

## Primary Health Care

### Perspectives of Primary Care Physicians and Key Topics of Care

A [2009 survey of over 10,000 primary care physicians \(PCPs\) in eleven countries](#) found that the US lags behind in terms of access to care, the use of financial incentives to improve the quality of care, and the use of health information technology. For example, compared to 97% of PCPs in the Netherlands and 43% of Canadian PCPs who reported after-hours arrangements to see a doctor/nurse without going to the ER, only 29% of American PCPs reported these arrangements. However, 75% of Canadian PCPs reported long waiting times to see specialists compared to 28% of American doctors. This survey is the 12<sup>th</sup> in a series by the [Commonwealth Fund](#). Previous surveys have looked at various topics including [adult health care experiences](#) and [PCP office systems](#).

## Chronic Disease Prevention and Management

### Risk Factors for Cardiovascular Disease (CVD) and Stroke

A retrospective analysis of the [Childhood Cancer Survivor Study](#) cohort found that exposure to cancer treatments (e.g., anthracyclines and cardiac radiation) increased the relative hazard for various cardiac outcomes. For example, exposure to 250 mg/m<sup>2</sup> or more of anthracyclines increased the relative hazard of congestive heart failure, pericardial disease and valvular abnormalities by [two to five times](#) compared with survivors who had not been exposed. A systematic review and meta-analysis of prospective studies analyzing habitual dietary salt intake and incidence of stroke and total cardiovascular disease suggested that a decrease of approximately five grams (~1 teaspoon) a day in habitual salt intake is associated with a [reduction in the rate of stroke \(23%\) and CVD \(17%\)](#).

## Mental Health and Addictions

### Studies on Antidepressants

Reflecting findings similar to a [2008 review](#), a recent [meta-analysis](#) of six randomized placebo-controlled trials of antidepressant medication approved by the [US Food and Drug Administration](#) found that the magnitude of benefit of antidepressant medication compared with placebo increases with severity of depression symptoms and that on average, may be minimal or nonexistent in patients with mild or moderate symptoms. Contributing to a better understanding of why antidepressants may not always be effective, Canadian researchers using [Positron Emission Tomography \(PET\)](#) found that monoamine oxidase AV<sub>T</sub> (an index of MAO-A density, which is an enzyme that metabolizes serotonin, norepinephrine and dopamine) was [significantly elevated](#) in each brain region during major depressive episodes and *after* selective serotonin reuptake inhibitor treatment as compared with healthy controls.

## Public Health

### Recent Responses to Climate Change and Health

[The International Development Research Centre](#), along with other federal research funders, is leading an international research initiative that aims to support [interdisciplinary and multi-sectoral collaborations on the adaptation to climate change](#) with low and middle income countries. [Mitigation and adaptation options](#) (e.g., fuel efficient cars and heat-wave action plans respectively) to respond to climate change have been highlighted in a previous report from the [Intergovernmental Panel on Climate Change \(IPCC\)](#). Additionally, an earlier Lancet Commission discussed [how climate change affects health in six ways](#) (e.g., changing patterns of disease; access to clean water and sanitary conditions) and recommended a multidisciplinary and multi-sectoral approach to public health. The journal also published a recent series on the [public health benefits](#) of reducing greenhouse gas emissions.

## Institutional Care/Sectors

### Personal Experiences of Patients from Hospital to Home: Quality Improvement Project

[Having Their Say and Choosing Their Way](#) examines the personal experiences of caregivers and elderly patients who have been designated as alternate-level-of-care patients transitioning from hospital to home with home-care services or placement in a long-term care home. One key finding of the study is that there were [247 steps in the hospital-to-home process](#) and [160 steps in hospital-to-long-term care process](#). Examples of responses addressing issues of transition include the [Home First](#) and [Waiting at Home](#) programs developed by Greater Toronto Area [LHINs](#) and [CCACs](#).

Note: Health Horizon newsletter draws on current research from peer-reviewed journals. Articles referenced in Health Horizon may be obtained 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.

