

## Primary Health Care

### Early vs. Deferred Therapy: New Treatment Implications for HIV/AIDS Patients?

Research by the [North American AIDS Cohort Collaboration on Research and Design](#) (NA-ACCORD) has been published in the *New England Journal of Medicine*. The study conducted two parallel analyses involving 17,517 asymptomatic patients with HIV infection in the US and Canada and found that [early initiation of antiretroviral therapy significantly improved survival](#), as compared with deferred therapy. In the first analysis of patients with a CD4+ (a type of white blood cell) count of 351 to 500 cells per cubic millimetre, there was a 69% increase in the risk of death for patients in the deferred-therapy group. In the second analysis of patients with a CD4+ count of over 500, there was a 94% increase. Notably, as a member of the NA-ACCORD, data from the [Ontario HIV Treatment Network's \(OHTN\) Cohort Study](#) contributed to this large-scale study.

## Chronic Disease Prevention and Management

### Heart and Stroke: Long-term Trends in Canada

Two recent studies have highlighted long-term trends for heart and stroke diseases in Canada. First, a study of recent trends for cardiovascular and cerebrovascular diseases in Canada from 1994 to 2004 found a [decline in rates of death and hospital admissions](#) for stroke, heart failure, and myocardial infarction. However, the decline in these conditions changed at different rates. For example, the age- and sex-standardized rate of hospital admissions decreased 27.6% for stroke and 27.2% for heart failure but only 9.2% for acute myocardial infarction. The second study examined the long-term trends in the use and expenditures of cardiovascular medications in Canada and found that the use of these medications increased between 1996 and 2006 with related costs rising by over 200% during this period to surpass [five billion dollars](#) in 2006.

## Home and Community Care

### Assessing Home and Community Care (H&CC) Systems

A key finding of an Ontario-based study of 1,681 individuals found that [between one third and one half of individuals](#) qualifying for a long-term care placement in Toronto could be placed safely and cost-effectively in their family residences or in supportive housing. A paper released by the BC Office of the [Canadian Centre for Policy Alternatives](#) proposed increasing the wages of community health workers, redesigning home support to improve teamwork and stability, and increasing the number of client hours provided in BC's system. The cost of adopting all three measures was estimated at [\\$93.2 million dollars](#). At the national level, a recent policy brief identified eight recommendations to improve the H&CC system, including the [development of pan-Canadian principles for H&CC](#).

## Public Health

### Can the Internet Help in Infection and Disease Prevention and Control?

With the [H1N1 influenza A virus](#) putting countries around the world on alert, a number of journals have recently discussed the potential of the internet to serve as a resource for infection and disease prevention and control. A previous *Letter in Nature* developed [a method of tracking influenza-like illness in a population](#) by analyzing queries to online search engines such as Google. A second article noted that although internet scanning and search term surveillance using tools such as [HealthMap](#), [ProMed](#), and [Google Flu Trends](#) were promising for early identification of disease outbreaks, [these technologies require further evaluation](#). To facilitate searching for relevant information using [online infection resources](#), a review identified eight main categories of websites including those that focus on guidelines and policies, health care-associated infections, and infection surveillance and reporting. [Other tools](#) such as data from the International Air Transport Association have been used to track H1N1.

## Institutional Care/Sectors

### The Influence of Hospital Culture on Safety and Satisfaction

Recent research from the US found that higher levels of 'group' and 'entrepreneurial' cultures (which emphasize collaboration and innovation, respectively) in 30 Veteran Affairs hospitals were associated with [higher levels of safety climate](#) (i.e., perceptions and attitudes of the hospital workforce about safety). Other recent US research showed that acute care hospitals with [better safety climates have lower relative incidence of patient safety indicators](#) ([adverse events](#) such as accidental punctures and postoperative hemorrhages). Finally, [work conditions for nurses](#), another hospital organizational factor, were recently shown to significantly contribute to patients' perceptions of better symptom management.

Note: Health Horizon newsletter draws on current research from peer-reviewed journals; you may need to obtain some of the articles referenced in Health Horizon through the MOHLTC Journal Access Centre or by purchasing them. For assistance with obtaining articles please contact the Health Horizon Staff Lead, Uyen Quach at [uyen.quach@ontario.ca](mailto:uyen.quach@ontario.ca), tel. (416) 327-7657.

