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Second Annual Health Report - Providing Canadians with More Health Information

Last April, CIHI reached a significant milestone with the release of *Health Care in Canada 2000: A First Annual Report*, produced with assistance from Statistics Canada.

Following the report's release (to date, over 90,000 copies have been downloaded from CIHI's Web site), the Institute held focus groups across Canada with health professionals, the general public and the media to obtain their feedback on the report. In general, the report was well received and many people felt it contained interesting, clearly-presented and accessible information. A majority of people wanted more information on the topics featured in the report.

On May 8, CIHI released the second annual report on the health care system, *Health Care in Canada*. This publication, now available from CIHI's Web site, provides updated information on many of the subjects in last year's report. For example, CIHI estimates that health care funding reached an estimated $95 billion in 2000. Of the projected $95 billion, about $67.6 billion (or just over 71%) came from the public sector including governments and Workers' Compensation Boards.

The report also includes more current information on the supply and distribution of nurses, doctors and other health professionals in Canada. In addition, it includes a more in-depth focus on worklife issues in the health sector. For example, according to new data from Statistics Canada's Workplace and Employee Survey, 87% of registered nurses, including head nurses and supervisors, reported being satisfied or very satisfied with their jobs in 1999. This compares to 89% for all other non-health related occupations.

What's New

For the first time, CIHI released information about survival following heart attacks at a regional level for many Canadian provinces. At a national level, the in-hospital death rate (adjusted for age, sex and comorbid conditions) within 30 days following a heart attack was 12.3% in 1998/99. However, there were large variations across Canada and inter-provincially. For example, some regions had death rates of under 10% while others had rates over 15%.

While survival following a heart attack may vary across Canada, the report showed there appears to be little difference across Canada in survival rates following organ transplant. Over 3 out of 4 people who received either a heart, liver or kidney transplant between 1992 and 1998 survived at least another five years. Canada's rates in the mid to late 1990s were on par with those in the United States and Europe.

As with last year's report, the 2001 report draws on new data and analyses from CIHI and Statistics Canada, as well as research produced at local, regional, provincial, national, and international levels. However, information gaps remain. Over time, the Institute plans to continue to work with its partners across the country to fill these gaps, with updates on progress in future reports.

Visit CIHI's Web site today to download your copy of this report: www.cihi.ca.

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Message from the President and CEO

Health Reports Coming of Age

Reporting on the health care system is becoming the norm, not the exception in Canada. Efforts by federal, provincial and territorial governments, research institutes, policy centres and other organizations are addressing the rising demand for more health information from consumers, health care managers, policy-makers and those who work within the system.

The release of our second annual report, produced with assistance from Statistics Canada, is part of this ongoing process. For the first time, we have compiled information on survival following heart attacks at a regional level for many provinces. Future reports will continue to showcase progress, update information and include new data. In fact, CIHI and Statistics Canada are developing methods to routinely report on disease-specific, hospital-based mortality rates for deaths following treatment for myocardial infarction and other interventions.

What does the future hold for reporting? We only have to look across the Atlantic Ocean to envision the possibilities. England routinely publishes reports on outcomes, such as breast cancer and colon cancer, by region and sub-region. Hospital-specific reports are also produced and include information by region on wait times. England has paved the way and set an impressive benchmark.

As we continue to produce annual reports on the health system, as well as our regular offering of analytical publications, Canadians can expect more comprehensive information on the efficiency and effectiveness of our health care system.

Richard C. Alvarez
President and CEO

Annual Report 2001: How Healthy are Canadians?

How Healthy are Canadians? is a special issue of Health Reports, Volume 12, Number 3 (82-003) entitled "The Health Divide: How the Sexes Differ," that was released by Statistics Canada on April 26, 2001. It provides a comprehensive examination of similarities and differences between men and women in matters of health. It also presents information illustrating that the different experiences of men and women include their attitudes and health behaviours, their encounters with health care and ultimately their illnesses and mortality.

