

## At A Glance

May 2013

### Monthly highlights of ICES research findings for stakeholders

#### Influenza vaccine safe for children with inflammatory bowel disease

Benchimol EI, Hawken S, Kwong JC, Wilson K. Safety and utilization of influenza immunization in children with inflammatory bowel disease. *Pediatrics*. 2013 May 6 [Epub ahead of print].

<b>Issue</b>	Annual influenza immunization is recommended for patients with inflammatory bowel disease (IBD), but safety concerns may limit uptake. Is immunization associated with adverse events in children with IBD?
<b>Study</b>	Identified 4,916 children younger than 19 years who were diagnosed with IBD in Ontario between 1999 and 2009 and matched them to 21,686 non-IBD controls. Compared rates of emergency department use, outpatient visits and hospitalizations up to 180 days post-vaccination and in a no-risk control period.
<b>Key Findings</b>	While uptake was low for both groups, patients with IBD were more likely to be immunized than the controls (25.3% vs. 13.2%). Patients who were immunized were not at increased risk for emergency department use, hospitalization or outpatient visits for IBD-related or any other reason during the 180-day period. IBD-related health services use decreased in the post-vaccination period compared with the control period.
<b>Implications</b>	These findings suggest that immunization may have unanticipated IBD-related benefits in patients with IBD. Quality improvement initiatives aimed at increasing vaccine uptake among children with IBD may reduce the burden of this chronic disease on the health system.

#### Obesity linked to increased risk of outpatient visits for respiratory infections

Campitelli MA, Rosella LC, Kwong JC. The association between obesity and outpatient visits for acute respiratory infections in Ontario, Canada. *Int J Obesity (Lond)*. 2013 April 22 [Epub ahead of print].

<b>Issue</b>	Obesity has been identified as a risk factor for many chronic conditions, including cardiovascular disease, diabetes, osteoarthritis, hypertension, asthma and chronic obstructive pulmonary disease. Is obesity associated with an increased risk of infection with influenza or other respiratory pathogens?
<b>Study</b>	Identified 104,665 health survey respondents aged 18 to 64 in Ontario and examined their rates of outpatient visits for acute respiratory infections during 13 influenza seasons (1996/97 to 2008/09) and control periods when influenza was not circulating. The association between self-reported body mass index (BMI) and outpatient visits for acute respiratory infections was measured.
<b>Key Findings</b>	Compared with normal weight individuals, rates of outpatient visits for acute respiratory infections during influenza season were 10% higher for overweight individuals (BMI 25.0–29.9), 17% higher for obese class I individuals (BMI 30.0–34.9) and 19% higher for obese class II or III individuals (BMI 35 or higher). Associations of a similar magnitude were observed during non-influenza season. Obesity was a greater risk factor for acute respiratory infections managed in emergency departments than in physician offices.
<b>Implications</b>	These findings suggest that the effect of obesity on the risk of respiratory infections is not limited to influenza. Interventions designed to reduce the prevalence of obesity may have the added benefit of reducing the population burden of respiratory infections.

#### Study forecasts almost 1 in 8 Ontarians with asthma in 2022

To T, Stanojevic S, Feldman R, Moineddin R, Atenafu EG, Guan J, Gershon AS; the RESPONSE Team. Is asthma a vanishing disease? A study to forecast the burden of asthma in 2022. *BMC Public Health*. 2013; 13:254.

<b>Issue</b>	In Ontario, the prevalence of asthma rose at a rate of 0.5% per year between 1996 and 2005. Based on observed population trends, what will the incidence and prevalence of asthma be by 2022?
<b>Study</b>	Identified all individuals with asthma between April 1996 and March 2010 in Ontario. Annual asthma data were modelled to project incidence to the year 2022. Prevalence was estimated by applying the cumulative projected incidence of asthma to the projected population.
<b>Key Findings</b>	Data from 1996 to 2009 showed a gradual decline in new asthma cases. The decreasing incidence was forecasted to continue to 2022, when the estimated incidence will be 4.7 per 1,000 Ontarians. However, the absolute number of prevalent cases will continue to rise. By the year 2022, almost 1 in 8 Ontarians is projected to have asthma, compared to 1 in 10 in 2009. Applying the forecasted rates to Ontario's projected population, there will be more than 1.9 million individuals living with asthma in 2022.
<b>Implications</b>	These projections will help inform health care planners and decision-makers regarding resource allocation to optimize asthma outcomes. They also support ongoing efforts to implement effective asthma management and patient education interventions.

## Women with developmental disabilities less likely to be screened for breast, cervical cancer

Cobigo V, Ouellette-Kuntz H, Balogh R, Leung F, Lin E, Lunskey Y. Are cervical and breast cancer screening programmes equitable? The case of women with intellectual and developmental disabilities. *J Intellect Disabil Res.* 2013; 57(5):478–88.

<b>Issue</b>	Effective screening tests are available for cervical and breast cancers, and early detection leads to reductions in cancer incidence and mortality. Do women with intellectual or developmental disabilities (IDD), such as Down syndrome or autism, experience inequities in access to these tests?
<b>Study</b>	Among adult women who were eligible for Ontario health coverage between April 2009 and March 2010, identified 17,777 women diagnosed with IDD and a control group of 1,440,962 women without IDD. Rates of Pap tests and mammograms were compared for the two groups.
<b>Key Findings</b>	Women with IDD were half as likely to be screened for cervical cancer as women without IDD (34% vs. 67%) and a third less likely to receive a mammogram (42% vs. 60%). Differences in screening rates remained after adjusting for age, rurality, income and expected use of health care resources.
<b>Implications</b>	Public health interventions targeting women with intellectual and developmental disabilities should be implemented.

## Young female cancer survivors experience a small reduction in likelihood of childbirth

Baxter NN, Sutradhar R, DelGuidice ME, Forbes S, Paszat LF, Wilton AS, Urbach D, Rabeneck L. A population-based study of rates of childbirth in recurrence-free female young adult survivors of non-gynecologic malignancies. *BMC Cancer.* 2013; 13:30.

<b>Issue</b>	Future fertility is an important issue for long-term survivors of malignancies that develop during peak years of reproduction. How do rates of childbirth compare between young women who are survivors of cancer and those who are cancer-free?
<b>Study</b>	Identified 5,172 Ontario women aged 20 to 34 who developed a non-gynecologic invasive malignancy between January 1992 and December 1999 and lived at least 5 years recurrence-free. Each woman was age-matched to 5 randomly selected cancer-free women. Time to childbirth was compared for survivors and controls and stratified by prior childbirth and type of malignancy.
<b>Key Findings</b>	During the study period, 1,194 survivors delivered 1,910 children and 6,049 controls delivered 9,516 children. The cumulative rate of childbirth at 10 years in the survivor group was 36.3% vs. 39.9% in the control group. Survivors with no prediagnosis childbirth experienced a similar time to child birth as controls. Among those with prediagnosis childbirth, survivors of breast cancer and Hodgkin disease had lower rates of postdiagnosis childbirth than controls; for survivors of melanoma and thyroid cancer, reproductive outcomes were comparable to those of controls.
<b>Implications</b>	These findings should be shared with young women facing decisions regarding treatment for non-gynecologic malignancies.

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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.*