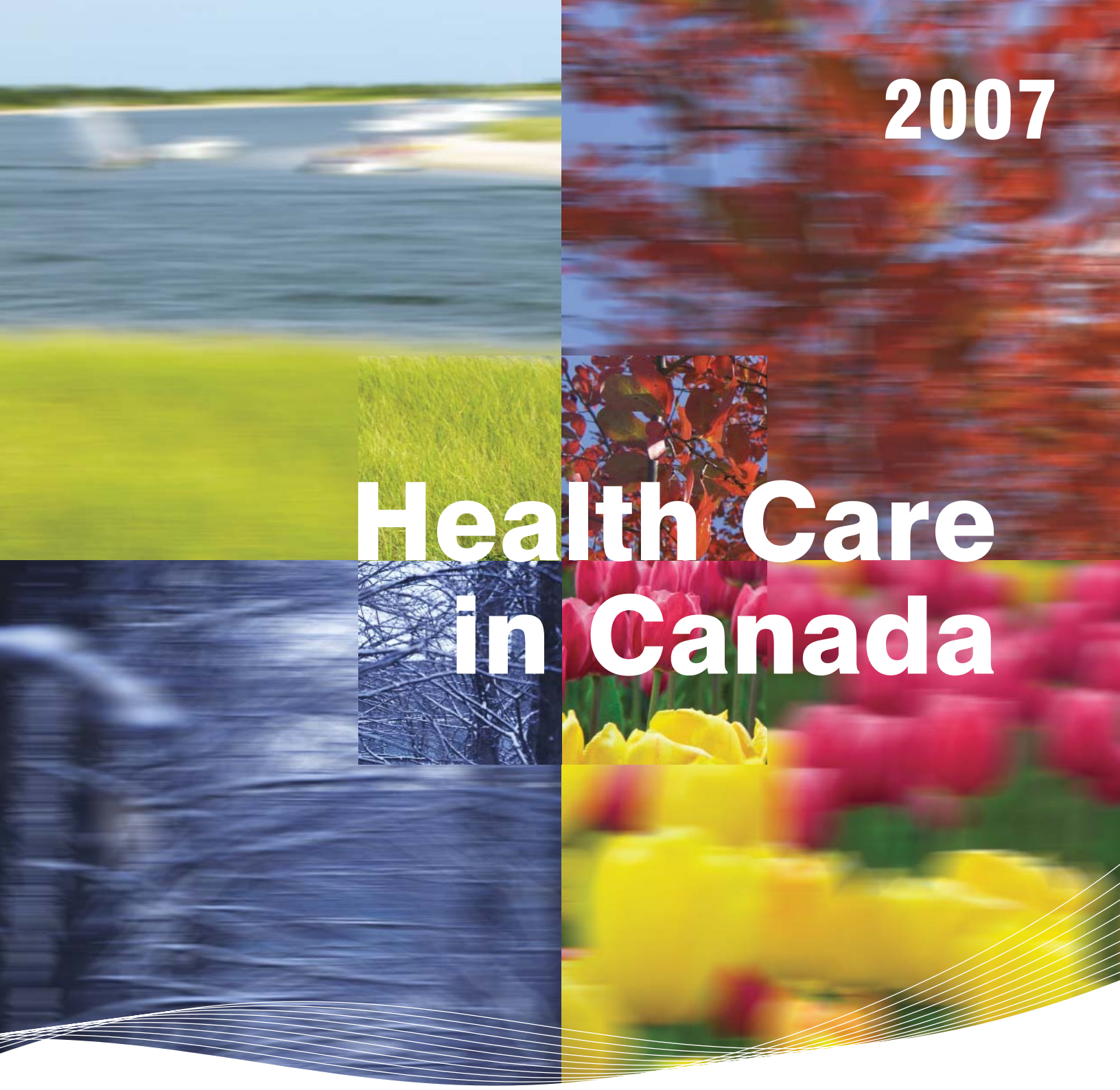

2007

Health Care in Canada

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About the Canadian Institute for Health Information

The Canadian Institute for Health Information (CIHI) collects and analyzes information on health and health care in Canada and makes it publicly available. Canada's federal, provincial and territorial governments created CIHI as a not-for-profit, independent organization dedicated to forging a common approach to Canadian health information.

www.cihi.ca

CIHI's goal: to provide timely, accurate and comparable information. CIHI's data and reports inform health policies, support the effective delivery of health services and raise awareness among Canadians of the factors that contribute to good health. ■

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Particularly, we would like to express our appreciation to the many stakeholders across the country who provided invaluable advice about the new format and content of the *Health Care in Canada* report series.

This report represents the work of many CIHI staff, who compiled and validated the data; worked on the web design, translation, communications and distribution; and provided ongoing support to the core team.

We would also like to extend a special thank you to the Publications team at CIHI for their work on the development of the new design for this report.■

The core project team responsible for the development of *Health Care in Canada 2007* include:

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Allie Chen, Content Co-Lead
Maria Sanchez, Content Co-Lead
Sivan Bomze, Content Co-Lead
Genevieve Martin, Content Developer



About This Report

Since 2000, *Health Care in Canada* (HCIC)—produced with Statistics Canada—has provided current information about the status of the health system and the health of Canadians. Since that time, HCIC has been a leading resource for broader discussions about current and emerging key health care issues.

New in 2007

As the health care landscape in Canada has continued to evolve, so has HCIC. Based on suggestions from our stakeholders and other valuable feedback, we have changed the format and content of the report, beginning this year. HCIC continues to provide current information on health care issues of national importance —including health care financing, health human resources, quality of care, outcomes, access and population health. Information about these priorities—developed at CIHI and elsewhere—has been consolidated into one comprehensive report to serve as a helpful reference tool for health sector decision-makers and the general public.

We welcome comments and suggestions about this report and about how to make future reports more useful and informative. We encourage you to email your comments to healthreports@cihi.ca. ■

What About *Health Indicators*?

Health Indicators 2007 was released on May 30, 2007. As in previous years, the report highlights provincial, territorial and regional trends and variations, but now also includes interpretive analyses of specific indicators. This year's report provides additional analyses on hip fracture hospitalization rates and the new wait times for hip fracture surgery indicator. More information is available in the e-Publication on the CIHI (www.cihi.ca) and Statistics Canada (www.statcan.ca) websites.

Want to Know More?

Highlights and the full text of *Health Care in Canada 2007* are available free of charge in English and French on the CIHI website at www.cihi.ca.

To order additional print copies of the report (a nominal charge will apply to cover printing, shipping and handling costs), please contact:

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Where Our Health Dollars Go

What We Know

How health spending varies across Canada and over time.

The amount of public and private financing for health care in Canada and other OECD countries.

How costs differ for treating some acute care patients.

What We Don't Know

How differences in the financing of hospital, physician and drug expenditures influence outcomes and cost efficiencies.

How different combinations of pubic and private financing and service delivery affect costs, access, quality, outcomes and satisfaction.

To what extent various factors explain variations in spending across the country.

What's Happening

An upcoming CIHI report will highlight more refined estimates of hospital costs than have previously been available. The report will compare costs of different treatments and conditions, providing health care decision-makers with a tool to assist in hospital budgeting, program planning and similar initiatives.

Updated estimates of the economic burden of illness in Canada produced by researchers from the Public Health Agency of Canada (PHAC) will be made available later in 2007.

Health care costs in Canada have grown steadily over the last 30 years—faster on average than the economy as a whole. In 2006, Canada spent an estimated $148 billion on health services. After taking into account the effect of inflation, that's more than three times what was spent in 1975.[i]

What is behind the increase in health spending? How does health care spending vary across the country? How is health care financed and how has this changed over time? This section examines these questions by looking at where we are today in terms of spending, costs and how Canada compares to other countries.

Spending on Health Care

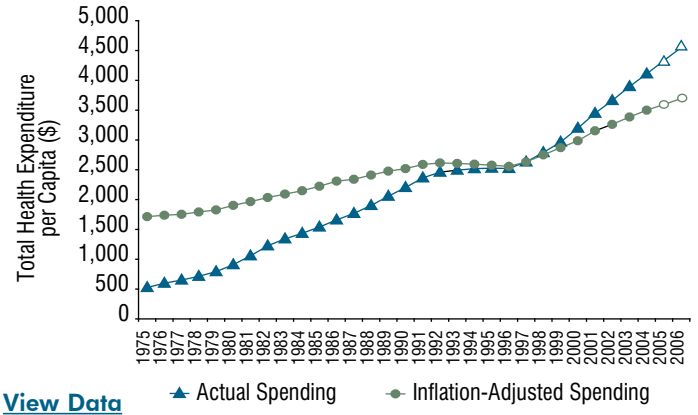
Canada's health system is a vital and complex part of our economy. A tenth of our economic output—roughly $148 billion—goes to health care. For the tenth consecutive year, total health care spending continued to outpace inflation and population growth in 2006. Health care spending as a share of Canada's gross domestic product (GDP) is expected to have reached 10.3%, the highest level in more than 30 years.

Canada's combined public and private health care bill grew by over 300% in the last 23 years. What explains this increase? Start with the $37 billion spent in 1984. Now add $15 billion because of population growth. It would have cost that much to provide the 7 million additional people who lived in the country in 2006 with health services at the 1984 average level of per capita spending. That's about 13% of the overall increase in health spending. Inflation in the health sector (for example, higher wages for health

Total health spending per capita by the public and private sectors continues to climb, even after adjusting for inflation.

Note: Data for 2005 and 2006 are forecasts.
Source: National Health Expenditure Database, CIHI.

FIGURE 1 Total Health Spending per Capita ($)



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i Inflation adjustments are based on 1997 constant dollars.

professionals) accounted for a further $46 billion, or about 41% of the growth in total spending. The remaining $50 billion increase in spending (45% of the growth) represents a rise in real (inflation-adjusted) public and private spending on health care per capita.[ii]

Overall, in Canada, about $4,548 per capita was spent on health care in 2006. Among provinces, health spending per capita ranged from about $4,000 in Quebec to just over $4,900 in Alberta and Manitoba. In the territories, per capita spending was significantly higher—partly as a result of costs associated with serving relatively small populations spread over large geographic areas. Provincial and territorial spending variations may also be attributed to other factors, such as differences in the health status of a population, demographics, the delivery and coverage of services and the cost of providing care (for example, differences in fee schedules, wages, benefits and supplies).

Among Organisation for Economic Co-operation and Development (OECD) countries, Canada ranked sixth in total per capita health spending[iii] in 2004, the latest year for which comparable data are available. The result is that Canada spends less per capita than some other economically developed countries like the United States and Switzerland, but more than countries such as Denmark or the United Kingdom.

Overall, Canadians spent about $4,548 per capita on health care in 2006.

How Is Health Care Financed in Canada?

In Canada, as in many other OECD countries, both the public and private sectors finance health services. Public-sector financing—which consists primarily of spending by municipal, provincial/territorial and federal governments, as well as workers' compensation boards or other social security programs—accounted for 70% of health spending in 2006.

Private-sector financing—primarily through health insurance and out-of-pocket payments—accounts for between 20% and 40% of health expenditures in most OECD countries.[iv] Canada's private-sector financing—30% in 2006—falls within this range. This percentage is about the same as in Spain and Australia, but higher than in the UK, France, Germany and Sweden. Compared to other economically developed countries, the U.S. stands apart with a 55% private share. The U.S., however, spends more per capita than Canada (and almost all other economically developed countries) on health care through public programs.[iii]

In Canada, the public sector pays for most hospital care, physician services, public health programs and services for Status Indians and Inuit. It also pays part of the cost of other services, such as prescription drugs and ambulances. In some other OECD countries—such as Germany and France—the level of per capita health spending is similar to Canada's spending. However, compared to Canada, the spending mix is different. For example, these two countries have a larger share of public-sector spending on prescription drugs and dental services, but lower on physician services.

ii Percentage may not add to 100% due to rounding.

iii Note: Per capita expenditures are converted to U.S. dollars using purchasing power parities (PPPs), which are designed to take into account differences in price levels between countries.

iv OECD data are for 2004.

The Rise in Drug Spending

At an estimated $25 billion, retail sales of prescribed and non-prescribed drugs together constituted the second largest category of health expenditures in 2006. Expenditures for drugs have increased more rapidly than total health expenditures, with the result that the share of total health expenditures allocated to drugs increased from 9% in the mid-1970s to an estimated 17% in 2006.

A study by the Patented Medicines Prices Review Board (PMPRB) indicated that increased drug spending in Canada relates primarily to two factors: higher volume of existing drug use and the entry of new, patented drugs into the market.[1] The study found that the fact that Canadians are using more drugs more often to treat diseases has contributed more to the rise in total drug spending than increases in the price of drugs themselves. In fact, PMPRB suggests that drug prices in Canada have remained relatively stable over the past decade.

The increasing use of newer patented drugs is a second factor that helps explain the rise in total drug expenditures. Even though the prices of new patented drugs are regulated by PMPRB's Guidelines, there may still be incremental costs as new drugs are introduced. For example, the price of a breakthrough drug or of a drug that is a substantial improvement over an older medication can be higher than that of existing drugs.

What Are We Paying For?

While Canada now spends more on hospital and physician services than in the past, these services account for a shrinking share of total health care spending. In 2006, 43% of all health dollars went to these two categories, down from about 60% in the mid-1970s. On the other hand, spending on retail drugs (prescribed and unprescribed) rose from less than 9% of the total to 17% over this period, and spending on public health rose from 3% to 6%.

