

Progress Against Major Depression in Canada

Scott B Patten MD, FRCPC, PhD

Background: Generally, public health strategies for major depression have focused on case-finding, public and professional education, and disease-management strategies. In principle, increased rates of treatment utilization and improved treatment outcomes should lead to improved mental health at the population level. Progress of this sort, however, has been difficult to confirm.

Methods: The National Population Health Survey (NPHS) is a large-scale longitudinal study of a representative sample drawn from the Canadian population. To date, Statistics Canada has released data from 3 NPHS cycles: 1994–1995, 1996–1997, and 1998–1999. Treatment utilization and major depression measures were employed in the NPHS survey, providing a unique source of longitudinal Canadian data. In this study, major depression point prevalence (defined using a predictive instrument for annual major depressive episode [MDE] prevalence and responses from a distress scale) and associated treatment utilization were evaluated over time.

Results: Between 1994–1995 and 1995–1996, the proportion of persons with depression receiving antidepressant treatment increased dramatically, from 18.2% (12.3% to 22.1%) in 1994–1995 to 32.6% (23.0% to 42.2%) in 1998–1999. Point prevalence of major depression was 2.4%, 1.8%, and 1.9% in the 3 NPHS iterations.

Conclusions: Data from the NPHS suggest public health progress against major depression in Canada. More people with major depression in Canada are receiving treatment, and these changes may have been associated with improved population health status. However, both random variation and extraneous societal factors could account for the observed trends in prevalence. It is impossible to relate changes in utilization directly to population health status using the NPHS data.

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Clinical Implications

- The National Population Health Survey (NPHS) provides a unique national perspective on the mental health of the Canadian population.
- The survey adopted rigorous methodological standards.
- Improved treatment utilization may be contributing to declining major depression point prevalence.

Limitations

- As a population survey, the NPHS used crude measures of mood status and treatment utilization.
- The NPHS, so far, is not definitive in documenting reduced prevalence of major depression.
- Observational survey data cannot directly link changes in population health to improved treatment utilization.

Key Words: major depression, depressive disorders, epidemiology, treatment utilization, antidepressive medications

Using disability adjusted life years (DALYs), a composite measure incorporating premature mortality and years lived with disability, the Global Burden of Disease study developed a ranking of conditions contributing to disease burden around the world (1). Of the top 10 conditions, 5 were mental disorders, and of these, major depression ranked first. Overall, unipolar major depression ranked fourth as a cause of disease burden on a worldwide basis. In economically developed countries such as Canada, major depression ranked second. The impact of major depression was projected to increase in upcoming decades (1).

Major depression is an important determinant of population health status for 3 reasons. First, it is extremely common. Recent Canadian estimates have placed the 12-month prevalence of major depression between 4% and 10%, consistently demonstrating that this is a highly prevalent disorder within the population (2–8). Second, major depression causes substantial disability, at a level that compares with other major medical conditions (9). In fact, impaired functioning is an intrinsic feature of the disorder, according to contemporary definitions (10). Third, major depression is an important cause of premature mortality. In particular, suicide (which ranks among the top 10 causes of mortality in Canada) is the fourth leading cause of potential years of life lost (PYLL) in Canada (11). PYLL due to 2 other prominent conditions—*ischemic heart disease* and *accidents*—is declining rapidly, whereas PYLL due to suicide is increasing (11). Declining PYLL for heart disease and accidents represent important success stories for public health in Canada. Public health progress against major depression must also be pursued energetically.

On a clinical level, pharmacologic and nonpharmacologic strategies are available for treatment of this condition. Much attention has focused on these advances. A disturbing lack of evidence exists, however, with respect to the mental health of the population improving due to these clinical advances. This has recently attracted the attention of commentators in the field, one of whom has commented that antidepressants may be “overrated” (12).

