Canadian Community Health Survey

topics

# Depression in Nova Scotia— A Closer Look, from CCHS 1.2

May 2004

The Canadian Community Health Survey (CCHS) is a new series of health surveys being conducted by Statistics Canada. Its purpose is to provide regular and timely cross-sectional estimates of health determinants, health status, and health system utilization for 136 health regions across the country.

This monograph is a follow-up to the previous report on depression from CCHS 1.1.

Data from the second instalment of the CCHS, Cycle 1.2, was collected between May and December of 2002, and released in November 2003. The survey collected information from about 37,000 individuals, aged15 and older, in all provinces. This second cycle of the CCHS was a smaller survey and was focussed solely on mental health and addictions issues.

Among other disorders, the CCHS 1.2 classifies respondents as meeting or failing to meet the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), criteria for a major depressive episode (see Appendix I) based upon their self-reports.

This monograph summarizes information from the CCHS 1.2 and associated factors related to the self-reported occurrence of a major depressive episode among Nova Scotians in the past 12 months. All relationships reported are correlational in nature and do not imply "cause and effect." Resolving "cause and effect" relationships pertaining to depression is beyond the scope of this report. The intent here is to simply highlight these relationships where they are found.

The examination of depression in the second cycle of the survey, CCHS 1.2, is more extensive than Cycle 1.1, with a broader examination of the symptomology of depression, its duration, frequency, severity, persistence, age of onset, physical exclusions and degree of interference. A similar treatment is given to suicide ideation in Cycle 1.2. These two sets of questions are combined to give a diagnosis of depression. In total nearly 300 questions about depression and suicide are asked in Cycle 1.2 compared to about 30 in Cycle 1.1. Consequently Cycle 1.2 is less inclusive in arriving at a diagnosis of depression than Cycle 1.1, resulting in an overall prevalence of depression in Cycle 1.2 of about half that in Cycle 1.1

NOVA SCOTIA
Department of Health

# Highlights

- The overall prevalence of self-reported depression in Nova Scotia is 4.2%.
- The prevalence of self-reported depression is higher among women (5.5%) than men (2.7%).
- Nova Scotians with self-reported depression are also more likely to report poor overall, physical, and mental health.
- Nova Scotians exhibiting high levels of self-reported stress or sleep disturbance are at higher risk for reporting depressive symptoms.
- Nova Scotians reporting symptoms characteristic of eating disorders, alcohol dependence, or a chronic condition are more likely to report being depressed.
- Nova Scotians who report being depressed are at a much higher risk for suicide ideation and attempt.

# Results

## Prevalence of Depression

The CCHS 1.2 estimates the overall prevalence of self-reported depression (major depressive episode in the past 12 months) in Nova Scotia among those respondents 15 years or older to be 4.2%. This estimate indicates that about 31,000 Nova Scotians suffered a major depressive episode in the year prior to the interview. The prevalence of self-reported depression is significantly higher among women (5.5%) than among men (2.7%).

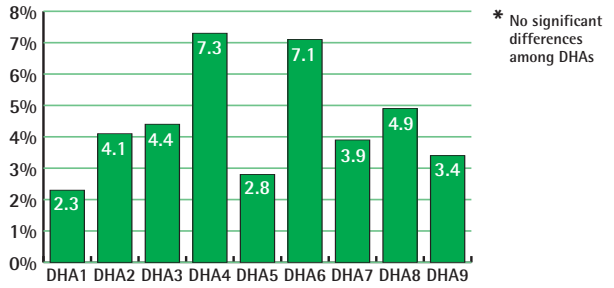
A higher percentage of Nova Scotians in the 25–64 years age group meet the criteria for a major depression at 4.9%, followed closely by the 15–24 years age group at 4.6%. The rate of self-reported depression in the 65+ age group could not be reported because the estimate was unreliable according to Statistics Canada guidelines (See Appendix II).

A significantly higher prevalence of self-reported depression occurs in the lowest income quintile compared to the highest income quintile. Slightly more than 8 per cent (8.2%) of those in the lowest income quintile report meeting all criteria for depression while only 1.4% in the highest income quintile meet all criteria.