The measures of the health of Canadians in this report came primarily from the National Population Health Survey. Additional data came from the Canadian Vital Statistics Database, the Canadian Cancer Registry and the Census of Population.

The aim is to provide Canadians and decision-makers information to better judge the factors that contribute to improvements in health.

The report is now available, free of charge, on the Statistics Canada Web site at: www.statcan.ca . You can click directly from the first page on the button "How Healthy are Canadians?" or through "The Daily".

The Influence of Labour Market Experience on Health

How important are the labour market experiences to the health of Canadians? There is a large research literature indicating adverse health effects of unemployment, and of other workplace stressors (environmental, ergonomic, and psycho-social). Despite previous research, there is a shortage of solid quantitative evidence of the role of employment in determining the health of Canadians.

The research program of Dr. Cameron Mustard, and his colleagues at the Institute for Work and Health in Toronto, brings a Canadian focus to the relationship between work and health. With funding from the Canadian Population Health Initiative (CPHI), the investigators used the two major national, longitudinal datasets that contain relatively detailed data on both the dynamics of health and labour-market experiences - the Survey of Labour and Income Dynamics (SLID) and the National Population Health Survey (NPHS).

The work of Dr. Mustard and his colleagues focused on changes in individuals' health status (e.g. disability, sickness-related absence from work) in relation to their labour-market experiences. These experiences included unemployment and other factors such as social support, job security, occupational status, physical and psychological demands, and amount of control over job conditions ("decision latitude"). The influences of gender, stage in the life cycle, and family responsibilities on work-related health outcomes were also examined in this research.

Several findings have emerged from the research completed to date:

- A representative sample of the Canadian labour force showed that, overall, between 1994 and 1998, 16.6% of labour-force participants reported a decline in perceived health status. Men in the two lowest occupational classes were more likely to report a decline in health status than men in the two highest occupational classes. This relationship was reduced somewhat when adjustments were made to account for psycho-social work exposures and health behaviours. Interestingly, the relationship between occupational class hierarchy and prospective health status declines did not hold for women.
- A person's occupational class was positively associated with alcohol consumption and physical activity, but negatively associated with smoking. Depression, the diagnosis of chronic health conditions and self-reported back pain also were not associated with occupational class.
- An analysis of gender differences in work stress was conducted amongst a national cross-sectional sample of 7,484 employed Canadians who participated in the 1994 NPHS. Both men and women showed significantly higher levels of work stress related to "high strain" (high psychological demands, low decision latitude) and "active work" (high decision latitude, high psychological demands). Although women were more likely to work in high strain jobs, it was men who experienced greater stress due to high strain work. These findings suggest that psycho-social factors at work may be a more significant determinant of psychological well-being for men than for women.
- "Decision latitude" and "physical exertion" seem to be the best measures of occupational characteristics that have associations with health outcomes. Measures of "psychological demands", "social support" and "job security" do not appear to be reliably related to health.
- After examining the NPHS for 1994 and 1996, and data on metropolitan area characteristics from the 1991 Canadian census, the researchers looked at the impact of income inequality at the metropolitan level and individual income on individual health status. They found that the higher one's income was in 1994, the higher one's self-reported health status was two years later. However, they found no association between metropolitan income inequality and self-reported health status. These results suggest that, in Canada, individual income is a stronger predictor of individual health status than income inequality in metropolitan areas.

The researchers continue to work on other issues, including:

- Physical and mental health status correlates of health-related work absence, and identifying aspects of labour-market experience that increase or decrease the probability of health-related work absence;
- Social class distribution of family-supportive work arrangements and work leave benefits in Canada;
- Relationship between labour-market experiences and mental health status among young adults; and
- The relationship between alcohol use and labour-force participation.

The results from this research could have significant implications for both public sector labour-market policies and private sector employment practices. The findings are not only relevant to forming an overall view of the importance of work and workplace factors on the health of Canadians, they also can contribute to improving our capacity to predict future burdens of sickness and disability on work absences, productivity and pension plans. In addition, evidence of a relationship between occupational status and health outcomes is likely to be of concern to stakeholders in labour- market negotiations. Finally, the differences in the work experiences of men and women suggest that employers must consider gender in designing interventions to reduce work related stress, illness and disability.

