

## Variation in Students' Well-Being by Ontario Public Health Planning Region

Selected Outcomes by Ontario Public Health Planning Region (% & 95% CIs), OSDUS 2003

	Toronto	South-West	Central-South	Central-West	Central-East	East	North	Ontario
(N=)	(1,097)	(934)	(218)	(1,361)	(724)	(1,049)	(1,233)	(6,616)
Poor Self-Rated Health	13.7 (10.8-17.3)	13.7 (11.2-16.7)	13.0 (8.7-18.9)	13.0 (11.5-14.7)	13.9 (10.9-17.5)	<b>9.8*</b> (7.9-12.2)	12.0 (9.5-15.1)	12.6 (11.7-13.7)
Inactive Past 7 Days	<b>21.3**</b> (17.5-25.6)	14.8 (12.0-18.2)	20.7 (15.0-27.9)	15.4 (12.3-19.1)	13.9 (11.4-16.8)	13.9 (11.8-16.3)	14.1 (11.3-17.4)	16.1 (14.7-17.5)
Treated for a Physical Injury	<b>26.4**</b> (22.4-31.0)	37.6 (33.6-41.8)	35.9 (30.5-41.8)	35.1 (30.9-39.6)	39.2 (34.3-44.4)	37.4 (33.6-41.3)	<b>42.6**</b> (38.8-46.4)	35.4 (33.7-37.2)
1+ Mental Health Visits	<b>8.3**</b> (6.4-10.6)	11.8 (9.2-15.0)	13.6 (8.6-20.9)	<b>9.0*</b> (7.2-11.2)	13.2 (10.7-16.1)	13.3 (10.7-16.4)	11.6 (9.5-14.2)	11.0 (10.0-12.2)
High Risk for Depression	<b>3.0**</b> (1.7-5.0)	5.7 (3.7-8.7)	<b>11.7**</b> (9.2-14.8)	5.5 (3.8-7.8)	7.2 (5.0-10.2)	5.3 (3.8-7.4)	7.0 (4.6-10.4)	5.6 (4.8-6.6)
Elevated Psychological Distress	31.7 (28.1-35.6)	28.6 (25.0-32.5)	30.9 (14.3-54.5)	33.0 (29.4-36.9)	33.1 (27.0-39.8)	29.0 (24.7-33.8)	28.7 (24.0-34.0)	30.8 (28.9-32.8)
Suicide Ideation	<b>9.3*</b> (6.8-12.6)	13.0 (9.7-17.3)	<b>19.6*</b> (12.9-28.7)	13.1 (9.7-17.6)	14.7 (9.2-22.6)	11.4 (9.2-14.0)	13.3 (10.4-16.9)	12.5 (11.1-14.2)
Delinquent Behaviour	13.9 (11.2-17.1)	15.3 (11.4-20.3)	7.0 (2.9-16.0)	16.2 (13.8-18.9)	17.2 (11.7-24.7)	10.9 (8.0-14.7)	<b>17.6*</b> (13.9-21.9)	14.3 (12.8-16.0)
Weapon Carrying	11.4 (8.8-14.7)	9.2 (6.4-13.1)	4.3 (1.2-14.6)	10.8 (8.9-13.1)	8.5 (4.7-14.9)	8.7 (6.1-12.3)	10.2 (7.5-13.8)	9.6 (8.4-11.0)
1+ Fights at School	14.6 (10.3-20.1)	18.0 (13.1-24.2)	29.6 (17.4-45.5)	17.7 (13.3-23.0)	20.0 (14.2-27.4)	15.1 (12.2-18.6)	19.6 (14.8-25.5)	17.6 (15.7-19.6)
Threatened or Injured with a Weapon at School	7.8 (5.6-10.7)	7.3 (5.1-10.5)	11.7 (5.0-25.1)	8.8 (6.4-11.9)	5.0 (2.5-9.7)	7.0 (4.6-10.5)	7.7 (5.8-10.2)	7.7 (6.5-9.0)
Been Bullied	<b>24.8**</b> (20.4-29.7)	35.4 (29.3-42.1)	<b>47.8**</b> (40.3-55.4)	<b>28.8*</b> (25.5-32.4)	33.6 (27.4-40.5)	36.2 (31.1-41.8)	36.2 (32.0-40.6)	32.7 (30.6-34.9)
Bullied Someone	<b>22.0**</b> (18.0-26.7)	33.9 (29.0-39.1)	28.2 (18.6-40.2)	28.9 (25.7-32.3)	29.6 (22.8-37.4)	31.9 (26.0-38.4)	<b>36.3**</b> (31.6-41.2)	29.7 (27.6-32.0)
Heavy Gambling Activity	5.6 (3.6-8.5)	4.9 (3.1-7.7)	7.4 (3.6-14.5)	6.1 (4.2-8.8)	<b>10.4*</b> (6.1-17.1)	5.1 (3.1-8.3)	6.1 (3.9-9.4)	6.1 (5.0-7.4)
Pathological Gambling Problem	3.8 (2.4-6.0)	2.8 (1.8-4.2)	2.1 (0.3-14.8)	4.6 (2.7-7.6)	3.0 (1.1-7.8)	3.4 (2.0-5.5)	2.6 (1.4-4.8)	3.5 (2.7-4.4)
Hazardous Drinking	13.7 (10.1-18.4)	<b>25.1*</b> (19.1-32.3)	7.0 (1.8-23.6)	19.9 (15.1-25.7)	19.6 (14.0-26.8)	17.7 (12.6-24.2)	<b>23.1*</b> (18.7-28.3)	18.8 (16.7-21.1)
Any Illicit Drug Use (excl cannabis)	<b>11.4*</b> (7.9-16.1)	<b>23.9**</b> (18.5-30.2)	8.8 (2.9-23.8)	19.2 (14.9-24.3)	17.7 (12.9-23.8)	15.0 (12.5-18.0)	<b>21.3*</b> (17.2-26.1)	17.3 (15.5-19.2)
Drug Use Problem	16.8 (13.3-20.9)	19.1 (14.8-24.4)	5.7 (1.6-18.6)	17.0 (13.4-21.3)	17.4 (13.2-22.8)	18.9 (14.2-24.8)	20.5 (15.4-26.7)	17.5 (15.7-19.5)
Co-existing Problems <sup>††</sup>	9.8 (6.9-13.8)	11.1 (8.2-14.9)	3.9 (1.0-13.8)	11.0 (8.2-14.5)	10.7 (7.2-15.6)	9.3 (6.5-13.1)	11.1 (8.1-15.1)	10.1 (8.8-11.6)
Drinking & Driving	12.4 (8.5-17.9)	14.7 (9.0-22.9)	†	13.5 (10.2-17.6)	11.3 (8.8-14.3)	14.8 (11.3-19.1)	17.1 (12.2-23.4)	13.8 (11.9-16.0)
Cannabis Use & Driving	13.8 (10.0-19.4)	<b>24.7**</b> (18.3-32.4)	†	18.8 (14.7-23.8)	22.8 (15.6-32.2)	19.1 (12.8-27.5)	<b>24.4*</b> (15.9-35.5)	20.1 (17.3-23.1)