The relationship between self-reported depression and income level does not hold for education levels. Respondents were equally likely to report meeting all criteria for depression across education levels: 1) less than secondary; 2) secondary graduate; 3) some post secondary; and 4) post secondary graduate.

Geographically, Nova Scotians were equally likely to report meeting all criteria for a major depressive episode across the nine district health authorities (DHAs). Although DHA1 showed the lowest rate of self-reported depression at 2.3%, and DHA4 showed the highest at 7.3%, they were not statistically significantly different (Fig. 1).

**FIGURE 1** Percent self-reported depression by District Health Authority (DHA)*, Nova Scotia, 2002

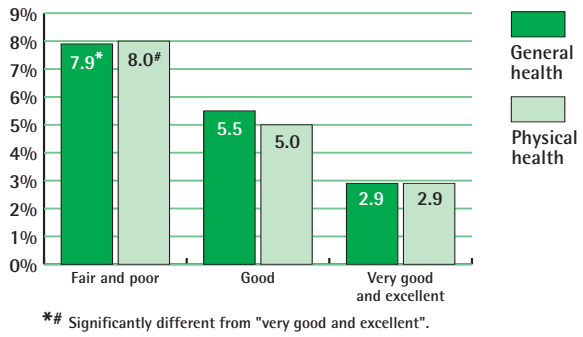



## Depression and General Health

Depression has consequences beyond one's mental health. Indeed, it can affect other areas of health. One of the more telling effects of depression is seen in its occurrence across levels of overall or physical health. Nova Scotians who rate themselves as having "fair or poor" overall or physical health are significantly more likely to report being depressed than those who rate themselves as having "good or excellent" overall or physical health (Fig.2 ).

As one would expect, Nova Scotians who rate themselves as having poor mental health were significantly more likely to report being depressed (46.4%) than those who rate themselves as having "good" (5.5%), "very good" (2.0%), or "excellent" (0.8% ) mental health. This suggests that those

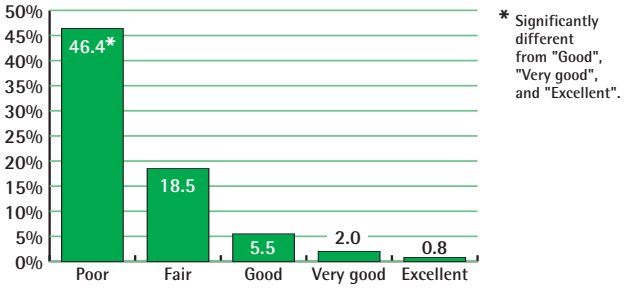
## FIGURE 2 Percent self-reported depression by self-rated general health and physical health status, Nova Scotia, 2002




Self-rated health status

who classify themselves as being depressed are aware that their overall mental health is poor (Fig. 3).

## FIGURE 3 Percent self-reported depression by self-rated mental health status, Nova Scotia, 2002

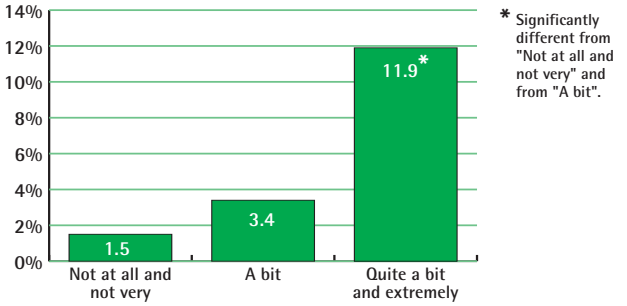



Self-related health status

# Depression and Stress

The link between stress and depression is well established.[1–3] Nova Scotians who rate themselves as being "quite a bit or extremely" stressed were significantly more likely to report being depressed (11.9%) than those who rated themselves as only "a bit" (3.4%) or "not at all or not very"(1.5%) stressed (Fig. 4).

