Enhancing the effectiveness of health care for Ontarians through research

ICES Institute for Clinical Evaluative Sciences

At A Glance

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Monthly highlights of ICES research findings for stakeholders

ICES report provides in-depth look at physician services in rural and Northern Ontario

Tepper J, Schultz S, Rothwell D, Chan B. Physician Services in Rural and Northern Ontario. ICES Investigative Report. Toronto: Institute for Clinical Evaluative Sciences; 2006.

Issue With growing concern about access to physicians and other health professionals in rural and Northern Ontario, there is a need to evaluate the impact of existing recruitment and retention strategies and policies.

Study Examined the supply, demographics, turnover, and geographical location of training for general practitioners and family physicians (GP/FPs), and specialists by: geographical region; community; large northern urban centres (i.e. North Bay, Sault Ste. Marie, Sudbury, Thunder Bay, and Timmins); and, other urban centres excluding the large northern centres. Also documented various government policies for physician recruitment and retention during the study period (1992/93-2001/02).

Key Findings Physician services vary significantly between regions. The number of rural specialists is small and declining. Health human resources strategies have focused more on recruitment than on retention. International medical graduates (IMGs) are an important source of specialists in rural areas. Medical school location is strongly related to practice location for rural GP/FPs. The vast majority of specialists in the North are located in the five large northern centres.

Implications This study highlights the diverse nature of communities in rural and Northern Ontario. This heterogeneity should be acknowledged in the development of policies designed to assist with the recruitment and retention of physicians in these areas.

Traditional risk factors more influential than SES in explaining differences in heart attack mortality

Alter D, Chong A, Austin P, Mustard C, Iron K, Williams J, Morgan C, Tu J, Irvine J, Naylor D. Socioeconomic status and mortality after acute myocardial infarction. *Ann Intern Med*. 2006; 144 (2): 82-93.

Issue The causes of gradients between socioeconomic status (SES) and mortality for cardiovascular disease are not fully understood.

Study Over 3,400 patients hospitalized in 53 large-volume Ontario hospitals for a heart attack, between December 1999 and February 2003, were surveyed regarding their income level, education, pre-hospitalization cardiac risks, and other illnesses. Survey information was linked to 12 years' worth of previous hospitalization data to examine the relationships among SES, health factors, and two-year mortality rates.

Key Findings Differences in two-year mortality rates between the high-income and low-income groups declined by 40% once age was taken into account, and by an additional 26% after pre-existing cardiovascular risk factors were accounted for.

Implications Traditional risk factors may be the driving force behind disparities between income and mortality rates after a heart attack. Addressing known vascular risk factors, particularly among those who are socially disadvantaged, can reduce mortality rates after a heart attack and lessen the burden of heart disease.

Adults with disabilities from childhood require improved processes of care

Young N, Steele C, Fehlings D, Jutai J, Olmsted N, Williams J. Use of health care among adults with chronic and complex physical disabilities of childhood. *Disabil Rehabil*. 2005; 27 (23): 1455-1460.

Issue The patterns of health service use for adults with chronic and complex disabilities from childhood have not been examined using scientific methods.

Study Identified 345 young adults (mean age of 22 years old) who had graduated from the Bloorview MacMillan Children's Centre. The health care records of the study group, from 1996 to 1999, were analyzed to estimate the frequency of outpatient physician visits and admissions to hospital.

Key Findings Ninety-five per cent of the study group visited a physician at least once per year, and only 24% had a primary care physician. On average, these adults visited physicians 11.5 times per year (approximately once per month), and were admitted to hospital once every 6.8 years, an admission rate that is nine times that of the general population.

Implications These results suggest that adults with complex physically disabling conditions from childhood have ongoing health issues that require frequent service. A new model of multidisciplinary service may be necessary to improve the quality of care to this high-needs group, while also creating opportunities for increased efficiency and cost-effectiveness.

Blood sugar control better for persons with diabetes who receive specialist care

Shah B, Hux J, Laupacis A, Mdcm B, Austin P, van Walraven C. Diabetic patients with prior specialist care have better glycaemic control than those with prior primary care. *J Eval Clin Pract*. 2005; 11 (6): 568-575.

Issue Many studies have documented that patients often do not meet blood sugar control targets. However, other factors associated with blood sugar control, such as providers of diabetes care, are less well studied.

Study Analyzed the results of all A1c blood sugar tests from persons with diabetes in eastern Ontario between September 1999 and September 2000. Persons with diabetes who had seen a specialist were grouped into those with exclusively prior primary care (974 people) and those with prior specialist care (3,533 people). A1c levels, measured within 30 days of the specialist visit, were compared between those that had received prior primary care and those that had received prior specialist care to examine the differences in blood sugar control.

Key Findings Patients with prior specialist care had significantly lower A1c blood sugar levels. Other predictors of lower A1c levels included older age, shorter diabetes duration, rural residence, and higher neighbourhood income.

Implications Strategies for diabetes care must be developed which incorporate those processes of specialist care that result in improved blood sugar control, but do not necessarily require specialists themselves. By applying these strategies at both the specialist and primary care levels, diabetes management and blood sugar control for people with diabetes can be improved.

Suicidal individuals without depression require better contact with mental health professionals

Rhodes A, Bethell J, Bondy S. Suicidality, depression and mental health service use in Canada. *Can J Psychiatry*. 2006; 51 (1): 35-41.

Issue To increase access to effective interventions, more information is needed regarding the magnitude of depressed and suicidal populations, the overlap between these populations, and the associated patterns of health service use.

Study Examined depression, suicidality (ideation and non-fatal behaviours), and the mental health service use of participants in the Canadian Community Health Survey, Cycle 1.2: Mental Health and Well-Being. The sample was made up of 36,984 household members, aged 15 years or older.

Key Findings Approximately four to five per cent of the population suffered from a major depression or suicidality. About two-thirds of those who were suicidal did not suffer from depression and over 70% of those with depression did not report suicidality. Persons with depression and suicidality, or depression but no suicidality, were the two groups most likely to report ambulatory mental health service contact. The use of services was considerably lower for those who were suicidal but not depressed, with less than one-third of these individuals reporting any mental health service contact, including inpatient visits.

Implications The lack of mental health service contact by those who are suicidal but not depressed is a challenge, given that almost two-thirds of the suicidal population was not depressed. Detrimental outcomes, such as depression, may develop without effective early interventions and treatment by a sufficient supply of appropriately trained and financially accessible mental health service personnel.

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