The Cost of Treating Patients in Hospital

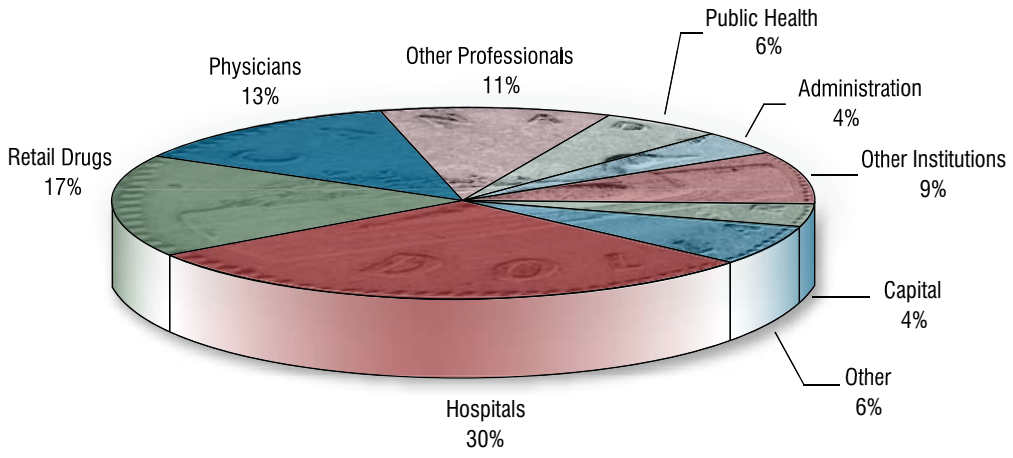
Hospitals represent the largest single category of health spending. While their share of total costs has fallen in recent years, the level of expenditure continues to grow. In 2006, hospital expenditures are expected to have risen by about 5% from the previous year.

Most hospitals offer diagnostic and treatment services for patients with a wide range of illnesses and injuries. Cardiovascular disease, digestive diseases, respiratory diseases, musculoskeletal and connective

Of the estimated $148 billion spent on health care in 2006, hospitals (30%), retail drug sales (17%) and physician services (13%) accounted for more than half of the total.

Notes: Data for 2006 are forecasts. Actual numbers are available for 2004. Percentages may not add to 100% due to rounding. The "other professionals" category includes expenditures for the services of privately practising dentists, denturists, optometrists and dispensing opticians, chiropractors, physiotherapists and private duty nurses.
Source: National Health Expenditure Database, CIHI.

FIGURE 2 Distribution of Health Spending



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tissue disorders and pregnancy and childbirth were the leading inpatient cost categories in acute care facilities in 2004–2005. Together, they accounted for more than half of total hospital spending that could be classified by type of illness. However, the order changes when the cost per patient is considered. For example, while cardiovascular diseases such as heart failure and stroke ranked first in total hospital expenditures, the average cost per patient was approximately $6,100. This compares to $14,100 per patient with burn injuries and $6,400 for treating a patient with musculoskeletal disease.

Within these patient groups, costs can also vary substantially by type of procedure or condition. For example, pregnancy and childbirth—the leading cause of hospitalization for women of child-bearing years in Canada—averaged $2,309 per patient in 2004–2005. The cost, however, differs by the type of delivery. An uncomplicated vaginal delivery, for example, costs a hospital an average of $1,993. This increases

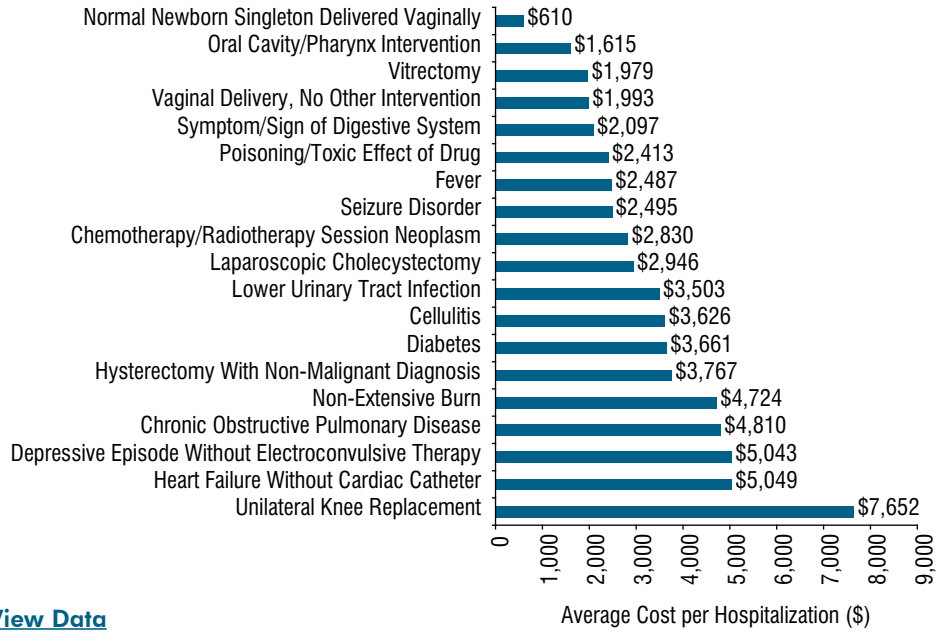
New This Year! CMG+

CIHI recently developed a new Case Mix Group (CMG+) methodology to group hospital patients according to their clinical conditions and resource use. CMG+ is more clinically and statistically reflective of new data and health care practices than the previous version. Over the last two and a half years, CIHI's redevelopment work on its acute-care inpatient grouping methodology has involved analyzing International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada/Canadian Classification of Health Interventions (ICD-10-CA/CCI) activity and cost data; an extensive review of current grouping logic; additional use of comorbidities and interventions; and the creation of new age categories. This grouping methodology will take greater advantage of the increased clinical and procedural specificity found in the new classification systems. The new CMG+ methodology will help health care decision-makers to estimate the cost of patient visits in different clinical areas.

This figure shows the average acute care hospital costs for typical inpatients with the most common health problems and/or treatments in each patient group in 2004–2005. Deaths, sign-outs and transfers to or from acute care facilities were excluded.

Note: Comparable (representative) data were not available for Quebec.
Sources: Canadian MIS Database, Discharge Abstract Database, CIHI.

FIGURE 3 Average Cost of Different Procedures/Conditions in 2004–2005



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to $3,901 for a caesarean delivery. Hospital costs for newborns also vary widely. In 2004–2005, average hospital spending ranged from $610 for a normal birth weight baby delivered vaginally to $113,685 for a very low birth weight baby (that is, weighing less than 750 grams). This is partly because babies born with low birth weight tend to have longer lengths of stay in hospital and use more hospital resources.

Health Services Outside of Hospitals

Many individuals receive health-related services outside of hospitals. For example, continuing care services (such as residential and home care) are designed to step in when individuals can no longer live safely at home or when they need support in order to do so.

Canadians spent $14 billion, or about $429 per capita, for services in other institutions, including nursing homes and residential care facilities, in 2006. The public sector accounted for about 72% of this amount, with the remaining 28% coming from private sources—mostly out-of-pocket payments. Spending per capita on services in these institutions increased by almost 74% from 1996, when the average cost was $247.

Home care provides assistance for those who receive health care services in their own homes and communities. Public spending on home care also grew significantly over the decade. In 2003–2004, total public home care spending in Canada was estimated at $3.4 billion. Adjusted for inflation, per capita public-sector spending on home care grew by about 6% per year between 1994–1995 and 2003–2004. Over this period, the number of users of government-subsidized home care services per 1,000 population increased by an average of 1% per year. This suggests that home care users, on average, consumed more publicly funded services in 2003 than they did a decade earlier.■

The Burden of Illness

The burden of ill health on the Canadian economy includes much more than what is spent to treat disease. It also includes indirect costs, such as the loss of potential economic output related to illness, injury-related work disability or premature death.[2]

Researchers from the Public Health Agency of Canada (PHAC) estimated that the total cost of all illness in Canada was $176 billion in 2000–2001. About $98 billion (55%) was the direct health care cost. Indirect costs were estimated at a further $79 billion (45%). Together, cardiovascular disease, digestive disease, musculoskeletal disease and neoplasm accounted for almost 17% of the total direct cost[v] and 56% of the total indirect cost.[3]

Want to Know More?

The following reports can be downloaded free of charge, in French and English, from CIHI's website at www.cihi.ca:

- *Exploring the 70/30 Split: How Canada's Health Care System Is Financed*
- *National Health Expenditure Trends, 1975–2006*
- *Drug Expenditure in Canada, 1985 to 2006*
- *Public-Sector Expenditures and Utilization of Home Care Services in Canada: Exploring the Data*
- *Canadian MIS Database (CMDB) Annual Report*

REFERENCES

1 Patented Medicine Prices Review Board, *Drug Pricing: A Comparison Between Canada and Other Countries* (2002), [online], cited July 5, 2007, from <http://www.pmprb-cepmb.gc.ca/cmfiles/sp02-irpp-e14NLB-482003-8592.pdf>.

2 Health Canada, *Economic Burden of Illness in Canada, 1998* (2002), [online], cited July 5, 2007, from <http://www.phac-aspc.gc.ca/publicat/ebic-femc98/pdf/ebic1998.pdf>.

3 Canadian Institute for Health Information, *The Burden of Neurological Diseases, Disorders and Injuries in Canada* (Ottawa: CIHI, 2007).

v Forty-six percent of the direct costs were unattributable, or could not be allocated to a specific diagnostic category; there are no unattributable indirect costs.

Health Human Resources in Canada

What We Know

The number of health care personnel in Canada, for selected occupations, varies across the country and has changed over time, as has the age distribution.

The proportion of physicians working in rural Canada has changed over time, as have differences in scope of practice between rural and urban physicians.

The change over time in the proportion of physicians and nurses in Canada who were trained in other countries.

What We Don't Know

The optimal number and mix of health care providers needed to meet the health care requirements of Canadians in different health settings.

How current health human resource strategies will affect the future mix and distribution of health providers.

The extent to which the aging health care workforce will affect the number and distribution of health professionals in the future.

What's Happening

New pharmacy, physiotherapy and occupational therapy data will be available in 2007–2008 through the Health Human Resources Database Development Project, executed by CIHI in collaboration with Health Canada.

The men and women working as health professionals in Canada comprise the very heart of our health system. The profile of these health workers—just under half of whom are physicians and nurses—reflects a wide range of education, training and skills.

How do countries like Canada ensure that the right number and mix of health professionals are available to meet current and future health care needs? Many factors affect this balance, including demographics, supply and demand trends, migration patterns, changing scope of practice and the overall well-being of health care workers.

Canada's Health Workforce: A Profile

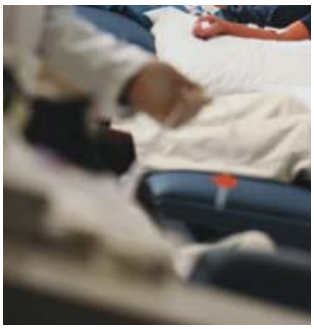
About 1 in 10 of all Canadians (1.5 million men and women) work in health and social services. Physicians and registered nurses (RNs) are the two largest groups of health professionals, accounting for just under half of all health care workers.

In 2005, there were two physicians for every 1,000 people in Canada. This is comparable to other OECD countries such as the U.S. and the UK, but below that of Germany and France (where the ratio of physicians to people is just over three).[i, 1]

In contrast, the average number of nurses per 1,000 population in Canada was higher than the OECD average—10 versus 9.[1] Canada had about the same ratio of nurses as Germany, but more than the UK (at about nine), the U.S. and France (both at about eight).[1]

Canada's health care workforce also includes a wide range of regulated, unregulated and informal or volunteer caregivers. See page 53 for full numbers of health professionals, by province.

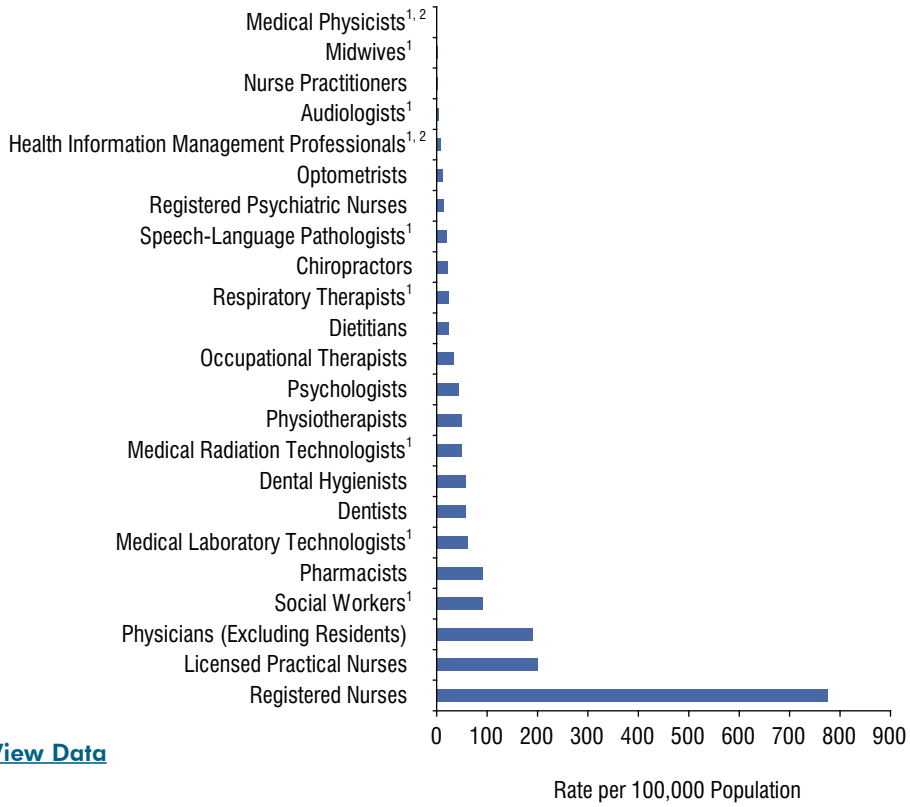
i International comparative data provide a general picture of health human resources in OECD countries. However, it is important to note that comparisons are made difficult by a number of factors, including wide variations in scope of practice and how care is organized in different countries.



Overall, the total number of health care providers in Canada increased between 2001 and 2005. During this period, the number of physicians and RNs grew by about 5% and 6%, respectively, the same amount as Canada's population as a whole. Some other professions, however, are growing at a much greater rate. For example, the number of pharmacists and medical radiation technologists grew by about 15% and 10%, respectively.

Together, physicians and nurses account for just under 50% of all health care workers. The rest come from a wide variety of occupations. This figure shows the number of workers employed in selected health professions per 100,000 Canadians in 2005.