An example of a population-based approach to major depression may be found in a public health initiative in the US called “National Major Depression Screening Day.” This initiative targets several key aspects of the interface between the health care system and mood disorders in the community, using approaches based on public education, case-finding, and educating professionals (13). Many other population-based studies have incorporated similar principles but in different ways. Based on the idea that improved access to treatment and improved outcomes of treatment should impact favourably on population health, many studies have attempted to increase treatment utilization and to improve clinical outcomes, using

methods such as professional education and disease management (14). In Canada, we hope that diminishing stigma, barrier-free access to health care services, and improved clinical care will accomplish these objectives, but previously we have lacked the ability to evaluate this.

This paper’s objective is to report changes in major depression point prevalence over time, in treatment utilization, and in long-term antidepressant use.

Methods

Data from the National Population Health Survey (NPHS) were used in this analysis. The NPHS is a longitudinal study of a Canadian national sample. The original survey included 17 626 subjects sampled in 1994–1995, but additional provincial “buy-ins” resulted in a larger sample in 1996–1997. A third iteration of data collection occurred in 1998–1999.

The NPHS employed a brief predictive instrument, designed to identify probable episodes of major depression in the year preceding the interview. Kessler and others developed the instrument called the Composite International Diagnostic Interview Short Form for Major Depression (CIDI-SFMD) (15). Validation studies suggest that the instrument is sensitive but somewhat nonspecific for major depressive episodes (MDEs) (16,17). The CIDI-SFMD provides a 12-month period prevalence estimate. Period prevalence refers to the proportion of the population meeting DSM-IV criteria for major depression at any time in the preceding year. Period prevalence is a problematic way of measuring prevalence, because it is not sensitive to the impact of treatment on population health. An individual who develops an MDE and then promptly seeks and receives effective treatment will be recorded in a period prevalence calculation in the same way as a person who does not seek treatment and remains ill. For this reason, an indicator of point prevalence was derived for this study by combining the CIDI-SFMD output with responses to a distress scale included in the NPHS interview. The distress scale comprised various CIDI items that inquired into feelings of sadness, nervousness, restlessness, hopelessness, worthlessness, and feelings that “everything was an effort” (18). Additional items clarified whether these symptoms occurred “a lot,” “somewhat,” “a little,” “more than usual,” “the same,” or “less than usual” in the preceding month. In this analysis, subjects with a CIDI-SFMD score indicating an 80% or greater chance of having had an MDE in the preceding year, combined with reporting distress at greater-than-usual levels in the preceding month, were regarded as a measure of point prevalence of major depression.

The NPHS measured treatment utilization in various ways. Two questions were considered most pertinent to treatment utilization for major depression: one that referred to the use of antidepressants in the preceding month and another that asked

Figure 1 Proportion of subjects taking antidepressant medications 1994–1995 to 1998–1999.