References:

Mustard, C., Vermeulen, & Laveis, J. N. (2000) Is occupational class a determinant of decline in perceived health status? *Institute for Work and Health Working Paper #125.* Vermeulen, M, & Mustard, C. (2000) Gender differences in job strain, social support at work and psychological distress. *Journal of Occupational Health Psychology, 5(4),* 428-440. Institute for Work and Health. (2001) *Institute for Work and Health Research Projects, Activities and Research Transfer Report on 2000,* 4-7 — 4-16.

CIHI's Case Mix Methodologies Step into the Electronic Age

This year, for the first time, CIHI is issuing directories of its CMGTM/PlxTM and DPGTM methodologies in an electronic format (ICD-10-CA/CCI versions). These CD-ROM products offer an advanced level of functionality that was previously unavailable in the paper format. The advent of ICD-10-CA and CCI as Canada's new diagnosis and procedure coding standards has provided the opportunity, as well as the necessity, for this migration away from paper.

The new software packages can be installed onto a PC or run directly off of the CD-ROM. Health care facilities, governments and other users of CIHI grouping methodologies will be able to install the software on networks allowing unlimited use to PC workstations within their organizations.

Designed in user-friendly, and widely familiar HTML, navigation between the flowcharts and appendices is easy and efficient. Individual diagnosis or intervention codes of interest can be located easily using the 'Find' function, and individual pages can be printed for convenience.

Later this summer, CIHI will release the Comprehensive Ambulatory Classification System (CACS) methodology on CD-ROM.

A New Look for Case Mix

CIHI has developed a new look for its Case Mix products and publications. Designed by CIHI Multi Media Specialist Scott Young, in participation with staff, the new look will grace the covers of all Case Mix publications, reports and CD-ROMs.

Case Mix is a methodological approach for sub-classifying patient types into a manageable number of groups upon which analyses and indicators such as CIHI's Expected Length of Stay (ELOS) and Resource Intensity Weights are based. The scales in the pictorial represent the balance between the two competing contributors to any Case Mix methodology: clinical relevance, and statistical accuracy. To depict the clinical aspect of Case Mix, the image of a stethoscope has been embedded in the base of the scales. Similarly, the Greek letter sigma (S) has been used to denote the contribution of statistics to Case Mix methodologies.

Injury Hospitalizations Down Again: CIHI Report

Fewer Canadians are being admitted to acute care hospitals because of injuries says the Canadian Institute for Health Information (CIHI) in a new report released in mid-April. Drawn from the Institute's National Trauma Registry, the report shows a drop of close to 12% for all injury hospitalizations over the past five years.

In 1994/95, there were 221,313 hospital injury admissions compared to 195,116 in 1998/99. This decline is also reflected in the hospital injury admission rate, which dropped from 77 per 10,000 population to 62 per 10,000 population over the same period. Moreover, hospital injury admission rates for falls and motor vehicle collisions, the leading causes of hospitalization, also decreased by 18% and 22%, respectively, over the five-year period.

Length of Hospital Stay for Injuries Drops

Between 1994/95 and 1998/99, there was a steady decline in a patient's average length of stay in hospital, from 10.2 days to 8.9 days. The average time a patient stayed in hospital for injuries related to falls and motor vehicle collisions also decreased, from 13.5 days to 11.4 days and 9.2 days to 7.4 days respectively.

Provincial/Territorial Variations

In 1998/99, the highest injury admission rate was in the Northwest and Yukon Territories at 116 per 10,000 population (combined), followed by Saskatchewan at 96 per 10,000 population. These rates are above the national rate of 62 per 10,000 population. The lowest injury admission rate was seen in Nova Scotia (51), followed by Ontario (52).

