

ICES study measures the impact of health behaviours on future hospital use and health care costs

ISSUE

Improving health behaviours improves life expectancy and lowers health care costs. How do unhealthy behaviours impact hospital use and health care costs?

STUDY

Studied the health status of
80,000
Ontario adults between
2001 and 2005.

Calculated five-year hospital
care use attributable to:



smoking



poor diet



unhealthy alcohol
consumption



physical
inactivity

FINDINGS

The four unhealthy behaviours accounted for:



The most impact on hospital use:



A **54-year-old**
Ontarian with the
unhealthiest
behaviours for all
four risks had the same hospital
use as a **75-year-old** with none.

People with the
unhealthiest behaviour
for all four risks required
280% more bed-days
(**42 more days**)
than people with the
healthiest behaviours.

IMPACT

This is the first time these behaviours have been
assessed as a group.

An online calculator
was developed to help
Ontarians estimate
their life expectancy
and the amount of
time they can expect
to spend in hospital
due to their lifestyle.

131,000
entries on first day

Visited by more than
400,000
users from **200 countries**
since launch, with
more than **600,000**
calculations completed.

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Widespread uptake of the calculator has led
to enhanced patient/consumer awareness
and knowledge about the impacts that lifestyle
and behaviour have on health.

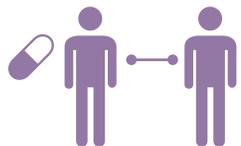
ICES study finds risk of acute kidney injury increases with use of atypical antipsychotic medications

ISSUE

Millions of older adults worldwide are prescribed atypical antipsychotics every year to manage the behavioural symptoms of dementia. What is the risk for acute kidney injury and other adverse outcomes from these drugs?

STUDY

Studied **98,000** Ontario adults aged 65 and older prescribed an atypical antipsychotic between 2003 and 2012.



Each person was matched to another older adult who did not receive the drug.



Measured hospitalizations for acute kidney injury and other outcomes within 90 days of prescription.

FINDINGS



Atypical antipsychotic drug use is associated with increased risk of hospitalization for:

- acute kidney injury
- hypotension
- pneumonia
- acute myocardial infarction

IMPACT



The US Food and Drug Administration requested additional analyses from the **ICES Kidney, Dialysis and Transplantation Research Program**;

the team was able to respond quickly and the requested data are being used to inform an update of FDA recommendations.



Health Canada has made changes to its labelling as a result of this study.

ICES study offers new recommendation for colorectal cancer screening practices

ISSUE

Regular screening using the guaiac fecal occult blood test (gFOBT) reduces mortality from colorectal cancer (CRC). While a simple written invitation may make people more likely to participate in screening, additional methods of encouraging participants to get screened may further increase uptake.

STUDY

 Identified people previously invited for CRC screening via mail who had not responded.



One group received a second mailed invitation only, and one group received a second mailed invitation along with a gFOBT (stool test) kit.

Measured gFOBT screening within

6 months 
of the second mailing in both groups.

FINDINGS

Participants who received a gFOBT kit with their second invitation were **twice** as likely to complete CRC screening as those who received a second written invitation alone.



IMPACT

 The **ColonCancerCheck** program is considering mailing gFOBT kits along with the invitation to be screened for colorectal cancer to Ontarians at average risk (those aged 50 to 74 with no family history of CRC in a first-degree relative).

 If implemented, it is anticipated that there will be an increase in colorectal cancer screening among the target population across Ontario.

ICES study tackles the gap in mental health research for Ontario's children and youth

ISSUE

- Up to 70% of mental health problems begin in childhood and adolescence.
- As many as one in five Ontarians aged 4-16 experience some form of mental health problem at any given time.
- Fewer than one in six children and youth receive the treatment they require.
- Despite the magnitude of the problem, a large gap exists in mental health research on children and youth.

STUDY



ICES developed a **mental health scorecard** to provide a snapshot of:

- the characteristics of children and youth at risk
- how mental health and addictions care is delivered to this population
- how the situation has changed over time

FINDINGS

Burden of mental health problems (e.g., **suicide, self-harm, schizophrenia**) and admissions to hospital for a variety of mental health problems are **higher in lowest income neighbourhoods**.



Increasing burden of disease for some problems, such as a four-fold increase in the prevalence of **neonatal abstinence syndrome** — a withdrawal syndrome in the babies of mothers who are using opioids or being treated for opioid dependence with methadone — over 10 years.



Worse mental health outcomes in **Northern Ontario**, including rates of suicide **six times higher** in the North West Local Health Integration Network than in the other 13 LHINs.



Increasing emergency department visits and hospitalizations for **anxiety disorders** from 2006/07 to 2011/12.



Inequities in use of **care by psychiatrists**, with children and youth from **high-income neighbourhoods** using these services most often.

IMPACT



The **first comprehensive Canadian report** describing the burden of mental health and addictions and service utilization in children and youth.



An ongoing commitment to longitudinal child and youth performance measurement and initiation of the adult strategy performance measurement framework through collaboration between the **ICES Mental Health and Addictions Research Program** and the **MOHLTC**.



The development of a **data integration plan** that is a shared, strategically important initiative between the MOHLTC and ICES with early success in bringing in new population-based sources of data.

ICES study highlights the impact and importance of the Ontario Grade 8 HPV Vaccination Program

ISSUE

The human papillomavirus (HPV) vaccine protects against four types of HPV shown to cause cervical cancer and anogenital warts. The vaccine is offered free through school-based programs to teenaged girls across Canada. Despite this protection, use of the vaccine has been lower than needed in a number of regions. The low rates are partly attributed to fears that vaccination may increase risky sexual behaviour among adolescents.

STUDY



Followed
260,493
girls, half of whom were eligible for Ontario's publicly funded Grade 8 HPV Vaccination Program in its first two years (2007/08 and 2008/09).

Followed both groups for **4 years**.

FINDINGS

Among the **2,436 cases** of cervical dysplasia documented,

44%  **fewer cases** occurred in eligible girls who received the vaccine.

One case of cervical dysplasia was prevented for every

175  eligible girls vaccinated.

There was **no significant increase in the risk of pregnancy or sexually transmitted infections** among girls given the HPV vaccine.

Concerns over increased promiscuity following HPV vaccination are **unwarranted** and should not deter from vaccinating at a young age.

IMPACT



The **Ontario Grade 8 HPV Vaccine Cohort Study** represents the first time that Ontario's immunization records were centralized and record-linked, and led to the publication of five papers in 2014/15.

This study demonstrated the importance and success of the **Ontario government's HPV immunization program** including:

- nearly **90%** of girls received all **three doses** of the vaccine and the vast majority of doses were received on time 
- a statistically significant increase in the proportion of girls vaccinated was related to the MOHLTC's initial decision to extend the program to Grade 9.

 Although these findings are too recent to have had a direct impact, there is reason to believe they will result in increased uptake of the HPV vaccine in Ontario.