

# Depression in Nova Scotia

April 2007

The Canadian Community Health Survey (CCHS) is a series of health surveys administered by Statistics Canada since 2001. The purpose of CCHS is to provide regular and timely cross-sectional estimates of health determinants, health status, and health system utilization at both provincial and sub-provincial levels. This will assist provinces and District Health Authorities in planning, implementing and evaluating health promotion policies, programs, and services.

Data from this installment of the CCHS, Cycle 3.1, was collected between January and December of 2005, and released in June, 2006. This survey cycle collected information from about 130,000 individuals across Canada, including 5,000 Nova Scotians. The target population included household residents 12 years and older in all provinces and territories, with the exception of populations on First Nation Reserves, Canadian Forces Bases, and in some remote areas.

This monograph summarizes information from Cycle 3.1 to provide estimates on depression and related factors. It is a follow-up to the previous reports on depression from Cycle 1.1 and Cycle 1.2. Data for the next CCHS general cycle (Cycle 4.1) will be collected in 2007 and released in 2008.

## Highlights

- Eight percent of Nova Scotians aged 12 and over reported being depressed.
- Women were more likely to report being depressed than their male counterparts.
- Depression was least prevalent among Nova Scotia's seniors (age 65 or older), and most prevalent among those aged 20 to 44.
- Nova Scotians in lower income groups were more likely to report being depressed.
- Depression was more prevalent among those with poorer physical health status.
- Depression was found to be more prevalent among smokers, alcohol users, and people with poorer coping skills.
- Nova Scotians exhibiting higher levels of stress and sleep disturbance were more likely to report being depressed.
- Depression was more prevalent among Nova Scotians who reported lower levels of life satisfaction and sense of belonging.

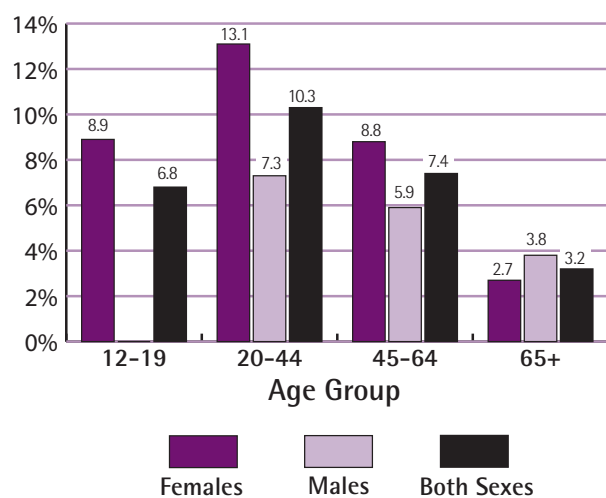
## Prevalence of Depression

Respondents were asked if there had been a time in the past 12 months when they felt sad or lost interest in things for two or more consecutive weeks. These included normal periods of sadness as well as serious depression. A positive response to any of these questions was considered a symptom of depression and was used to derive a short form score to assess the depression level for respondents. This short form score was then used to calculate “probability of caseness”, which indicates the probability that the respondent would have been diagnosed as having experienced a major depression episode (MDE), if they had completed the Long-Form Composite International Diagnostic Interview (CIDI).<sup>1</sup>

According to the derived probability of caseness, 7.8% of Nova Scotians 12 years and over were identified as being depressed. This number was significantly higher than the national rate of 5.2%.

The prevalence of depression was significantly higher among women (9.5%) than among men (6.0%). The prevalence of depression also varied across different age groups (Figure 1). Nova Scotians aged 65 years and over reported the lowest rate of depression (3.2%); and those aged 20 to 44 reported the highest (10.3%). The depression rate for males aged between 12 and 19 could not be reported according to Statistics Canada Guidelines<sup>2</sup>.

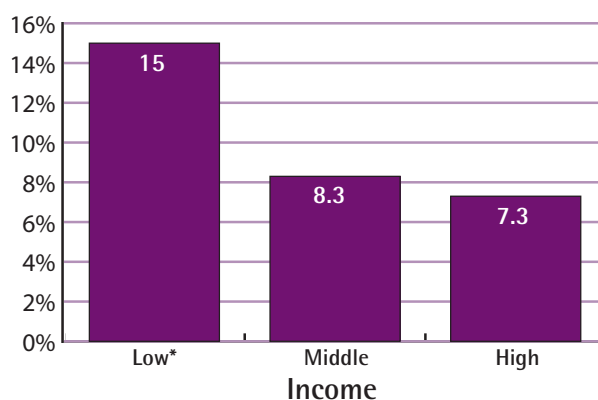
**FIGURE 1 Percent Self-reported Depression by Age and Sex, Nova Scotia, 2005**



Estimate could not be reported for males in the 12–19 age group.