FIGURE 1 Canada's Health Professionals



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Notes: Data provided in this figure were requested of various Health Personnel Database data providers, based on the registration status definitions indicated. Data in this figure provide an overview of selected health professions, which can be useful for some purposes, but should be used within the limitations noted. Please consult *Health Personnel Trends in Canada, 1995 to 2004* for more detailed methodological notes, data quality issues and profession-specific information. Due to the variation in regulatory requirements, interprofessional comparisons should be interpreted with caution.

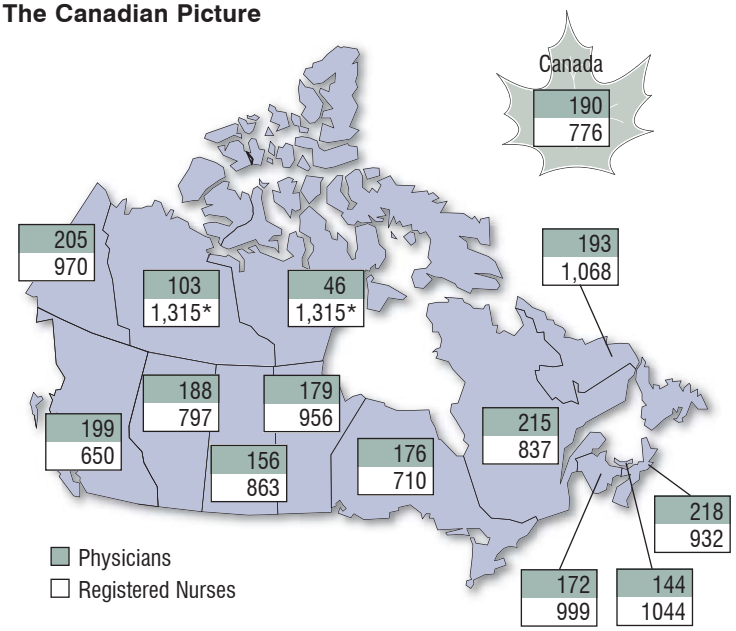
1 Profession is not regulated in all provinces. The Canadian total for each profession includes some provincial data in which registration with a regulatory authority may not be a condition of practice.

2 Data were submitted to CIHI from an organization in which membership is voluntary and may underestimate actual numbers.

Sources: Health Personnel Database, CIHI; population estimates from *Quarterly Demographic Statistics*, Statistics Canada, vol. 19, no. 4, 2005.

This figure shows the number of active registered physicians and nurses per 100,000, by province and territory in 2005.

FIGURE 2 The Canadian Picture



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Notes: Data include only RNs employed in registered nursing at the time of annual registration. RNs not employed in registered nursing and RNs failing to state their employment status are excluded from the data. Statistics released by CIHI will differ from statistics released by provincial or territorial regulatory authorities due to CIHI's collection, processing and reporting methodologies. Excludes residents and unlicensed physicians who requested that their information not be published as of December 31, 2005. Includes physicians in clinical and/or non-clinical practice. The population-per-physician ratio is calculated annually using the most recent Statistics Canada population estimates.
* Includes both the Northwest Territories and Nunavut.
Sources: Registered Nurses Database, CIHI. Scott's Medical Database, CIHI; 2005 population estimates, Statistics Canada.

For certain professions, Canada's health workforce is keeping pace with population growth; however, the changing age profile of these workers may affect the number of health professionals available to meet the future demands of Canadians. The average age of doctors and RNs increased between 2001 and 2005. During this period, the number of physicians under 40 years of age fell by 10%. Those in their 50s increased by just over 19%. Likewise, in 2005, just under 20% of RNs were 55 years of age or older. Moreover, those RNs aged 50 or older outnumbered their counterparts aged 35 or younger by 2:1.

Changing Health Professions

The Pan-Canadian Health Human Resource Strategy—a Health Canada national health human resources initiative—has designated "collaborative patient-centred practice" as a critical area of focus.[2] Collaborative practice promotes participation among several health disciplines in order to improve patient care and access to health services.[3] Complicating the development of a national approach are varying community needs, organizational structures and cultures between and within provinces. In addition, the continually changing health care landscape in each province includes shifts in scope of practice among health providers and the entry of new health professions.

Changing Scope of Practice

The redefinition of roles—either diminishing or increasing—changes the established order of scope of practice among various health professions. For example, more and more family physicians (FPs) are narrowing the range of medical services they provide. Some are no longer performing certain procedures that were traditionally part of an FP's practice—fewer are delivering babies or providing assistance in operating rooms than in the past.

In other contexts, scope of practice is broadening. Each province and territory issues its own legislation and regulations defining the services that health professions provide. For example, paramedics can provide different services in some provinces than in others. In Alberta, for example, paramedics are now trained and licensed to administer drugs and insert breathing tubes when required.[4]

Emerging Professions

To promote better access to health care services, the Ontario government now recognizes five new professions—physician assistant, nurse endoscopist, clinical specialist radiation therapist, anesthesia assistant and surgical first assist.[5] Planners hope that these new professionals will help to alleviate shortages of physicians, radiation therapists, anesthesiologists and registered nurses.[5, 6]

As a greater proportion of the health workforce nears retirement age, many are interested in the question of recruitment. Most Canadian health professionals are trained in Canada. For example, in 2005, there were 1,876 new medical graduates of Canadian universities.[7] In 2004, the number of graduates of diploma and bachelor's degree programs for registered nurses was 2,635 and 4,354, respectively. However, the health workforce also includes many graduates from programs outside of the country. For example, between 2000 and 2005, foreign-trained graduates made up 6% to 8% of Canada's RN workforce. About half of these graduated from nursing programs in the Philippines (about 30%) and the UK (about 19%).

The share of foreign-trained graduates is higher for physicians. In 2005, almost one-quarter (22%) of practicing physicians in Canada were international medical graduates (IMGs). In the last decade, an increasing number of physicians have been coming to Canada from India, Pakistan and several sub-Saharan African countries.[8]

Once health professionals arrive in Canada, they are typically required to undergo an extensive assessment and training process before practicing in the country. Various provincial governments have recently begun to streamline the licensing process to facilitate the integration of these professionals into the health system workforce.[9]

On the Move

Some physicians enter the country each year, while others leave. Between 2001 and 2003, Canada registered a net loss of physicians to other countries, the majority of whom moved to the U.S.[8] However, starting in 2004, Canada began registering net gains—85 physicians in 2004 and 61 in 2005—due to migration.

The movement of health professionals occurs within Canada as well. In 2005, 634 (1%) of active physicians moved to another province or territory. B.C. and Alberta experienced a net gain in physician numbers due to migration between jurisdictions. Conversely, Saskatchewan, Manitoba, Quebec and Newfoundland and Labrador experienced net losses.

Almost one-quarter of practising physicians in Canada are IMGs.

The Other Side of the Coin

Canada has welcomed internationally educated health professionals (IEHPs) from around the globe. Within the last few years, the number of IEHPs from countries in Africa and Asia has increased.[8, 10] Since these IEHPs are valuable elements of any workforce, there is concern among African and Asian countries regarding the loss of these highly trained professionals to wealthier nations.[8, 10] For example, about 12,000 of the 33,000 doctors trained in South Africa (37%) work in other OECD countries, including Canada.[10] Some argue that the loss of highly educated physicians in these countries is of particular concern, since some of these nations may also carry a disproportionate burden of disease with fewer resources than OECD countries. For instance, according to the World Health Organization, about 37 out of 47 sub-Saharan African countries do not have the minimum recommended ratio of 20 physicians per 100,000 people.[11]

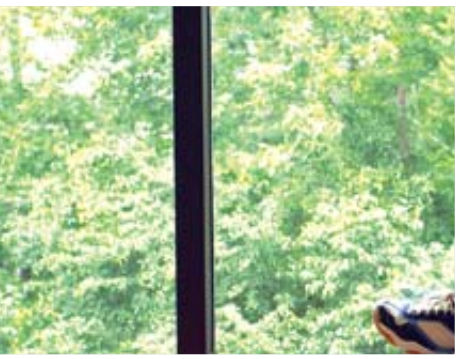
In the Workplace

Job satisfaction in any environment is a vital component of workforce retention initiatives. Studies have suggested that in health care, work stress, high job insecurity in some professions and high physical demands are some of the factors that contribute to low job satisfaction, burnout and absenteeism.[12, 13]

Studies show that 88% of registered nurses, 66% of family physicians and 73% of specialists reported being satisfied with their current professional lives.[13, 14] Nevertheless, in the 2004 National Physician Survey, many physicians reported that they suffer from high stress, exhaustion and low job satisfaction. Research shows that in most cases reported burnout rates for Canadian physicians exceed those for other occupations.[12] Moreover, some researchers have found that Canadian physicians are more at risk for burnout than their global counterparts.[12]

The 2005 National Survey of the Work and Health of Nurses (NSWHN) also sheds some light on job satisfaction and absenteeism. While most nurses report being satisfied with their jobs, dissatisfaction was more prevalent among nurses (12%) than among the working population overall (8%). In addtion, the survey results suggest that factors such as work stress, low support from supervisors or co-workers, high job insecurity and high physical demands may be related to work absences for health-related reasons. Although close to two-thirds (61%) of absenteeism in nurses is health-related, the extent to which it is linked to work stress is not known. However, the survey results do suggest that nurses reporting high job strain were significantly more likely than those with lower levels of job strain to have been absent for at least 20 days: 17% versus 12%.

Nurses are also on the move within Canada. In 2005, about 87% of RNs were employed in the jurisdictions in which they graduated. Prince Edward Island, B.C. and Alberta attracted the greatest proportion of out-of-province graduates. In contrast, nearly all (96%) of Quebec's RN workforce graduated from a Quebec nursing program.■



Want to Know More?

Other CIHI reports offer additional information on health human resources, including:

- *Supply, Distribution and Migration of Canadian Physicians*
- *Workforce Trends of Registered Nurses in Canada*
- *The Regulation and Supply of Nurse Practitioners in Canada: 2006 Update*
- *Health Care in Canada 2006*
- *Understanding Physician Satisfaction at Work: Results from the 2004 National Physician Survey*
- *From Perceived Surplus to Perceived Shortage: What Happened to Canada's Physician Workforce in the 1990s?*

All these reports can be downloaded free of charge from CIHI's website at www.cihi.ca.

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Access to Care

What We Know

That the urgency of care can influence how long patients wait.

How wait times for some services have changed in recent years.

How many Canadians report cost as a barrier to accessing a variety of health services.

The extent of coverage for prescription drugs, dental care, eye care and other health services is based on a variety of factors, including income, age, employment status and where we live.

What We Don't Know

How long people wait for different services in different parts of the country.

The relationship between wait times and outcomes.

How longer waits for one service influence wait times for other services.

What's Happening

In 2006, researchers at CIHI developed a new indicator to measure the proportion of patients aged 65 and older who received hip fracture surgery on the day of hospital admission or the next day.

Ask what makes Canada different from the United States, and health care is sure to come up—especially views about perceived differences in access to essential health services. Nevertheless, data show that Canadians and insured Americans are about equally likely to report unmet needs for health care in the past year.

Access and Wait Times

Over the last few years, the issue of waiting for care has significantly influenced health policy initiatives. In fact, Canada's first ministers have placed timely access to quality health care on the top of their collective agendas.

While we now know more about wait times than in the past, there are still significant gaps in understanding how waits affect the health and well-being of individuals. In order to determine how best to reduce the amount of time that someone waits for care, it helps to know where and why these waits occur.

One in ten insured adults on both sides of the border reported unmet health care needs in 2002–2003 (rates were much higher for uninsured Americans).[1] Leading reasons for access problems do diverge, however. In the U.S., cost was the most common barrier—cited by just over half of those with unmet needs. In Canada, almost a third (32%) of those with access difficulties named waiting for care as a barrier. In addition to cost and wait time, factors such as cultural differences, language barriers, geographical distance and the availability of resources can also influence a person's access to health services.

A key component of a well-functioning health care system is how quickly people can access the care they need when they need it. As the survey cited above indicates, for many Canadians, access is related to how long they have to wait for an appointment, test or surgery. Here, we look first at wait times for various types of care (for example, health professionals, diagnostic tests) and then at access to other kinds of care, including prescription drugs, dental, vision and other health services.

Waiting to See a Health Professional

The 2005 Canadian Community Health Survey (CCHS) found that most (80%) Canadians aged 12 or older consulted a medical doctor at least once in the year prior to the survey. Moreover, almost 90% of people aged 65 and older saw a general practitioner at least once, and among that group, 44% had four or more contacts.[2] In a separate survey, over one-third (36%) of adults with health problems reported

waiting six or more days to see a doctor when they were sick or needed medical attention in 2005.[3] Waits were also reported for obtaining care from a specialist. Statistics Canada reported that, in 2005, roughly 19% of the 2.8 million Canadians who visited a medical specialist experienced difficulties and over two-thirds (approximately 68%) of this group said they waited too long for an appointment. The median wait time was four weeks—unchanged since 2003.[4]

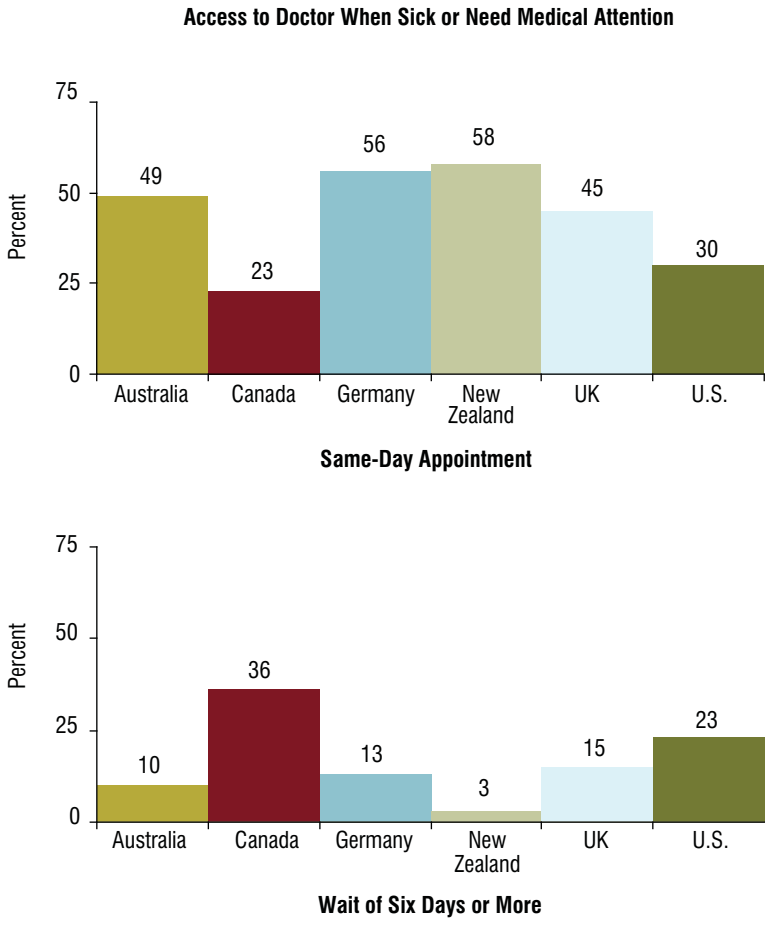
Waits were also reported for obtaining care from a specialist.

