

STRESS

Life Stress:

Age-adjusted percentage of the population aged 18 years or older who reported that most days in their life were quite a bit or extremely stressful.

Work Stress:

Age-adjusted percentage of the population aged 20 to 64 years who reported that most days at work were quite a bit or extremely stressful in the past 12 months.

North East LHIN region:

The North East Local Health Integration Network (NE LHIN) region boundaries normally include the North Bay Parry Sound District Health Unit (NBPSDHU) Region. However, for comparison purposes the NE LHIN region is defined as the whole of the region excluding the NBPSDHU region.

Data sources:

Canadian Community Health Survey 2007/08, 2009/10, 2011/12, 2013/14, Statistics Canada, Share File, Ontario Ministry of Health and Long-Term Care.

Rate calculations:

Crude rates were age-standardized using the Direct Method and standard 2011 Canadian population.

Data analysis for Canadian Community Health Survey (CCHS) data:

The confidence intervals and variance were measured using the bootstrapping method, calculated with STATA IC/14.2 (2014).

Interpretation of a significant difference:

A statistic interpreted as 'significantly different' from another is an estimate found to be statistically meaningful; the difference is unlikely due to chance. Error bars noted in figures within this report illustrate 95% confidence intervals. If there is no overlap in range between confidence intervals, the difference can be described as statistically significant.

Overall

In 2013/14, about one in every five adults in the age-standardized population in the NBPSDHU region reported most of their days as quite a bit or extremely stressful, similar to the percentages for the North East LHIN region and Ontario populations (Table 1).

In all years between 2007 and 2014, about one in five adults aged 20 to 64 years old in our region reported most days at work being quite a bit or extremely stressful in the past 12 months, comparable to the percentages for the North East LHIN and Ontario populations (Table 2).

Table 1. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region, 2007 – 2014

Time period	NBPSDHU Region	North East LHIN Region	Ontario
2007/08	21.8 (17.1, 27.3)	20.2 (17.8, 22.7)	24.0 (23.2, 24.9)
2009/10	33.6* ^Δ (27.8, 40.0)	21.8 (18.9, 24.9)	26.0 (25.0, 26.9)
2011/12	23.7* ^Δ (18.3, 30.1)	23.0 (19.5, 27.0)	25.0 (24.0, 26.0)
2013/14	18.9 (13.6, 25.6)	24.9 (21.5, 28.5)	24.8 (23.7, 25.8)

^Δ Estimate is significantly different from the North East LHIN estimate

* Estimate is significantly different from provincial estimate

Table 2. Age-Standardized Percentage (95% CI) of Individuals Aged 20 to 64 Years Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful in the Past 12 Months, By Region, 2007 – 2014

Time period	NBPSDHU Region	North East LHIN Region	Ontario
2007/08	20.0 (15.9, 24.9)	23.1 (20.6, 25.8)	23.9 (23.1, 24.8)
2009/10	22.9 (18.2, 28.4)	25.2 (22.2, 28.4)	24.7 (23.8, 25.7)
2011/12	19.5 (14.8, 25.3)	20.3 (17.4, 23.6)	22.8 (21.8, 23.7)
2013/14	19.2 (14.2, 25.5)	22.4 (19.4, 25.9)	23.8 (22.7, 24.8)

Stress: Gender

Data from 2007 to 2014 was combined to analyze life and work stress by gender. In Ontario, and the North East LHIN region, about 4% more of the female population felt their life was quite a bit or extremely stressful compared to males in Ontario (Table 3). The age-standardized percentage of the adult population aged 20 to 64 years who reported most of their work days as quite a bit or extremely stress was similar among males and females in our region and the North East LHIN region (Table 4).