Generally, depression is more prevalent among Nova Scotians with lower incomes<sup>3</sup> (Figure 2). Fifteen percent of those in the low income group (including lowest income and lower middle income) reported being depressed compared to only 7.3% of those in the high income group (including upper middle income and highest income). The prevalence of depression among the low income group was significantly higher than both the middle and high income groups.

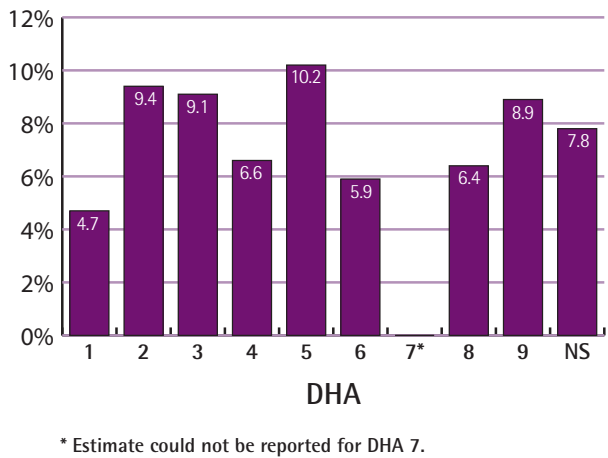
**FIGURE 2 Percent Self-reported Depression by Income, Nova Scotia, 2005**



\* Significantly different from Middle and High.

No correlation was found between depression and education levels. Respondents reported very similar rates of depression across different education levels. Geographically, depression rates varied across the nine District Health Authorities (DHAs). South Shore DHA showed the lowest rate of depression at 4.7%, and Cumberland DHA showed the highest at 10.2%. The depression rate for the Guysborough Antigonish Strait Health Authority (GASHA) could not be reported due to high sampling variation, in accordance with Statistics Canada guidelines<sup>2</sup>. No statistically significant differences were reported among the DHAs, or between any DHA and the province (Figure 3).

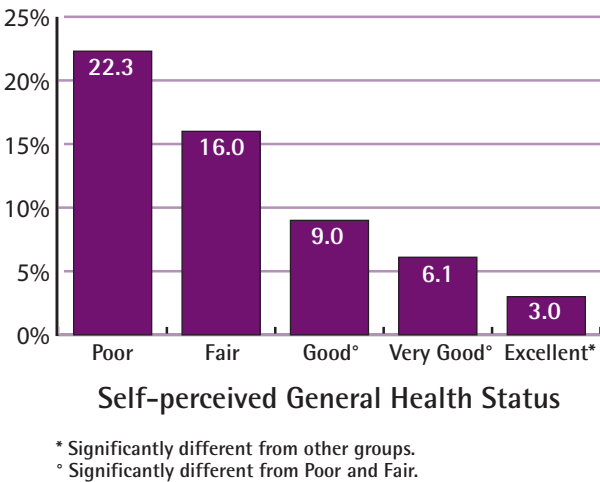
**FIGURE 3 Percent Self-reported Depression by DHA, Nova Scotia 2005**



## Depression and General Health

There appears to be a strong relationship between depression and one's self-perceived overall health status (Figure 4). Nova Scotians who rated their overall health as being "excellent" were significantly less likely to report depression (3.0%) than those who reported having "very good" (6.1%), "good" (9.0%), "fair" (16.0%), and "poor" (22.3%) health.

**FIGURE 4 Percent Self-reported Depression by Self-perceived General Health, Nova Scotia, 2005**

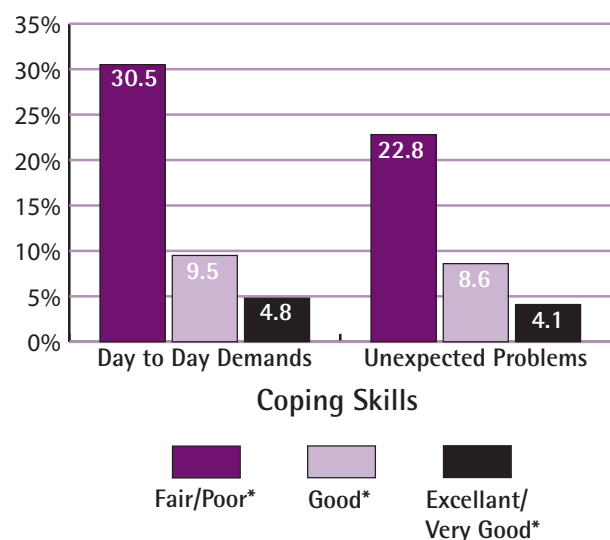


## Depression and Coping Skills/ Personal Health Practice

### Handling demands/problems

Respondents were asked about their self-rated ability to handle day-to-day demands and unexpected problems. Substantially higher prevalence of depression was found among Nova Scotians who self-reported a poorer ability in handling these demands and problems. About thirty percent (30.5%) of those who rated their ability to handle day-to-day demands as "poor" or "fair" reported being depressed, significantly higher than those who rated themselves as "good" (9.5%) or "very good or excellent" (4.8%). Similarly, those who rated themselves as "poor" or "fair" with regards to their ability to handle unexpected problems were significantly more likely to report depression (22.8%) than those who rated themselves as "good" (8.6%) or "very good or excellent" (4.1%) (Figure 5).