Notes: (1) Entries in brackets are 95% confidence intervals; (2) †† refers to reporting 3 or all 4 problems among: psychological distress, hazardous drinking, drug problem, and delinquent behaviour; (3) † estimate suppressed; (4) \*p<.05, \*\*p<.01 significant difference, public health region versus Ontario; (5) Source: OSDUS, Centre for Addiction and Mental Health.

## Public Health Planning Regions vs Ontario

The table shown provides prevalence estimates for indicators related to physical health, mental health, and substance use from the *2003 Ontario Drug Use Student Survey (OSDUS)*, broken down by the seven public health planning regions of Ontario.<sup>1</sup>

Compared to the province as a whole:

● students in the **Toronto** public health region are *more likely* to be physically inactive. They are also *less likely* to experience a physical injury which requires treatment, visit a mental health professional, be at risk for depression, contemplate suicide, be bullied, bully others, and use an illicit drug.

● students in the **South-West** public health region are *more likely* to report hazardous drinking, use an illicit drug, and drive after using cannabis.

● students in the **Central-South** public health region are *more likely* to be at risk for depression, to contemplate suicide, and to be bullied.

● students in the **Central-West** public health region are *less likely* to visit a mental health professional, and to be bullied.

● students in the **Central-East** public health region are *more likely* to engage in heavy gambling activity.

● students in the **East** public health region are *less likely* to report being in poor health.

● students in the **North** public health region are *more likely* to experience a physical injury which requires treatment, report delinquent behaviour, bully others, report hazardous drinking, use an illicit drug, and drive after using cannabis.

### Methods:

The *Ontario Student Drug Use Survey (OSDUS)* is an Ontario-wide survey of elementary (grades 7 and 8) and secondary (grades 9-12) school students conducted every two years since 1977. The 2003 survey, which used a stratified (region) two-stage cluster design (school, class) included 6,616 students in grades 7 to 12 from 37 school boards, 126 schools, and 383 classes. Self-administered questionnaires, which promote anonymity, were administered by staff from the Institute for Social Research, York University on a classroom basis between January and June 2003. The student participation rate was 72%.