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## World at a Glance



### Canada

#### Assessing the Health of Canadians

A recent ten-year retrospective analysis of health care found that although fewer Canadians are smoking, risk factors such as [obesity have increased](#); a [trend observed in the United States](#) as well. Differences in health status (e.g., life expectancy rates) between provinces and countries were highlighted in a [separate report by ICES](#) benchmarking Ontario against leading jurisdictions in Canada (i.e., British Columbia, Quebec) and around the world (e.g., Sweden). Lessons learned and recommendations for Ontario, such as focusing attention on disadvantaged groups, are also provided.



### United States

#### Colorectal Cancer (CRC) Rates Declining in the US

In a special feature on CRC in the recent *Annual Report to the Nation on the Status of Cancer*, microsimulation modeling from the [Cancer Intervention and Surveillance Modeling Network](#) was used to analyze historic changes in risk factors, screening and treatment on past CRC incidence and mortality trends, and to project future mortality trends through 2020. The model predicted a 36% overall decline in CRC mortality from 2000 to 2020 if current trends continue. [Accelerating the trends could result in a 50% reduction in mortality](#) by 2020. Recent reports making the case for the Administration's health reforms have highlighted [a number of issues related to cancer](#) (e.g., [44% of Texans have not had a CRC screening](#)).



### United Kingdom

#### New Cross-Government Program of Action for Mental Health and Addictions

England's Department of Health and nine other government departments (e.g., Office for Disability Issues; Ministry of Justice) have recently launched [New Horizons](#), a mental health strategy aimed at [improving mental well-being](#) and the services that provide mental health care. A report outlining actions were grouped into six key themes including prevention of mental illness and promoting mental health, early intervention and tackling stigma. As part of the consultation process, a booklet was also made available to solicit [input from the population](#).



### European Union

#### The Drug Situation in Europe

A recent report released by the [European Monitoring Centre for Drugs and Drug Addiction](#) on the drug situation in Europe includes estimated drug use for European adults (ages 15 - 64 years old). For example, the Centre estimates 1.2-1.5 million problem opioid users in Europe. Additionally, in 21 member states, the reported drug law offences [increased by approximately 29 %](#) between 2002 and 2007. The report is accompanied by "Selected Issue" reports on [polydrug use](#) (i.e., the concomitant or consecutive use of different licit and illicit drugs) and [outcomes of drug offences](#).



### Other

#### Partnering with Faith-Based Organizations (FBOs) in the Fight against HIV/AIDS

[UNAIDS](#) recently launched a [strategic framework](#) to partner with FBOs to achieve universal access to HIV prevention, treatment, care and support. An example of an FBO partnership between the government and community volunteers in [Tanzania](#) to care for children affected by HIV has recently been described. [Previous reports](#) from the [African Religious Health Assets Program](#) also highlight FBOs in providing health care in Sub-Saharan Africa. Notably, partnering with FBOs is not novel to low-income countries and is also present in the [US](#).

# Focus on Neurotrauma: Challenges and Opportunities

## Highlight

### [The Ontario Neurotrauma Foundation \(ONF\)](#)

With funding support from the Ministry of Health and Long-Term Care, the ONF acts as a strategic health research funding body focused on injury prevention and maximizing the quality of life for persons with ABI or SCI. Below are selected examples of ONF activities responding to these priorities.

### **Working towards consistent evidence-informed practices and understanding of neurotrauma**

The ONF has funded over 500 research projects, many published in peer-reviewed journals. Examples of research products and topics have included [a compendium of best practices in neurotrauma injury prevention](#); the [development of a dataset](#) to provide information on ABI (e.g., incidence); and [primary care access in Northern Ontario for those living with SCI](#).

### **Partnering**

To promote knowledge sharing and mobilization; reduce duplication; and ensure that the research supported by the ONF is implemented and sustained, the organization has an extensive list of partnerships at the provincial, national, and international level including:

- [Réseau de provincial recherche en adaptation-réadaptation](#)
- [Victorian Neurotrauma Initiative](#)
- [Neurological Health Charities of Canada](#)
- [Ontario Safety Association for Community & Healthcare](#)

### **Bridging gaps**

[Efforts](#) are also being made to explore ways in which neurotrauma overlaps with other health conditions that may have similar issues such as chronic disease (e.g., [Ontario Chronic Disease Prevention and Management Framework](#)) and health promotion (e.g., [Ontario Injury Prevention Strategy](#)).