**FIGURE 5 Percent Self-reported Depression by Self-reported Coping Skills, Nova Scotia, 2005**



\* Significantly different from one another.

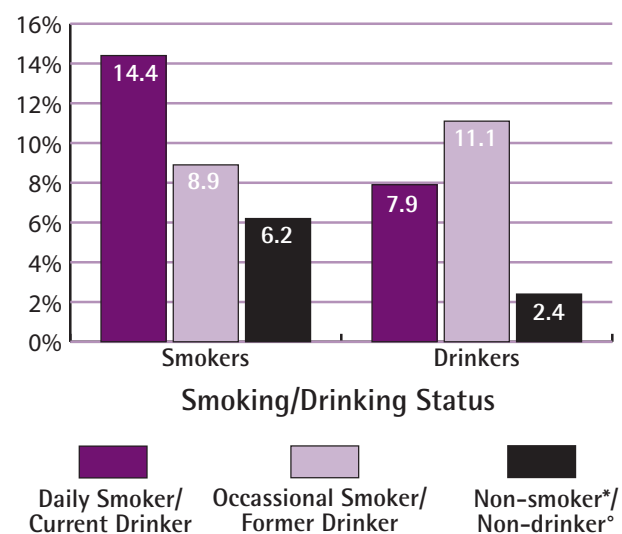
## Smoking

Depression was found to be associated with smoking. Daily smokers in Nova Scotia reported a significantly higher rate of depression (14.4%) than non-smokers (6.2%). Occasional smokers also reported a higher depression rate (8.9%) than non-smokers, but the difference was not statistically significant (Figure 6).

## Alcohol use

A relationship between depression and alcohol use was also found. Depression was more prevalent among former drinkers (11.1%), followed by current drinkers (7.9%). Those who have never drunk alcohol reported a depression rate at only 2.4%, significantly lower than both current and former drinkers (Figure 6).

**FIGURE 6 Percent Self-reported Depression by Smoking/Drinking Status, Nova Scotia, 2005**



\* Significantly different from daily smokers.

° Significantly different from current drinkers and former drinkers

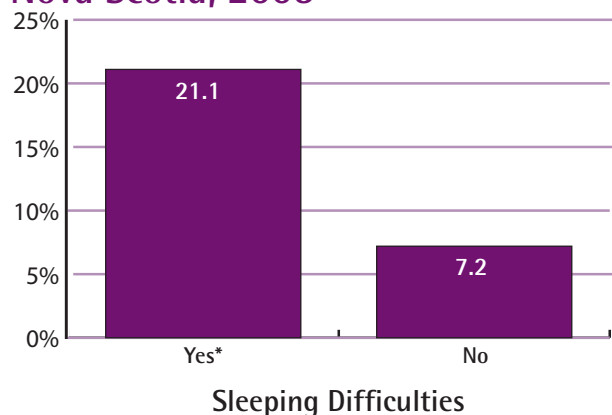
## Depression and Other Mental Health Indicators

Depression often occurs in conjunction with other mental health disorders. Associations between depression and mental health conditions such as sleeping disturbance, stress, sense of belonging to local community, and overall life satisfaction have been found among Nova Scotians in the previous CCHS cycles<sup>4</sup>. These relationships were again demonstrated in CCHS 3.1. Better recognition of these relationships can help understand and improve the overall mental health of our population.

## Sleeping problems<sup>5</sup>

Nova Scotians who reported having taken sleeping pills during the past month were significantly more likely to report being depressed (21.1%) than those who did not report taking sleeping pills (7.2%) (Figure 7). It should be noted that causality runs both ways between depression and sleeping problems. Sleeping disturbance may be one factor among others contributing to the development of depression; it is also one of the common symptoms of depression.

**FIGURE 7 Percent Self-reported Depression Among Those Who Had or Did Not Have Sleeping Difficulties, Nova Scotia, 2005**

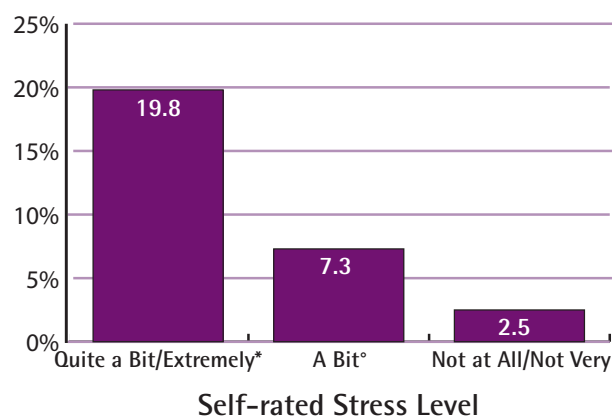


\* Significantly different from "No".

