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Research Data Centre Network
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A Profile of Clinical Depression in Canada

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The RDC Synthesis Series brings together research findings on specific topics from studies of Statistics Canada census and survey data carried out primarily in Research Data Centres across Canada. Designed for policy-makers and other non-specialists, these reports also aim to inform specialists across Canada of others working in their field.

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A Profile of Clinical Depression in Canada

Scott Patten and Heather Juby

Introduction

Major depression, the world's leading single cause of disability in 2000 according to a World Health Organisation report,¹ is projected to become the foremost contributor to disease burden in high income countries by 2030.² It has a major economic impact through health care costs and lost work productivity. In Canada, for instance, short-term disability days due to depression cost an estimated \$2.6 billion in 1998.³

Although the link between health and depression was already a subject of debate among the ancient Greeks, until recently surprisingly little was known about this potentially dangerous and often disabling disorder. With no clear definition, depression remained unmeasured, stigmatised, and largely untreated.

The specific criteria now used to identify clinical depression - as distinct from the mild, temporary depression experienced by most of us at some point – only came into widespread use in 1980, with the publication of the third revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM).⁴ By defining major depression according to the persistence and severity of specific symptoms, these criteria provided the first empirical definition of depressive disorders.

¹ Disability is measured by the Years Lived with Disability (YLD) indicator, and the global burden of disease by the Disability Adjusted Life Year (DALY) indicator. See: http://www.who.int/mental_health/management/depression/definition/en/.

² Mathers & Loncar 2006.

³ Stephens & Joubert 2001.

⁴ Published by the American Psychiatric Association, this manual classifies different categories of mental disorder and outlines the criteria for diagnosing them. Though not without its critics, the handbook has become the primary reference source used by mental health professionals and others in North America and worldwide. It first appeared in 1952 and has been regularly revised since – most recently in 2000 (DSM-IV-TR).

This development transformed research on depression. Until then, researchers were limited to small clinical studies, or obliged to rely on subjective symptom rating scales, which could not be used to identify clinical depression. The new criteria made it possible to construct structured diagnostic interviews that a) were capable of identifying clinically significant depressive syndromes and b) could be administered by non-clinicians. Overnight, large scale epidemiological studies of clinical depression became economically feasible.

The Composite International Diagnostic Interview (CIDI) is the most widely used of these interviews. Included in population health surveys since the 1980s, it produced the first reliable measurements of the prevalence of major depression in the general population. Since then, our knowledge of this debilitating mental health problem has snowballed, and with increased awareness has come a greater acceptance and expanding opportunities for treatment.

Studying depression in Canada

The early surveys, mostly American, revealed depression to be far more common than previously supposed. In the mid-1990s, Statistics Canada's National Population Health Survey (NPHS) became the first Canadian national survey to include a diagnostic interview for major depression - a short-form version of the CIDI major depression module. The NPHS showed depression to be just as serious a health problem in Canada as in the United States.

Subsequent NPHS waves and the Canadian Community Health Survey (CCHS)⁵ have stimulated a wealth of research on the topic, particularly since 2001 when Statistics Canada's Research Data Centre program eased access to detailed survey data. Researchers across the country have used these data to evaluate and refine

⁵ The NPHS has tracked the health of Canadians every two years since 1994. The mental health section of the CCHS 1.2 in 2002 has been a particularly useful source of data on depression.

the tools used to measure major depression epidemiology, and to learn more about the different aspects of the problem.

In this report, we bring together findings from some of these studies to construct a social, rather than clinical, portrait of depression in Canada. We report on the extent of the problem and describe the characteristics of Canadians most at risk; we discuss studies of health service use and highlight areas in which public policy intervention would help reduce depression's negative social and economic impact on individuals and society; finally, we outline some of the questions that future research may be able to throw some light on.

What is clinical depression?

Clinical depression is a syndrome characterised by a set of mood-related symptoms – depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep and/or appetite, low energy, changes in movement (agitation or slowed movements), poor concentration and thoughts of death or suicide. The first episode usually occurs in late adolescence or early adulthood, and most epidemiological studies indicate that approximately 50% of those affected experience more than one episode.