However, overall median wait times only give a partial picture of what is happening. In most cases, there are significant variations in the length of time that people wait to see a health professional. For example, in the 2005 Health Services Access Survey by Statistics Canada, about 13% of Canadians reported that they waited more than three months to see a specialist for a new illness or condition.

A 2005 International Commonwealth Fund survey of adults with health problems in six countries asked individuals about their ability to see a doctor on the same day that they tried. The survey found that less than one-quarter (23%) of Canadians reported that they were able to do so, compared to 30% to 58% in the other five countries. Canadians were also more likely (36%) than others in the other five countries to say that they had had to wait six or more days to see a doctor.

Source: 2005 Commonwealth Fund International Health Policy Survey of Sicker Adults.

FIGURE 1 An International Snapshot on Access



Moving the Queue—Advanced Access

Some health care providers are tracking wait times. One strategy, "Advanced Access," has been used extensively in the U.S. and the UK. In Canada, after implementing advanced access, the Saskatoon Community Clinic was able to reduce average waiting times for most appointments to 2 days—significantly faster than the original 36 days for a complete physical or 8 days for a regular appointment. The basic principles behind the model are:

1. **Understand supply** (amount of time available for each patient) **and demand** (number of patients).
2. **Unclog the backlog.** This might mean increasing the workload for certain periods of time. For example, in one practice a physician switched from being a half-time administrator and half-time clinician to a full-time clinician for the summer to get her practice on track.
3. **Queue variables.** Many doctors schedule different types of visits in different queues: the wait list for physical exams might be separate from the wait list for pap smears, for instance. The unintentional result is that some slots may end up going to waste. Under the Advanced Access model, physicians are advised to ignore appointment type when scheduling, except when a particular room or doctor is required for an appointment. However, this is more difficult for specialists because they tend to change clinical settings more often.
4. **Expect the unexpected.** For example, follow-up visits should not be scheduled for days when demand will be higher than normal because of seasonal variability, vacations or other factors.
5. **Reduce demand.** Some Advanced Access doctors provide care in new ways or close their practices to new patients.
6. **Increase supply.** A specialist might ask referring physicians to perform some of the basic required tests before making a referral.

For more information please go to www.hqc.sk.ca.

Waiting for Diagnostic Tests

After a patient sees a doctor, there may be a need for further exploratory tests to determine a diagnosis. These tests can vary from basic blood work to scans using medical imaging technologies such as magnetic resonance imaging (MRI) or computed tomography (CT).

From 1990 to 2006, the number of MRI scanners in Canada increased from 19 to 196 (up by 932%), and CT scanners from 198 to 378 (up by 91%). In other words, as of January 2006, there were about 6 MRI and 12 CT scanners for every million Canadians.

But these numbers do not paint the whole picture. Canada performs fewer scans per 1,000 population than the U.S., but more than England. However, Canada performs more exams per scanner than either of these other countries.[5]

How does this affect wait times for diagnostic testing? A 2005 Statistics Canada survey found that the median wait time for diagnostic tests—CT scans, non-emergency MRI or angiographies—was three weeks, unchanged from 2003. However, the wait time for diagnostic tests varied among provinces and territories and over time.

Patient Flow

Moving people through the health care system can be compared to moving a car through traffic in rush hour—at times it moves well, at other times everything slows down. Bottlenecks, or in this case waits, happen at different times and for different reasons. The goal is to move people through the system in a safe, reasonable, seamless and timely fashion.

For example, a recent CIHI report found that hip fracture patients who had to transfer (even short distances) from their admitting hospital to another hospital for surgery experienced greater surgical delays. While these transfers may be essential to providing appropriate care, delays are associated with a greater risk of dying in hospital within 30 days of admission for hip fracture.[6]

Likewise, the STEMI (ST-elevation myocardial infarction) protocol, developed by the Heart Institute in Ottawa, Ontario, is an example of a system designed to improve patient flow. This protocol involves using advanced-care paramedics who are trained to interpret the results of electrocardiograms and recognize the signs of a heart attack when they respond to an emergency. If a patient is confirmed to be experiencing a STEMI, the paramedics can take that patient directly to the Heart Institute for care rather than going first to the emergency department. By the time the patient arrives, a STEMI cardiology team is ready to perform emergency medical procedures.

To what extent do these waits affect Canadians' satisfaction with the care they receive? About 21% of Canadians who accessed care within the 12 months prior to the 2005 Statistics Canada survey felt that the wait time for tests was unacceptable.[4] About 12% of respondents reported that they were affected by the waits and almost three-quarters (71%) of those reported that it resulted in worry, anxiety and stress. In addition, over one-third (38%) experienced pain.

Surgical Volumes and Priority Areas

When the first ministers met in the fall of 2004, they committed to achieving "meaningful reductions in wait times in priority areas such as cancer, heart, diagnostic imaging, joint replacements and sight restoration by March 31, 2007, recognizing the different starting points, priorities and strategies across jurisdictions."[i, 7] Governments' plans to improve access and reduce wait times include a range of strategies, one of which is to increase the number of surgical procedures performed. Proponents say that this is an important way to reduce the number of patients waiting for care. Nearly 42,000 additional procedures in wait time priority areas (hip and knee replacements, cataracts, cardiac revascularization and cancer) were performed in Canadian hospitals outside Quebec in 2005–2006 compared to the previous year. After adjusting for population growth and aging, this represents a 7% annual increase in the combined total number of procedures in these four surgical wait time priority areas. The increase is largely due

i In the companion agreement, *Asymmetrical Federalism That Respects Quebec's Jurisdiction*, it was noted that Quebec would apply its own wait time reduction plan, in accordance with the objectives, standards and criteria established by the relevant Quebec authorities.

As of March 2007, each province and territory was required to specify its intention of implementing a patient wait time guarantee in order to qualify for funding under the federal Patient Wait Time Guarantee Trust Fund. There are differences in priority areas, as well as benchmarks chosen, as Figure 2 shows.

FIGURE 2 The Provincial and Territorial Commitments

JURISDICTION	PRIORITY AREA	BENCHMARK	YEAR OF IMPLEMENTATION
Newfoundland and Labrador > www.releases.gov.nl.ca/releases	Cardiac surgery	26 weeks	2010
Prince Edward Island > www.gov.pe.ca/photos/original/WaitTimes.pdf	Radiation therapy	8 weeks	2010
Nova Scotia > www.gov.ns.ca/health/waittimes/default.htm	Radiation therapy	8 weeks	2010
New Brunswick > www.surgerynewbrunswick.ca/wait-e.asp	Radiation therapy	8 weeks	2010
Quebec > www.msss.gouv.qc.ca/en/sujets/organisation/waiting_lists.html	Hip/knee/ cataract surgery	6 months	Currently implemented
Ontario > www.health.gov.on.ca/transformation/wait_times/public/wt_public_mn.html > www.cancercare.on.ca/index_waittimesradiation.asp	Cataract surgery	26 weeks	2009
Manitoba > www.gov.mb.ca/health/waitlist/index.html and www.gov.mb.ca/health/pirc/index.html	Radiation therapy	4 weeks	2008
Saskatchewan > www.sasksurgery.ca/wait-list-info.htm	Coronary artery bypass graft surgery	2 weeks to 26 weeks, depending on level of urgency	2010
Alberta > www.ahw.gov.ab.ca/waitlist/WaitListPublicHome.jsp	Radiation therapy	8 weeks	2010
British Columbia > www.healthservices.gov.bc.ca/waitlist	Radiation therapy	8 weeks	2010
Yukon Territory	Mammography	Not available	2010
Northwest Territories	Primary health care	Not available	2010
Nunavut	Certain types of diagnostic imaging, e.g. video-assisted ultrasounds	Not available	2010

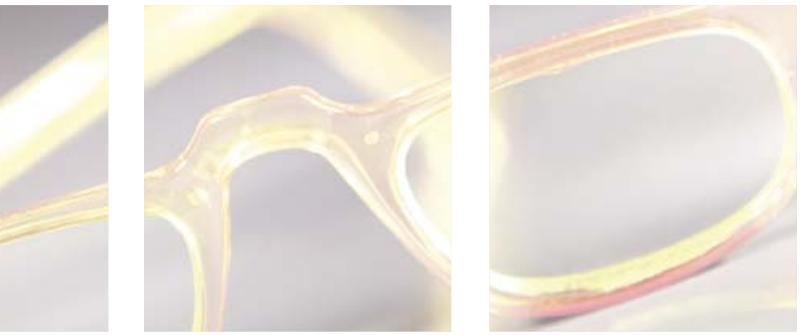
Source: *Wading Through Wait Times: What Do Meaningful Reductions and Guarantees Mean?*, Health Council of Canada, 2007.

to a surge in the number of hip and knee replacements and cataract procedures. Surgical rates for cardiac revascularization and cancer also saw modest growth between 2004–2005 and 2005–2006. By comparison, the rate of procedures outside priority areas increased by 2% (after adjusting for population growth and aging) over the same period.

Overall, the number of procedures in wait time priority areas grew in every province in 2005–2006. However, there were differences across the country in the size of the increase, as well as in the type of surgery. For example, while Manitoba and Ontario had similar growth rates for priority procedures overall, specific types of surgery grew at different rates. Almost

two-thirds (63%) of Ontario's increase came from increased rates of cataract surgery, while in Manitoba over half (56%) of the change was due to an increased number of joint replacements.

Some have argued that the increased volume of priority area procedures may come at the expense of other types of surgery.[8, 9] This can be difficult to evaluate, partly because of the many factors that affect surgical rates. Some of these factors include shifts in available resources, changing indications for surgery, substitution of other types of care for surgery, shifts of procedures to other settings and changes in the prevalence of the underlying disease(s). A 2007 CIHI study found that the number of procedures in areas not identified as priorities by the government remained stable or increased between 2004–2005 and 2005–2006. Another recent study found that in Ontario, there was no evidence that the province's wait time strategies had an adverse effect on the rate of procedures performed in other areas.[10] While the overall number of surgical procedures in priority areas has grown in recent years, it is not clear what impact this has had on actual wait times because we do not yet have comparable data to track trends in how long patients across the country waited for surgery.



Beyond Waits

The length of time someone waits for care is only one measure of access. Availability and affordability of health services can also affect access to care. Public and private insurance coverage for health services such as drug therapy, dental or vision care may vary depending on factors such as place of residence, age, income and employment.

Where You Live Matters: Urban Versus Rural

According to the 2006 census data, more than 80% of Canada's population now live in urban areas.[11] Most Canadian physicians, particularly specialists, are also concentrated in and around cities. In 2004, about 9% of all physicians (just under 16% of family physicians [FPs] and about 2% of specialists) worked in rural and/or small-town Canada. In the same year, 33.7% of FPs in rural areas were accepting new patients, compared to 18.1% of urban FPs.[12] Of the registered nurse (RN) workforce in 2005 (excluding Quebec), almost 83% lived in urban areas. However, there was considerable variation across the country—90% of RNs in B.C. worked in urban areas, compared to 60% of RNs in the Northwest Territories and Nunavut.

Access and Coverage

Most Canadians require several types of care during their lifetimes. While the *Canada Health Act* ensures public funding for medically necessary physician and hospital services, each province and territory provides additional coverage for certain other health services. The types of services covered and the extent of coverage for each is determined by the provincial or territorial plan. For example, most provinces and territories pay for part of the cost of regular vision and dental care for children, seniors and social assistance recipients. In the case of dental care for social assistance recipients, some jurisdictions provide emergency coverage (relief of pain or infection), others provide basic coverage (restorative and preventive), and only a few provide more comprehensive coverage (restorative, preventive and prosthetic). A few public plans also cover individuals with physical and mental disabilities.

According to Statistics Canada, 61% of Canadians reported having some public or private dental insurance in 2003. Public insurance coverage is highest in the territories (81%). Among the provinces, insurance coverage is highest in Alberta (71%). Similarly for eye care, the highest coverage is in the territories (77%), while the lowest reported insurance coverage is in Quebec (39%). The overall rate for Canadians is 55%.

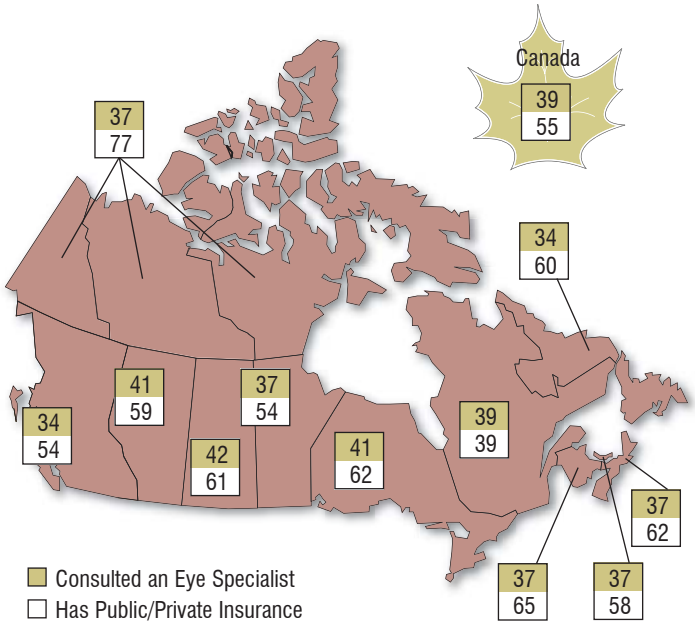
Dental insurance coverage is highest in the territories (81%).