### **Capacity building**

The ONF supports [summer internships](#) as well as studentships and fellowships. Notably, it was found that [61%](#) of past ONF trainees are currently involved in neurotrauma-related activities.

## What is neurotrauma and why is it important?

Neurotrauma consists of acquired brain injury (ABI) and/or spinal cord injury (SCI). Although neurotrauma is generally predictable and preventable, it remains a leading cause of death and disability in North America. From 2003-2006, there were an estimated [166,736 occurrences of ABI](#) in the emergency department and acute care in Ontario and approximately [42,000 Canadians](#) with SCI are currently living in a community or institutional setting. The clinical outcomes of neurotrauma vary (e.g., [traumatic vs. non-traumatic brain injuries](#)) and individuals often have chronic, multiple health problems and non-health needs such as [community integration](#) that require services and supports for life. The costs of neurotrauma are also high. For example, in the US, the estimated direct and indirect costs of traumatic brain injury (TBI) were [\\$60 billion in 2000](#). In Australia, health system costs alone for moderate and severe traumatic brain injury as well as paraplegia and quadriplegia were estimated at [over \\$700 million](#).

## Recent research on selected neurotrauma issues

**Quality of life:** Individuals who sustain neurotrauma often experience [long-term effects](#) from their injuries and are at [risk of poor health](#). Therefore, improving their quality of life is often a key priority and challenge. For example, individuals with SCI are at risk of [secondary health complications](#) such as spasticity and pain. [Pressure ulcers](#) in particular are a common complication. The [Ontario Medical Advisory Secretariat](#) (MAS) recently completed a systematic review of the available evidence on interventions to prevent and manage pressure ulcers as well as [recommendations](#) based on their findings. Preventive interventions identified in the review included risk assessment, pressure redistribution devices, nutritional supplements, repositioning and incontinence management. The review concluded that there was [limited moderate or higher quality evidence in the literature](#) to support a number of the preventive interventions.

The literature also suggests the importance of community integration to improve quality of life (e.g., social and housing integration, employment). One Australian study comparing TBI cases with non-trauma-exposed cases not only found that the TBI cohort experienced worse general health and elevated probabilities of depression but also [social isolation and worse labour force participation rates](#). Similarly, recent reviews suggest that less than half of the people with [traumatic and non-traumatic ABI](#) and [SCI](#) return to work after one or two years. Current studies have considered various factors predicting employment post-injury including [education](#), [wheelchair capacity](#), [race/ethnicity](#), and [other factors](#) (e.g., job placement services). Another review found a variety of vocational rehabilitation approaches but concluded that there was little clear evidence to suggest a [“best practice” approach for TBI-related vocational rehabilitation](#).

**Health care utilization:** Recent research in Ontario suggests that ABI and SCI result in significant health care utilization such as hospitalization, re-hospitalization and physician visits. Between 1992 and 2002, TBI-related hospitalizations decreased for mild injuries (from 75% to 54%) but the proportion of [moderate injuries increased \(from 19% to 37%\)](#). Between 2003 and 2006, over 25% of individuals who had an acute care hospitalization for traumatic SCI in Ontario were [re-hospitalized one year after initial acute care discharge](#). Patients with traumatic SCI also show significant physician utilization, especially among their family physicians and psychiatrists, with a mean number of [31.7 visits](#) (median number was 26 visits) during the first year after their injury.