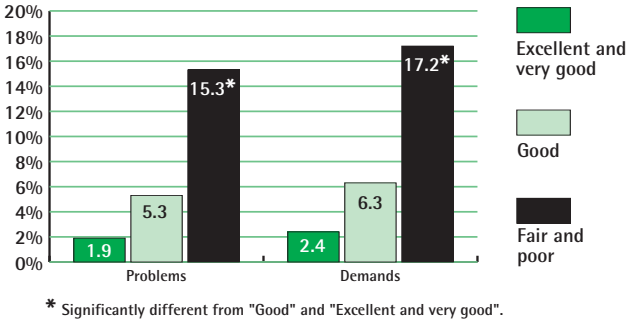
## FIGURE 4 Percent self-reported depression by self-perceived stress level, Nova Scotia, 2002




Stress level

Coping skills and depression are also linked. Nova Scotians who rate themselves as "poor or fair" on self-perceived ability to handle unexpected problems are significantly more likely to report being depressed (15.3 %) than those who rate themselves as "good" (5.3%) or "very good or excellent" (1.9%) at handling unexpected problems. Also, those who rate themselves as "poor or fair" on self-perceived ability to handle day-to-day demands are significantly more likely to report being depressed (17.2%) than those who rate themselves as "good" (6.3%) or "very good or excellent" (2.4%) at handling demands. This suggests that depression is high among stressed people and that coping abilities are impaired when depressed (Fig. 5).

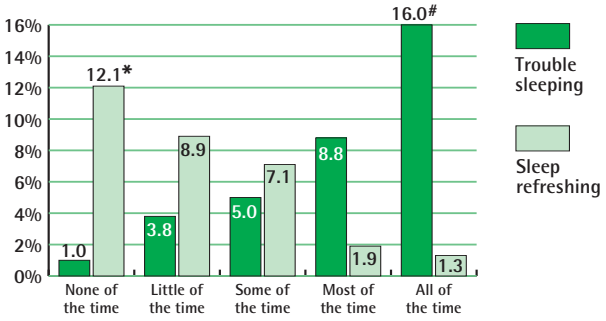
## FIGURE 5 Percent self-reported depression by ability to handle unexpected problems and demands, Nova Scotia, 2002



# Depression and Sleep

The relationship between depression and sleeping difficulty is well documented [4–7] and is also demonstrated in this survey. Nova Scotians who indicated they had trouble sleeping "all of the time" were significantly more likely to report being depressed (16.0%) than those who had trouble sleeping "some of the time" (5.0%), "little of the time" (3.8%) and "none of the time" (1.0%), (Fig. 6). Conversely, those who rated themselves as finding sleep refreshing "none of the time" were significantly more likely to report being depressed (12.1%) than those who found sleep refreshing "most" (1.9%) or "all of the time" (1.3%). This suggests that the more sleep disturbance one suffers the greater the risk for depression.

## FIGURE 6 Percent self-reported depression among levels of trouble sleeping and find sleep refreshing, Nova Scotia, 2002



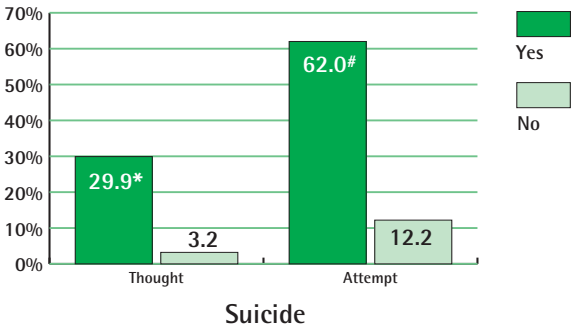

* Significantly different from "Most of the time" or "All of the time".

\# Significantly different from "Some of the time", "Little of the time", or "None of the time".

# Depression and Suicide

There is a strong relationship between thinking about or attempting suicide and depression.[8–10] Nova Scotians who report thinking about suicide in the past 12 months were 10 times more likely to report being depressed (29.9%) than those who did not think about suicide (3.2%), (Fig. 7). There is an even stronger relationship between suicide attempt and self-reported depression. Those who report attempting suicide at least once in the past

## FIGURE 7 Percent self-reported depression among those who have thought or attempted suicide in the past 12 months, Nova Scotia, 2002




* Significantly different from those who did not think about suicide.

