

Mental Health Among Students in Grades 7 to 12 in the NBPSDHU Region

Methodology, Data Source and Limitations

The data presented in this report is from the Ontario Student Drug Use and Health Survey (OSDUHS) conducted by the Centre for Addiction and Mental Health (CAMH) and administered by the Institute for Social Research, York University. Its contents and interpretation are solely the responsibility of the author and do not necessarily represent the official view of the Centre for Addiction and Mental Health.

The data presented in this report was collected during the 2014/2015 school year, and when noted, for a combined sample of the 2010/2011 & 2014/2015 school years. It provides an update of substance use in Ontario youth, updating data that were previously reported in [The Health of Youth in the North Bay Parry Sound District Health Unit Region](#) (North Bay Parry Sound District Health Unit, 2012).

The survey was administered to students from grades seven through twelve enrolled in public and Catholic school systems (French and English). Excluded from this report are youth enrolled in private schools or home-schooled, those institutionalized for correctional or health reasons, and those schooled on native reserves, military bases, or in the remote northern region of Ontario. Data in this report has been presented for the North Bay Parry Sound District Health Unit (NBPSDHU), other northern regions in Ontario (excluding the NBPSDHU region) and Ontario. The NBPSDHU region sample includes 580 students from 19 regional schools within three school boards.

The term “significant” is used within this report to describe differences between health regions or groups that are statistically meaningful. Without statistical significance you cannot say with certainty that the differences are real, or simply due to chance. Sampling variability associated with each estimate is described using 95% confidence intervals (95% CI), which indicate the precision of the estimate. Confidence intervals were used to determine significant differences between estimates.

Estimates with a coefficient of variation (ratio of standard error to its estimate) equal to or higher than 33.3, or based on less than 50 responses were suppressed due to high sampling variability. Estimates were calculated using complex survey analysis in Stata 14.2 (StataCorp LP, College Station, TX).

Definitions and Comparison Groups

Aboriginal Identity

Only students who identified themselves as Aboriginal on the survey are included in this group. It is possible that some students did not self-identify, and are thus excluded from this group.

Perceived Socio-Economic Status (SES)

Students were asked to identify where they thought their family would be on the socioeconomic status (SES) ladder, on a scale from 1 to 10, with 1 being “worst off”, and 10 being “best off”. Students who selected a rating of 1-6 were considered to be of low SES, while students who selected 7-10 were considered to be of high SES.

Self-Rated Mental Health

In 2014/15, about one of every five students in our region rated their mental or emotional health as fair or poor (18.8%; 95% CI: 13.5, 25.7); similar to the percentage for other northern regions (20.3%; 95% CI: 16.1, 25.2) and Ontario (16.6%; 95% CI: 14.5, 18.9). This percentage has not changed between 2010/11 and 2014/15 school years in our region, or in other northern regions. In Ontario, about 6% more students rated their mental health as fair or poor in 2014/15 compared to 2010/11.

Data from 2010/11 & 2014/15 was combined to analyze those who rated their mental or emotional health as fair or poor, among selected demographic subgroups (Tables 1 through 4). In Ontario and other northern regions, significantly high percentages of female students had fair or poor mental health (Table 1), significantly higher percentages of secondary students had fair or poor mental health compared to elementary students (Table 2), and significantly higher percentages of students with low perceived socioeconomic status had fair or poor mental health compared to students with high perceived socioeconomic status (Table 4).

Table 1. Percentage (95% CI) of Students Who Rated Their Mental Health as Fair or Poor, by Gender and Region, 2010/11 & 2014/15 Combined

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	11.5 ^E (7.2, 17.9)	12.6 ^E (8.9, 17.5)	14.1 (12.4, 16.0)
Females	20.9 (15.4, 27.6)	23.0 ‡ (17.9, 29.1)	20.6 ‡ (18.6, 22.8)

‡ Estimate is significantly different from males in the same region

E Interpret with caution; the estimate is associated with high sampling variability

Table 2. Percentage (95% CI) of Students Who Rated Their Mental Health as Fair or Poor, by Grade Level and Region, 2010/11 & 2014/15 Combined

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	13.6 (9.8, 18.7)	11.1 ^E (7.8, 15.5)	9.8 (7.6, 12.5)
Grades 9 - 12	16.7 (12.9, 21.3)	20.2 ‡ (15.8, 25.5)	17.1 ‡ (15.6, 18.6)