**Access:** Access issues in terms of health care services (e.g., [rehabilitation](#), [transitional care](#), [primary care](#)) as well as accessibility in the [physical environment](#) are common problems facing individuals living with neurotrauma. In Ontario, the [Accessibility for all Ontarians Act, 2005](#) ensures the development of mandatory accessibility standards ([customer service](#), [employment](#), [information and communications](#), [public transportation](#), and [built environment](#) – buildings and other structures) that will identify, remove and prevent barriers for people with disabilities in key areas of daily living. Some groups in particular may be at risk. For example, a survey of over 900 homeless men and women in Ontario found that the lifetime prevalence of TBI was 53% and [70% reported their first TBI occurred before the onset of homelessness](#). A small scale, qualitative study of

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individuals living with SCI on a First Nations reserve found most lived in homes that [were not wheelchair accessible](#).

**Caregivers:** Individuals caring for those living with neurotrauma can also be affected. For example, a study of families of children with TBI found that child dysfunction and unmet need was associated with [loss of work for caregivers](#) both at three and 12 months after injury. Data from a study of 273 caregivers of TBI patients suggested that [one third are at risk for depression, anxiety, or other forms of psychological distress](#). A randomized controlled trial found that caregivers in a dual-target intervention (which provided support to both the caregiver and individuals with SCI) had significantly [fewer health symptoms](#) compared to a caregiver-only intervention and an information-only control group. They were also less depressed when compared to those in the caregiver-only intervention. Other caregiver interventions that have found a positive outcome include a [brief, individualized problem-solving intervention](#), [web-based videoconference training for caregivers](#) and interventions with [multiple components](#) including education, skill-building and psychological support.

### Prevention

Some of the leading causes of neurotrauma include [fall-induced injuries and motor vehicle accidents](#), [workplace injuries](#) (e.g., the construction industry), and certain recreational activities such as [high-contact sports](#), suggesting the need for a public health and multi-sectoral approach for prevention. Effective multi-strategy preventive interventions identified in the literature include: [education strategies](#), [exercise programs as well as environmental modifications](#) and [legislation](#) to reduce neurotrauma in the population. Two injury prevention programs identified as “best practice” programs by the [Ontario Neurotrauma Foundation](#) are discussed below.

**Stay on Your Feet (SOYF):** Originally developed in Australia, SOYF was a four-year multi-strategic intervention for non-institutionalized seniors aged 60 and over. At follow-up, there was a [20% lower fall-related hospitalization rate](#) for the target groups compared to the control groups. Increased falls knowledge, physical activity and safe footwear were also observed in the intervention cohort together with improved balance and reduced intake of fall-related medications. Demonstration projects of SOYF with [evaluations focusing on implementation issues in Ontario](#) were completed in 2006, resulting in an [implementation guide](#) promoting the uptake of SOYF across the province.

**Shaken Baby Syndrome (SBS) Education Program:** Abusive head injuries inflicted on infants, such as SBS, can lead to death or life-long disability. A previous evaluation of a hospital-based, parent education program - The Upstate New York Shaken Baby Syndrome Education Program - resulted in a decreased incidence of abusive head injuries by [47%](#). A three-year project is now in the process of implementing and expanding the program in Ontario. A recent report provides [evaluations of the implementation process for six participating sites](#) (Sudbury, North Bay, Mississauga, Kingston, Hamilton, and Oshawa & Port Perry). A [public website](#) is also available offering background information and implementation resources on the ONF SBS Prevention Program.

### Conclusion

Selected topics identified in the current literature on neurotrauma have been highlighted in this section, presenting some of the main issues posed by this condition. Despite these challenges, the discussion on prevention as well as a spotlight on the Ontario Neurotrauma Foundation (see sidebar, page 3) highlights some of the successful programs and activities currently available, underscoring the potential opportunities to mediate the problems neurotrauma places on the health care system and those living with it.

## Selection of recent Cochrane Reviews

[Heart disease: B-vitamin pills have no effect](#)

[Promising results for rapid viral diagnosis tests in emergency rooms](#)

## Interesting new research and links

[Screening for Breast Cancer: US Preventive Task Force Recommendation Statement](#)

[Health at a Glance 2009: OECD Indicators](#)

[Canadian Institute for Health Information 2009: Hospitalized Mortality Ratio \(HSMR\)](#)

[Integrating Internationally Educated Health Professionals into the Ontario Workforce](#)

[How Can We Support the use of Systematic Reviews in Policy-Making?](#)

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