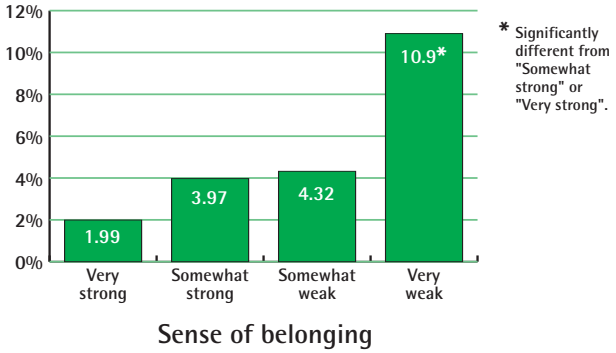
\# Significantly different from those who did not attempt suicide.

12 months were about 15 times more likely to report being depressed (62%) than those who had not attempted suicide in the past 12 months (4.0%). Clearly if one reports suicide ideation or attempt the risk of depression is much greater. This survey and the literature support the notion that suicide ideation or attempts are highly indicative of depression and that they merit special attention in anyone displaying these risk factors.

# Depression and Sense of Belonging and Life Satisfaction

A person's sense of belonging to the local community is associated with self-reported depression as well.[11–13] Nova Scotians who report a "very weak" sense of belonging to their local community show significantly higher prevalence of self-reported depression (10.9%) than those who report a "somewhat strong" (4.0%) or "very strong" (2.0%) sense of belonging (Fig. 8). Thus a low sense of belonging may increase one's risk of depression.

### FIGURE 8 Percent self-reported depression by sense of belonging to community, Nova Scotia, 2002



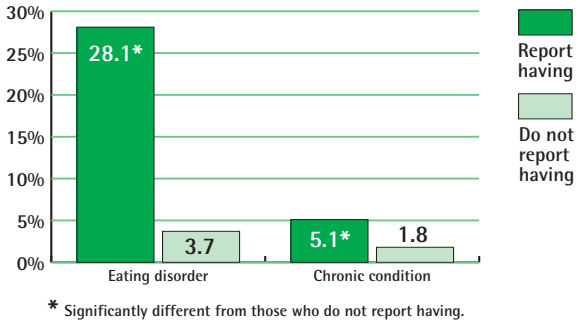

A person's satisfaction with life in general is related to depression.[14–16] There is a significantly greater prevalence of self-reported depression among those who were "very dissatisfied or dissatisfied" (26.2%) with life compared to those who were: "neither satisfied nor dissatisfied" (8.7%); "satisfied" (2.8%) or very satisfied" (1.8%) with life, (Fig. 9). Feeling dissatisfied with life places one at higher risk for depression.

### FIGURE 9 Percent self-reported depression by satisfaction with life in general, Nova Scotia, 2002


## Depression and Eating Disorders, Chronic Conditions, Disability

The association between eating disorders and depression is well established.[17–21] The prevalence of self-reported depression among Nova Scotians reporting an eating disorder (28.1%) is significantly greater than among those without an eating disorder (3.7%) (Fig. 10). This suggests that those who present with eating disorders are at greater risk of depression. Thus it is important to consider the presence of depression in those with an eating disorder.

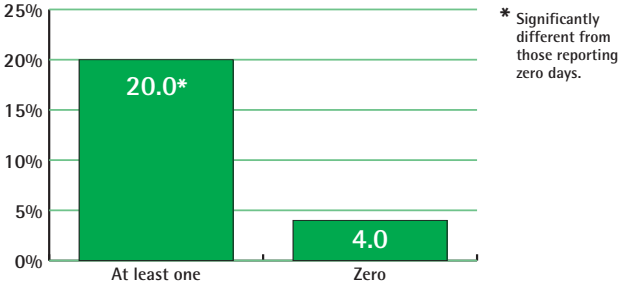
### FIGURE 10 Percent self-reported depression among those who report having an eating disorder and chronic condition, Nova Scotia, 2002




Similarly Nova Scotians who report a chronic condition show a significantly greater prevalence of self-reported depression (5.1%) than those who do not report a chronic condition (1.8%). This suggests that having a chronic condition puts one at greater risk for depression (Fig. 10). Thus it is important to consider depression as a comorbid condition when dealing with people suffering chronic conditions, as both may require treatment.