Severe depression is often accompanied by another psychiatric problem, such as an anxiety disorder, substance use disorder or eating disorder. Alone, or in combination, it interferes with the ability to function at home, at work and socially.⁶ In one study, working Canadians with depression reported an average of 32 days during a twelve-month period in which they were unable to do their job properly; their home and social life were even more seriously affected.⁷

⁶ Breslin et al. 2006

⁷ Gilmour & Patten 2007

To meet the diagnostic criteria for depression in the CIDI interviews, at least five of the mood-related symptoms must be present nearly every day during the same two-week period. Depressed mood *or* loss of interest / pleasure must be among the set of symptoms, since many of the others can have multiple causes. The symptoms must also be severe enough to cause clinically significant distress, or seriously interfere with their functioning at home, at work or socially.⁸

How common is clinical depression?

With over a million Canadians experiencing a major depressive episode annually, depression is as common as other leading chronic conditions such as heart disease or diabetes.⁹

Three main indicators are generally used to describe the frequency, or prevalence, of depression in the population. They represent the proportion of individuals with severe depression i) at some point in their lives: *lifetime prevalence*, ii) during a twelve month period: *annual prevalence* and iii) at a given point in time: *point prevalence*.¹⁰

Recent estimates show that approximately one Canadian in ten experienced a major depressive episode at some point (*lifetime prevalence = 10%-12%*), one in twenty in the course of a year (*annual prevalence = 4%-5%*), and one in fifty at a particular point in time (*point prevalence = 2%*).¹¹

⁸ Furthermore, since a syndrome of this sort may occur during normal bereavement, or may be triggered by the physiological effects of a health condition or medication, exclusion criteria are applied.

⁹ Canadian Community Health Survey: Mental health and well-being, 2002. Statistics Canada catalogue: 82-617-XIE

¹⁰ Since the diagnostic criteria require that symptoms be present nearly every day over a two week period, point prevalence is difficult to quantify; most researchers count an episode occurring in the 30 days preceding the interview as evidence of current, or point, prevalence.

¹¹ Patten et al 2005

These estimates can vary from one study to another, and not only because rates of depression do actually vary over time in a population. Variations may also be due to differences in the survey sample, or in the questions used to define the depressive episode¹². Even though the diagnostic criteria for major depression are much more standardized now than in the past, the way they are operationalized in different diagnostic interviews can differ in ways that affect prevalence estimates.

What causes depression?

Nobody knows exactly what causes major depression, partly because it is not a single entity, partly because it has no single cause. Certain medications and drugs can lead to depression, for example; this type of depression may resolve quickly after removal of the offending agent. Other episodes have a post-partum onset and may be related to hormonal changes during pregnancy and childbirth.¹³

Mostly, depression is the product of a complex interaction between biological, psychological and social elements. Physical illness, for instance, may contribute to the development of depression both through physical mechanisms such as pain, and through psychosocial mechanisms such as the loss of social and work roles resulting from the illness.

A depressive episode can be triggered by stressful life events, though whether or not an individual reacts to these events by becoming clinically depressed, depends on characteristics of the individual (genetic makeup, coping skills, social support network etc.) and of the event itself (how severe, how long lasting).

¹² For example, the Composite International Diagnostic Interview - Short Form for Major Depression (CIDI-SFMD), used in most surveys, tends to overestimate prevalence rates compared with the World Mental Health 2000 CIDI detailed diagnostic interview used at the CCHS 1.2 (2002). It also has led to a broader range of estimates. Patten et al (2005) have shown that these differences do not alter the pattern of risk factors for depression.

¹³ Although depression can also be a feature of bipolar disorders (manic episodes with or without major depressive episodes), the distinction is important clinically as different pharmacological approaches are used in treatment.

Although population health surveys are not designed to study the psychological or biological causes of depression, they can provide insight into some of the factors that put some groups of people more at risk of depression than others, and into some of the circumstances that can trigger depression.

Who is most at risk ?

In addition to risk factors identified in clinical studies (such as a family history of depression, childhood abuse or other psychiatric disorders), epidemiological research consistently finds higher rates of major depression among women and young adults, singles or once-married individuals (widowed, separated or divorced), and low income earners.¹⁴ Figure 1 shows how the annual prevalence rates of depression varied for these different groups of Canadians in 2002.¹⁵

Men and women are not always affected in the same way or to the same degree by these risk factors. Marital status and income are more strongly linked to depression for men, for instance, and chronic health problems, another risk factor consistently identified in these studies, to depression in women.¹⁶ Bodyweight may also affect men and women differently: one study found that overweight women are *more* depressed than other women, whereas overweight men appear to be *less* so than other men.¹⁷

Other factors linked to a higher risk of depression include single motherhood, not completing high school, living off social assistance, living alone, smoking and heavy drinking. Somebody who has already experienced an episode of major depression also has an above average risk of having another one.