‡ Estimate is significantly different from students in grades 7 & 8 in the same region

E Interpret with caution; the estimate is associated with high sampling variability

Table 3. Percentage (95% CI) of Students Who Rated Their Mental Health as Fair or Poor, by Aboriginal Identity & Region, 2010/11 & 2014/15 Combined

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
Aboriginal	23.7 ^E (14.9, 35.6)	28.0 ^E (17.2, 42.0)	18.5 (13.0, 25.7)
Non-Aboriginal	15.2 (11.5, 19.7)	16.6 (13.3, 20.6)	15.0 (13.7, 16.5)

E Interpret with caution; the estimate is associated with high sampling variability

Table 4. Percentage (95% CI) of Students Who Rated Their Mental Health as Fair or Poor, by Perceived Socioeconomic Status and Region, 2010/11 & 2014/15 Combined

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
Low SES	22.7 (16.0, 31.3)	29.6 ‡ (22.4, 37.9)	25.1 ‡ (22.8, 27.6)
High SES	13.2 (9.4, 18.3)	12.7 (9.8, 16.1)	10.9 (9.5, 12.5)

‡ Estimate is significantly different from students with high perceived socioeconomic status, in the same region

Low Self-Esteem

In 2014/15, about one in eight students in our region strongly disagreed with this statement: “*On the whole, I am satisfied with myself*” (i.e., had low self-esteem; Table 5). This percentage was statistically similar to that for students in other northern regions and Ontario.

Table 5. Percentage (95% CI) of Students by Level of Agreement with the Statement ‘On the Whole, I am Satisfied with Myself’ & Region, 2014/15

Level of Agreement with ‘On the whole, I am satisfied with myself’	NBPSDHU Region	Other Northern Regions	Ontario
Strongly agree	33.5 (27.6, 39.8)	38.4 (33.7, 43.3)	37.6 (35.2, 40.1)
Somewhat agree	39.4 (33, 46.1)	38.5 (32.2, 45.2)	42.6 (40.7, 44.4)
Somewhat disagree	14.7 ^E (8.1, 25.3)	16.7 (13.5, 20.5)	12.8 (11.2, 14.6)
Strongly disagree	12.5 ^E (7.3, 20.6)	6.4 ^E (4.1, 10.0)	7.0 (5.7, 8.5)

E Interpret with caution; the estimate is associated with high sampling variability

Stress

In 2014/15, students were asked “*In the last four weeks, did you feel you were under any stress, strain or pressure?*” About one in every three students in our region (35.7%; 95% CI: 25.8, 47.0) said they felt a lot of stress, or more stress than they could take (i.e., elevated stress). This percentage was similar to that of students in other northern regions (27.9%; 95% CI: 22.6, 33.9) and Ontario (28.7; 95% CI: 26.1, 31.4).

Elevated stress was analyzed by select demographic subgroups (Tables 6 through 9). In all three regions, about four in ten secondary students experienced elevated stress levels, significantly higher compared to about one in eight elementary students (Table 7). In Ontario, significantly higher percentages of female students and students with low perceived socioeconomic status experienced elevated stress compared to male students and students with high perceived socioeconomic status, respectively (Tables 6 & 9).

Table 6. Percentage (95% CI) of Students Who Experienced Elevated Stress in the Previous Four Weeks, by Gender and Region, 2014/15

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	28.5 (15.4, 46.7)	16.9 (12, 23.4)	19.8 (17.1, 22.9)
Females	42.8 (32.5, 53.8)	40.4 ‡ (29.7, 52.0)	38.2 ‡ (34.8, 41.6)

‡ Estimate is significantly different from males in the same region

Table 7. Percentage (95% CI) of Students Who Experienced Elevated Stress in the Previous Four Weeks, by Grade Level and Region, 2014/15

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	14.7 (10.6, 20.1)	13.8 (9.6, 19.4)	13.6 (9.9, 18.3)
Grades 9 - 12	43.2 ‡ (26.5, 61.7)	33.4 ‡ (25.8, 41.9)	34.6 ‡ (31.9, 37.4)

‡ Estimate is significantly different from students in grades 7 & 8 in the same region

Table 8. Percentage (95% CI) of Students Who Experienced Elevated Stress in the Previous Four Weeks, by Aboriginal Identity & Region, 2014/15