As with dental and vision care, most public drug plans cover seniors and those in low-income groups. Provincial and territorial governments also pay for drugs given to patients in hospitals. However, drug therapy is often prescribed for treatment outside of hospital as well.

In 2003, the rate at which Canadians reported consulting an eye specialist ranged from 34% in Newfoundland and Labrador and B.C. to 42% in Saskatchewan. The percentage of those with some public and/or private insurance to cover the costs of their eyeglasses and contact lenses also varied from 39% in Quebec to 77% in the territories.

Notes: Includes respondents aged 12 or older.
Source: Canadian Community Health Survey 2003 (cycle 2.1), Statistics Canada.

FIGURE 3 Insurance and Consultations for Eye Care

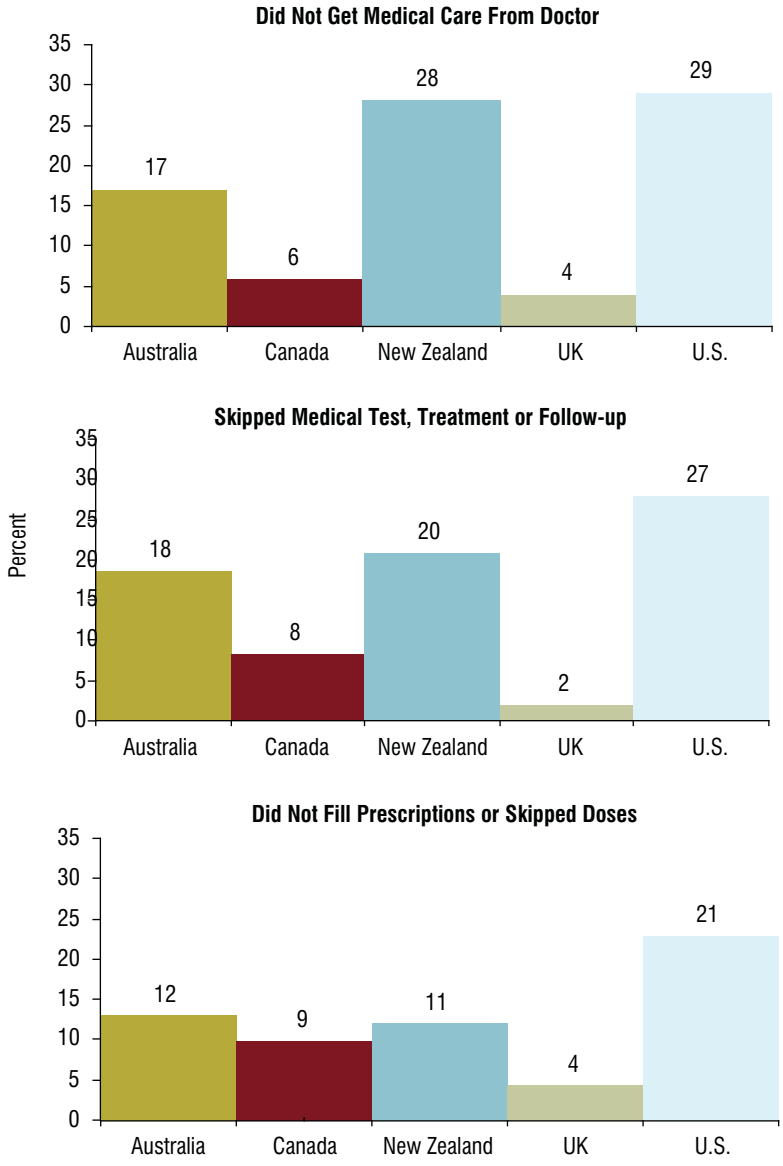


Considerable variation exists among provincial and territorial drug plans across in the country. Given the potentially high costs of prescription drugs, persons with specific diseases—such as HIV/AIDS, cancer and diabetes—that often require expensive drug therapy are also covered under many plans. Certain populations, including military personnel, the Royal Canadian Mounted Police, veterans, inmates in federal jails and Status Indians and Inuit, receive coverage from the federal government when these costs are not covered by other insurance plans.

As a result, many different populations have drug coverage to varying degrees. According to a Statistics Canada survey, over three-quarters (79%) of Canadians aged 12 or older said that they had some public and/or private drug insurance in 2003. Coverage rates among

FIGURE 4 Cost as a Barrier to Access

This graph shows the percentage of adults in five countries who reported in 2004 that, because of cost, they did not get medical care from a doctor; skipped a medical test, treatment or follow-up; or did not fill a prescription or skipped doses of their medication at some point in the previous year.



Note: Data are from 2004. All countries show a statistically significant difference with one or more countries in each of the categories.
Source: C. Schoen et al., "Primary Care and Health System Performance: Adults' Experiences in Five Countries," *Health Affairs Web Exclusive* (October 28, 2004): pp. W4-487–W4-503.

the provinces and territories ranged from 67% in P.E.I. to 89% in Quebec. Low-income Canadians, part-time workers and those who were unemployed were less likely than others to say that they were insured. In part, this likely reflects the fact that private insurance is often a benefit of employment.

To what extent does coverage (or lack thereof) affect access? In a survey conducted in five countries—Australia, Canada, New Zealand, the UK and the U.S.—some respondents reported that they did not fill prescriptions or skipped doses as a result of the cost of prescriptions (see Figure 4).[13]■

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Want to Know More?

CIHI has published a number of reports focusing on access and wait times, insurance coverage and health care financing. These reports are available free of charge, in French and English, on the CIHI website at www.cihi.ca.

- *Wait Times Tables—A Comparison by Province, 2007*
- *Waiting for Health Care in Canada: What We Know and What We Don't Know*
- *Surgical Volume Trends Within and Beyond Wait Time Priority Areas*
- *Exploring the 70/30 Split: How Canada's Health Care System Is Financed*
- *Understanding Emergency Department Wait Times: Who is Using Emergency Departments and How Long Are They Waiting?*
- *Understanding Emergency Department Wait Times: How Long Do People Spend in Emergency Departments in Ontario?*

quick facts

Health Care Financing

> Canada, like all OECD countries, has experienced a rise in health spending per capita over the last two decades. Between 1985 and 2006, total health spending in Canada grew by over $100 billion. Overall health spending in Canada reached an estimated $148 billion in 2006 (a 5.8% increase from 2005), or $4,548 per person.

> Economically developed countries rely, to a varying extent, on the public sector, private insurance and out-of-pocket payments by individuals to cover the costs of health care. About 70% of financing for health care in Canada comes from public sources—the remaining 30% comes from private sources.

> Between 1975 and 2005, private-sector spending (inflation-adjusted) rose more quickly than public-sector spending (4.4% versus 3.5% on average per year). The majority of private spending comes from individual out-of-pocket expenses (14% of total spending) and private health insurance (12%). Over three-quarters (78%) of Canadians reported out-of-pocket medical expenses in 2005.

> In Canada, higher spending between 1984 and 2006 can be partly attributed to population growth (accounting for 13%) and inflation (accounting for 41%). However, other factors, such as changes in practice patterns and new/additional technologies and services, have also contributed to this increase.

> Health spending per capita varies across the country. Alberta and Manitoba spent more per capita on health care than any other province (at $4,924 and $4,901, respectively) in 2006. P.E.I. and Quebec (at $4,225 and $3,976, respectively) had the lowest expenditures per capita.

> Hospitals have traditionally accounted for the largest share of Canadian health expenditures. Spending on hospitals was $44.1 billion in 2006. However, hospitals' share of total health dollars has fallen over time as other major areas of health care expenditure have grown more rapidly. Spending on hospitals was about 30% of total health expenditures in 2006—down from about 45% in 1975.

> The share of total health expenditures allocated to drugs increased over time—to about 17% in 2006, up from 9% in the mid-1970s.

> In 2006, 13% of total health expenditures was allocated to physician care. The majority of Canadian physicians get most of their income (79.5%) from fee-for-service payments (that is, they bill their provincial or territorial health insurance plan for each insured patient service they provide, according to a fee schedule). Physicians may also receive payments via alternative payment plans (salary, capitation, service contracts, etc.).

> Between 2001–2002 and 2004–2005, gross fee-for-service payments to physicians increased by 12.4%, reaching $10.1 billion in 2004. During the same period, the total number of services provided by physicians increased by 1.8%.

> In 2004–2005, Canadian physicians delivered 245 million services that were paid on a fee-for-service basis.

Health Human Resources and Technology

- Nurses and physicians are the two largest groups of health professionals, accounting for just under 50% of the health care workforce.
- For every 100,000 Canadians there were 215 physicians in 2005—a 2.7% increase in the rate from 2001. During the same time period, there were 776 nurses for every 100,000 Canadians—up 4.6%.
- Many health professionals working in Canada were trained outside of the country. Nearly one-quarter (22%) of Canada's physicians and 8% of registered nurses in 2005 were trained abroad.
- After a dip in the mid- to late-1990s, the number of physician graduates from Canada's medical schools is again on the rise. Between 1996 and 2006, there was a 35% increase in enrolment within Canadian medical faculties (1,598 and 2,460 enrolment spaces, respectively).
- The average age of physicians and nurses rose between 2001 and 2005. Specifically, the number of physicians under 40 years of age fell by 10% and those in their 50s increased by just over 19%. Registered nurses aged 50 or older outnumbered their counterparts aged 35 or younger by 2:1.

Patient Access and Satisfaction

- Most (85%) Canadians surveyed in 2003 reported being very or somewhat satisfied with the health services they or their family received in the previous 12 months.
- In a 2005 international survey of adults with health problems, most (82%) Canadians reported that their health care system worked fairly well with only minor or fundamental changes required. However, 17% felt a complete rebuild of the system was required, compared with 14% in the UK and 30% in the U.S.
- According to survey data, Canadian adults waited a median of three weeks for selected diagnostic tests and four weeks for non-emergency surgery and specialist visits in 2005.
- In a 2005 study of Canadian adults with health problems, over one-quarter (26%) reported at least one cost-related access problem within the previous two years. These access problems included not filling a prescription; having a medical problem but not visiting a doctor; and/or skipping a test, treatment or follow-up appointment because of the cost involved.
- Access to primary health care services is affected by a number of different factors beyond the supply of family physicians. These factors include a physician's hours of work; change in scope of practice; whether or not physicians are accepting new patients; and the overall health needs of the population. For example, about 20% of family physicians were accepting new patients in 2004—down 3.5% from 2001. In addition, since 1992, the typical scope of practice for family physicians has changed (for example, fewer are providing obstetrical services).
- The number of MRI scanners in hospitals, which are mainly publicly funded, increased from 115 in 2001 to 148 in 2005. During that same period the number of MRI scanners in mainly privately funded facilities increased from 15 to 28.

Quality and Safety of Care

What We Know

Variations in quality of care performance measures can identify areas for improvement.

Improvements in tracking and reducing adverse events are being implemented across Canada at the national, local and organizational levels.

What We Don't Know

The annual human and economic toll of adverse events in health care.

How often adverse events occur outside of hospitals.

The nature and effect of all types of adverse events.

What's Happening

Hospital *Report 2007: Acute Care*, scheduled for release in the fall of 2007, will provide updated data on the implementation of patient safety strategies in Ontario hospitals.

In November 2007, CIHI will release the first hospital-standardized mortality ratios (HSMRs) for Canada. Originally developed in the UK, the ratio compares observed versus expected deaths on a hospital-specific basis, adjusted for the age, sex, diagnoses and admission status of patients.

Providing quality health care has been on the agenda for health system managers and decision-makers and of key interest to Canadians for some time. Quality of care can include, for example, accessibility, appropriateness, effectiveness, efficiency, continuity of care, patient safety and how Canadians perceive the care they receive.

Assessing the quality of a health system and creating improvement efforts require the development of measurements across various sectors and multiple levels of the health system.

In this section we look at a variety of quality of care–related measures, with a focus on the latest available information on patient safety. We also look at how the public perceives both the health system and the quality of care being provided.

Measuring Quality of Care

Health indicators are available across various sectors and levels of the health care system. At a macro-level, there are data on overall trends in health outcomes (for example, mortality rates or unplanned readmission to hospital). At an intermediate or meso-level, health care facilities and regions are tracking patient outcomes, as well as related processes of care within their institutions to understand the progress of their improvement initiatives. Finally, at an individual or micro-level, quality improvement teams collect information that helps them measure the progress of initiatives in specific areas.

Pan-Canadian Measures: A Macro-Level Perspective

In-hospital mortality rates remain an important measure of health system performance. Since 1998, CIHI has reported on regional variations in 30-day in-hospital mortality rates for new acute myocardial infarctions or AMIs (heart attacks). These rates have fallen over time, although not uniformly across Canada. While the *overall* in-hospital heart attack mortality rate fell from just over 13% in 1999–2000 to 10% in 2005–2006, there were significant cross-country variations. For example, heart attack patients were twice as likely to die in hospital within the first 30 days in some regions than in others.

Individuals admitted to hospital with a new stroke were more likely to die within 30 days than those admitted with a new heart attack. About 18% of new stroke patients died in hospital within 30 days of admission in 2005–2006, a rate that remained almost unchanged over five years.