The prevalence of self reported depression was significantly greater among those who report at least one disability day in the past two weeks (20.0%) than those who report no disability days in the past two weeks (4.0%), (Fig. 11). This highlights the relationship between disability and depression, and suggests the need to be aware of the disabling affects of depression.

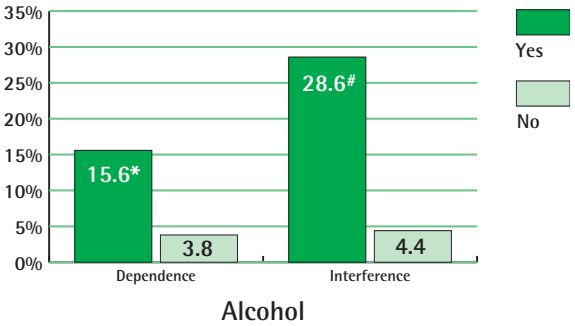
### FIGURE 11 Percent self-reported depression by those who report at least one and zero disability days in the past two weeks, Nova Scotia, 2002




## Depression and Alcohol Dependence and Interference

The literature contains a large body of evidence outlining the relationship between alcohol dependence and depression.[22–25] The prevalence of self-reported depression is significantly greater in those with a reported alcohol dependence (15.6%) than those who do not have an alcohol dependence (3.8%), (Fig. 12). This suggests that those with an alcohol dependence are at greater risk for depression and that treating both the dependence and the depression may be necessary to help people recover from both conditions.

### FIGURE 12 Percent self-reported depression among those who report meeting DSM-IV criteria for alcohol dependence and alcohol interference, Nova Scotia, 2002




The CCHS also classified people as having "alcohol interference," i.e., alcohol interferes significantly with a person's normal routine, occupational/academic functioning, or social activities or relationships. The prevalence of self-reported depression was significantly greater among people who report alcohol interference (28.6%) than those who do not (4.4%), (Fig. 12). Thus, those with alcohol interference may be at greater risk for depression, and attention to both conditions may be required when treating those whose alcohol consumption interferes with their lives.

## Additional Resources

Additional information on mental health in Canada is available on the Statistics Canada web site at <www.statcan.ca/Daily/English/030903/d030903a.htm>.

This document was prepared by the Performance Measurement and Health Informatics Section, Information Management Branch, of the 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 <www.gov.ns.ca/health/downloads/cchs_depression02_2004.pdf>.

Copies of other reports in this series form CCHS 1.1 and 1. 2 are available at

<www.gov.ns.ca/health/downloads/cchs_utilization_2003.pdf>

<www.gov.ns.ca/health/downloads/cchs_smoking_2003.pdf> and

<www.gov.ns.ca/health/downloads/cchs_physical_activity_2003.pdf>.

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For general information on mental disorders, see the Health Canada document at <www.hc-sc.gc.ca/pphb-dgspsp/publicat/miic-mmac/index.html>. cited: March 11, 2004

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# Appendix I

## Definitions of the Five Psychological Disorders Used in the Canadian Community Health Survey (CCHS 1.2)

The Mental Health and Well-being survey uses the World Mental Health 2000 version of the Composite International Diagnostic Interview (CIDI) instrument to assess disorders based on the Diagnostic and Statistical Manual of Mental Disorders (DSM IV) criteria. The measures are derived from a set of questions pertaining to the feelings, symptoms, severity, intensity, and impact relative to each of the measured disorders.

Population aged 15 and over were classified as meeting or failing to meet criteria for major depressive episode in the 12 months prior to interview.

Major depressive disorder requires at least one episode of 2 weeks or more with persistent depressed mood and loss of interest or pleasure in normal activities, accompanied by problems such as decreased energy, changes in sleep and appetite, impaired concentration, and feelings of guilt, hopelessness, or suicidal thoughts.

# Appendix II

## 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 coefficient of variation (CV) from 16.6% to 33.3% should be interpreted with caution.

Data with a coefficient of variation (CV) greater than 33.3% were suppressed due to extreme sampling variability.