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
Aboriginal	49.1 (36.2, 62.1)	34.1 (21.2, 49.8)	33.4 (22.7, 46.3)
Non-Aboriginal	33.8 (23.0, 46.6)	27.4 (22.3, 33.1)	28.6 (26.1, 31.2)

Table 9. Percentage (95% CI) of Students Who Experienced Elevated Stress in the Previous Four Weeks, by Perceived Socioeconomic Status and Region, 2014/15

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
Low SES	43.8 (29.2, 59.6)	37.0 (26.9, 48.4)	35.9 ‡ (32.0, 40.1)
High SES	32.0 (20.8, 45.9)	24.0 (18.1, 31)	25.4 (22.4, 28.5)

‡ Estimate is significantly different from students with high perceived socioeconomic status, in the same region

Psychological Distress

Psychological distress was assessed using the Kessler 6-Item Psychological Distress Scale, used to detect nonspecific psychological distress (symptoms of anxiety and depression) in the previous four weeks. The percentage of students who experienced the Kessler Psychological Distress Scale items ‘most’ or ‘all of the time’ are presented in Table 10.

Responses are scaled from a score of 0 (None of the time) to 4 (All of the time). A summated score of eight or higher was used as a cut-off to estimate the percentage of students experience a moderate-to-serious level of psychological distress.

Psychological distress was analyzed by select demographic subgroups (Tables 11 through 14). In all three regions, half of female students indicated moderate-to-significantly psychological distress, significantly higher compared to about one in four male students (Table 11). In Ontario, significantly higher percentages of secondary students and students with low perceived socioeconomic status indicated moderate-to-serious psychological distress compared to elementary students and students with high perceived socioeconomic status, respectively (Table 12).

Table 10. Percentage (95% CI) of Students Who Experienced the Kessler Psychological Distress Scale Items ‘Most’ or ‘All of the Time’, by Scale Item & Region, 2014/15

Psychological Distress Items	NBPSDHU Region	Other Northern Regions	Ontario
Felt nervous	20.7 (15.4, 27.3)	13.8 (11, 17.2)	15.0 (13.7, 16.3)
Felt hopeless	12.3 ^E (7.6, 19.2)	11.1 (8.2, 14.8)	8.3 (7.2, 9.6)
Felt restless or fidgety	20.1 (14.8, 26.6)	18.6 (15.3, 22.5)	16.6 (14.5, 19)
Felt so depressed that nothing could cheer you up	15.9 ^E (9.9, 24.5)	10.9 (7.7, 15.3)	8.6 (7.3, 10.1)
Felt everything was an effort	19.3 (14.1, 25.9)	12.4 (9.7, 15.8)	17.2 (15.6, 19.1)

Psychological Distress Items	NBPSDHU Region	Other Northern Regions	Ontario
Felt worthless	11.0 ^E (7.2, 16.4)	11.5 ^E (7.9, 16.3)	10.1 (8.6, 11.8)

E Interpret with caution; the estimate is associated with high sampling variability

Table 11. Percentage (95% CI) of Students Indicating Moderate-to-Serious Psychological Distress in the Previous Four Weeks, by Gender and Region, 2014/15

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	24.9 ^E (13.8, 40.7)	23.0 ^E (15.8, 32.1)	21.9 (19.2, 24.8)
Females	53.7 ‡ (41.9, 65.0)	47.4 ‡ (40.5, 54.4)	45.4 ‡ (42.4, 48.5)

‡ Estimate is significantly different from males in the same region

E Interpret with caution; the estimate is associated with high sampling variability

Table 12. Percentage (95% CI) of Students Indicating Moderate-to-Serious Psychological Distress in the Previous Four Weeks, by Grade Level and Region, 2014/15

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	24.8 ^E (16.5, 35.4)	30.2 (23.3, 38.0)	23.4 (19.6, 27.8)
Grades 9 - 12	44.6 (27.6, 62.9)	36.1 (30.1, 42.6)	37.1 ‡ (34.5, 39.7)

‡ Estimate is significantly different from students in grades 7 & 8 in the same region

E Interpret with caution; the estimate is associated with high sampling variability

Table 13. Percentage (95% CI) of Students Indicating Moderate-to-Serious Psychological Distress in the Previous Four Weeks, by Aboriginal Identity & Region, 2014/15

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
Aboriginal	48.2 ^E (26.5, 70.6)	37.5 ^E (23.8, 53.6)	42.2 (31.2, 54.0)
Non-Aboriginal	38.0 (28.4, 48.6)	34.3 (29.7, 39.2)	33.0 (30.7, 35.5)

