

At A Glance

January 2010

Monthly highlights of ICES research findings for stakeholders

Deaths related to narcotic pain relievers have doubled since 1991 in Ontario

Dhalla I, Mamdani M, Sivilotti M, Kopp A, Qureshi O, Juurlink D. Prescribing of opioid analgesics and related mortality before and after the introduction of long-acting oxycodone. *CMAJ*. 2009; 181(2): 891–6.

Issue	Opioid-related mortality appears to be increasing in Canada. The true extent of the problem and the impact of the introduction of long-acting oxycodone (OxyContin) merit investigation.
Study	Analyzed 3,271 deaths related to opioid use in Ontario between 1991 and 2004 to establish the patients' use of health care services prior to death, and determine whether the addition of long-acting oxycodone to the provincial drug formulary was associated with an increase in opioid-related mortality.
Key Findings	Prescriptions for oxycodone rose by more than 850% during the study period. Deaths associated with opioid use doubled from 13.7 to 27.2 deaths per million residents from 1991 to 2004. Most opioid-related deaths (54%) were accidental; 24% were deemed suicides. In the month before death, most patients had visited a doctor (66%) or filled a prescription for an opioid (56%). The addition of OxyContin to the provincial drug plan in 2000 corresponded with a five-fold increase in related deaths over the next five years.
Implications	Access to real-time electronic databases by physicians and pharmacists would make it more difficult for individuals to obtain opioids improperly from multiple doctors or pharmacies, and might reduce the risk of dangerous drug interactions. Improved education about the risks of opioid use are recommended, as well as greater restrictions to reduce inappropriate use of opioids without compromising effective care for severe or chronic pain.

Women's lower rates of surgery after stroke explained by differences in disease severity

Kapral M, Ben-Yakov M, Fang J, Gladstone D, Saposnik G, Robertson A, Silver F. Gender differences in carotid imaging and revascularization following stroke. *Neurology*. 2009; 73(23):1969–74.

Issue	Carotid endarterectomy—a surgical procedure which can prevent recurrent stroke or death in patients with ischemic stroke or transient ischemic attack (TIA)—is performed less often in women than in men. Does this reflect differences in screening rates, disease prevalence or other factors?
Study	Identified 6,389 patients with ischemic stroke or TIA admitted to 11 Ontario stroke centres between July 2003 and September 2007. Rates of carotid imaging, severity of carotid stenosis and rates of carotid endarterectomy or angioplasty within six months of the index event were compared in women vs. men.
Key Findings	Women were less likely than men to undergo carotid imaging (81% vs. 86%). However, when the analysis was limited to patients without contraindications for surgery, 92% received imaging, with no difference between men and women. Women were less likely than men to have severe carotid stenosis (7.4% vs. 11.5%). Women were half as likely as men to undergo carotid revascularization within six months of stroke/TIA, but this difference was not significant in the subgroup with severe carotid stenosis.
Implications	Lower rates of carotid surgery in women are largely explained by potential contraindications to surgery and sex differences in carotid disease severity, and therefore, may reflect appropriate variations in clinical practice.

Low-income Ontarians with diabetes have higher early death rates

Lipscombe L, Austin P, Manuel D, Shah B, Hux J, Booth G. Income-related differences in mortality among people with diabetes mellitus. *CMAJ*. 2010; 182(1):E1–E17.

Issue	What is the impact of income on mortality trends among people with diabetes?
Study	Compared changes in mortality by age group, sex and neighbourhood income level, from April 1994 to March 2005, among Ontarians with diabetes aged 30 years or older.
Key Findings	Overall, mortality declined by more than 30% between 1995 and 2006—from 4.0% in 1994/95 to 2.7% in 2005/06. Those in the highest-income neighbourhood had a larger decline in mortality (36%) than those in the lowest-income neighbourhood (31%). Among those aged 30–64, there was a more than 40% difference in mortality between those living in the poorest and wealthiest neighbourhoods. Income had a much smaller effect on mortality rates in those aged 65 and older, whose drug costs are subsidized.
Implications	Further studies are needed to explore factors responsible for income-related differences in mortality. In the interim, better allocation of resources is urgently needed to address barriers to diabetes care among low-income populations.