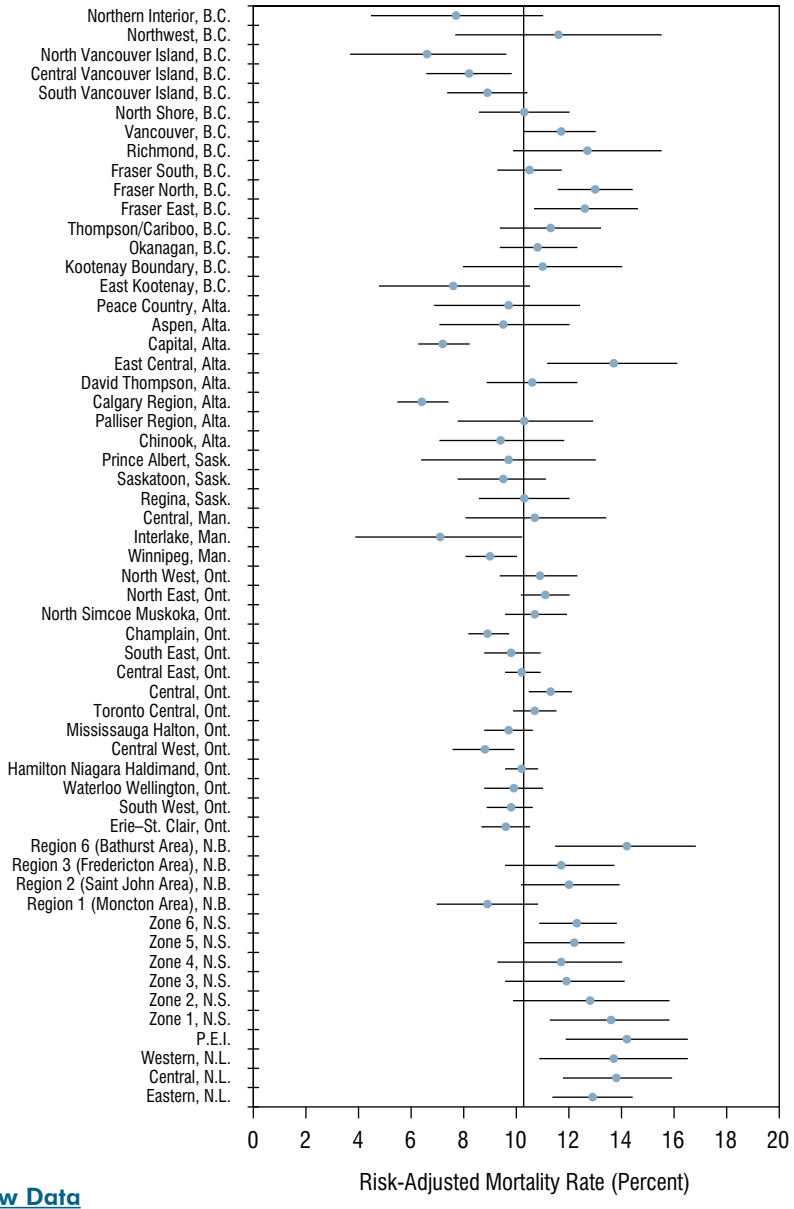
To date, comparable data on health outcomes outside of the acute care setting are not as readily available. Efforts to develop nation-wide quality

measures across the entire spectrum of care are under way. For example, the 2005 Canadian Community Health Survey asked respondents diagnosed with non-gestational diabetes in selected provinces whether they received appropriate diabetes care. Just over two-thirds of respondents (68%) reported meeting the Clinical Practice Guideline recommendations for having had an eye test at least once in the past 12 months, but only half (48%) reported meeting the annual foot examination recommendations.

The risk-adjusted proportion of in-hospital deaths within 30 days of admission with a new heart attack varies from region to region across Canada. Risk-adjusted mortality rates for larger health regions for 2003–2004 to 2005–2006 are shown in Figure 1 (indicated by a blue dot). The rates are estimated to be accurate to within the range indicated by the bars, 19 times out of 20. The range corresponds to the 95% confidence interval for the risk-adjusted rate. The solid line indicates the overall rate (10.3%).

Notes: Regions that are not shown were excluded due to small numbers or non-comparable data. Quebec data are not included due to difference in coding practices.
Source: Hospital Morbidity Database, CIHI; Discharge Abstract Database, CIHI.

FIGURE 1 Regional Variations in Mortality Following a Heart Attack



View Data

How Does Canada Compare?

International comparisons of heart attack (AMI) and stroke mortality rates are difficult. Countries collect hospital data and organize care differently, which may affect the measurement of survival rates. The OECD Health Care Quality Indicators Project attempted to compare 30-day in-hospital mortality rates for a number of countries. Twenty countries reported crude 30-day in-hospital heart attack mortality rates and 17 reported crude in-hospital stroke mortality rates for the first time. In these comparisons, Canada's heart attack mortality rates fell in the upper mid-range of the 20 countries. Likewise, ischemic stroke (stroke caused by a blockage of blood flow to the brain) and hemorrhagic stroke (stroke caused by the rupture of a blood vessel in the brain) mortality rates in Canada were about the same as those in Australia and the Netherlands, but higher than those in many other countries.[1]

Organization-Level Measurements: A Meso-Level Perspective

Facility and regional indicators may also be developed to track patient safety or identify areas for improvement in processes of care. For example, patient outcomes data, such as the number of in-hospital falls or the hospital standardized mortality ratios (HSMRs), can provide a baseline from which hospitals can track their progress. HSMRs compare observed versus expected deaths on a hospital-specific basis and can be used to measure avoidable deaths and quality of care in hospital.

Organization-level measures of quality can also help track performance of facilities other than hospitals, such as rehabilitation facilities. According to CIHI's *Inpatient Rehabilitation in Canada, 2005–2006* report, the vast majority (91%) of patients discharged from a rehabilitation hospital or facility had regained a predetermined level of functional independence—as measured by the FIM™ instrument, which determines patients' functional ability—by the end of their stays and most were able to return home. Furthermore, among patients who reported experiencing pain at the time of admission and who were able to rate their level of pain at discharge, over two-thirds (68%) reported an improvement in pain levels and/or fewer activity limitations due to pain by the end of their stays in rehabilitation.

Public Views on Health Care

Almost all Canadians use some type of health service each year. How Canadians perceive the health system and the care they and their families receive is an important way to improve our understanding about quality of care. In Canada and other wealthier countries, people tend to give higher ratings to the care they and their families receive than to the health care system in general. According to the 2005 Commonwealth Fund International Health Policy Survey of sicker adults in Australia, Canada, Germany, New Zealand, the UK and the U.S., 78% of Canadians felt that their health care system needed to be fundamentally changed or completely rebuilt, compared to 66% of respondents in the UK, 72% in New Zealand, 74% in the U.S. and Australia and 85% in Germany.

According to public polling data collected by the Health Council of Canada, opinions of the health system have improved slightly in recent years.[2] However, as the Health Council report points out, despite polling data reflecting some improvement in public perceptions of the health system, some Canadians say that their confidence in the system overall is falling compared to what it was, and that the quality of health care is deteriorating.

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A Focus on Patient Safety

In the next section, we focus on measuring and monitoring patient safety. Today, information is available from a broader range of standard and special purpose sources. For example, comparable patient safety indicators such as the risk of adverse events—"undesired and unplanned occurrences, directly associated with the care or services provided to a patient/client in the health care system"[3]—have been developed at various levels, from the macro- or population-level, the meso- or organization-level to the micro- or individual-level.

Adverse Events in Canada: A Macro-Level Perspective

Measuring the risk of adverse events in Canadian health care facilities from a macro-level perspective provides a population-based measure of patient safety, a first step in enabling jurisdictions to compare their results over time and with others. For example, according to the first national study of patient safety, in 2000, adverse events occurred in 7.5% of admissions in non-specialized acute care hospitals in Canada. The study also found that between 9,250 and 23,750 of those who experienced a preventable adverse event later died.[4] In a 2006 Pollara survey, 60% of Canadians believed to varying degrees that they were likely to experience a serious medical error while in hospital. This percentage was even higher among nurses (74%), health care managers (77%) and pharmacists (62%), but lower among doctors (40%).[5] However, according to the Commonwealth Fund International Health Policy Survey, the patient safety situation is not unique to Canada—other countries face similar challenges. For example, in 2005, 15% of Canadian patients believed that a medical mistake was made in their treatment or care in the past two years, compared to 12% in the UK, 13% in Australia and Germany, 14% in New Zealand and 15% in the U.S.[6]

The frequency of specific types of adverse events varies significantly. Some adverse events are relatively rare, such as those related to blood transfusion. Others, however, occur more frequently; for example, those adverse events related to medications, infections and obstetric traumas during childbirth.

Emerging data also suggest that adverse event rates may vary significantly across Canada. Provincial in-hospital hip fracture rates, for example, ranged from 0.6 in Ontario to 1.1 in Alberta and 1.0 in B.C. per 1,000 seniors admitted to Canadian acute care hospitals between 2002–2003 and 2004–2005 (excludes

The rates of different types of adverse events vary significantly. The chart shows the average number of people who received care or were exposed to a risk per adverse event for selected events. A higher number suggests less risk, and therefore safer care.

FIGURE 2 How Often Do Different Types of Adverse Events Happen?

EVENT TYPE	CHANCE OF HAVING AN ADVERSE EVENT	REPORTED YEAR
Adults contracting a nosocomial infection while in acute care hospital	1 in 10	2002*
Adults with health problems who report receiving the wrong medication or dose	1 in 10	2005†
Children contracting a nosocomial infection while in an acute care hospital	1 in 12	2002‡
Medical/surgical patients in an acute care hospital experiencing an adverse event	1 in 13	2000**
Obstetrical traumas during childbirth (vaginal delivery)	1 in 21	April 2003 to March 2006††
Birth trauma—injury to neonate	1 in 141	April 2003 to March 2006††
Death associated with preventable adverse events for medical/surgical patients in an acute care hospital	1 in 152	2000**
Post-admission pulmonary embolism or deep vein thrombosis	1 in 279	April 2003 to March 2006††
In-hospital hip fracture for adults 65 and older	1 in 1,263	April 2003 to March 2006††
Foreign object left in after procedure	1 in 2,998	April 2003 to March 2006††
Adverse blood transfusion events	1 in 4,091	2003‡‡
Fatal events definitely, probably and possibly related to transfusion of blood components	1 in 87,863	2002‡‡

Notes:

* D. Gravel et al., "Point Prevalence Survey of Healthcare-Associated Infections Within Canadian Adult Acute-Care Hospitals," *Journal of Hospital Infection* 66 (June 18, 2007): pp. 243–248.

† Commonwealth Fund International Health Policy Survey of Sicker Adults, 2005.

‡ D. Gravel et al., "A Point Prevalence Survey of Health Care-Associated Infections in Pediatric Populations in Major Canadian Acute Care Hospitals," *American Journal of Infection Control* 35, 3 (April 2007): pp. 157–162.

** G. R. Baker et al., "The Canadian Adverse Events Study: The Incidence of Adverse Events Among Hospital Patients in Canada," *Canadian Medical Association Journal* 170, 11 (May 25, 2004): pp. 1678–1686.

†† Discharge Abstract Database/Hospital Morbidity Database, April 1, 2003, to March 31, 2006, CIHI.

‡‡ Transfusion Transmitted Injuries Surveillance System Program Report, Public Health Agency of Canada, 2005.

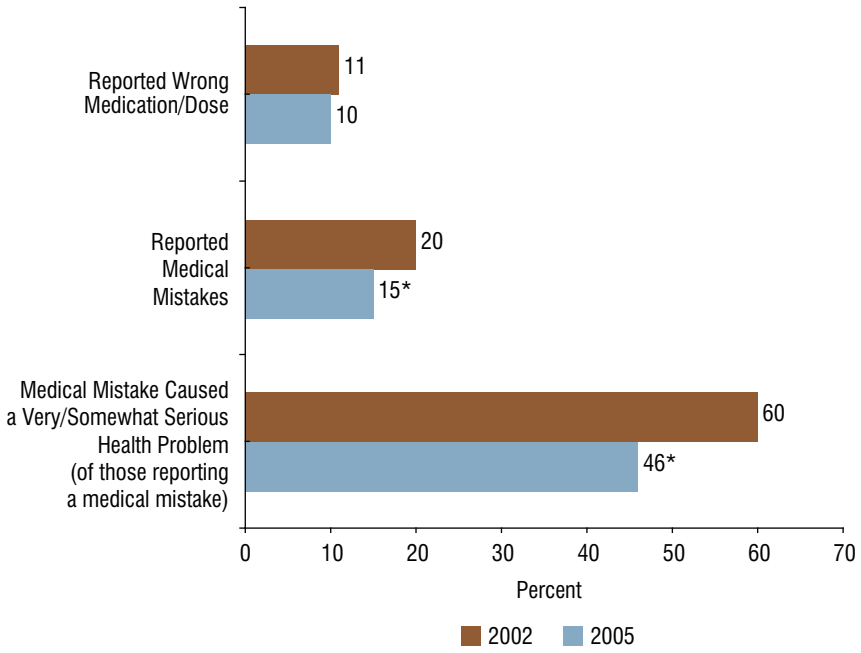
Source: Compiled by CIHI.

Quebec and Manitoba).[7] That said, some Canadian improvements in the area of patient safety between 2002 and 2005 have been documented in the Commonwealth Fund surveys.[6, 8]

Patient Safety Strategies: An Organizational Perspective

Collecting detailed information on safety outcomes and safe care processes from an organizational perspective helps to identify where problems may exist and track improvements in safe care. It is an

FIGURE 3 Medication and Medical Errors



This figure shows the percentage of Canadian adults with health problems in 2002 and 2005 who reported experiencing medication and medical errors in the previous two years.

Note:
* 2005 survey results are statistically significantly different from 2002 survey resluts at $p<0.05$.