Between 1994/95 and 1998/99, the following provinces showed the highest drop in injury admission rates: Nova Scotia (23.2%), Newfoundland (23.1%), Ontario (22.7%), Alberta (22.1%), Quebec (19.9%) and British Columbia (19.0%). Those provinces experiencing a lower drop were Saskatchewan (9.8%), Manitoba (9.5%) and New Brunswick (5.2%). The number of injury hospitalizations for Prince Edward Island increased during the same period (4.3%), while there were little change for the Northwest and Yukon Territories (up 0.3% combined).

These statistics are from the National Trauma Registry - Hospital Injury Admissions Report, 1998/99. This publication provides a descriptive analysis of acute care hospitalizations due to injury, examines national and provincial differences and compares trends in injury admissions from 1994/95 to 1998/99.

Spending on Drugs Outpaces Other Health Care Spending

Drugs continue to consume an increasing share of Canada's health care dollar, accounting for the second largest category of health expenditures next to hospital services. In 2000, spending on drugs is expected to have reached $14.7 billion, representing 15.5% of total health care spending, following increases of 8.9% and 9.0% in 1999 and 2000.

These statistics come from the report, *Drug Expenditures in Canada, 1985 to 2000,* released by the Canadian Institute for Health Information (CIHI) earlier this year.

Total Drug Expenditure - Prescribed and Non-prescribed

In 1998, total spending on prescribed drugs was an estimated $9.3 billion, an increase of 10.6% from 1997. Total spending on non-prescribed drugs, such as over-the-counter cold and headache remedies, was an estimated $3.1 billion in 1998, a 6.6% increase over 1997.

In 1999, total spending on prescribed drugs is expected to have grown to $10.3 billion, followed by a further increase to $11.4 billion in 2000 (10.3% and 10.6% annual increases). In these same years, non-prescribed drug spending is expected to have increased at lower rates, 4.8% and 4.0%, reaching $3.2 billion and $3.3 billion, respectively.

In 2000, spending on prescribed drugs amounted to an estimated 77% of total drug expenditures, up from 67% in 1985.

Total Drug Expenditure - Public and Private Sectors

CIHI's figures indicate increased spending by the public sector in recent years. In 1998, drug spending by governments and government agencies in Canada was an estimated $3.9 billion, an increase of 11.4% over 1997. Public sector expenditure is forecast to have been $4.3 billion in 1999 and $4.9 billion in 2000, reflecting increases of 12.4% and 13.1%. In 2000, public sector expenditure is expected to have accounted for 33% of total drug expenditure, up from 31% in 1998 and 29% in 1985.

Drug spending by the private sector (households and insurance firms) rose by 8.7% to an estimated $8.5 billion in 1998. Private sector spending is forecast to have been $9.2 billion in 1999 and $9.8 billion in 2000, reflecting annual increases of 7.4% and 7.1%, respectively.

International Comparisons

In 1997, the latest year for which complete data are available, Canada ranked fifth among the G-7 industrialized countries in the amount spent on drugs as a proportion of total health care spending at 14.5%, after France (21.0%), Japan (20%), Italy (17.5%) and the United Kingdom (16.3%). In Germany drugs accounted for 12.2% while in the United States the proportion was 10.1%.

During the same year, the share of spending on drugs financed by the public sector ranged from a low of 14.6% in the United States to a high of 70.0% in Germany, with Canada ranking sixth (30.6%).