Table 3. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region & Gender, 2007 – 2014 Combined

Gender	NBPSDHU Region	North East LHIN Region	Ontario
Male (ref.)	22.7 (18.6, 27.4)	20.1 (18, 22.5)	23.0 (22.3, 23.7)
Female	U	24.7‡ (22.5, 27.0)	26.9‡ (26.2, 27.5)

‡ Estimate is significantly different from reference group

U -Estimate for combined sample unavailable as estimate changed significantly between time periods

Table 4. Age-Standardized Percentage (95% CI) of Individuals Aged 20 to 64 Years Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful in the Past 12 Months, By Region & Gender, 2007 – 2014 Combined

Gender	NBPSDHU Region	North East LHIN Region	Ontario
Male (ref.)	21.1 (17.4, 25.4)	22.6 (20.4, 25.0)	U
Female	19.9 (16.6, 23.6)	22.9 (20.9, 25.0)	23.9 (23.2, 24.6)

U -Estimate for combined sample unavailable as estimate changed significantly between time periods

Stress: Age Group

Data from 2007 to 2014 was combined to analyze life and work stress by age groups. The age-standardized percentage of the adult population who found their life quite a bit or extremely stressful did not vary significantly by age group in our region (Table 5). In Ontario, life stress increased significantly among those aged 25 to 44 years, and 45 to 64 years compared to 18 to 24 year olds. Work stress did not vary by age group within our region (Table 6). In Ontario, a significantly higher percentage of the population aged 35 to 49 years reported work stress compared to 18 to 34 year olds.

Table 5. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region & Age Group, 2007 – 2014 Combined

Age Group (Years)	NBPSDHU Region	North East LHIN Region	Ontario
18-24 (ref.)	20.3 ^E (13.7, 29.1)	20.9 (17.1, 25.2)	20.5 (19.4, 21.7)
25-44	26.1 (21.7, 31.1)	24.3 (21.8, 27.1)	25.5‡ (24.8, 26.2)
45-64	25.2 (20.6, 30.3)	22.2* (19.8, 24.7)	27.9‡ (27.0, 28.8)
65 or older	13.1 ^E (7.7, 21.4)	12.2‡ (9.7, 15.1)	13.6‡ (12.6, 14.6)

Adjusted Household Income:

The population's household income adjusted for family size, divided into three equally sized groups (lowest income, middle income, and highest income). Household income is divided by the squared number of persons in that household, for each person. For example, lowest income represents the one third of households with the lowest income per household size and the third tertile represents the one third of households with the highest income per household size

* Estimate is significantly different from provincial estimate

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

‡ Estimate is significantly different from reference group

Table 6. Age-Standardized Percentage (95% CI) of Individuals Aged 20 to 64 Years Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful in the Past 12 Months, By Region & Age Group, 2007 – 2014 Combined

Age Group (Years)	NBPSDHU Region	North East LHIN Region	Ontario
18-34 (ref.)	19.4 (14.9, 24.8)	22.2 (19.6, 25.1)	21.0 (20.3, 21.8)
35-49	23.1 (18.4, 28.6)	29.7‡ (26.7, 33)	28.3‡ (27.4, 29.2)
50-64	19.5 (15.9, 23.6)	17.1* (15.2, 19.2)	22.6 (21.8, 23.4)

‡ Estimate is significantly different from reference group

* Estimate is significantly different from provincial estimate

Stress: Adjusted Household Income

Data from 2007 to 2014 was combined to analyze life and work stress by adjusted household income. Life stress did not vary significantly by adjusted household income in our region (Table 7). In our region and the North East LHIN region, a significantly lower percentage of those in low income households experienced work stress compared to those in high income households (Table 8).

Table 7. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region & Adjusted Household Income Level, 2007 – 2014 Combined

Income Level	NBPSDHU Region	North East LHIN Region	Ontario
Low income	26.0 (21.0, 31.7)	27.3‡ (24.1, 30.8)	27.0 (26.0, 28.0)
Mid income	22.8 (18.6, 27.6)	19.4 (16.9, 22.2)	22.5‡ (21.8, 23.3)
High income (ref.)	23.3 (18.4, 29.1)	21.1* (18.8, 23.7)	25.6 (24.8, 26.4)

‡ Estimate is significantly different from reference group

Table 8. Age-Standardized Percentage (95% CI) of Individuals Aged 20 to 64 Years Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful in the Past 12 Months, By Region & Adjusted Household Income Level, 2007 – 2014 Combined