Sources: Commonwealth Fund International Health Policy Survey of Adults With Health Problems, 2002; Commonwelath Fund International Health Policy Survey of Sicker Adults, 2005.

essential step for health care facilities or organizations in developing patient safety strategies to reduce the risk of adverse events. While some risks are unavoidable based on what we know today, there is growing evidence about what works to reduce the risk. For example, leaving foreign objects in a patient after a surgical procedure is not a common event—however, there are known ways to reduce the risk. Prevention strategies—including following a strict practice of sponge and instrument counts, use of a sponge counter bag to ensure that they are kept in one place for more accurate counts rather than being discarded at random, or more vigilant inspection of the body cavity when the surgery is complete—have been evaluated and established as standard operational procedures at various hospitals.[7]

Safer Healthcare Now! Campaign

Launched in June 2005, the Safer Healthcare Now! campaign is the largest patient safety initiative in the country's history. Roughly 600 health teams at 180 sites are participating in this pan-Canadian campaign to reduce adverse events in hospitals. A Quebec campaign—Together, Let's Improve Healthcare Safety—was launched in April 2006 and works in collaboration with the Safer Healthcare Now! campaign. Teams in both campaigns "test-drove" six kinds of evidence-based interventions, including establishing rapid response teams; improving care for AMI (heart attack); preventing adverse drug events; and three types of hospital-associated infections. Preliminary results from the campaign's first phase indicate that the incidence of adverse events such as health care–acquired infections and harm related to medications can be reduced through consistent implementation of evidence-based practices. Some of the participating teams reported that ventilator-associated pneumonia (VAP) rates fell by 50% or more.[11]

Falls leading to hip fractures happen to nearly 1 in 1,000 seniors admitted to acute care hospitals in Canada. However, several strategies have been proposed for reducing these types of falls. Some focus on identifying and monitoring those most at risk, such as the "oldest" old, women and those who have recently experienced a stroke or are taking certain medications that may lead to dizziness. Staff education and ensuring a safe physical environment (for example, adequate lighting, railings and grab bars) may also reduce falls.[9] Falls also occur in other health care settings. Approximately 8% of longer-term residents in Ontario complex continuing care facilities experienced a fall during their stays in 2005–2006.[10] Regardless of the settings, experts suggest that reducing falls and factures in hospitals and long-term care facilities is an integral part of a comprehensive quality assurance program.[9]

Although there is evidence to suggest some strategies that can improve patient safety, these are not always applied consistently in the day-to-day practice of providing health services. For example, we know that implementing hand-washing practices can help prevent some of the major hospital-associated infection, but studies show that the number of hospital nurses' and physicians' adherence to hand hygiene recommendations is usually well below 50%.[12] Experts also suggest that openness and encouragement of patient safety reporting are key factors in understanding patient safety and working toward its improvement. ■

Falls leading to hip fractures happen to nearly 1 in 1,000 seniors admitted to acute care hospitals in Canada.

Want to Know More?

The following can be downloaded free of charge in French and English from CIHI's website at www.cihi.ca:

- *Health Care in Canada 2006*
- *Health Indicators 2007*
- *Patient Safety in Canada: An Update*
- *Falls in Hospital-Based Continuing Care*
- *Inpatient Rehabilitation in Canada, 2005–2006*
- *Treatment of End-Stage Organ Failure in Canada, 1995 to 2004*

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What We Know

Access to the health care system is not the only determinant of good health. Factors such as income, employment and education can also matter.

Places where we live, work and play can affect our health. Patterns of health can vary across rural and urban areas, Canadian cities and even across neighbourhoods and housing conditions.

Supportive living and working environments can help reduce health disparities across different geographic locales.

What We Don't Know

The relative effect of the physical environment on health compared to other health determinants.

How individual characteristics (such as sex and income) and neighbourhood characteristics (such as availability of bike paths and street lighting) interact to affect health outcomes.

The extent to which various initiatives (such as different ways of promoting healthy eating habits in school or workplace environments) affect population health.

What's Happening

Over the next 18 months, CIHI's Canadian Population Health Initiative (CPHI) will release a series of three reports examining mental heath among various segments of the Canadian population.

CPHI is collaborating with the Urban Public Health Network (UPHN) to produce a series of 19 reports that look at health indicators and socio-economic status within each of the network's cities. These reports are scheduled for release in the winter of 2007.

Population Health
The Importance of Place

In 2004, life expectancy in Canada was more than 80 years—one of the highest in the world.[1] However, it varies across the country. In 2001, life expectancy was highest in British Columbia (80.4 years) and lowest in Nunavut (68.7 years).[2] Furthermore, not all Canadians enjoy good health.

The 2005 Canadian Community Health Survey by Statistics Canada found that one in four seniors (26%) in Canada rated their own health status as being either fair or poor—this compares with 40% of seniors who rated their health as being either very good or excellent.

Over the past decades, we have learned that health is determined by many factors. These go beyond access to care to include a broad spectrum of social and economic determinants. For example, a 2006 CIHI report showed an association between low income and poorer health outcomes—a relationship supported by other research. Specifically, residents of higher-than-average median income neighbourhoods are more likely to report excellent or very good health status and to be physically active compared to those in lower-than-average median income neighbourhoods.[3] Other aspects of our lives—such as where we live, how much support we get from family and friends, what we choose to eat and our level of physical activity—can also affect how healthy we are.

What Factors Influence Health?

Health is about much more than health care. Patterns of health and illness are largely a consequence of where and how we live, work, learn and play. Some of these factors are easy to measure; others are not. Determinants that have been linked to the quality of our physical and psychological health include:

- **Socio-economic Status:** one's place in the social hierarchy (level of income, education, etc.).
- **Social Environment and Support Networks:** strong family, friends and community support, as well as social stability and positive working relationships.
- **Employment/Working Conditions:** unemployment, underemployment, stressful or unsafe work.
- **Physical Environments:** housing, indoor air quality and the design of communities and transportation systems.
- **Personal Health Practices:** actions by individuals that can help them prevent diseases and promote self-care, cope with challenges and develop self-reliance.
- **Healthy Child Development:** positive stimulation early in life can improve learning and health well into adulthood.
- **Biology and Genetic Endowment:** genetic endowment and inherited predispositions.
- **Gender:** gender-based social status or roles.

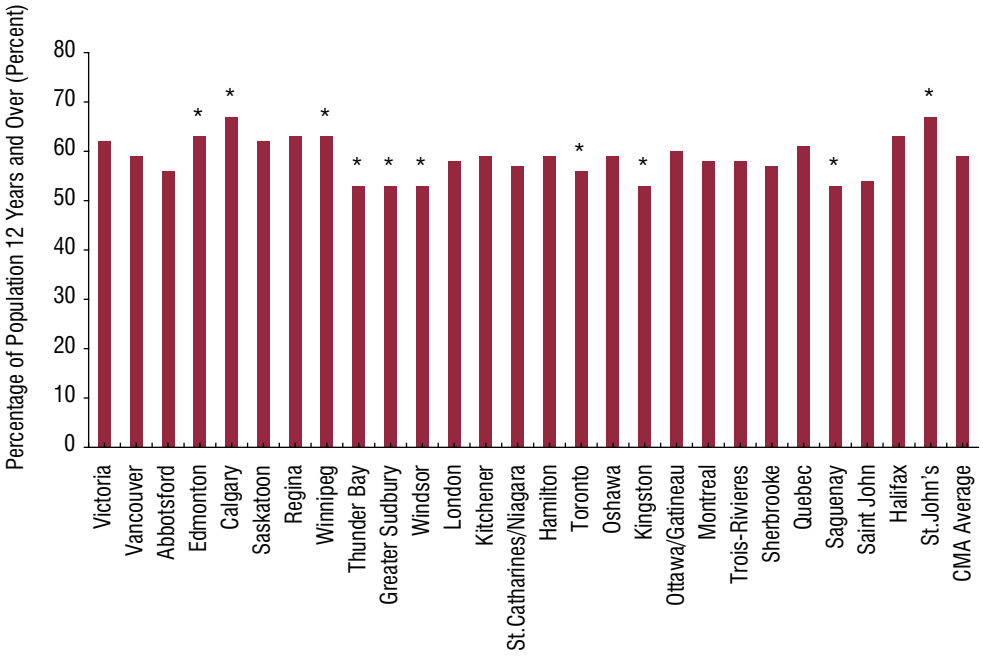
For more information, please visit www.cihi.ca.

Much Canadian and international research has been aimed at improving our understanding about how these social and economic factors affect health. Here we focus on recent evidence about the relationship between where people live and their health. In that context, we consider current issues such as the effect of obesity and the role of the environment on people's health.

Can Where You Live Influence Your Health?

Research shows that characteristics of "place" can be linked to differences in health outcomes such as mortality, morbidity and physical or mental illnesses. But what constitutes "place?" Place can be a country, a city or a neighbourhood, but can also refer to a more immediate environment—such as a household, school

FIGURE 1 Rating Our Health



Compared to the 2003 average (59% in census metropolitan areas), residents 12 years old or over in Toronto, Kingston, Thunder Bay, Greater Sudbury and Windsor, Ontario, as well as Saguenay, Quebec, were less likely than Canadians living in other census metropolitan areas to describe their health as very good or excellent. The opposite was true in Edmonton, Calgary, Winnipeg and St. John's.

Notes: All estimates have been age-standardized.
* Significantly different from census metropolitan areas average, $p<0.05$.
Source: Canadian Community Health Survey, Statistics Canada, 2003.

or place of work. The association between place and health can be seen when we look at variations in health status indicators across Canada. For example:

- **Injury hospitalization** rates are higher in northern and rural areas of Canada than in other parts of the country. In 2005–2006, age-standardized injury hospitalization rates per 100,000 population were 1,164 in the Yukon Territory; 1,201 in Nunavut; and 1,348 in the Northwest Territories. Rates were lowest in Ontario (450 per 100,000) and Nova Scotia (494 per 100,000).[4]
- **The average obesity** rate stood at 23% in 2004.[5] However, adults living in large Canadian cities were less likely to be obese (20%) than those residing outside metropolitan areas (29% in the most rural areas).
- **Annual mortality** rates were highest in the most rural areas (areas with no commuters)—792 deaths per 100,000 people, compared to 695 per 100,000 in urban areas.[6] Rural residents are at greater risk of dying from circulatory and respiratory diseases, diabetes, injuries and suicide.
- **Annual rate of cancer diagnoses** ranged from 419 to 456 per 100,000 rural men compared to 464 for urban men, and 303 to 324 per 100,000 rural women compared to 336 for urban women.[6]

However, the relationship between place and health is not simple or straightforward. Variations in health and health outcomes within Canadian cities can be just as large as those across regions or by rural/urban settings.

In Canada, poor health outcomes have been linked to specific neighbourhood and housing conditions as well. For example, tuberculosis has been specifically linked to overcrowded housing,[7] and lung diseases have been linked to emissions from diesel engines.[8] Furthermore, features of where we work and learn also affect how healthy we are. Jobs that require high levels of physical activity, such as manual labour, are associated with a lower likelihood of obesity among employees. Exposure to poor air quality, noise and environmental contaminants in work or school settings have also been shown to be associated with poorer health.[9]

Additionally, several factors—such as an individual's level of education, income and social status—often work together in a complex fashion to influence health. These factors are not easy to untangle. For example, people with better self-rated health and lower rates of obesity are often those living in neighbourhoods with relatively higher percentages of post-secondary graduates and higher-than-average median incomes.[3] In 2004, about 43% of residents living in the most rural areas of the country reported less than secondary school graduation, compared to 28% of urban residents.[6] Understanding the interaction of these and other factors will help us expand our knowledge of what we mean by "health" and how we can better measure and improve it.

Place, Health and How Much We Weigh

Maintaining a healthy weight is a concern for many Canadians. This section will focus on how various features in our physical and social environments—such as access to recreational facilities, parks and playgrounds, perception of safety or workplace policies—can affect how much we weigh. This is particularly relevant given the increase in the proportion of obese children and adults in Canada. For example, a recent report that looked at health in relation to where we live, study and work showed that obesity among adults 18 years and over increased from 14% in 1978–1979 to 24% in 2004.[10]

Where We Learn: School

Studies show that the school setting is an environment where there can be many opportunities to promote healthy weights. Initiatives shown to be effective at increasing physical activity include increasing the time children and youth spend in physical education classes, as well as training physical education teachers.[11] In addition, a recent synthesis of the literature shows that school environments that provide healthy food options and limit the availability of non-nutritious foods may promote healthy weights.[12] Lastly, some studies indicate that coordinated school health programs that actively engage the school, community and families can contribute to healthier eating and physical activity.[13]

Where We Work: Workplaces

Although relatively few companies in Canada have formal policies encouraging physical activity,[14] systematic reviews show that worksite interventions that combine diet and physical activity initiatives can be effective in helping employees control overweight and obesity.[15] Factors that prevent workplaces from initiating or expanding physical activity programs include lack of space, lack of on-site facilities, insufficient company funds and lack of time due to short lunch breaks.[14]

Where We Play: Community and Physical Environment

Research shows that for each extra daily hour spent driving a car, the likelihood of being obese increases by 6%.[16] Research also shows that peoples' engagement in physical activity and active transportation is linked with a number of neighbourhood-level characteristics, including "walkability,"[17] safety,[18] visual appeal,[19] accessibility to bike paths and trails and number of active neighbours. ■

Want to Know More?

- *Improving the Health of Canadians: An Introduction to Health in Urban Places*
- *Canada's Rural Communities: Understanding Rural Health and Its Determinants*
- *Improving the Health of Canadians: Promoting Healthy Weights*
- *Kachimaa Mawiin—Maybe for Sure Finding a Place for Place in Health Research and Policy*
- *Housing and Population Health*

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information updates

Key Findings

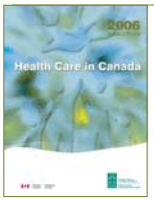
Giving Birth In Canada: The Costs

> The Canadian Caesarean section rate was 24% (nearly one in four) in 2002–2003, up from 17% in 1992–1993.
> C-sections typically cost hospitals over 60% more than vaginal births.
> Average hospital costs ranged from about $2,800 for vaginal deliveries to $4,600 for C-sections, and $7,700 for major procedures in pregnancy, such as hysterectomies and surgical repairs following delivery in 2002–2003.
> Roughly $1 out of every $10 dollars that hospitals spend on care for patients with overnight stays goes toward childbirth and newborn care.

Drug Expenditure in Canada, 1985 to 2005

> Prescription drug spending reached almost $25 billion in 2005—an increase of 11% over the previous year.
> Drugs continue to be the fastest-growing category of health care spending, estimated to have reached 17.5% of total health expenditure in 2005.
> There is considerable variation in public/private prescribed drug spending, as well as in-hospital drug spending, per inpatient day across the provinces.
> International comparisons show Canadian public drug spending below the median.

Health Care in Canada 2006



> While 30-day heart attack survival rates have improved in recent years, stroke death rates have remained the same.
> There is wide variation across the country in 30-day heart attack and stroke death rates.
> Certain processes of care factors (for example, whether the patient is seen by a related specialist rather than another type of health professional) influence survival rates.
> Certain patient characteristics affect outcomes—women are at higher short-term mortality risk for both heart attack and stroke.