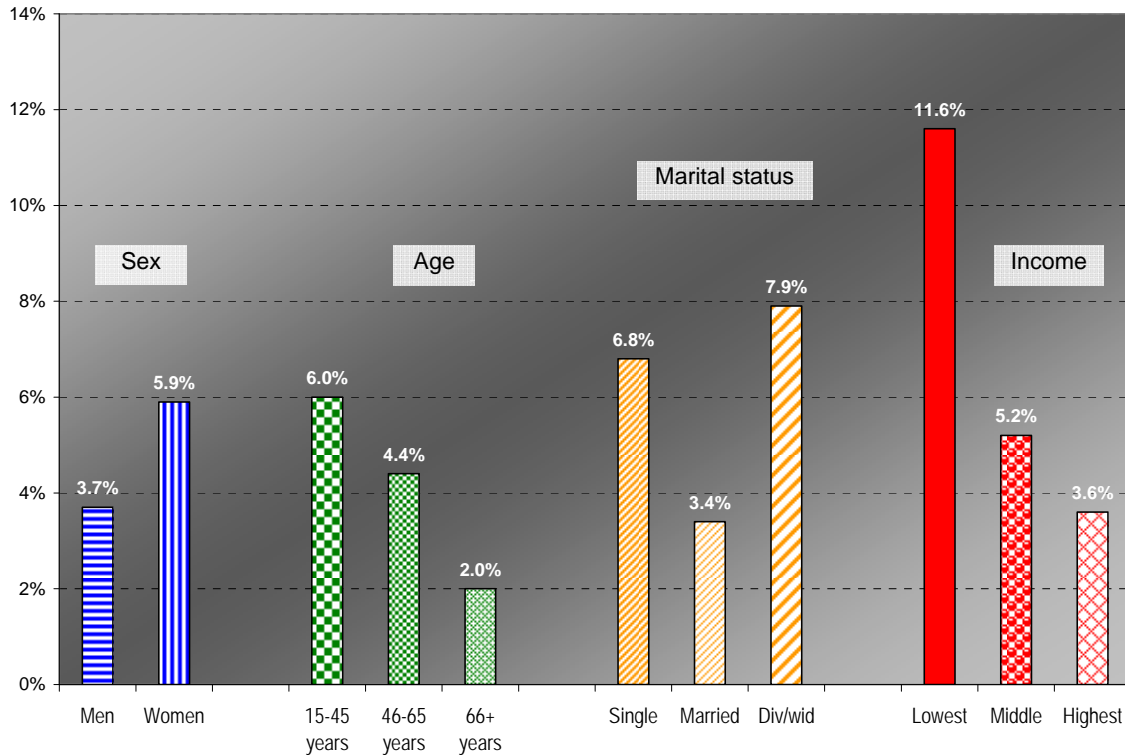
¹⁴ Currie & Wang, 2004 ; Patten et al 2005 ; Smith et al. 2007

¹⁵ Patten et al 2005. Rates are given for Canadians aged 15 years and over, with an overall prevalence of 4.8%.

¹⁶ Stewart et al. 2004

¹⁷ Lukassen & Beaudet 2005; Smith et al. 2007

Figure 1: Annual prevalence of major depression for certain risk factors



Immigrants and members of visible minority groups are less likely to be depressed than other groups.¹⁸ There may also be regional differences, although findings are not always consistent and further research is needed. One study of urban Canada, for example, found the lowest risk of depression in Quebec and the highest in Alberta. A study of depression among older teenagers (15-18 years), on the other hand, showed the highest risk of depression among youth in Quebec and the lowest in the Atlantic region.¹⁹

Although the terms “risk factor” and “trigger” imply that the characteristic or event *causes* the depressive episode, the reality is more complicated. Take the relationship between depression and low income, for example. Does the struggle to

¹⁸ Smith et al. 2007; Streiner et al. 2006

¹⁹ Cheung & Dewa 2006

make ends meet *cause* the depression, or does depression impair work performance, ultimately leading to job loss and low income? Here, as with other factors discussed below, the relationship can, and often does, go both ways.

Chronic health problems and depression

Depression and chronic physical health problems often go hand in hand. Chronic back pain sufferers, for instance, are much more frequently depressed than those without back pain, and the more severe the pain, the more likely the depression. As Figure 2 shows,²⁰ the annual prevalence of depression rose from 6% among pain-free individuals to over 25% among those with severe pain. In fact, of all the risk factors included in this analysis, back pain was most strongly linked to depression, raising the odds by six.