E Interpret with caution; the estimate is associated with high sampling variability

Table 14. Percentage (95% CI) of Students Indicating Moderate-to-Serious Psychological Distress in the Previous Four Weeks, by Perceived Socioeconomic Status and Region, 2014/15

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
Low SES	43.0 (29.4, 57.8)	46.7 ‡ (37.5, 56.1)	41.2 ‡ (37.2, 45.2)
High SES	36.4 ^E (24.7, 49.9)	29.0 (23.0, 35.9)	29.5 (26.9, 32.2)

‡ Estimate is significantly different from students with high perceived socioeconomic status, in the same region

^E Interpret with caution; the estimate is associated with high sampling variability

Suicide

Over the previous 12 months, about one of every eight students in 2014/15 seriously considered committing suicide in our region (14.1%; 95% CI: 9.9, 19.7). This percentage was similar to that of other northern regions (13.2%; 95% CI: 8.9, 19.3) and Ontario (12.4%; 10.9, 14.1). This percentage has not changed between 2010/11 and 2014/15 school years in our region, or in other northern regions. In Ontario, about 5% more students seriously considered attempting suicide in 2014/15 compared to 2010/11.

Data from 2010/11 & 2014/15 was combined to analyze those who seriously considered attempting suicide, among selected demographic subgroups (Tables 15 through 18). In Ontario, about one of every eight female students seriously considered attempting suicide; significantly higher compared to about one in every 16 male students (Table 15). In Ontario, a significantly higher percentage of secondary students and students with low perceived socioeconomic status considered attempting suicide compared to elementary students and students with high perceived socioeconomic status, respectively (Table 16).

In 2014/15, 7.0% (95% CI: 4.7, 10.5) of students in our region reported that they had attempted suicide, a significantly higher percentage compared to students in other northern regions (2.7%; 95% CI: 1.7, 4.3) and Ontario (3.0%; 95% CI: 2.2, 3.9).

Table 15. Percentage (95% CI) of Students Who Seriously Considered Attempting Suicide in the Previous 12 Months, by Gender and Region, 2010/11 & 2014/15 Combined

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	8.1 ^E (4.8, 13.4)	8.2 ^E (5.4, 12.4)	7.6 (6.6, 8.7)
Females	U	13.2 (9.4, 18.3)	15.2 ‡ (13.7, 16.8)

‡ Estimate is significantly different from males in the same region

^E Interpret with caution; the estimate is associated with high sampling variability

U - Estimate for combined sample unavailable as estimate changed significantly between 2010/11 & 2014/15 school years

Table 16. Percentage (95% CI) of Students Who Seriously Considered Attempting Suicide in the Previous 12 Months, by Grade Level and Region, 2010/11 & 2014/15 Combined

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	10.0 ^E (5.8, 16.8)	9.0 ^E (5.7, 13.8)	7.9 (6.2, 10.1)
Grades 9 - 12	11.7 (8.6, 15.7)	11.3 ^E (7.8, 16.2)	12.5 ‡ (11.5, 13.7)

‡ Estimate is significantly different from students in grades 7 & 8 in the same region

E Interpret with caution; the estimate is associated with high sampling variability

Table 17. Percentage (95% CI) of Students Who Seriously Considered Attempting Suicide in the Previous 12 Months, by Aboriginal Identity & Region, 2010/11 & 2014/15 Combined

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
Aboriginal	21.5 ^E (12.6, 34.3)	17.4 ^E (9.4, 30.0)	16.0 ^E (10.9, 22.8)
Non-Aboriginal	10.1 (7.9, 12.9)	10.0 (7.4, 13.4)	11.2 (10.2, 12.2)

E Interpret with caution; the estimate is associated with high sampling variability

Table 18. Percentage (95% CI) of Students Who Seriously Considered Attempting Suicide in the Previous 12 Months, by Perceived Socioeconomic Status and Region, 2010/11 & 2014/15 Combined

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
Low SES	16.1 ^E (9.9, 25.1)	15.7 ^E (10.6, 22.6)	16.5 ‡ (14.4, 18.8)
High SES	9.2 (6.6, 12.6)	8.3 (6.0, 11.6)	9.1 (8.0, 10.4)

‡ Estimate is significantly different from students with high perceived socioeconomic status, in the same region

E Interpret with caution; the estimate is associated with high sampling variability