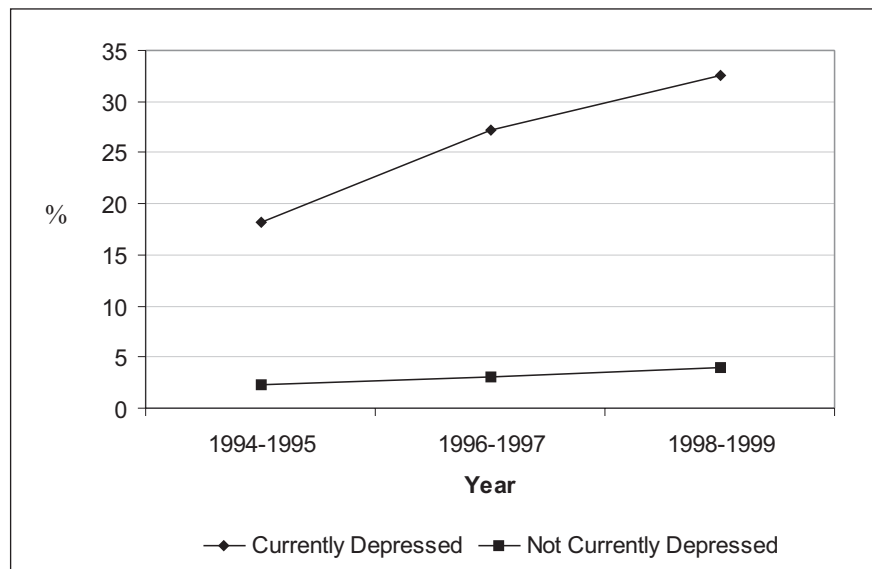
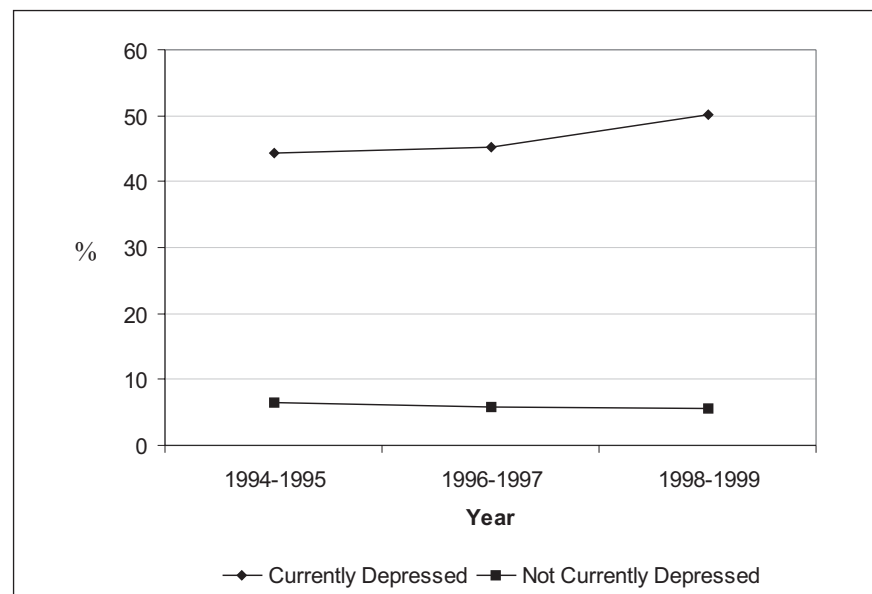


Figure 2 Proportion of subjects consulting a health professional about mental health 1994–1995 to 1998–1999.



about consultations with health professionals for purposes of emotional or mental health in the past year. In the current analysis, the proportion of subjects reporting antidepressant use, the proportion reporting that they consulted a professional about their emotional or mental health, and the proportion reporting both or either type of utilization were calculated.

Results

The proportion of persons with major depression who reported taking antidepressant medications in the preceding

month increased between 1994–1995 and 1998–1999 (Figure 1), as did the proportion who reported consulting a health professional about their mental health (Figure 2). Between 1994–1995 and 1995–1996, the proportion of individuals with depression receiving antidepressant treatment increased from 18.2% (12.3% to 22.1%) in 1994–1995 to 32.6% (23.0% to 42.2%) in 1998–1999. The increase in use is most prominent among those with current major depression, but a positive slope also exists among persons without major depression over time. The latter may indicate an increase in long-term use (following resolution of a depressive episode). In keeping

Figure 3 Proportion of subjects taking an antidepressant or consulting a health professional about mental health 1994–1995 to 1998–1999