## Stress

Depression was also found to be associated with higher levels of stress. This relationship was demonstrated in this survey by the occurrence of depression across self-rated stress levels. Nova Scotians who rated themselves as being "quite a bit" or "extremely" stressed were significantly more likely to report being depressed (19.8%) than those who were only "a bit" stressed (7.3%), "not at all" or "not very" stressed (2.5%) (Figure 8).

**FIGURE 8 Percent Self-reported Depression by Self-rated Stress Level, Nova Scotia, 2005**



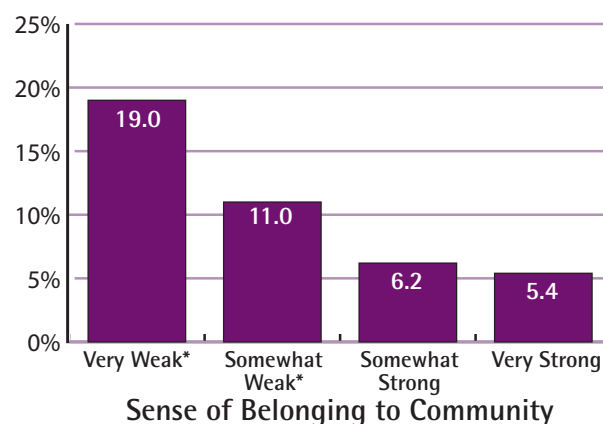
\* Significantly different from "A Bit", "Not at All/Not Very"

° Significantly different from "Not at All/Not Very".

## Sense of belonging

Among Nova Scotians who indicated that they had a "very strong" sense of belonging to their local community, 5.4% reported depression. In contrast, the prevalence of depression was 19.0% among those who reported "very weak" sense of belonging, which was also significantly higher compared to those who reported "somewhat strong" or "very strong" (Figure 9). Again, there is not enough evidence to imply the causal direction between these two.

**FIGURE 9 Percent Self-reported Depression by Sense of Belonging to Community, Nova Scotia, 2005**



\* Significantly different from "Somewhat Strong" and "Very Strong".

## Life Satisfaction

Among Nova Scotians who reported they were "satisfied or very satisfied" with their life, the prevalence of depression was 6.1%. This number was significantly lower than those who were "neither satisfied nor dissatisfied" with their life (22.9%), and those who were "dissatisfied" or "very dissatisfied" (32.7%) with their life (Figure 10).

**FIGURE 10 Percent Self-rated Depression by Satisfaction With Life in General, Nova Scotia, 2005**



\* Significantly different from "Very Satisfied/Satisfied".

## Additional Resources

This document was prepared by the Information Analysis and Reporting Section, Nova Scotia Department of Health. For additional information on the data included in this report, please contact us at (902) 424-8291.

Copies of this report are available on line at <http://www.gov.ns.ca/health/reports.htm>. Click on "Canadian Community Health Survey (CCHS)" for copies of this and other reports in the series.

## Notes

1. The CIDI is a structured diagnostic instrument that was designed to produce diagnoses according to the definitions and the criteria of both Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) and the International Classification of Diseases (ICD-10).
2. Statistics Canada Guidelines for Reporting of Estimates Based on Coefficient of Variation --- Bootstrapping techniques were used to produce the point estimate, the coefficient of variation (CV), and 95% confidence intervals (CIs). The CVs and CIs were used to decide if a point estimate could be reported. Data with a CV greater than 33.3% were suppressed due to extreme sampling variability.
3. Income is measured by "Income adequacy". Based on total household income and the number of people living in the household, income adequacy classifies the total household income into 5 categories – Lowest, Lower middle, Middle, Upper middle, and Highest. For example, a household is classified as having the "lowest income" if the total household income is below \$10,000 and there are up to 4 people living in the household; or if the total household income is below \$15,000 and there are 5 or more people living in the household.
4. See "Depression in Nova Scotia – A closer look, from CCHS 1.2" (CCHS Cycle 1.2 Report 1, May 2004) at [http://www.gov.ns.ca/health/downloads/CCHS%20Depression02\\_2004.pdf](http://www.gov.ns.ca/health/downloads/CCHS%20Depression02_2004.pdf)
5. In CCHS 3.1, questions on sleeping difficulties were optional and were not answered by respondents in Nova Scotia. However, respondents were asked whether they had taken sleeping pills in the month prior to the interview. Nova Scotians who indicated that they had taken sleeping pills are used as a proxy group for those who have had sleeping problems.