## World at a Glance



### Canada

#### Nursing Shortages in Canada: What are the Solutions?

Several studies [responding to nursing shortages](#) have recently been published. A report by the [Canadian Nurses Association](#) tested six long and short-term policy scenarios to address the predicted shortage of registered nurses (RN) over the next 15 years. One of the findings was that reducing absenteeism by half over three years would be equivalent to [7,000 new full-time RNs](#) entering the workforce. Another study suggested that [full-time work opportunities](#), and the potential for ongoing education, are key factors contributing to the migration of Canadian nurses to the US.



### United States

#### Trends in Out-of-Pocket Spending: Implications of Cost-Sharing?

A US study published in *Health Affairs* that looked at trends in underinsurance and the affordability of employer coverage found that expected spending on medical costs, deductibles, and other forms of cost-sharing (e.g., co-payments), [increased 34%](#), from \$545 in 2004 to \$729 in 2007. Notably, in a study of 17,183 US patients, [higher co-payments were associated with delayed initiation of drug therapy](#) for patients newly diagnosed with hypertension, diabetes, or hypercholesterolemia. A previous comparison of the US and Canada found [differences in cost-related prescription non-adherence](#), not only between countries, but also within each country.



### United Kingdom

#### Integrated Care in the National Health Service (NHS): Lessons for Ontario?

A case study released by the Change Foundation identified [lessons Ontario can learn from integrated health care in England](#). It noted that sophisticated and aligned funding models and incentive payments are necessary to support clinical integration. A performance monitoring and reporting system which defines evidence-based, outcome-oriented, provincial standards was also recommended. Recently, the UK's NHS [chose 16 organizations to pilot and evaluate new models of integrated care](#), combining health and social care, primary and secondary care, or both.



### India

#### Health Human Resource Challenges and Successes in India

The *Canadian Medical Association Journal* recently highlighted the shortage of doctors in rural India and some [attempted solutions](#), including a new mobile health program, compulsory rural stints for medical students, and mobile hospitals. Aside from doctor shortages, [other challenges](#) included the fact that health service delivery is often hampered by a lack of proactive field supervision, and ineffective and corrupt disciplinary practices. Current research described [successful team management strategies](#) in Uttar Pradesh, including implementing a learning-by-doing training program, creating tiers of staff recognition, and encouraging staff autonomy.



### European Union

#### Issues Surrounding the Use of HTAs in Europe

Health Technology Assessments (HTAs) are tools used to evaluate the clinical and cost-effectiveness of new medical drugs and technologies. Recent reviews of HTAs in European countries have noted that they can be hampered by the [poor methodological quality](#) of the research studies used to conduct the evaluations (e.g., small sample sizes) and [can often take up to two years](#). Ontario's Medical Advisory Secretariat, by comparison, completes its evidence-based reviews and makes them publicly available in [six months on average](#). A number of [reviews are in progress](#).

# Focus on Mental Health and Addictions

## Highlight

### The Systems Enhancement Evaluation Initiative (SEEI)

The SEEI was a four-year initiative to evaluate the effects of the \$167 million dollar government investment in Ontario's community mental health system with a focus on crisis response, intensive case management, assertive community treatment, early intervention in psychosis, and services for individuals with mental illness who are in contact with the criminal justice system. Consisting of nine studies across the province, SEEI recently released a [final report](#) providing a high level summary of the results of the initiative. Highlighted below are select key messages identified in the report.

#### Program Client Outcomes

The initiative found that clients of newly-enhanced programs experienced a range of positive outcomes (e.g., reduced homelessness and need for hospital resources). [The court support program in Ottawa](#) is one example of this.

#### Program Innovation

The report noted that new funds were used to innovate and develop more efficient and effective program-level services. Studies such as [the integrated crisis-case management service in Kingston](#) and [the community-based discharge planning service in Sarnia](#) were two examples illustrating this innovation.

