

## At A Glance

October 2012

### Monthly highlights of ICES research findings for stakeholders

#### People with schizophrenia more likely to die of heart attack, less likely to receive cardiac care

Kurdyak P, Vigod S, Calzavara A, Wodchis WP. High mortality and low access to care following incident acute myocardial infarction in individuals with schizophrenia. *Schizophr Res.* 2012 Sep 26 [Epub ahead of print].

- Issue** Are people with schizophrenia at increased risk of death following an acute myocardial infarction (AMI)? How does their access to cardiac procedures and specialist care compare with those who do not have schizophrenia?
- Study** Classified 71,668 AMI patients aged 20 and older who were discharged from Ontario hospitals between January 2002 and December 2006 as having or not having schizophrenia. For the two groups, determined mortality and receipt of cardiac procedures and cardiologist visits within 30 days of hospital discharge.
- Key Findings** Overall, 842 AMI patients (1.2%) had a diagnosis of schizophrenia. These individuals were 56% more likely to die within 30 days of discharge and approximately 50% less likely to receive life-saving cardiac procedures or see a cardiologist within 30 days of discharge from hospital.
- Implications** Patients with schizophrenia are in urgent need of more and better coordinated post-AMI care.

#### Mental illness and addictions costing Ontarians years of life: ICES/PHO study

Ratnasingham S, Cairney J, Rehm J, Manson H, Kurdyak PA. *Opening Eyes, Opening Minds: The Ontario Burden of Mental Illness and Addictions Report.* Toronto: Institute for Clinical Evaluative Sciences and Public Health Ontario; 2012.

- Issue** What is the burden of disease related to mental illness and addictions (MI&A) in Ontario?
- Study** Used a composite health gap measure—health-adjusted life years (HALYs)—that incorporates both premature death and reduced functioning to assess the burden of illness for nine MI&As in Ontario. Data on the nine conditions were obtained from population health surveys and administrative health care records. Deaths were estimated from vital statistics data.
- Key Findings** The burden of the MI&As examined was more than 1.5 times that of all cancers and more than 7 times that of all infectious diseases. These MI&As contributed to the loss of over 600,000 health-adjusted life years. Five MI&As had the greatest impact on the health of Ontarians: depression, bipolar disorder, alcohol use disorders, social phobia and schizophrenia. The burden of depression alone was more than the combined burden of lung, colorectal, breast and prostate cancer. Alcohol use disorders contributed to 88% of MI&A-associated deaths and to 91% of years of life lost due to dying early.
- Implications** While effective treatments exist for MI&A, only a small proportion of affected individuals receive them. Given the significant burden, there is a need to consider population-based prevention, promotion and treatment strategies aimed at reducing the burden of MI&A in Ontario.

#### Only a third of children with asthma seen in an Ontario ED seek follow-up care

Li P, To T, Guttman A. Follow-up care after an emergency department visit for asthma and subsequent healthcare utilization in a universal-access healthcare system. *J Pediatr.* 2012; 161(2):208–13.e1.

- Issue** Approximately one in 10 Canadian children with asthma have an asthma-related emergency department (ED) visit over a two-year period. What proportion of these children receive recommended follow-up care? Is there an association between follow-up care and ED re-visits and hospital admissions?
- Study** Identified children with asthma aged 2 to 17 who had an unplanned visit to an Ontario ED for asthma between April 2006 and February 2009. Determined the number of these children who: (a) had a follow-up physician visit for asthma within 28 days; and (b) had an ED visit or hospitalization for asthma within the following year (days 29 to 365).
- Key Findings** One in three children (32.8%) had at least one follow-up physician visit for asthma within 28 days of ED discharge. In the subsequent year, 22.1% of children re-visited an ED for asthma, and 2.7% were admitted to hospital. Having a follow-up visit with a physician within 28 days did not seem to protect from a subsequent asthma-related ED visit or hospitalization.
- Implications** The observation that follow-up care was not associated with long-term outcomes may indicate a need to focus on the quality and continuity of outpatient care and to target high-risk patients for more aggressive disease management.

## Physician warnings for medically unfit drivers decrease road crashes

Redelmeier DA, Yarnell CJ, Thiruchelvam D, Tibshirani RJ. Physicians' warnings for unfit drivers and the risk of trauma from road crashes. *N Engl J Med.* 2012; 367(13):1228–36.

<b>Issue</b>	In 2006, Ontario became the first jurisdiction in North America to introduce a financial incentive (\$36.25) for physicians to provide warnings to patients who are potentially unfit to drive. What effect has this measure had on road crash risk?
<b>Study</b>	Identified 100,075 Ontario patients aged 18 and older who received a medical warning between April 2006 and December 2009 from 6,098 physicians who judged them as potentially unfit to drive. Evaluated emergency department (ED) visits for road crashes in which the patient was the driver during a baseline interval before the warning and a subsequent interval afterward.
<b>Key Findings</b>	During the three-year interval before receipt of a warning, patients were involved in 1,430 road crashes that resulted in an ED visit. This was equivalent to a rate of 4.76 events per 1,000 persons annually, which is about twice the rate of the general population. During the year after receipt of a warning, patients were involved in 273 road crashes that resulted in an ED visit. This was equivalent to a rate of 2.73 events per 1,000 persons annually, which is still higher than the rate in the general population. The observed reduction in the year after the warning was equivalent to a 45% relative reduction in risk. Medical warnings were associated with an increase in ED visits for depression and a decrease in return visits to the responsible physician.
<b>Implications</b>	The reduction in risk was immediate, substantial and sustained and was not attributable to population shifts or differences in patient characteristics. Clinical judgment is needed in deciding which patients are most likely to benefit from a warning.

## Risk of developing diabetes higher in less walkable Toronto neighbourhoods

Booth GL, Creatore MI, Moineddin R, Gozdyra P, Weyman JT, Matheson FI, Glazier RH. Unwalkable neighborhoods, poverty, and the risk of diabetes among recent immigrants to Canada compared with long-term residents. *Diabetes Care.* 2012 Sep 17 [Epub ahead of print].

<b>Issue</b>	Are people who live in neighborhoods that are less conducive to walking or other physical activity more likely to develop diabetes? If so, are recent immigrants particularly susceptible to such effects?
<b>Study</b>	Identified 214,882 recent immigrants and 1,024,380 long-term residents aged 30 to 64 years who were free of diabetes and living in Toronto, Ontario, on March 31, 2005. Followed them until March 31, 2010 to determine if their risk of developing diabetes increased based on where they lived. A "walkability" index was devised that considered factors such as a neighbourhood's population density, street connectivity and the availability of walkable destinations (retail stores and services) within 10 minutes.
<b>Key Findings</b>	By March 2010, 58,544 people in the study population had developed diabetes. Recent immigrants living in less walkable neighbourhoods were approximately 60% more likely to develop diabetes than recent immigrants living in more walkable neighbourhoods, regardless of neighbourhood income. Long-term residents had an increased risk of 20–30%. The least walkable areas were often the most recently developed, with an emphasis on large blocks, low-density housing, and zoning that restricted mixed land use.
<b>Implications</b>	These findings support the concept that neighbourhood design can influence the health of urban populations by providing opportunities for healthy behaviours. This may have practical implications for community-level interventions aimed at diabetes prevention.

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*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.*