Income Level	NBPSDHU Region	North East LHIN Region	Ontario
Low income	13.2‡ (9.5, 17.9)	15.5 ‡ (13.1, 18.2)	17.1 (16.3, 18.0)
Mid income	23.8 (19.1, 29.3)	22.3‡ (19.9, 24.9)	24.1 (23.3, 24.9)
High income (ref.)	25.8 (21.0, 31.2)	28.5 (25.9, 31.3)	U

U - Estimate for combined sample unavailable as estimate changed significantly between time periods

‡ Estimate is significantly different from reference group

Stress: Education

Data from 2011 to 2014 was combined to analyze life and work stress health by highest level of education completed. Life stress did not vary significantly by education level in our region, or in the North East LHIN region (Table 9). In Ontario, a significantly lower percentage of those who completed high school experienced life stress compared to those with a trade/college/university education or higher. About a quarter of the population aged 20 to 64 years experienced work stress if they had a trade education or higher in all three regions (Table 10). A significantly lower percentage of the population that completed high school experienced work stress in our region compared to the same population in Ontario. A significantly higher percentage of the population who completed a trade education or higher experienced work stress compared to those who completed high school or completed less than a high school education in Ontario.

Table 9. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region & Highest Level of Education Completed, 2011 – 2014 Combined

Education	NBPSDHU Region	North East LHIN Region	Ontario
Less than high school	31.0 ^E (19.0, 46.3)	28.4 (20.8, 37.4)	24.3 (21.7, 27.1)
Completed high school	15.7 ^E (10.8, 22.3)	18.3 (13.2, 24.8)	22.3‡ (20.6, 24.0)
Trade/Apprenticeship/ College/University or higher (ref.)	20.5 (15.8, 26.1)	25.0 (21.9, 28.4)	25.6 (24.7, 26.4)

‡ Estimate is significantly different from reference group

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

Table 10. Age-Standardized Percentage (95% CI) of Individuals Aged 20 to 64 Years Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful in the Past 12 Months, By Region & Highest Level of Education Completed, 2011 – 2014 Combined

Education	NBPSDHU Region	North East LHIN Region	Ontario
Less than high school	F	11.6 ^E ‡ (7.6, 17.2)	13.4‡ (11.3, 16.0)
Completed high school	10.0 ^{E‡*} (6.5, 15.2)	14.2‡ (10.6, 18.8)	19.4‡ (17.9, 21.0)
Trade/ Apprenticeship/ College/University or higher (ref.)	24.9 (19.8, 30.7)	24.2 (21.5, 27.1)	25.5 (24.6, 26.4)

‡ Estimate is significantly different from reference group

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

F – Estimate suppressed; too unreliable to be released
 * Estimate is significantly different from provincial estimate

Stress: Aboriginal identity

Data from 2011 to 2014 was combined to analyze life and work stress by Aboriginal identity. Life and work stress did not vary significantly by Aboriginal identity in the North East LHIN region or Ontario (Tables 11 and 12).

Table 11. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days in Their Life Were Quite a Bit or Extremely Stressful, By Region & Aboriginal Identity, 2011 – 2014 Combined

Aboriginal Identity	NBPSDHU Region	North East LHIN Region	Ontario
Identified as Aboriginal	U	21.5 ^E (15.2, 29.4)	28.2 (24.9, 31.8)
Did not identify as Aboriginal (ref.)	19.6 (15.6, 24.4)	24.3 (21.6, 27.3)	24.7 (24.0, 25.5)

E – Interpret with caution; the estimate is associated with high sampling variability
 U - Estimate for combined sample unavailable as estimate changed significantly between time periods

Table 12. Age-Standardized Percentage (95% CI) of Individuals Aged 18 Years or Older Who Reported That Most Days at Work Were Quite a Bit or Extremely Stressful, By Region & Aboriginal Identity, 2011 – 2014 Combined

Aboriginal Identity	NBPSDHU Region	North East LHIN Region	Ontario
Identified as Aboriginal	F	17.1 ^E (12.0, 23.8)	22.7 (19.6, 26.1)
Did not identify as Aboriginal (ref.)	19.4 (15.6, 23.8)	21.7 (19.4, 24.3)	23.4 (22.6, 24.1)

E – Interpret with caution; the estimate is associated with high sampling variability
 F – Estimate suppressed; too unreliable to be released