Whether the problem is back pain or another physical health problem,²¹ younger people afflicted with such chronic problems are more likely to become depressed than their elders are. This is even true for a disease like multiple sclerosis where the level of disability increases with age. This may well reflect problems of adjustment and coping, with young people devastated by such diagnoses, even if their symptom level is minimal. Over time, they may develop ways of dealing with the illness and become more resilient.

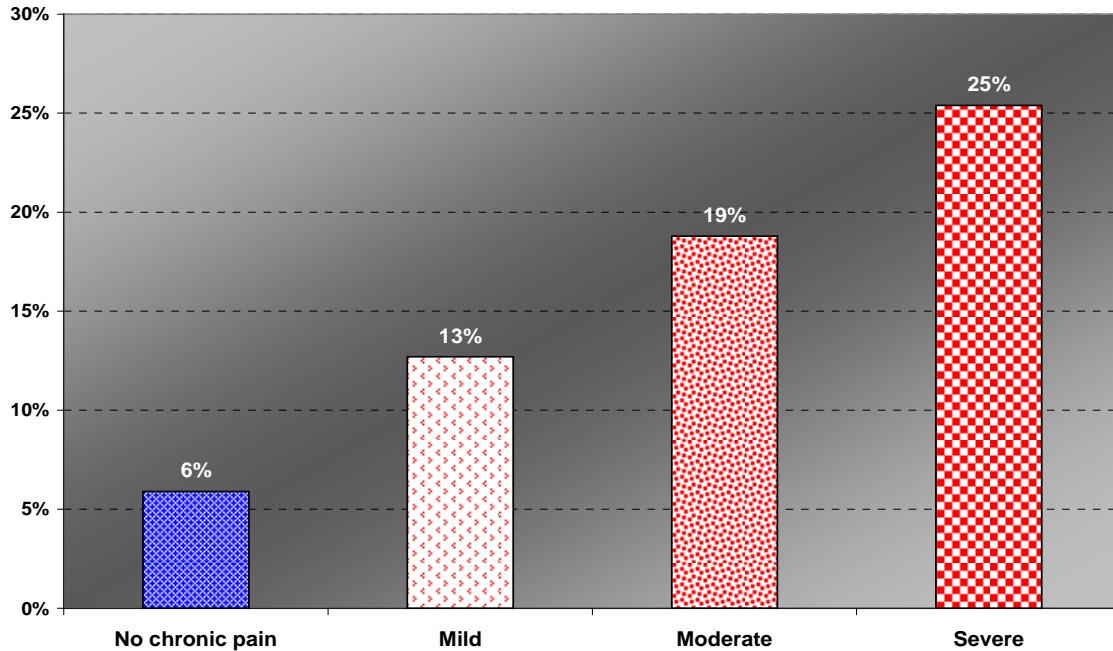
Though health problems are generally viewed as triggers for depression, even here relationships of cause and effect can go both ways. In one interesting study, Canadians who experienced an episode of severe depression had three times the odds of being diagnosed with heart disease during the next five years than those who did not.²²

²⁰ Currie & Wang 2004, Figure 1

²¹ Such as multiple sclerosis (Patten et al. 2003) and female urinary incontinence (Vigod & Stewart 2006)

²² Stewart et al. 2004

Figure 2: Annual prevalence of major depression by level of chronic back pain



Work, family and depression

Work is a major part of life for the majority of Canadians, and **chronic workplace stress**, whether real or perceived, is linked to higher odds of major depression.²³ Particularly at risk are individuals whose jobs are highly skilled or involve constant new learning, who experience conflicting demands or job insecurity, who have unsupportive supervisors or co-workers, or who work evening and night shifts rather than regular daytime hours. There are some gender differences in reactions to different workplace stressors, with men particularly susceptible to high job stress, and women to lack of control over work.²⁴

²³ Blackmore et al. 2007; Gilmour & Patten, 2007; Wang 2004b

²⁴ Blackmore et al. 2007

A highly demanding job coupled with low control over the work is one of the most dangerous combinations. In fact, a lack of balance in various spheres can be destabilizing. Imbalance between workplace demands and control, imbalance between the effort put into work and the rewards, and imbalance between family and work life are all thought to be associated with an increased risk of mental health difficulties. The massive entry of mothers into the workforce in recent decades means that growing numbers of Canadians are struggling to meet the demands of work and family life.