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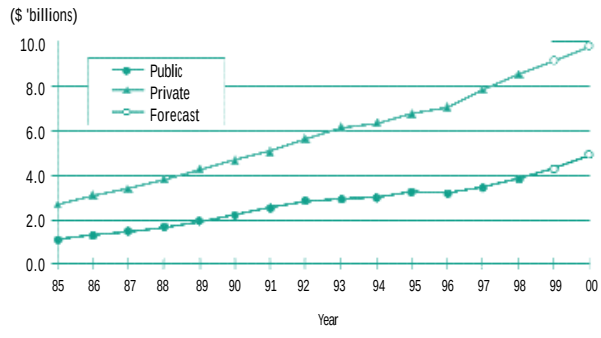
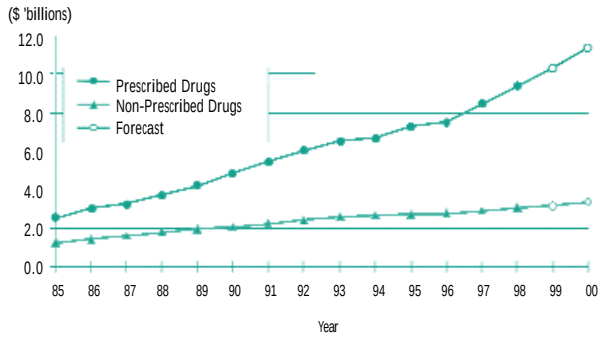
To download your copy of this report, only available in electronic format at no charge, please visit: http://www.cihi.ca/wedo/hexpenddrug.shtml

Total Drug Expenditure by Source of Finance, Canada, 1985 to 2000



Source: National Health Expenditure Database, Canadian Institute for Health Information

Total Drug Expenditure by Type, 1985 to 2000



Source: National Health Expenditure Database, Canadian Institute for Health Information

Hospital Report 2001: Acute Care in Ontario - Coming Soon!

In 1997, the Ontario Hospital Association, in conjunction with a research consortium led by the University of Toronto, announced plans to produce a series of reports that would examine the performance of Ontario hospitals. This original vision started with a system-wide acute care report in 1998. With additional sponsorship from the Ontario Ministry of Health and Long Term Care, more reports will be generated in 2001 on topics such as emergency care, chronic and continuing care and women's health.

Hospital Report 2001: Acute Care represents the first installment of the 2001 series and is being prepared by the Canadian Institute for Health Information, based on methodologies developed by the University of Toronto. This report, slated for release in June, aims to provide a widespread understanding of Ontario's acute care hospital system.

Using a balanced scorecard approach, the report is designed to assess four dimensions of hospital performance:

- Clinical Utilization and Outcomes;
- Financial Performance and Condition;
- Patient Satisfaction; and
- Systems Integration and Change.

Like its predecessor, *Hospital Report '99*, the 2001 report will continue to examine hospital performance on both a system-wide and hospital-specific basis. With the participation of over 120 acute care hospitals, encompassing over 90% of the acute care beds, this report will prove to be a valuable resource to hospital trustees, managers, health care professionals and consumers.

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CPHI Produces New Report

In April, the Canadian Population Health Initiative (CPHI) released a new report, *Environmental Scan of Research Transfer Strategies*. The report is a tool to support one of the important functions of CPHI: to ensure that policy- and decision-makers receive objective, credible information about new knowledge being generated (by CPHI and others) on the determinants of health.

The report summarizes results of an environmental scan of 17 organizations, conducted in the summer of 2000 to identify a range of strategies for transfer of knowledge to policy- and decision-makers. A cross-section of Canadian organizations from academe, government, and policy think tanks were chosen for their focus on health or social research and an emphasis on knowledge transfer.

Strategies employed for research transfer were organized according to three factors: target audience (WHO was engaged?), timing (WHEN during the research process did the engagement occur?) and method (HOW was the target audience engaged?). A wide variety of strategies were identified. Taken together, the overview of experiences from these organizations represents a useful tool kit for CPHI/CIHI and others in applying research knowledge to policy.

The report is available in PDF format on the CIHI Web site: www.cihi.ca/Roadmap/CPHI/start/shtml.
Print copies may be obtained by forwarding an e-mail request to cphi@cihi.ca.

CIHI directions ICIS

CIHI Directions ICIS is published quarterly by the Canadian Institute for Health Information (CIHI). Since 1994, this national, independent, not-for-profit organization has been working to improve the health of Canadians and the health system by providing quality health information.

The Institute's mandate is to coordinate the development and maintenance of an integrated approach Canada's health information system. To this end, CIHI provides accurate and timely information that is needed to establish sound health policies, manage the Canadian health system effectively and create public awareness of factors affecting good health.

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