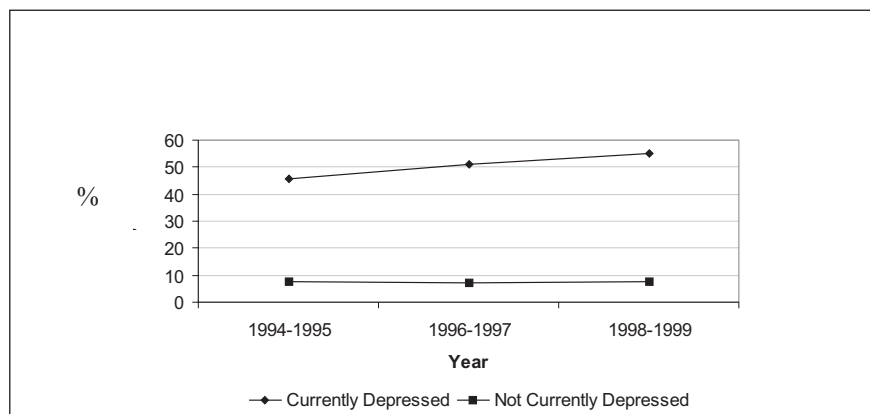
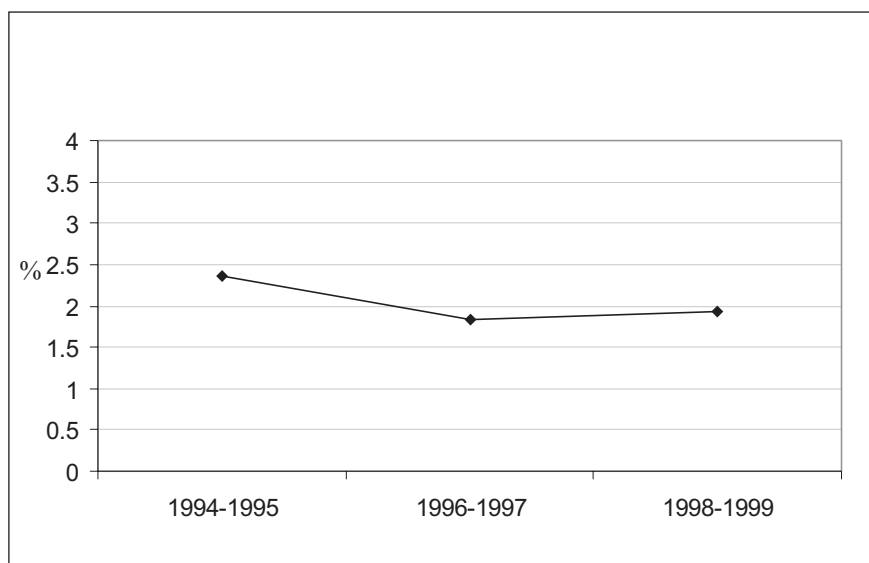


Figure 4 Point prevalence of major depression



with this possibility, the proportion of persons in 1994–1995 taking antidepressants who reported taking them in 1996–1997 was slightly lower (49.7%; 95%CI, 42.7% to 56.7%) than was the proportion of persons taking antidepressants in 1996–1997 who also reported taking them in 1998–1999 (52.4%; 95%CI, 46.6% to 58.3%). Some proportion of these subjects may also have been taking antidepressants for reasons other than major depression.

Figure 2 suggests a decline in the number of persons without current major depression consulting mental health professionals about mental health, so the increasing rate observed for the subjects with major depression cannot be discounted as a non-specific change. When treatment utilization is defined as either consulting a mental health professional or taking antidepressant medications, the increase in utilization continues to be evident (Figure 3). The proportion reporting one or more of these forms of utilization increased from 45.7%

(95%CI, 38.5% to 52.9%) in 1994–1995 to 54.9% (95% CI, 46.3% to 63.4%) in 1998–1999.

During the interval between 1994–1995 and 1996–1997, the point prevalence of major depression appeared to decline (Figure 4). No decrease was evident for the 1996–1997 to 1998–1999 interval. In 1994–1995, the point prevalence was 2.4% (95%CI, 2.0% to 2.7%), which decreased to 1.8% (95%CI, 1.5% to 2.2%) in 1996–1997 and remained essentially unchanged in 1998–1999, at 1.9% (95%CI, 1.6% to 2.3%). These CIs overlap in a common range (about 2%); therefore, the NPHS data cannot be regarded as providing confirmation that the point prevalence of major depression in Canada is declining over time.

Discussion

In the absence of established strategies for primary prevention, most public health initiatives that are concerned with major depression have focused on the potential benefits of

antidepressant treatment. Such initiatives may strive to reduce stigma, to increase detection, and to optimize management in primary care, essentially facilitating the delivery of effective treatments to those who can benefit the most. National initiatives in the US (13) and in Australia (19) have incorporated such goals. No such efforts are under way in Canada. Nevertheless, the existence of a universal, publicly funded health care system in this country should, in theory, be conducive to the delivery of treatment to those in need. Various novel approaches to improve the delivery of mental health services have been explored in recent years, such as shared care initiatives, and these may have a cumulative impact at the population level. Likewise, in this country, a series of standardized national surveys, starting in the mid 1990s, has allowed monitoring of key variables that relate to these aspects of public health.