Family life can have stressors of its own, and **marital disruption** is one event that can trigger an episode of depression. Men are particularly affected by the end of a marriage or common-law union, according to one comparative study.²⁵ During the first two years, separating women were twice as likely to become depressed as women who remained with their spouse; among men, separation increased the risk threefold. Even though most people recover, depression remains a longer term problem for a sizeable minority of separating individuals.

How long do episodes last?

Episodes of depression can last from two weeks (the minimum for episodes identified in health surveys) to several years or a life time. One study found that half of first episodes lasted under 18 weeks; 30% under one month, and 50% under four months; approximately one quarter lasted a year or more.²⁶

The length of time depressive symptoms persist is important for prognosis, as the probability of recovery decreases over time. For instance, the chance of recovery within the next six weeks is 40% for someone whose symptoms have lasted three weeks, and under 5% for someone who has been depressed for 23 weeks.

²⁵ Roterman 2007

²⁶ Patten 2006

This means that the “average” duration of depressive episodes is not a useful indicator for clinicians, and can be misleading if used to estimate how long an episode is likely to last.²⁷ Instead, a prognosis calculator, developed from survey data on episode length, now gives clinicians a simple and convenient way of incorporating epidemiological information into clinical decisions.²⁸ This calculator can be used to develop a prognosis for a depressive episode based on how long it has already lasted.

Treating depression

Far more people receive treatment for depression now than in the past. According to recent studies of health service use,²⁹ approximately half of those with severe depression now receive professional help for mental health problems.

General practitioners and family doctors are usually the first health professionals to be consulted. Only a minority of patients are then referred to psychiatrists or psychologists for specialist help - generally the most chronically or severely depressed, with suicidal ideas or severely impaired functioning. The *degree of need* for care, in other words, is the strongest predictor of referral to specialists in Canada; this is reassuring as it indicates a relatively equitable healthcare service.

Nonetheless, researchers are beginning to identify some other, less equitable, factors which may affect access to specialist services. Although women are more likely to consult a health professional than men, for example, they are less likely to be referred to a mental health specialist, such as a psychiatrist or psychologist.³⁰ Younger adults more often referred than older adults, and urban dwellers are more often referred than rural dwellers.³¹

²⁷ Patten & Lee 2004a, 2004b

²⁸ For the calculator: <https://dspace.ucalgary.ca/bitstream/1880/44274/1/standard.pdf>

²⁹ Cheung & Dewa 2007 ; Rhodes et al. 2006a; Wang et al. 2003

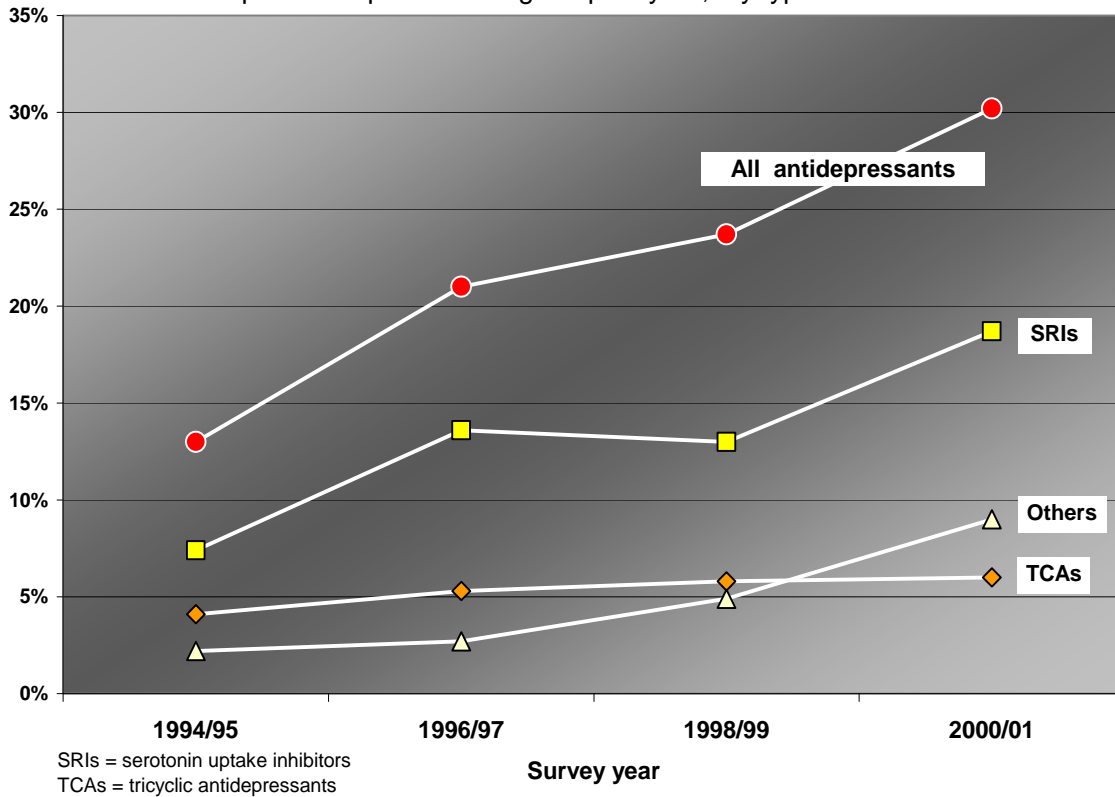
³⁰ Cheung & Dewa 2007; Rhodes et al. 2006b

