

At A Glance

March 2006

Monthly highlights of ICES research findings for stakeholders

Increases in cardiac tests outpacing growth of heart disease

Alter D, Stukel T, Newman A. Proliferation of cardiac technology in Canada: a challenge to the sustainability of medicare. *Circulation*. 2006; 113 (3): 380-387.

Issue	Although health care expenditures continue to rise in Canada, no one has examined how much these increases are attributable to the rise in the use of cardiac technology.
Study	Examined the use of echocardiography, stress testing, angiography, angioplasty, and bypass surgery among Ontario adults between 1992 and 2001. Utilization rates were examined by age, gender, and socioeconomic status.
Key Findings	The use of all cardiac technologies demonstrated significant exponential growth, outstripping growth rates in the burden of cardiac disease, and demographic shifts in the population. Costs increased by nearly two-fold, and cumulatively accounted for over \$2.8 billion in expenditures. Use of cardiac technologies was disproportionately higher among the elderly and women, but was similar across socioeconomic subgroups.
Implications	In the future, the substantial growth in the use of cardiac technology will likely present significant challenges to the sustainability of medicare in Canada, especially given the uncertainty as to whether the rise in total cardiac technology expenditures translates into significant outcome benefits in the population.

Immunizations not up-to-date in many Ontario two-year-olds

Guttman A, Manuel D, Dick P, To T, Lam K, Stukel T. Volume matters: physician practice characteristics and immunization coverage in young children insured by a universal health plan. *Pediatrics*. 2006; 117 (3): 595-602.

Issue	There has been little research investigating the rates of immunization coverage in infants in a universal health care system, such as Canada's.
Study	Tracked over 100,000 babies born in an urban-area Ontario hospital, between July 1, 1997 and June 31, 1998, for two years after their birth to assess whether health care provider characteristics, as well as health services characteristics, were related to up-to-date immunization status.
Key Findings	Only 66% of children had up-to-date immunizations by age two, despite an average of 19 primary care visits in the first two years of life. Children who were up-to-date were more likely to live in a higher income neighbourhood, have more "well baby" and primary care visits in the first two years of life, and have high continuity of care. Children with up-to-date immunizations were also more likely to have a primary care provider who performed a high volume of primary care for children.
Implications	As Ontario moves forward with primary care reform, better care for key services such as childhood immunizations must not be forgotten. The best methods for improving immunization rates are through investments in information technology and electronic health records.

Statins may help to protect heart disease patients against sepsis

Hackam D, Mamdani M, Li P, Redelmeier D. Statins and sepsis in patients with cardiovascular disease: a population-based cohort analysis. *Lancet*. 2006; 367 (9508): 413-418.

Issue	The relationship between statins and the risk of sepsis in patients with heart disease is unknown.
Study	Tracked over 141,000 patients, aged 65 years and older, who were hospitalized for an acute coronary syndrome, stroke, or revascularization, and who survived for at least three months after discharge, to examine whether patients prescribed statins had a lower incidence of sepsis than those who did not receive these drugs.
Key Findings	The incidence of sepsis was lower in patients who received statins than those who did not. The protective association between statins and sepsis persisted in high-risk subgroups, including patients with diabetes, chronic renal failure, or a history of infections. Significant reductions in severe sepsis and fatal sepsis were also observed.
Implications	Patients with major infections who are already taking statins may be encouraged to continue taking their medications and statins should not be discontinued at the time of high-risk elective surgery. Also, statins might be considered for patients at very high risk for sepsis, particularly if they have cardiovascular risk factors or known cardiovascular disease.

Ontarians with depression have equitable access to mental health services

Rhodes A, Jaakkimainen L, Bondy S, Fung K. Depression and mental health visits to physicians: a prospective records-based study. *Soc Sci Med.* 2006; 62 (4): 828-834.

Issue	Previous studies of access to care for depression have been based on surveys of self-reported mental health service use. As people's recollection of service use may be biased by mood states, inferences about how well persons with depression are accessing services may be misleading.
Study	Results from individuals aged 12 years and older included in the 1996/97 Ontario Health Survey were linked to administrative data indicating use of mental health care services two years later. The proportion of persons who made a mental health visit to a primary care physician or psychiatrist was examined in terms of level of distress and depression.
Key Findings	At all levels of distress or depression, the proportion of persons seen by primary care physicians was higher than the proportion seen by psychiatrists. However, when persons were at a high level of distress or depression, they were more likely to be seen by a psychiatrist. Income level was not related to the use of physicians to treat distress and depression. Independent of distress and depression, females were more likely to have a mental health visit with a primary care physician than with a psychiatrist. Also, those with higher levels of education were more likely to visit a psychiatrist, while those with lower levels of education were more likely to see a primary care physician for mental health issues, other than distress or depression.
Implications	Future studies on mental health services access should consider these findings. It is encouraging that, within a universal health system, the use of psychiatrists for distress or depression was not related to patient income.

Acne patients in lower income groups less likely to be referred to dermatologists

Haider A, Mamdani M, Shaw J, Alter D, Shear N. Socioeconomic status influences care of patients with acne in Ontario, Canada. *J Am Acad Dermatol.* 2006; 54 (2): 331-335.

Issue	Although Canada's health care system should provide equitable access to medical care based on need rather than socioeconomic status, a number of studies indicate preferential access and greater use of specialist services for those patients in higher socioeconomic groups.
Study	Individuals 12 to 27 years of age with a new diagnosis of acne by a general practitioner (GP) were identified as belonging to one of five socioeconomic groups based on median annual household income. Patients were then observed for two years following their first visit to a GP that indicated a diagnosis of acne, to identify visits to a dermatologist.
Key Findings	Of those in the lowest annual household income group of less than \$20,000, 17% were referred to a dermatologist, as compared to 24% in the highest income group of greater than \$80,000. Patients living in an urban area also had a 43% greater likelihood of being referred to a dermatologist, as compared to patients living in a rural setting.
Implications	The challenge for any health care system where insured patients see their primary care physician before accessing a specialist is to ensure equal access to specialized care for those in need, irrespective of socioeconomic status.

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