All survey estimates were weighted, and variance and statistical tests were corrected for the sampling design. The 2003 sample size of 6,616 students represents about 970,000 students in grades 7 to 12 in public and Catholic schools across the province.

### Terminology:

- **Poor Self-Rated Health** is based on reports of currently being in “fair” or “poor” health.
- **Inactive Past 7 Days** refers to reports of not participating in any vigorous physical activity “for at least 20 minutes that made you sweat and breathe hard” during the 7 days before the survey.
- **1+ Mental Health Visits** is based on reports of one or more visits to “a doctor, nurse or counsellor about your emotional or mental health” during the 12 months before the survey.
- **High Risk for Depression** is defined as “usually” or “often” experiencing all 4 symptoms from the CES-D screening instrument (past 7 days time frame).
- **Elevated Psychological Distress** is measured with the General Health Questionnaire (GHQ), which is a 12-item screening instrument designed to assess current mental health problems. The items assess the recent frequency of experiencing 12 symptoms (e.g., stress, depression, problem making decisions). Distress is defined as experiencing at least 3 of the 12 symptoms.
- **Suicide Ideation** is measured with the question: “During the last 12 months, did you ever seriously consider attempting suicide?”
- **Delinquent Behaviour** is based on reports of engaging in 3 or more of 12 delinquent acts (e.g., assault, theft, vandalism) during the 12 months before the survey.
- **Weapon Carrying** is measured with the question: “How often (if ever) in the last 12 months have you carried a weapon (such as a gun or knife)?”
- **Heavy Gambling Activity** is based on reports of engaging in 5 or more of 10 gambling activities in the last 12 months.
- **Pathological Gambling Problem** is measured with the South Oaks Gambling Screen Revised for Adolescents (SOGS-RA), and is defined as experiencing 4 or more of the 12 symptoms during the past 12 months.
- **Hazardous Drinking** is measured with the Alcohol Use Disorders Identification Test (AUDIT), which is a 10-item instrument designed to detect a drinking problem at the less severe end of the spectrum. The percentage reported here is based on a score of at least 8 out of 40.

### **Terminology (continued):**

- **Any Illicit Drug Use (excluding cannabis)** is based on reports of using any one of the following 16 illicit drugs: barbiturates, stimulants, tranquilizers, cocaine, crack, methamphetamine, LSD, other hallucinogens, PCP, heroin, ecstasy, ice, GHB, Rohypnol, Ketamine, and non-medical Ritalin. This estimate excludes the use of cannabis, glue, solvents, and prescription drugs.
- **Drug Problem** is measured with the CRAFFT-D screener, which is a 6-item instrument designed to detect a drug problem that requires treatment. Experiencing 2 or more of the 6 problems indicates a potential drug problem.
- **Drinking & Driving** refers to having driven within an hour of drinking 2 or more drinks, at least once in the past 12 months. Results presented only pertain to students in grades 10 to 12 with a valid driver's licence.
- **Cannabis Use & Driving** refers to having driven within an hour of using marijuana or hashish, at least once in the past 12 months. Results presented only pertain to students in grades 10 to 12 with a valid driver's licence.
- **95% Confidence Interval (CI)** can be crudely interpreted as being 95% likely to include the "true" percentage value if every student in Ontario was surveyed.
- **Significant Difference** refers to a difference between two percentages that is not likely due to chance. For example, a difference found at the  $p < .05$  level of statistical significance is one that is less than 5% likely to occur by chance alone.

### **Sources:**

Adlaf, E.M., & Paglia, A. (2003). *Drug Use Among Ontario Students, 1977-2003: Detailed OSDUS Findings*. CAMH Research Document Series, No. 13. Toronto: Centre for Addiction and Mental Health. (available in PDF format at: [http://www.camh.net/research/population\\_life\\_course.html](http://www.camh.net/research/population_life_course.html)).

Adlaf, E.M., Paglia-Boak, A., Beitchman, J.H., & Wolfe, D. (2004). *The Mental Health and Well-Being of Ontario Students, 1991-2003: Detailed OSDUS Findings*. CAMH Research Document Series, No. 14. Toronto: Centre for Addiction and Mental Health. (available in PDF format at: [http://www.camh.net/research/population\\_life\\_course.html](http://www.camh.net/research/population_life_course.html)).

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### **References:**

1. Ontario Ministry of Health. (1999). *Ontario Health Survey 1996-1997: Derived Variables Document*. Toronto: Ontario Ministry of Health.