#### System Integration

Another finding from the report was that system integration was expanded and improved when funds were targeted specifically towards integration activities. [The Waterloo Wellington regional crisis system study](#) is a case of this change.

#### Impact on Hospital Use

According to the report, the *Matyoshaka Study*, a multi-site study of [court support](#) and [early intervention](#) programs found evidence of some decreased reliance on hospital resources.

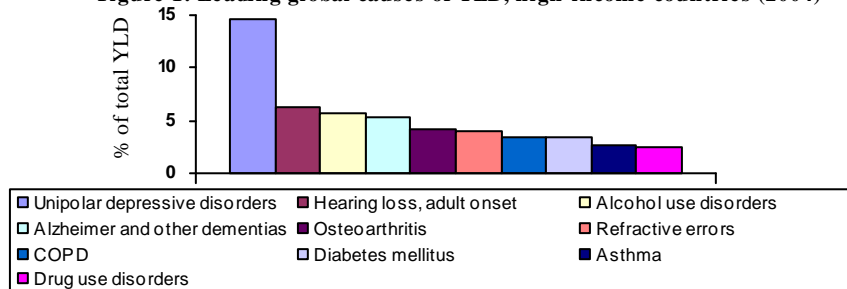
## Introduction: Mental Health and Addictions (MHA)

Literature on MHA is extensive and reflects the consideration of numerous issues. This includes studies on the challenges of addressing [co-occurring mental health and addiction disorders](#), [forensic psychiatry](#), [stigma](#), [co-morbid conditions](#), [health human resource issues](#), [social determinants](#), MHA in various settings (e.g., [schools](#)), and various population groups (e.g., [ethnic minorities](#), [the elderly](#), [males vs. females](#), [Aboriginal peoples](#)), among many other topics. The significance of addressing MHA is increasingly a global issue (see Figure 1 for leading global causes of years lost due to disability - YLD). This section provides a brief overview of selected jurisdictional strategies and responses for MHA. It also emphasizes recent research highlighting key challenges (e.g., prevalence, health-related risks) and evaluations of programs or interventions for depression, substance abuse, problem gambling, and mental health in the workplace.

## Jurisdictional Strategies and Responses

Nationally, countries such as [Australia](#), [New Zealand](#), and [Scotland](#) have strategic plans for MHA. According to the [Mental Health Commission of Canada](#) (MHCC), Canada is the only G8 country without a mental health strategy. However, the [MHCC is currently in the process of developing one](#). At the provincial level, Ontario is developing a [10-Year Mental Health Strategy](#). In particular, the Minister of Health and Long-Term Care's Advisory Group on Mental Health, Addictions and Problem Gambling will focus on [five main topics](#): system design, healthy communities, consumer partnerships, early identification and intervention, and supporting front-line workers. In July 2009, the Minister held a summit that brought together hundreds of Ontarians affected by mental health and addictions issues to share ideas and experiences. Effective programs and services were also showcased. A [discussion paper](#) was also released at the summit.

Figure 1: Leading global causes of YLD, high-income countries (2004)



Data from: *The Global Burden of Disease 2004 Update*, WHO (2008)

Other responses have included the dissemination of evidence-based programs and interventions. For example, the [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#) offers a [National Registry of Evidence-based Programs and Practices](#), which at the time of writing, had 137 interventions in its database. The [Agency for Healthcare Research and Quality \(AHRQ\)](#) provides a [database](#) that highlights successful and attempted innovations as well as "QualityTools" aimed at improving health care. Mental health and substance abuse are two subject categories within this database.

## Recent Research for Selected MHA Issues

### Mood Disorders: The Prevalence of Depression

Current literature has highlighted the prevalence and types of treatments available for disorders such as depression. For example, a recent report found that in 2007, [approximately 16.5 million American adults](#) (aged 18 years or older) experienced at least one major depressive episode in the past year. In Ontario, [42% of diagnoses](#), at the time of admission to inpatient psychiatric beds, were for depression and bipolar disorders. The *Burden of Illness* chapter recently released by the [POWER Study](#) found an [income gradient](#) in the percentage of women who had probable depression with 13% of low income, and 6% of high-income women, having probable depression. The POWER chapter on depression will be launched in late summer 2009. In terms of interventions,

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current reviews have looked at [screening for child and adolescent depression in primary care settings](#), [managing unipolar depression in pregnancy](#), and treatments for anxiety, depression and alcohol disorders in [the elderly](#).

