CIHR IRSC

Health Care System

The CIHR Institute

CIHR's Institute of Health Services and Policy Research, under the leadership of Scientific Director Dr. Morris Barer, is supporting projects, people and teams that are providing the evidence that practitioners, policy makers and managers need to develop sound policies and programs on issues such as wait times. Through its work, it supports the development of the most cost-effective means of delivering health care services to Canadians.

Consistent with its commitment to translating research results into a stronger and more effective health care system, the Institute is working closely with partners, including the Canadian Health Services Research Foundation, other CIHR Institutes and all 10 provinces, in the Partnerships for Health System Improvement initiative. The partnership supports teams that bring together researchers and decision makers to conduct health services and systems research. Eligible funding topics include workforce planning; timely access to care; quality and safety of care; funding and ethical resource allocation and managing and adapting to change, among others.

About the Canadian Institutes of Health Research

The Canadian Institutes of Health Research is the Government of Canada's agency for health research. Its objective is to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system. Composed of 13 Institutes, CIHR provides leadership and support to close to 10,000 researchers and trainees in every province of Canada. For more information visit www.cihr-irsc.gc.ca

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. Through CIHR, the Government of Canada invested approximately $34.9 million in 2004-05 in research on Canada's health care system.

The facts

- In 2003 Canada spent an estimated $121.4 billion on health care, an average of $3,839 per Canadian. After accounting for inflation and population growth, spending is double what it was 25 years ago.
- Canada ranks fourth in the world in health spending as a percentage of gross domestic product (GDP), at 9.7%. The United States had the highest spending as a percentage of GDP, at 13.9%.
- Hospitals accounted for the single largest category of spending, accounting for 30% of total spending in 2003, down from 37% in 1993.
- Drugs, including prescription and non-prescription drugs and personal health supplies, were the next largest category of spending, at 16% of total spending in 2003.
- Physicians accounted for 13% of total health spending in 2003. Other health professionals, including dentists, chiropractors and physiotherapists, accounted for 12% of spending.
- In 2003, seven out of every ten dollars spent on health care came from public funds. Internationally, in 2001 Canada's public share of total health spending was smaller than many other OECD countries – 71%, compared to 85% in Norway, Sweden and Denmark.

Research finding health care solutions

- An estimated 7.5% of people hospitalized in Canada have experienced an adverse event as a result of their care, according to a study co-funded by CIHR and carried out by Drs. Ross Baker of the University of Toronto and Peter Norton of the University of Calgary. This translates to about 185,000 of the almost 2.5 million medical and surgical hospital admissions in Canada. Nearly 37% of these events were preventable, providing a scientific foundation for making hospital care safer. In response to this study, Canada's hospitals have adopted a six-point action plan to reduce adverse events; the implementation of the plan will be evaluated through December 2006 to determine its success in reducing the number of adverse events.
- Five per cent of Manitobans taking prescription drugs in 2000-2001 accounted for more than 40% of prescription drug spending in the province, according to a study by CIHR-supported researcher Dr. Anita Kozyrskyj of the Manitoba Centre for Health Policy. This small group of about 39,000 accounted for more than $134 million in prescription drug spending in that year. Dominant within this 5% were two subgroups: those with chronic illnesses and those who were being treated for diseases such as cancer. The average patient within these two groups received 80 prescriptions for 12 different drugs, with an average annual total bill of $3,424. If that average could be reduced by one drug per person, Manitobans would save more than $8 million per year. Dr. Kozyrskyj says that better monitoring of patients could help to reduce costs while ensuring they are taking the right drugs at the right dosages and aren't facing further harm by taking so many drugs.

- Another study from the Manitoba Centre for Health Policy, this one led by Dr. Patricia Martens, has provided a guide for regional health authorities (RHAs) to help them in planning their mental health services. Dr. Martens involved RHAs in this CIHR-funded study, particularly those in rural and northern Manitoba, where mental health has been targeted as a critical area of planning. The report found that, between 1997 and 2004, more than one in four Manitobans had at least one mental illness diagnosis. During that time, they used nearly half the days that people spent in all Manitoba hospitals, underlining the need for health authorities to focus on issues related to improving care settings and services for those suffering from mental illness.

- Overcrowding in the emergency room may be why fewer than half of all heart attack victims receive potentially life-saving drugs within the recommended 30 minutes of arrival, according to research by CIHR-funded Dr. Jack Tu and the Canadian Cardiovascular Outcomes Research Team. Better organization of emergency rooms, as well as routine monitoring of treatment times and a triage system that deals with chest pain patients immediately could help to reach the 30-minute treatment goal.

- People admitted to hospital on the weekend are more likely to die within 48 hours, compared to those admitted with the same diseases on a weekday, according to a study by CIHR-supported Dr. Donald Redelmeier of Toronto's Sunnybrook and Women's College Health Sciences Centre. His study suggests the problems may be related to reduced staff and fewer supervisors with less seniority and experience on weekends. The findings should help hospitals examine their staffing patterns to improve quality of care.

In the pipeline … Bringing health care into the genetic era

CIHR is supporting research to improve health and integrate new services and products that arise from genetic research into an accessible, sustainable health care system. Through its strategic initiative on 'Addressing Health Care and Health Policy Challenges of New Genetics Opportunities', two teams are currently receiving funding:

- Drs. Mario Cappelli and Mary Jane Esplen of the University Health Network are leading a team that is examining the psychosocial impact of genetic testing for cancer on patients and family members and on young children who are affected by the knowledge that one of their parents carries a gene mutation for cancer. Their goal is to develop an intervention to facilitate adaptation and optimal use of this technology.

- Dr. François Rousseau of Laval University is leading a team investigating health care and health policy challenges in genetic laboratory services. The team is focusing on the delivery and accessibility of such services, their cost-effectiveness, the decision frameworks regulating their use and the knowledge transfer tools allowing their dissemination to all health care stakeholders. Their work will make a significant contribution to the delivery of new genetics-related medical knowledge to Canadians, in order to improve health care services.

The researchers … Dr. Malcolm Maclure: Wrestling with rising drug prices

Prescription drug spending is taking a bite out of Canadians' pocket books.

"Drug costs in Canada are rising more than $3 million each day," says Dr. Malcolm Maclure. "That's enough to hire 20 new physicians or 40 new nurses every day. Such cost growth threatens the quality of our health care system."

Dr. Maclure, a Professor in the School of Health Information Science at the University of Victoria, is focusing his research on helping to avoid unnecessary drug cost growth – while maintaining healthy outcomes for patients.

For instance, Dr. Maclure evaluated a BC PharmaCare policy that encouraged asthma patients to use metered-dose inhalers rather than more expensive nebulizers. The evaluation showed no increase in hospitalizations or physician visits as a result of using the inhalers.

Other studies by Dr. Maclure's group evaluate the impact of programs to educate physicians on evidence-based drug therapies. For example, a series of 12 issues of the *Therapeutic Letter*, produced at the University of British Columbia, was sent to physicians over a five-year period. Dr. Maclure found that physicians who received the letters increased their prescribing of the recommended drugs by 30% in the three months following their receipt.

Dr. Maclure is also heading a research team called Drug Policy Futures. Its goal is to produce evidence relevant to drug policy for all levels of decision makers in the health care system, from premiers and health ministers to practitioners and patients. With five-year funding from CIHR, the team brings together specialists from fields as varied as tax economics, public consultations and drug industry analysis.

"Policy innovation is urgently needed to deal with the relentless cost pressures created by pharmaceutical innovation and marketing," says Dr. Maclure.