The analysis presented here suggests progress against major depression in Canada. The point prevalence has possibly decreased since 1994, and the decrease has occurred at a time when treatment utilization has increased substantially. There was no evidence of a nonspecific increase in treatment utilization. The data suggest that treatment is increasingly reaching those in need. Notably, the antidepressant utilization rates presented here depict the proportion of those with current episodes who are taking antidepressants. While the values remain fairly low (32.6% in 1998–1999), this proportion can be expected to underestimate the true utilization rate (that is, the proportion of those in need of treatment who are receiving it). This is because subjects with a successful outcome from antidepressant treatment (a remission) no longer contribute to the calculation. The increasing rate of antidepressant use in persons without current major depression may partially reflect remission due to antidepressant treatment.

Whether the apparent downward trend in prevalence relates to increased treatment utilization is a difficult question—one that cannot be answered directly using the NPHS data. Possibly, we may at least partially address the nature of this connection using mathematical models for simulation (20), but such approaches are in their infancy and will always be subject to a degree of uncertainty, resulting from the many assumptions involved in making such calculations.

The results presented here are preliminary in the sense that they reflect only 3 time points over a period of 6 years. Trends are difficult to identify with only 3 time points, and false

interpretations can result from random variations in rates in these circumstances. The upcoming release of subsequent iterations of the NPHS will help to clarify some of these issues.

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¹Population Health Investigator, Alberta Heritage Foundation for Medical Research. Associate Professor, Department of Community Health Sciences and Department of Psychiatry, University of Calgary, Calgary, Alberta.

Address for correspondence: Dr S Patten, Department of Community Health Sciences, University of Calgary, 3330 Hospital Drive NW, Calgary, AB T2N 4N1.

e-mail: patten@ucalgary.ca

Résumé : Progrès de la lutte à la dépression majeure au Canada

Contexte : En général, les stratégies de la santé publique pour la dépression majeure portent sur le dépistage, l'éducation du public et des professionnels, et le traitement de la maladie. En principe, les taux accrus d'utilisation des traitements et les résultats améliorés des traitements devraient entraîner une meilleure santé mentale au niveau de la population. Pourtant, les progrès de la sorte sont difficiles à confirmer.

Méthodes : L'Enquête nationale sur la santé de la population (ENSP) est une étude longitudinale à grande échelle d'un échantillon représentatif de la population canadienne. À ce jour, Statistique Canada a publié les données de 3 cycles d'ENSP : 1994-1995, 1996-1997 et 1998-1999. Des mesures de l'utilisation des traitements et de la dépression majeure ont été employées dans l'ENSP, constituant ainsi une source unique de données longitudinales canadiennes. Dans cette étude, la prévalence ponctuelle de la dépression majeure (définie à l'aide d'un instrument prédictif de la prévalence annuelle des épisodes de dépression majeure [EDM] et des réponses à une échelle de détresse) et l'utilisation des traitements associée ont été évaluées avec le temps.

Résultats : Entre 1994-1995 et 1995-1996, la proportion de personnes déprimées recevant un traitement aux antidépresseurs s'est accrue radicalement, passant de 18,2 % (de 12,3 % à 22,1 %) en 1994-1995 à 32,6 % (de 23,0 % à 42,2 %) en 1998-1999. La prévalence ponctuelle de la dépression majeure était de 2,4 %, 1,8 %, et 1,9 % dans les 3 cycles de l'ENSP.

Conclusions : Les données de l'ENSP indiquent des progrès de la santé publique dans la lutte à la dépression majeure au Canada. Un plus grand nombre de personnes souffrant de dépression majeure au Canada reçoivent un traitement, et ces changements peuvent être associés à un meilleur état de santé de la population. Cependant, tant la variation fortuite que les facteurs sociétaux extérieurs peuvent expliquer les tendances observées de la prévalence. Il n'est pas possible de relier les changements d'utilisation directement à l'état de santé de la population à l'aide des données de l'ENSP.