

# Healthy Eating 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 13.1 (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 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.

## Go to Bed or School Hungry

For the first time, students were asked how often they went to bed or school hungry because there was not enough food at home. About three in every 100 students between grades 7 and 12 in our region reported often or always going to bed hungry in the 2014/15 school year (Table 1). This estimate did not vary significantly between regions, or between elementary (grade 7 & 8) versus secondary (grades 9 to 12) students (Tables 1 & 2).

About one in every five students reported that they sometimes went to bed or school hungry, similar to other regions (Table 1). This estimate did not vary by grade level, sex, or perceived household socioeconomic status (Tables 3 through 5). However, a significantly lower percentage of students with low SES in our region reported sometimes going to school or bed hungry (15%) compared to students in low SES in other northern regions (29%) and Ontario (26%; Table 5).

Table 1. Percentage (95% CI) of Students, by How Often They Went to Bed or School Hungry, by Region, 2014/15

Frequency of Going to Bed or School Hungry	NBPSDHU Region	Other Northern Regions	Ontario
Sometimes	17.7 <sup>E</sup> (11.9-25.6)	19.0 <sup>E</sup> (14.8-24.1)	18.9 (17.4-20.5)
Often or Always	3.3 <sup>E</sup> (2.0-5.2)	4.4 <sup>E</sup> (2.8-7.1)	4.6 (3.9-5.5)

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

Table 2. Percentage (95% CI) of Students Who Reported They Often or Always Went to Bed or School Hungry, by Grade Level and Region, 2014/15

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7-8	3.0 <sup>E</sup> (1.8-4.9)	F	3.9 <sup>E</sup> (2.7-5.5)
Grade 9-12	3.4 <sup>E</sup> (1.5-7.6)	5.2 <sup>E</sup> (3.0-9.1)	4.9 (4.0-6.0)

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

F Estimate suppressed; too unreliable to be released

Table 3. Percentage (95% CI) of Students Who Reported They Sometimes Went to Bed or School Hungry, by Gender and Region, 2014/15

Gender	NBPSDHU Region	Other Northern Regions	Ontario
<b>Males</b>	12.2 <sup>E</sup> (6.8-21.0)	20.7 (15.1-27.8)	19.4 (17.3-21.6)
<b>Females</b>	23.7 <sup>E</sup> (16.2-33.3)	17.3 (13.4-22.0)	18.4 (16.5-20.5)

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

Table 4. Percentage (95% CI) of Students Who Reported They Sometimes Went to Bed or School Hungry, by Grade Level and Region, 2014/15

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
<b>Grades 7 - 8</b>	22.8 (16.1-31.3)	25.9 <sup>E</sup> (15.5-40.0)	22.1 (18.2-26.5)
<b>Grades 9 - 12</b>	15.6 <sup>E</sup> (6.9-31.5)	16.3 <sup>E</sup> (12.1-21.7)	17.8 (16.3-19.3)

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

Table 5. Percentage (95% CI) of Students Who Reported They Sometimes Went to Bed or School Hungry, by Perceived Socioeconomic Status and Region, 2014/15

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
<b>Low SES</b>	15.6 <sup>E</sup> Δ * (10.6-22.2)	29.4 (22.8-36.9)	25.7 (23.5-27.9)
<b>High SES</b>	18.4 <sup>E</sup> (11.1-29.0)	14.1 (9.9-19.7)	15.6 (13.7-17.7)

\* Estimate is significantly different from provincial estimate

Δ Estimate is significantly different from estimate for other northern regions

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

## Breakfast

Overall, about 13.1% (95% CI: 8.6-19.4) of students within our region reported not eating breakfast in the previous five school days in 2014/15, similar to the percentage in other northern regions (19.2%; 95% CI: 14.7-24.6) & Ontario (16.2%; 95% CI: 14.7-17.7). This percentage has not changed between 2010/11 and 2014/15 school years in any of the three regions.