³¹ Wang et al. 2003 ; Duhoux 2006; Starkes et al. 2005

Increasing use of anti-depressants

Approximately 6% of the Canadian population were taking antidepressant medications in 2002. The use of medication to treat depression rose dramatically during the late 1990s. In a period of only six years, between 1994 and 2000, the proportion of those identified with clinical depression who were taking antidepressants more than doubled (see Figure 3).³² This increase was mainly in SSRIs (selective serotonin uptake inhibitors), a newer group of anti-depressant medications that includes such brand-names as Prozac, Zoloft and Paxil.

Figure 3: Rate of antidepressant use at each survey cycle, among those with a major depressive episode during the past year, by type of medication



³² Patten & Beck 2004.

Although these rates, estimated from information from successive NPHS surveys, are a reliable indicator of how anti-depressant use evolved during the period, they underestimate the actual proportion of depressive episodes treated with anti-depressants. NPHS respondents with a depressive episode within the previous 12 months were asked about the medication they were taking *at the time of the survey interview*; the rates therefore excluded those who had already stopped taking anti-depressants before the interview.

The 2002 Canadian Community Health Survey (CCHS 1.2) asked individuals about medication taken during the whole 12-month period. This gave an estimated 40% of depressive episodes treated with anti-depressants.³³ This proportion increased further still, to 50%, once adjusted for individuals whose depression seemed to be controlled by medication (i.e. they took anti-depressants, but had no depressive episode during the previous year).³⁴

The pattern of use also changed between 1994 and 2000. In 1994, women were more likely to take anti-depressants than men, and older people were more likely to take them than younger people. A disproportionately rapid increase among men and younger adults meant that these differences had all but disappeared by 2000.

The growth in medication use does not mean that more people are seeking help for their problems, however, as this proportion barely changed during the period. Instead, it reflects a change in the way primary care physicians treat those who approach them for mental health reasons; they now prescribe antidepressant medications more frequently than they did in the past.

³³ Beck et al. 2005

³⁴ This partly explains the fact that more Canadians reported using anti-depressants during 2002 (5.8%) than reported a depressive episode (4.8%) – also due to the use of anti-depressants to treat other problems, such as pain or anxiety disorders.

Depression research and public policy

International research has put the spotlight on clinical depression in recent decades, and shown it to be a significant population health problem. More common than most major medical conditions, it impairs functioning and well-being just as seriously; its effect on work productivity is particularly negative, as depression is most frequent in the working-age population, rather than among older, retired people who are most likely to suffer from major diseases. It is also an important cause of suicide – in Canada, a leading cause of premature death, and worldwide, claiming 850,000 lives each year.

Increasing awareness and education about mental illness has helped reduce the stigma attached to clinical depression, and new and effective treatments in the form of antidepressant medications and evidence-based psychotherapies have emerged. This combination of factors presents a perfect opportunity to improve population health. To quote the World Health Organisation (WHO):

“Depression can now be reliably diagnosed in primary care. Antidepressant medications and brief, structured forms of psychotherapy are effective for 60-80% of those affected and can be delivered in primary care. However, fewer than 25% of those affected (in some countries fewer than 10%) receive such treatments. Barriers to effective care include the lack of resources, lack of trained providers, and the social stigma associated with mental disorders including depression.”³⁵

In response, the WHO launched the *Depression in Public Health* initiative, which aims to close “the substantial ‘treatment gap’ between available cost-effective treatments and the large number of people not receiving it”, and deal with the barriers to effective care.

