.8)	
	Females	9.7	8.0	9.6	8.2	
		(7.9-11.8)	(6.6-9.6)	(8.2-11.3)	(6.9-9.7)	
Grade	7	†	†	†	†	
	8	4.6	4.8	2.7	2.6	
		(2.3-8.8)	(2.6-8.6)	(1.4-5.2)	(1.6-4.3)	
	9	8.5	7.4	9.6	6.2	
		(6.5-10.9)	(5.4-10.0)	(6.7-13.6)	(4.0-9.4)	
	10	12.7	10.6	10.0	9.2	
	(9.4-17.1)	(8.1-13.8)	(7.9-12.7)	(6.8-12.3)		
	11	15.2	12.5	13.6	12.2	
		(11.6-19.6)	(10.0-15.6)	(10.3-17.6)	(8.8-16.7)	
	12	13.0	12.6	14.7	15.5	
		(9.9-16.8)	(9.5-16.4)	(11.5-18.6)	(12.4-19.2)	
Region	Toronto	9.8	6.3	5.4	5.7	
		(6.9-13.8)	(4.3-9.0)	(3.4-8.6)	(3.5-9.3)	
	North	10.5	10.2	13.9	11.9	
		(7.6-14.3)	(7.4-13.8)	(9.7-19.5)	(8.9-15.6)	
	West	10.2	9.7	9.5	8.5	
		(8.4-12.4)	(7.6-12.4)	(7.7-11.6)	(6.9-10.4)	
	East	9.6	7.4	9.2	8.9	
		(7.2-12.6)	(5.7-9.6)	(7.5-11.2)	(6.9-11.5)	

Notes: (1) * among the following four problems: elevated psychological distress, hazardous/harmful drinking, drug use problem, and delinquent Behaviour; (2) N=number of students surveyed; (3) entries in brackets are 95% confidence intervals; (4) † indicates estimate suppressed due to unreliability; (5) based on a random half sample in each year; (6) no significant changes over time.

Source: OSDUHS, Centre for Addiction and Mental Health

Selected OSDUHS Peer-Reviewed Publications

- Brands, B., Paglia-Boak, A., Sproule, B. A., & Adlaf, E. M. (2010). Nonmedical use of opioid analgesics among Ontario students. *Canadian Family Physician, 56*, 256-262.
- Faulkner, G., Adlaf, E. M., Irving, H. M., Allison, K. R., & Dwyer, J. (2009). School disconnectedness: Identifying adolescents at risk in Ontario, Canada. *Journal of School Health, 79*, 312-318.
- Hamilton, H. A., Noh, S., & Adlaf, E. M. (2009). Adolescent risk behaviours and psychological distress across immigrant generations. *Canadian Journal of Public Health, 100*, 221-225.
- MacKay, S., Paglia-Boak, A., Henderson, J., Marton, P., & Adlaf, E. M. (2009). Epidemiology of firesetting in adolescents: Mental health and substance use correlates. *Journal of Child Psychology and Psychiatry, 50*, 1282-1290.
- Mohapatra, S., Irving, H., Paglia-Boak, A., Wekerle, C., Adlaf, E. M., & Rehm, J. (2009). History of family involvement with child protective services as a risk factor for bullying in Ontario schools. *Child and Adolescent Mental Health*. (Published Online December 30, 2009) doi: 10.1111/j.1475-3588.2009.00552.x
- Allison, K. R., Adlaf, E. M., Dwyer, J., Lysy, D., & Irving, H. (2007). The decline in physical activity among adolescent students: A cross-national comparison. *Canadian Journal of Public Health, 98*, 97-100.
- Faulkner, G., Adlaf, E., Irving, H., Allison, K., Dwyer, J., & Goodman, J. (2007). Participation in high school physical education – Ontario, Canada, 1999-2005. *MMWR, Jan 26*, 52-54.
- Faulkner, G., Adlaf, E. M., Irving, H., Allison, K. R., Dwyer, J. J. M., & Goodman, J. (2007). The relationship between vigorous physical activity and juvenile delinquency: A mediating role for self-esteem? *Journal of Behavioral Medicine, 30*, 155-163.
- Smart, R. G., Stoduto, G., Adlaf, E., Mann, R., & Sharpley, J. (2007). Road rage victimization among adolescents. *Journal of Adolescent Health, 41*, 277-282.
- Adlaf, E. M., Paglia-Boak, A., & Ialomiteanu, A. (2006). Underage gambling in Ontario casinos. *Journal of Gambling Issues (16)*, http://www.camh.net/egambling/issue16/issue16/jgi_16_adlaf.html.
- Allison, K., Adlaf, E. M., Irving, H. M., Rondeau, J. L., Smith, T. F., Dwyer, J., & Goodman, J. (2005). Relationship of vigorous physical activity to psychological distress among adolescents. *Journal of Adolescent Health, 37*, 164-166.
- Rehm, J., Monga, N., Adlaf, E., Taylor, B., Bondy, S. J., & Fallu, J. S. (2005). School matters: Drinking dimensions and their effects on alcohol related problems among Ontario secondary school students. *Alcohol and Alcoholism, 40*, 569-574.
- Adlaf, E. M., Mann, R., & Paglia, A. (2003). Drinking, cannabis use and driving among Ontario students. *Canadian Medical Association Journal, 168*, 565-566.
- Kairouz, S., & Adlaf, E. M. (2003). Schools, students and heavy drinking: A multilevel analysis. *Addiction Research and Theory, 11*, 427-439.
- Paglia, A., & Adlaf, E. M. (2003). Secular trends in self-reported violent activity among Ontario students, 1983-2001. *Canadian Journal of Public Health, 94*, 212-217.

This publication may be available in other formats.
For information about alternate formats or other
CAMH publications, or to place an order, please contact
Sales and Distribution:

Toll-free: 1 800 661-1111

Toronto: 416 595-6059

E-mail: publications@camh.net

Online store: <http://store.camh.net>

Website: www.camh.net



Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

A Pan American Health Organization /
World Health Organization
Collaborating Centre

Fully affiliated with the University of Toronto