### Substance Abuse: Health-Related Risks and the Evidence for Harm Reduction

Recent literature highlights the health risks associated with substance abuse. For example, an evaluation conducted in 2008 of the [Ontario Harm Reduction Distribution Program \(OHRDP\)](#) found that of the 1,256 intravenous drug users who had undergone and collected their results for hepatitis C testing, [52% reported receiving a positive result](#) from their most recent test. In Australia, of the 9,552 injection drug users in one study, [26% reported experiencing an injection-related problem](#) (e.g., swelling of hands, bruising) and 10% reported an injection-related disease (e.g., abscesses or skin infection). In terms of harm reduction interventions, an analysis of Vancouver's [Insite](#), North America's first supervised injection facility (SIF), found that the facility prevents 35 new cases of HIV and almost three deaths each year. The authors estimated that this provides a societal benefit of over [\\$6 million per year on average](#), after accounting for program costs. Previous research has shown that the distribution of safer crack-smoking resources [reduced drug injection and the sharing of pipes](#).

### Problem Gambling: What are the Risk Factors?

The literature suggests risk factors may vary for different groups. For example, findings from a [longitudinal cohort study of children](#) in Montreal suggested impulsivity increased the chance of later self-reported involvement in gambling. In Ontario, [alcohol or any substance dependence](#) was found to significantly increase the odds of reporting a gambling problem for adults over 55 years old. The findings of a recent evaluation of an American preventative gambling awareness program targeted at youth ([Don't Gamble Away our Future™](#)) indicated that awareness of gambling, and the dangers associated with it, were improved after the program. Notably, younger children (i.e., primary school) improved scores more than older children (i.e., high school), and [males improved their post-test scores more than females](#). Current reviews have also analyzed the literature on interventions including [pharmacological treatments](#) as well as non-pharmacological treatments such as [cognitive behavioural therapy \(CBT\)](#) for problem gambling.

### Mental Health and the Workplace: The Economic Impact

Research on mental health in the workplace has highlighted the economic impact of mental illness. A recent US-based study aimed at quantifying the direct and indirect costs of employee depression, anxiety and emotional disorders at one large employer in 2004 found that these three categories were the fifth costliest of all disease categories with an [average cost of \\$1,646 per case](#) (53% coming from indirect costs and 47% from direct costs). A Canadian study published in 2009 using data from the Canadian National Population Health Survey suggested that [reducing job strain](#) may have positive impacts on the risk of depression. A meta-analysis of the effects of [health promotion interventions](#) in the workplace on depression and anxiety symptoms found that a broad range of these interventions appear to be effective, although the effects are small.

### Conclusions

This brief overview of national efforts as well as recent research and evaluations of MHA programs and interventions (see also side bar, pg. 3) highlights the challenges MHA pose. For example, research suggests MHA problems have significant economic, social and clinical implications; the risk factors and determinants of MHA are varied; and MHA affects a wide range of groups. The diversity of these issues is reflected in the various programs and interventions currently being implemented and evaluated (e.g., screening, harm reduction programs, CBTs, and health promotion).

## Selection of recent Cochrane Reviews

[Feature: Cochrane Reviews of Prevention and Treatment of Influenza](#)

[Exercise Reduces Falls in Older People](#)

[Music Reduces Stress in Heart Disease Patients](#)

## Upcoming conferences/events

Statistics Canada: [Health Statistics Data Users Conference 2009](#)

Ottawa, Ontario  
September 21-22, 2009

AHRQ: [Research to Reform – Achieving Health System Change](#)  
Bethesda, Maryland  
September 13-16, 2009

Institute for Healthcare Improvement:  
[21<sup>st</sup> Annual National Forum on Quality Improvement in Health Care](#)  
Orlando, Florida  
December 6-9, 2009

## Interesting links

[CIHR: Knowledge Translation Learning Modules](#)

[The Canadian Index of Wellbeing](#)

[Health Policy Monitor](#)

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