³⁵ For more information, see the WHO information page at:
http://www.who.int/mental_health/management/depression/definition/en/

Although Canada lagged behind other countries in creating a national initiative against major depression, it recently established a National Mental Health Commission³⁶ mandated to ensure a national coordinated approach to the delivery of accessible and effective mental health services to improve access,³⁷ awareness³⁸ and accountability.³⁹

This is an enormous challenge and population health research has an essential role to play. Simply by measuring the prevalence of depression and demonstrating its extensive negative effect on Canadians, it has already made an important contribution. It needs to go further, though, and help clarify some of the key questions facing policy makers: How effective is treatment for clinical depression in real world clinical settings? Are treatment services adequate? Can major depression be prevented?

Are Canadians receiving effective treatment?

Many Canadians feel the treatment they receive is effective. Over 50% of CCHS 1.2 respondents who consulted health professionals for depression reported that the treatment had helped them “a lot”.⁴⁰ Their perception was equally positive whether treatment was received from primary care givers, such as general practitioners and family doctors, or from mental health specialists.

³⁶ The March 19, 2007 federal budget established a National Mental Health Commission along the lines advocated by the CPA and recommended by the Senate Committee.

³⁷ The availability of safe, evidence-based continuum of prevention, treatment and support services in the community, which are resourced according to need, accountably managed, and delivered collaboratively by health professionals, families and patients, and where the patient in need receives the right intervention, in the right location, at the right time and from the right practitioner.

³⁸ Public awareness and acceptance of mental illness as a health condition where people experiencing a mental illness face a stigma- and discrimination-free environment.

³⁹ A strong research and knowledge transfer capacity, where the continuous advancement of research, knowledge, and where best practice about what works in mental illness treatment and prevention at the clinical, system and policy levels inform decision making in the care system.

⁴⁰ Wang & Patten 2007

Assessing actual, rather than perceived, treatment effectiveness is complicated, however. First of all, episodes vary enormously in severity, and some resolve without medical intervention. Second, many depressive episodes last only a few weeks – less time than it takes for anti-depressants to take effect. In cases like these, it is impossible to judge whether medication or time brought about the “cure”.

Third, the most severely depressed individuals are both most likely to be treated and most likely to relapse. Studies that compare recurrence of depression among those who take anti-depressants and those who do not, therefore, inevitably find that recurrence is most common among those who receive treatment.⁴¹

Up to now, clinical research has proved more efficient than epidemiological research in evaluating treatment effectiveness. Intervention studies (randomized clinical trials and follow-up of clinical trial participants) certainly confirm that long-term “maintenance” treatment with antidepressants or evidence-based psychotherapy does reduce the risk of relapse.

Improving longitudinal population health data or finding new ways of using large-scale population survey data to evaluate effectiveness might change this. At the macro level, simply estimating the average number of lost productivity days at regular intervals could give a general idea of any progress, although this would evaluate overall changes in prevention and service provision, not only in the effectiveness of the treatment itself.

Are Canadians receiving adequate treatment services?

At first sight, assessing whether treatment is adequate rather than effective appears more straightforward. If, as we have seen, only half of those who meet the diagnostic criteria for clinical depression receive professional help, and an even smaller percentage visit mental health specialists, the simple answer must be no.

⁴¹ Patten 2004; Wang 2004a

Access to anti-depressant medication may have improved enormously in recent years, but the same cannot to be said for psychotherapy, cognitive therapy and other forms of essential but under-funded treatments.

While it is certainly true that not everyone who needs treatment is receiving it, the answer to the question of treatment adequacy is much more complex. This is clear to researchers who look beyond the percentage of those who *receive* treatment to ask the question: *why do only half the survey respondents meeting the criteria for clinical depression **seek** professional help?*

So far, this question has not been put to survey respondents in Canada, and we can only conjecture what their answers might have been. Nonetheless, it takes researchers, policy makers and clinicians to the heart of the issue. Are people not seeing their doctor for personal reasons - because they don't wish to admit to "mental problems", or feel they don't need help - or because of perceived or real inadequacies of Canada's health services?