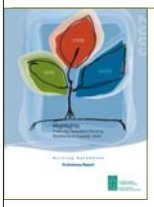
The Evolving Role of Canada's Fee-for-Service Family Physicians, 1994 to 2003

> Family physicians' practice styles have changed over time. For example, more are providing mental health care to their patients (84% in 2003).
> More than 60% of fee-for-service family physicians in all provinces provided office-based assessments (data not available in four provinces), basic procedural skills (allergy tests, stitches, etc.) and mental health care services. Over 40% provided hospital inpatient care and services that require advanced procedural skills (setting broken bones, administering local anesthetic, etc.).
> Just under 75% of rural family doctors in Canada participated in hospital inpatient care in 2003—versus 80% in 1994.
> Roughly 16% of female family physicians and about 13% of male family physicians participated in obstetrical care in 2003.

How Healthy Are Rural Canadians? An Assessment of Their Health Status and Health Determinants

> There are differences in health for rural and urban Canadians for some health-related factors.
> Mortality rates are higher in most rural areas, as is the smoking rate. There is also a higher prevalence of arthritis/rheumatism.
> Combined cancer rates are lower in rural areas and there is a stronger sense of community belonging.
> For men, life expectancy at birth was generally lower in rural areas compared to urban areas.

Highlights From the Regulated Nursing Workforce in Canada, 2005



> The number of nurses in Canada who worked full-time or casually increased slightly from 2004 to 2005.
> Education levels required to enter the nursing workforce as an RN have evolved over time.
> The average age of an RN in Canada was 44.7 years in 2005, compared to 41 years in 1994.

2006 Report: Hip and Knee Replacements in Canada

> Doctors in Canada performed 33,590 knee replacements and 25,124 hip replacements in 2004–2005.
> The number of hip and knee procedures is increasing at a faster rate than the population is aging—there's been an 87% increase in hip and knee replacements since 1994–1995.
> People who are overweight or obese are more likely to require joint replacements.
> Women received more total knee replacements than men in 2004–2005, making up 60% of patients.

Hospital Mental Health Services in Canada, 2003–2004

> More than one in three patients hospitalized for mental illness were readmitted within one year of their discharge. Risk of readmission was linked to age and diagnosis.
> Thirty percent of all general in-hospital days in 2003–2004 involved a patient with a primary or secondary diagnosis of mental illness.
> The number of patients using general and psychiatric hospital mental health services declined over time.
> One in five patients hospitalized for mental illness also had a substance-related disorder.

Preliminary Provincial and Territorial Government Health Expenditure Estimates, 1974–1975 to 2006–2007

> Provincial and territorial governments are expected to have spent $96 billion on health in 2006–2007.
> Provincial and territorial governments are expected to have spent an average of $2,931 per capita on health care in 2006–2007—an increase of 4.5% over the previous year.
> Overall, provincial and territorial government health spending as a share of provincial gross domestic product (GDP) is expected to have reached 6.6% in 2006–2007.
> In 2005–2006, provincial and territorial governments are estimated to have spent an average of 38.6% of their total program expenditures on health care.

Improving the Health of Canadians: An Introduction to Health in Urban Places

> Health gaps exist between neighbourhoods within five large Canadian cities.
> Factors potentially linked to health include a neighbourhood's average income, as well as social and physical characteristics.

National Health Expenditure Trends, 1975–2006

> Health care spending in Canada is expected to reach $148 billion in 2006–an increase of $8 billion over the previous year.
> Canada continued to rank among the world's top five health spenders when compared to other OECD countries, and remained behind the United States in terms of health care spending per person in 2004.
> Health care spending as a share of GDP is expected to have reched 10.3% in 2006—compared to an estimated 10.2% in 2005 and 2004.
> Public-sector spending on health care is expected to have reached $104 billion in 2006, while pprivate-sector expenditures will have reached an estimated $44 billion.
> Hospitals, drugs and physicians continue to make up the largest categories of spending.

CORR Reports: Treatment of End-Stage Organ Failure in Canada, 1995 to 2004 (2006 Annual Report)

> The number of newly diagnosed end-stage renal disease (ESRD or kidney failure) patients with diabetes increased by 114% over 10 years—from 1,066 in 1995 to 2,139 in 2004. Type 2 diabetes plays a dominant role.
> Aboriginal people with kidney failure were more likely to be diabetic than the non-Aboriginal population.
> Dialysis patients with diabetes and diabetic kidney transplant recipients have lower survival rates than non-diabetic patients with the same treatment.

Public-Sector Expenditures and Utilization of Home Care Services in Canada: Exploring the Data

> Government spending on home care grew from $1.6 billion in 1994–1995 to $3.4 billion in 2003–2004, an average annual growth of 9.2%.
> Between 1994–1995 and 2003–2004, government home care spending per person increased on average by 6.1% per year, after adjusting for inflation.
> The number of patients using government-subsidized home care increased from 23.9 per 1,000 in 1994–1995 to 26.1 per 1,000 in 2003–2004—representing an average annual increase of 1.0%. During that time, spending on home care increased faster than the number of patients, suggesting that, in general, home care users each consumed more resources in 2003 than they did a decade previously.
> In 2003–2004, provincial and territorial government spending on home care averaged $105.30 per person.

from CIHI's Reports in 2006 2007

Quick Reference Tables

Health Professionals

Number of health professionals (selected professions) per 100,000 population. **Nursing professionals (RNs, LPNs):** Rates reflect nurses registered with active-practising status and who are employed in registered/practical nursing. Rates will differ from data published by provincial/territorial regulatory authorities due to the CIHI collection, processing and reporting methodology. **Registered nurses (RNs):** Data from the territories include secondary registrations. Please consult *Workforce Trends of Registered Nurses in Canada, 2005* for more detailed methodological notes and data quality issues. **Other health professional** data reflect personnel regardless of employment status and include the number of licensed pharmacists, licensed dentists, registered dental hygienists, registered dietitians, active registered occupational therapists, active registered physiotherapists, registered chiropractors, active registered optometrists and active registered psychologists. Personnel-per-population ratios are revised annually using the most recent Statistics Canada population estimates and therefore may differ slightly from previously published figures. Please consult Health Personnel Trends in Canada, 1995 to 2004 for more detailed methodological notes, data quality issues and profession-specific information.

Sources: Health Personnel Database, CIHI; Registered Nurses Database, CIHI; Licensed Practical Nurses Database, CIHI.

Selected Health Professionals,[i] 2005

	RNs	LPNs	Pharmacists	Dentists	Dental Hygienists	Dietitians	Occupational Therapists	Physio-therapists	Chiro-ractors	Optome-trists	Psycho-logists
N.L.	1,068	524	114	32	18	28	25	38	10	8	38
P.E.I.	1,044	439	116	45	42	46	24	35	6	13	20
N.S.	932	334	114	53	55	47	33	56	10	9	44
N.B.	999	351	83	40	38	42	33	57	8	13	35
Que.	837	214	89	53	54	30	43	48	15	16	99
Ont.	710	194	83	63	66	21	32	42	28	11	24
Man.	956	220	98	49	51	29	39	52	23	8	14
Sask.	863	221	119	37	35	25	22	54	19	12	42
Alta.	797	161	106	55	56	23	38	58	26	12	51
B.C.	650	114	92	67	52	21	34	59	22	10	22
Y.T.	970	180	106	122	51	26	42	..	26	13	..
N.W.T.	1,315	238	59	125	33	26	24	..	..	..	209
Nun.		..	53	33	..	7	..	..	..	..	..
Canada	**776**	**200**	**91**	**58**	**57**	**25**	**35**	**49**	**22**	**12**	**45**

i Rates per 100,000 population.

Contact With Medical Doctors

Proportion of household population aged 12 and over reporting that they have consulted with a medical doctor in the past 12 months. Medical doctor includes family or general practitioners, as well as specialists such as surgeons, allergists, orthopedists, gynecologists or psychiatrists. For population aged 12 to 17, includes pediatricians.

Source: Statistics Canada, Canadian Community Health Survey, 2005.

Contact With Dental Professionals

Proportion of household population aged 12 and over reporting that they have consulted with a dental professional in the past 12 months. Dental professionals include dentists or orthodontists.

Source: Statistics Canada, Canadian Community Health Survey, 2005.

Contact With Alternative Health Care Providers

Proportion of household population aged 12 and over reporting that they have consulted with alternative health care providers in the past 12 months. Alternative health care providers include massage therapists, acupuncturists, homeopaths or naturopaths, Feldenkrais or Alexander teachers, relaxation therapists, biofeedback teachers, rolfers, herbalists, reflexologists, spiritual healers, religious healers, etc.

Source: Statistics Canada, Canadian Community Health Survey, 2005.

Self-Reported Contacts With Health Professionals, 2005

	Contact With Medical Doctors		Contact With Dental Professionals		Contact With Alternative Health Care Providers	
	%	95% CI	%	95% CI	%	95% CI
N.L.	83.8	(82.2–85.4)	48.3	(46.2–50.5)	5.8	(4.8–6.8)
P.E.I.	84.0	(82.1–85.9)	61.4	(58.8–63.9)	7.8	(6.2–9.4)
N.S.	85.5	(84.2–86.7)	60.0	(58.3–61.8)	9.5	(8.3–10.8)
N.B.	81.9	(80.5–83.3)	55.4	(53.6–57.1)	8.4	(7.4–9.4)
Que.	75.4	(74.6–76.1)	57.3	(56.5–58.1)	14.7	(14.1–15.4)
Ont.	81.5	(80.9–82.0)	69.7	(69.0–70.3)	12.0	(11.5–12.5)
Man.	80.2	(78.6–81.8)	60.7	(59.1–62.4)	14.0	(12.8–15.2)
Sask.	82.3	(81.1–83.6)	58.0	(56.5–59.4)	18.5	(17.2–19.8)
Alta.	80.7	(79.7–81.7)	61.8	(60.5–63.1)	17.4	(16.3–18.4)
B.C.	82.7	(81.9–83.6)	65.3	(64.2–66.3)	15.8	(15.0–16.7)
Y.T.	78.0	(74.2–81.7)	53.5	(48.8–58.2)	20.2	(16.6–23.8)
N.W.T.	74.8	(70.0–79.7)	66.9	(63.2–70.7)	15.1	(11.5–18.7)
Nun.	57.5	(50.9–64.2)	56.4	(50.8–61.9)	*	* *
Canada	**80.2**	**(79.9–80.6)**	**63.7**	**(63.3–64.1)**	**13.7**	**(13.4–14.0)**

Total Health Expenditure

Total health expenditure includes any type of expenditure for which the primary objective is to improve, or prevent the deterioration of, health status. Presented in current dollars and as a proportion of gross domestic product (GDP). This definition allows economic activities to be measured according to primary purpose and secondary effects. Activities that are undertaken with the direct purpose of providing or maintaining health are included. Other activities are not included, even though they may impact health. For example, funds aligning with housing and income support policies that have social welfare goals as their primary purpose are not considered to be health expenditure, yet they are recognized as powerful factors in determining population health.

Source: National Health Expenditure Database, CIHI.

Proportion of Public Sector

Public-sector health expenditure presented as a proportion of total health expenditure. Public sector includes health care spending by governments and government agencies.

Source: National Health Expenditure Database, CIHI.

Total Health Expenditure by Use of Funds

Percentage distribution of total health expenditure by health-spending category. Institutional services include hospitals and residential care types of facilities that are approved, funded or operated by provincial and territorial governments. Professional services include expenditures on primary professional fees paid to physicians in private service, as well as for the services of privately practising dentists, denturists, chiropractors and other health professionals. This category does not include the remuneration of health professionals on the payrolls of hospitals or public-sector health agencies and generally represents amounts that flow through provincial medical care plans. Drugs include expenditures on prescribed drugs and non-prescribed products purchased in retail stores. This category does not include drugs dispensed in hospitals and other institutions. Public health is that provided by governments and governmental agencies and includes expenditures for items such as food and drug safety, health inspections, health promotion, community mental health programs, public health nursing, measures to prevent the spread of communicable diseases and other related activities. Capital and other health includes expenditure on construction, machinery, equipment and some software of hospitals, clinics, first-aid stations and residential care facilities (capital); cost of providing health insurance programs by the government and private health insurance companies and all costs for the infrastructure to operate health departments (administration expenditures); other health includes, at the aggregate level, expenditures on home care, medical transportation (ambulances), hearing aids, other appliances and prostheses, health research and miscellaneous health care.

Source: National Health Expenditure Database, CIHI.

Total Health Expenditure

	Current Dollars ($' 000,000)			% GDP	% Public Sector	By Use of Funds (Percentage Distribution of $' 000,000), 2004				
	Actual 2004	Forecast 2005	Forecast 2006	2004	2004	Institutional Services	Professional Services	Drugs	Public Health	Capital and Other Health
N.L.	2,124	2,192	2,268	10.9	76.8	50.5	19.2	16.1	4.5	9.6
P.E.I.	536	562	586	13.3	70.4	47.1	20.2	16.9	6.1	9.8
N.S.	3,726	4,009	4,304	12.5	69.6	46.2	22.4	17.5	2.1	11.8
N.B.	2,984	3,144	3,330	13.0	71.1	46.2	20.7	17.4	3.3	12.4
Que.	27,592	29,051	30,381	10.4	71.7	43.1	21.2	19.7	2.8	13.3
Ont.	53,298	56,740	60,360	10.3	67.0	37.2	24.8	17.0	6.6	14.4
Man.	5,226	5,509	5,798	13.1	74.6	43.0	21.6	13.5	6.7	15.3
Sask.	4,121	4,378	4,693	10.3	75.4	39.8	21.7	15.0	8.8	14.7
Alta.	13,832	15,225	16,225	7.4	72.0	37.5	24.1	14.1	8.1	16.2
B.C.	17,165	18,205	19,232	10.9	71.5	38.9	28.3	14.0	4.6	14.2
Y.T.	169	201	207	11.9	79.0	37.0	18.9	11.2	16.3	16.6
N.W.T.	299	308	318	7.2	89.9	47.2	17.3	6.9	7.9	20.7
Nun.	309	312	311	29.3	95.5	35.4	13.5	4.5	8.2	38.4
Canada	**131,380**	**139,836**	**148,014**	**10.2**	**70.1**	**39.7**	**23.9**	**16.6**	**5.5**	**14.3**

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