Data from 2010/11 & 2014/15 was combined to analyze eating breakfast by subgroups. The percentage of students that did not eat breakfast in the previous five school days did not vary significantly by gender, grade level, aboriginal identity, perceived socioeconomic status, or paternal education within our region (Tables 6, 7, 8, 9, & 11). However, about three times the percentage of students whose mother had not completed high school reported not eating breakfast (34%) compared to students whose mother completed university (10%) within our region (Tables 10).

Table 6. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Gender & Region, 2010/11 & 2014/15 Combined

Gender	NBPSDHU Region	Other Northern Regions	Ontario
<b>Males</b>	14.5 (11.5, 18.0)	17.4 (13.8-21.8)	14.8 (13.6-16.1)
<b>Females</b>	13.5 (10.5-17.2)	18.8 (16.0-21.9)	17.3 (16.1-18.6)

‡ Estimate is significantly different from females in the same region

Table 7. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Grade Level & Region, 2010/11 & 2014/15 Combined

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
<b>Grades 7 - 8</b>	14.5 (11.9-17.5)	15.1 (12.1-18.7)	11.3 (9.7-13.1)
<b>Grades 9 - 12</b>	13.9 (10.6-17.9)	19.3 (15.5-23.7)	17.7‡ (16.7-18.8)

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

Table 8. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Aboriginal Identity & Region, 2010/11 & 2014/15 Combined

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
<b>Aboriginal</b>	15.3 (9.0-24.8)	24.1 (17.9-31.6)	16.3 (12.2-21.3)
<b>Non-Aboriginal</b>	13.7 (10.7-17.3)	17.6 (14.6-21.0)	16.1 (15.2-17.0)

Table 9. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Perceived Socioeconomic Status & Region, 2010/11 & 2014/15 Combined

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
<b>Low SES</b>	18.3 (13.3-24.7)	23.0 (17.1-30.2)	20.3‡ (18.3-22.5)
<b>High SES</b>	11.4 (8.7-14.8)	16.1 (13.5-19.0)	14.0 (13.1-14.9)

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

Table 10. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Highest Level of Maternal Education Completed & Region, 2010/11 & 2014/15 Combined

Highest level of maternal education completed	NBPSDHU Region	Other Northern Regions	Ontario
University	10.3 <sup>E</sup> (6.6-15.7)	15.1 (11.4-19.6)	11.4 (10.2-12.8)
College	13.8 <sup>E</sup> (9.8-19.2)	16.4 (12.8-20.7)	17.3 <sup>‡</sup> (15.6-19.0)
High school	15.2 (9.3-23.8)	32.5 <sup>E‡</sup> (21.3-46.1)	20.3 <sup>‡</sup> (17.8-23.1)
Less than high school	33.7 <sup>E‡</sup> (19.0-52.3)	22.3 (13.8-33.9)	U

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

‡ Estimate is significantly different from students those whose mothers had completed a university education or higher level of education, in the same region

Table 11. Percentage (95% CI) of Students Who Reported Not Eating Breakfast in the Past Five School Days, by Highest Level of Paternal Education Completed & Region, 2010/11 & 2014/15 Combined

Highest level of paternal education completed	NBPSDHU Region	Other Northern Regions	Ontario
University	U	11.4 (8.2-15.6)	12.0 (10.9-13.3)
College	13.5 <sup>E</sup> (7.8-22.4)	20.8 (16.1-26.5)	15.9 <sup>‡</sup> (14.1-17.8)
High school	13.7 <sup>E</sup> (8.6-21.1)	19.7 <sup>E</sup> (13.9-27.1)	17.1 <sup>‡</sup> (15.1-19.4)
Less than high school	16.6 <sup>E</sup> (8.6-29.7)	23.5 <sup>E‡</sup> (15.7-33.7)	23.5 <sup>‡</sup> (20.2-27.1)

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

‡ Estimate is significantly different from students those whose fathers had completed a university education or higher, in the same region

\* Estimate is significantly different from provincial estimate

## Fruits & Vegetables

On an average date, about one in five students in our region ate no fruits/vegetables or only one fruit/vegetable, similar to the percentage for other northern regions and Ontario (Table 12). This percentage did not vary significantly by gender, grade level, aboriginal identity, or perceived SES in our region (Tables 13 through 16). In Ontario, the percentage of students who ate no fruits/vegetables or only ate them once on an average day was higher among males versus females, secondary students versus elementary students, and students with low perceived SES versus high SES (Tables 13, 14, & 16).