Cost of blood glucose test strips to top \$500 million in Ontario by 2013

Gomes T, Juurlink D, Shah B, Paterson M, Mamdani M. *Blood Glucose Test Strip Use: Patterns, Costs and Potential Cost Reduction Associated with Reduced Testing*. ICES Investigative Report. Toronto: Institute for Clinical Evaluative Sciences; 2009.

Issue	The use of blood glucose test strips has risen sharply among people with diabetes in the past decade; however, the financial implications of this increase in use have not been explored.
Study	Analyzed annual prescription claims for blood glucose test strips between 1997 and 2008 by Ontarians aged 65 and older with diabetes. Patients were stratified into one of four diabetes therapy groups: insulin, oral glucose-lowering drugs with potential to cause hypoglycemia, other glucose-lowering drugs, and no glucose-lowering therapy. Use and costs of test strips were calculated annually for each group and projected to 2013.
Key Findings	<ul style="list-style-type: none"> • In 2008, more than half of older patients with diabetes filled a prescription for test strips at a total cost of \$85.5 million. Almost half of these patients were at low risk for drug-induced hypoglycemia; these individuals accounted for nearly one-third of all costs associated with blood glucose test strips in this age group. • During the study period, test strip use and costs increased in all patient subgroups. The number of patients receiving no glucose-lowering drugs who were dispensed test strips increased more than four-fold over the 12-year period. The associated costs in this patient group were six times higher in 2008 compared with 1997. • The total cost of test strips for older Ontarians between 2009 and 2013 was projected to exceed \$500 million; however, five potential policy scenarios in which frequency of test strip use was limited based on the four diabetes therapy groups had the potential to reduce overall costs by at least \$26 million and as much as \$302 million.
Implications	The implementation of policies that focus self-monitoring of blood glucose test strips on patients likely to benefit from them could yield substantial cost reduction over the next five years. These resources could be redirected to more effective interventions for patients with diabetes.

Many Canadians feel their health care needs are not being met

Sibley L, Glazier R. Reasons for self-reported unmet healthcare needs in Canada: a population-based provincial comparison. *Healthc Policy*. 2009; 5(1): 87–101.

Issue	The proportion of Canadians reporting unmet health care needs rose from 4.2% in 1994/95 to three times that in 2000/01. What are the underlying reasons for health care needs not being met and how do these reasons vary by region and segment of the population?
Study	Analyzed the responses of 111,258 Canadians aged 20 or older who participated in the 2003 Canadian Community Health Survey. Reasons for self-perceived unmet need were classified as problems of availability (too-lengthy wait times, services not available when required or not available in the area), accessibility (related to cost or transportation), or acceptability (personal preferences or individual circumstances).
Key Findings	<ul style="list-style-type: none"> • In 2003, 11.7% of Canadians reported having unmet health care needs in the previous 12 months; rates were highest in Manitoba (13.3%) and lowest in PEI (7.8%). • The most common reason given for unmet need was availability (54.9%), followed by acceptability (42.8%) and accessibility (12.7%). • The most common complaint related to availability was long wait times. • People who lived in rural communities, had lower levels of education or were older were <i>less</i> likely to report having unmet health care needs for any reason, or due to problems of availability or accessibility. • Higher rates of unmet need were reported by people who: lived in urban communities, had poorer health status, had physician-diagnosed chronic conditions, were female, were younger, had more education, had lower income, did not have a regular doctor and did not have pharmaceutical insurance. • Reasons for unmet need were different in each province, and no province was highest or lowest for any one reason. There was little provincial difference in unmet need due to problems of acceptability.
Implications	Further research on self-perceived unmet need should focus on distinguishing between unmet need that is related to public and personal perceptions versus that which may be directly influenced by government and health policy makers.