

At A Glance

April 2012

Monthly highlights of ICES research findings for stakeholders

Study examines the impact of unhealthy habits on life expectancy of Ontarians

Manuel DG, Perez R, Bennett C, Rosella L, Taljaard M, Roberts M, Sanderson R, Tuna M, Tanuseputro P, Manson H. *Seven More Years: The Impact of Smoking, Alcohol, Diet, Physical Activity and Stress on Health and Life Expectancy in Ontario*. Toronto: ICES and Public Health Ontario; 2012.

Issue	What would happen if each Ontarian improved the unhealthy behaviour that impacts him or her the most? What would be the population impact if Ontario reached the healthy living targets set by British Columbia?
Study	Developed a model to estimate the risk of death associated with five health behaviours: smoking, alcohol consumption, physical activity, diet and stress. Tracked mortality rates to 2010 for 78,597 Ontarians who responded to national health surveys from 2001 to 2005, and applied the model to a 2007 community health survey to estimate life expectancy and health-adjusted life expectancy.
Key Findings	Ontarians would gain 7.5 years of life expectancy if everyone were in the healthiest category for all five modifiable risks. Smoking, physical inactivity and poor diet each contribute 2 to 2.5 years of lost life expectancy. For most people, inactivity has the biggest impact on health; 37% need to become more physically active, 29% need to improve their diet, and 22% would have to work on quitting smoking. Collectively, 77% of Ontarians would need to reduce their unhealthy behaviours to meet BC's targets for physical activity, diet and smoking. Life expectancy would increase by 3.0 years if BC's healthy living targets were achieved.
Implications	Improving health behaviours would result in adding years to life, as well as life to years, and could be expected to reduce demand on both the health care system and informal family caregiving.

Immigrants have increased risk of preeclampsia in pregnancy

Urquia ML, Ying I, Glazier RH, Berger H, DeSouza LR, Ray JG. Serious preeclampsia among different immigrant groups. *J Obstet Gynaecol Can*. 2012; 34(4):348-52.

Issue	Serious preeclampsia (PET) is marked by very high blood pressure, extreme proteinuria and seizures after the 20th week of pregnancy. As well, it is linked to preterm delivery, fetal death and maternal hospital stay of seven days or more. What is the association between risk of serious PET and world region of origin among recent immigrants to Ontario?
Study	Studied hospital records of 118,849 women who immigrated to Ontario between 1985 and 2000 and gave birth between April 2002 and March 2009. Serious PET rates were determined by maternal world region of birth adjusted for maternal age, diabetes status and several measures of socioeconomic status.
Key Findings	Immigrant women from the Caribbean (6.8 per 1,000), Sub-Saharan Africa (6.8 per 1,000) and Hispanic America (5.9 per 1,000) were at highest risk of serious PET compared to immigrant women from industrialized nations (1.9 per 1,000).
Implications	World region of birth can be used to further aid in the identification of women at greatest risk for serious PET, and for whom aspirin therapy after 12 weeks' gestation might be considered.

Many patients with chronic kidney disease have fistulas created outside recommended time

Oliver MJ, Quinn RR, Garg AX, Kim SJ, Wald R, Paterson JM. Likelihood of starting dialysis after incident fistula creation. *Clin J Am Soc Nephrol*. 2012; 7(3):466-71.

Issue	For patients with chronic kidney disease (CKD) requiring dialysis, a surgically-created fistula is preferred over a catheter as the risk of hospitalization and death are lower. To avoid catheter use, guidelines promote early fistula creation, a practice which may lead to fistulae in patients who never receive dialysis. What is the risk of fistula nonuse or of creating fistulae too early in the course of CKD?
Study	Identified 1,929 adult Ontarians with a first fistula creation between April 2002 and March 2006 and tracked them for a minimum of two years or until they began dialysis, received a kidney transplant or died.
Key Findings	By end of follow-up, 81% of patients had started dialysis, 9% had died without starting dialysis and 10% had not started dialysis. Forty percent of patients had their first fistula created 3 to 12 months before starting dialysis (the recommended lead time). Thirty percent of fistulae were created within 90 days before starting dialysis, 30% at more than one year before, and 10% at more than two years before. Catheter use was seen in nearly one-third of those starting dialysis, indicating that many fistulae were not usable. Older patients, females and patients with less comorbidity were less likely to initiate dialysis after fistula creation.
Implications	The risk of unnecessary fistula creation and fistula creations too early in the course of CKD should be monitored if fistulae are aggressively promoted in the CKD population.

Landmark study finds Ontario's Métis population more prone to diabetes

Shah BR, Cauch-Dudek K, Wu CF. *Diabetes in the Métis Nation of Ontario: Lay Report*. Ottawa: Métis Nation of Ontario and ICES; 2012.

Issue	According to the 2006 census, the Métis comprise approximately 30% of Canada's Aboriginal population. Little is known currently about diabetes in the Métis population, and this lack of critical information makes it challenging to target programming and resources where they will be most effective in improving health outcomes.
Study	Linked health-related data from five provincial databases to the Métis Nation of Ontario Citizenship Registry to provide information on diabetes rates among 14,480 Métis citizens as of August 2009. These data were then compared to the general population of Ontario.
Key Findings	In comparison to the general population, among registered Metis: <ul style="list-style-type: none"> • The prevalence of diabetes was 26% higher. • The incidence of newly diagnosed cases of diabetes reported for 2006/07 and 2007/08 was 24% higher. • The likelihood of being hospitalized for a heart attack or pre-heart attack was 86% higher. • The likelihood of receiving care from a diabetes specialist was 18% lower. • Seniors with diabetes were more likely to use insulin and to test their own blood sugar; they were less likely to receive medication for high blood pressure.
Implications	Together, these results suggest that urgent action is needed to address the disproportionately high rates of diabetes and other chronic conditions among Métis citizens. Métis communities would benefit from targeted diabetes prevention and public health promotion, as well as programs which improve access to both primary and specialist care.

Antipsychotic use among seniors linked to increased risk of high blood sugar

Lipscombe LL, Lévesque LE, Gruneir A, Fischer HD, Juurlink DN, Gill SS, Herrmann N, Hux JE, Anderson GM, Rochon PA. Antipsychotic drugs and the risk of hyperglycemia in older adults without diabetes: a population-based observational study. *Am J Geriatr Psychiatry*. 2011; 19(12):1026–33.

Issue	Is current antipsychotic drug use among older persons without diabetes associated with a higher risk of hospital visits for hyperglycemia?
Study	Identified 44,121 patients aged 66 or older without diabetes who began antipsychotic therapy between April 2002 and March 2006 and followed them until March 2007. The risk of hyperglycemia among current users of either typical or atypical antipsychotic agents was compared to that of remote users (treatment discontinued for more than 180 days).
Key Findings	During follow-up, 220 patients (0.5%) had a hospital visit (either ED visit or hospital admission) for hyperglycemia and 17,225 (39%) died. Current use of any antipsychotic was associated with a 52% higher risk of hyperglycemia compared with no use within 180 days. Over 20% of all events occurred within three months of treatment initiation and nearly 50% within the first year.
Implications	Older patients and their families should be alerted to observe for signs of hyperglycemia when an antipsychotic agent is initiated, and enhanced glucose screening is recommended for all patients prescribed these drugs.

ICES is an independent, non-profit organization that conducts research on a broad range of topical issues to enhance the effectiveness of health care for Ontarians. Internationally recognized for its innovative use of population-based health information, ICES research provides evidence to support health policy development and changes to the organization and delivery of health care services.