Table 12. Percentage (95% CI) of Students by Fruits and Vegetables Consumed on an Average Day & Region, 2014/15

Frequency of Consumption	NBPSDHU Region	Other Northern Regions	Ontario
None or one time a day	22.9 (17.4-29.5)	19.6 (16.2-23.5)	20.9 (19.1-22.8)
Two times a day	25.4 (20.6-30.9)	28.2 (24.1-32.6)	26.4 (25-27.8)
Three times a day	23.3 (18.3-29.1)	22.9 (20.0-26.1)	24.3 (23.0-25.7)
Four times a day	13.2 (9.9-17.4)	14.3 (11.3-17.8)	12.9 (11.8-14.1)
Five times a day	7.0 (4.3-11.1)	5.6 (3.8-8.2)	6.3 (5.6-7.2)
Six or more times a day	8.2 (6.0-11.0)	9.5 (7.5-12.0)	9.2 (8.2-10.2)

Table 13. Combined Percentage (95% CI) of Students Who Reported Eating Fruits & Vegetables Once Per Day and Not at All on an Average Day, by Gender & Region, 2010/11 & 2014/15 Combined

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	26.0 (17.9-36.1)	24.8‡ (20.2-30.2)	23.2‡ (21.0-25.5)
Females	19.6 (13.8-27.1)	14.1 (10.1-19.3)	18.5 (16.6-20.5)

‡ Estimate is significantly different from females in the same region

Table 14. Combined Percentage (95% CI) of Students Who Reported Eating Fruits & Vegetables Once Per Day and Not at All on an Average Day, by Grade Level & Region, 2010/11 & 2014/15 Combined

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	17.2 (13.5-21.8)	11.9 <sup>E</sup> (7.7-17.9)	15.1 (11.1-20.4)
Grades 9 - 12	25.3 (16.1-37.3)	22.7‡ (18.2-27.8)	23.0‡ (21.2-24.9)

‡ 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 15. Combined Percentage (95% CI) of Students Who Reported Eating Fruits & Vegetables Once Per Day and Not at All on an Average Day, by Aboriginal Identity & Region, 2010/11 & 2014/15 Combined

Aboriginal identity	NBPSDHU Region	Other Northern Regions	Ontario
<b>Aboriginal</b>	24.9 <sup>E</sup> (14.7-39.1)	22.4 <sup>E</sup> (14.6-32.9)	23.9 (17.7-31.5)
<b>Non-Aboriginal</b>	22.7 (16.3-30.8)	19.1 (15.2-23.8)	20.8 (19.0-22.8)

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

Table 16. Combined Percentage (95% CI) of Students Who Reported Eating Fruits & Vegetables Once Per Day and Not at All on an Average Day, by Perceived Socioeconomic Status & Region, 2010/11 & 2014/15 Combined

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
<b>Low SES</b>	31.8 <sup>E</sup> (20.7-45.4)	22.1 (16.1-29.5)	26.4‡ (23.1-29.9)
<b>High SES</b>	17.8 <sup>E</sup> (12.1-25.3)	18.8 (14.2-24.5)	18.1 (16.4-19.8)

‡ 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

## Pop, Sport Drink, Sweetened Tea, or Coffee

In 2014/15, about one in ten students in our region drank pop or other drinks once each day during the previous seven days, significantly higher compared to the percentages for other northern regions (6%) and Ontario (5%; Table 17). About one in three students in our region drank pop, sports drinks, sweetened tea, or coffee two to four times a week (Table 17). These percentages have not changed significantly since 2010/11.