In the Australian national survey, the most frequent response to this question was that respondents didn't think they needed help. Although researchers tended to interpret this as an indication of "poor mental health literacy" (i.e. that people needed help but didn't realize it), another interpretation is also possible: that not everyone who meets the DSM criteria for depression does actually need professional help.

Clinical practice guidelines from the UK National Institute for Health and Clinical Excellence (NICE) reflect this reality.⁴² These guidelines regard "watchful waiting" with follow-up within two weeks as an appropriate response to mild depression in primary care.

This is the position taken by growing numbers of Canadian researchers and front-line clinicians in the light of research showing that episodes of major depression

⁴² <http://guidance.nice.org.uk/CG23>

resolve themselves without treatment. They are starting to question whether the DSM criteria, while representing a big advance over the old depression rating scales, provide a straightforward indicator of treatment need.

Do all episodes of clinical depression identified by the diagnostic interviews require medical intervention, or are some mild enough to be allowed to right themselves on their own? Finding answers to this question is key to interpreting epidemiological data and to charting a course for public health action.

Is enough being done to prevent the onset of major depression?

Prevention is largely about awareness - forewarned is forearmed, as they say. By studying risk factors and triggers for major depression, research has an important role to play in identifying potential danger zones where investment in awareness and prevention could pay off. Discovering the potential problems for mothers during the period following childbirth, for example, led to huge progress in awareness, education, and prevention of post-partum depression.

As research has shown, prevention is particularly important among Canada's youth. The first episode of depression often occurs during the late teens and early twenties, and suicide is second only to motor vehicle accidents as the leading cause of death among this age group. Programmes designed to raise awareness of the dangers among students, parents and teachers are essential to ensure that young people receive treatment early on and avoid recurrent depression becoming the pattern of their lives.⁴³

Educating employers and employees about aspects of the work environment that are most detrimental to mental health is another important area. The economic returns in terms of productivity and reduced health care costs would more than repay the investment in providing healthy and supportive workplaces. Increasing the attention given to the impact of work stress on mental health is especially

⁴³ Cheung & Dewa 2006, 2007.

important given the current shift in the economy and labour market. Canadians are increasingly employed in jobs that are highly demanding at a cognitive level, and therefore much more disabling for those with depression than manual jobs are.

Research is equally clear that physical problems combined with major depression are particularly costly - increasing physician use, subjective distress and absence from work. Understanding that the psychological effects of chronic physical health problems can be as debilitating as the problem or disease itself is the first step towards preventing them.

Awareness is largely about education. By reducing the stigma attached to mental health problems, education and awareness will encourage more people to seek professional help before their problems become entrenched. It will also encourage the development of self-help and other non-medical forms of assistance – tools that can help individuals deal with this frequently recurrent problem in the long term.

Where do we go from here?

The general message for policy makers is clear: investment in the prevention and treatment of major depression will be of enormous benefit to Canadians *and* the Canadian economy. The problem is substantial, and so must the investment be.

What about more specific messages about how best to direct these investments? We have already discussed some of the areas in which prevention efforts could be directed. With respect to treatment, depression's broad spectrum of severity and duration makes it unlikely that a "one size fits all" approach will be adequate.

Although the access and availability of specialist care clearly needs further development, the research also seems to point towards a need for an enhanced spectrum of services - and not necessarily the most expensive ones. Long-term self-management is a largely neglected area that needs attention; in this respect, major depression has much in common with other chronic diseases, such as diabetes.

Health care investments tend to be focused on acute care - dealing with the current crisis at the expense of the long term monitoring and support needed for chronic or recurrent diseases. Canada needs to develop a new “collaborative care” approach to treatment for mental illness. This approach integrates mental health workers into the primary care system where most psychiatric work is done – to the satisfaction of both patients and physicians, according to one pilot project carried out in British Columbia.⁴⁴

For population health researchers, the general message is that much remains to be discovered. Focusing on “resilience” rather than “morbidity” would be a fruitful line for research into depression, as it has proved to be in other research areas, such as child outcomes. Identifying the characteristics and support networks of individuals who emerge relatively unscathed from stressful work, family or health situations could provide some useful insights into prevention of depression.

Equally valuable would be finding the answer to two of the questions raised by these studies: “Why do only half the people meeting the diagnostic criteria for depression seek professional help?” and “what factors contribute to the recovery of those who meet the diagnostic criteria for depression but who did not seek professional help?”

Whereas past research has focused on bringing major depression to public attention, driving home the reality and importance of the problem, future research will need to address this next level of challenges, and focus on the fine tuning of policy.

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