About one in eight students in our region drank pop, sports drinks, sweetened tea, or coffee daily or more often in the previous seven days (16.1%; 95% CI: 11.9-21.3), similar to the percentage for other northern regions (11.1%; 95% CI: 8.4-14.5) and Ontario (10.8%; 95% CI: 9.7-12.1). About 19% of male students drank pop and other drinks daily or more often in our region, significantly higher compared to the percentage for Ontario males (13%; Table 18). In Ontario, significantly higher percentages of males drank pop or other drinks daily or more often compared to females, and significantly higher percentages of secondary students (grades 9 – 12) drank pop daily or more often compared to elementary students (grades 7 – 8; Tables 18 & 19). Consumption of pop, sports drinks, sweetened tea or coffee did not vary by perceived socioeconomic status in any of the three regions (Table 20).

Table 17. Percentage (95% CI) of Students by the Number of Times Students Consumed Pop, Sports Drinks, Sweetened Tea, or Coffee in the Past Seven Days & Region, 2014/15

Frequency of Consumption	NBPSDHU Region	Other Northern Regions	Ontario
Did not drink any drink	20.2 (15.8-25.4)	17.2 (14.6-20.1)	18.9 (17.4-20.5)
One time	23.9 (18.4-30.4)	25.4 (21.9-29.3)	24.5 (23-25.9)
Two to four times	29.5 (23.9-35.8)	38.8 (35.3-42.5)	37 (35.4-38.7)
Five to six times	10.4 (5.3-19.2)	7.4 (5.8-9.4)	8.8 (8.1-9.6)
Once each day	10.6* (7.1-15.4)	6.2 (4.1-9.2)	6.0 (5.2-6.9)
More than once each day	5.5 (2.8-10.5)	4.9 (3.3-7.2)	4.8 (4.1-5.7)

\* Estimate is significantly different from provincial estimate

Table 18. Percentage (95% CI) of Students Who Consumed Pop, Sports Drinks, Sweetened Tea, or Coffee Daily or More Often in the Past Seven Days, by Gender & Region, 2010/11 & 2014/15 Combined

Gender	NBPSDHU Region	Other Northern Regions	Ontario
Males	18.7* (14.5-23.8)	15.6‡ (11.4-20.9)	12.7‡ (11-14.5)
Females	13.2 <sup>E</sup> (8.0-21.1)	6.3 <sup>E</sup> (3.7-10.8)	8.8 (7.5-10.4)

\* Estimate is significantly different from provincial estimate

‡ Estimate is significantly different from females in the same region

<sup>E</sup> Interpret with caution; the estimate is associated with high sampling variability

Table 19. Percentage (95% CI) of Students Who Consumed Pop, Sports Drinks, Sweetened Tea, or Coffee Daily or More Often in the Past Seven Days, by Grade Level & Region, 2010/11 & 2014/15 Combined

Grade Level	NBPSDHU Region	Other Northern Regions	Ontario
Grades 7 - 8	13.6 (9.7-18.9)	6.6 (3.2-13.2)	7.8 (5.8-10.4)
Grades 9 - 12	17.0 (10.7-26)	12.9 (9.3-17.5)	11.9‡ (10.6-13.4)

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



Table 20. Percentage (95% CI) of Students Who Consumed Pop, Sports Drinks, Sweetened Tea, or Coffee Daily or More Often in the Past Seven Days, by Perceived Socioeconomic Status & Region, 2010/11 & 2014/15 Combined

Perceived Socioeconomic Status (SES)	NBPSDHU Region	Other Northern Regions	Ontario
Low SES	18.2 (12.8-25.3)	11.9 (7.9-17.4)	12.8 (10.6-15.4)
High SES	15.2 <sup>E</sup> (8.5-25.5)	10.9 (7.4-15.8)	9.7 (8.5-11.0)

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