

Health Care in Canada

A FIRST ANNUAL REPORT



Canadian Institute
for Health Information

Institut canadien
d'information sur la santé



Statistics
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Health Care in Canada

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2000

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Canadian Institute for Health Information
377 Dalhousie Street
Suite 200
Ottawa, Ontario
K1N 9N8

Telephone: (613)241-7860
Fax: (613)241-8120
<http://www.cihi.ca>

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The [Canadian Institute for Health Information \(CIHI\)](#) is an independent national, not-for-profit organization responsible for coordinating the development and maintenance of the country's integrated health information. To this end, CIHI provides accurate and timely information that is needed to establish sound health policies, manage the Canadian health system effectively and create public awareness of the factors affecting good health. CIHI was established in 1994 by Canada's health ministers.

About Statistics Canada

[Statistics Canada](#) is authorized under the Statistics Act to collect, compile, analyze, abstract, and publish statistics related to the health and well-being of Canadians. The Health Statistics Division's primary objective is to provide statistical information and analyses about the health of the population, determinants of health, and the scope and utilization of Canada's health care sector.

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Report Highlights

Health Care in Canada 2000: A First Annual Report is the first in an annual series of reports that aims to provide reliable evidence, not anecdotes or rhetoric, about what we know and do not know about the health of Canada's health care system and how the system has changed. The series will reflect the emerging consensus around appropriate indicators for comparative reporting and take advantage of the most up-to-date health information that exists and is being developed. This year's report draws on data for a series of indicators confirmed at the *National Consensus Conference on Population Health Indicators* in May 1999, supplemented with quality local, regional, provincial/territorial, national and international research evidence.

Highlights from each chapter of the report and examples of the types of information we do not currently have are presented below. For details on the highlights, flip to the page number shown on the arrow in the margin. We hope to begin to address some of the information gaps in future reports as new data emerge.

Health Care System Reform

Over the past 10 years, much has changed in Canada's health care system. What do we know and what do we not know about the impacts of recent reform efforts?

What We Know

- 7 → • In the 1980s, a series of provincial Royal Commissions and Task Forces ushered in health care reform across the country. The timing and pace has varied, but most provinces have seen major changes, including the regionalization of health services and drops in the number of hospital beds, overnight admissions and average lengths of stay.
- 6 → • Health status (as measured by life expectancy) continued to improve over the past decade. In 1997, Canada was second only to Japan. Nevertheless, substantial variations in life expectancy remain, both within and between communities across Canada.
- 12 → • Some public opinion polls have shown a decline in satisfaction with the health care system as a whole as these changes (and others) have been implemented. Public dissatisfaction has not been limited to Canada. A 1998 international survey of five countries (Australia, Canada, New Zealand, the United Kingdom and the United States) found that fewer than one in four

respondents said that their health care system works well the way it is. The proportion of Canadians reporting that the health system requires only minor changes was second only to the U.K., but down to 20% from 56% a decade before.

- 11 ▶ • At the same time, Canadians tend to give higher ratings to the care that they personally receive. For example, in a 1996/97 survey, 85% of Albertans rated the overall quality of care they had received as good or excellent. In a 1999 Ontario patient satisfaction study, 88% of hospital patients surveyed rated their care as good or excellent.

- 9,10 ▶ • Studies in rural Saskatchewan and urban Winnipeg which measured outcomes such as death rates, readmissions, subsequent emergency room visits and self-reported levels of health in communities following hospital closures and cutbacks did not show a deterioration in the quality of care or the health of the population affected. Nevertheless, the communities concerned tended to report being dissatisfied with the cuts. Some outcomes—such as quality of life after discharge and the length of time patients spent waiting for in-patient hospital beds—were not assessed in either study.

- 13 ▶ • Fewer than 0.1% of Canadians surveyed in 1998/99 reported receiving health care in the United States. Studies suggest that many of those treated were long-term visitors, such as "snowbirds" ages 65 and over wintering in the U.S.

What We Don't Know

- How changes in the health care system have affected the quality of life of patients after discharge and of friends

and family members who may act as caregivers following hospital discharge.

- The overall impact of health care reform on the health of Canadians.
- The long-term outcomes of many health care interventions.

The Cost of Health Care

In 1999, total public and private health care spending is expected to have reached \$86 billion, up 5% or about \$100 per person more than the year before. Canada's ratio of total health care spending to its Gross Domestic Product—fourth among G7 countries in 1997—was estimated at 9.2% in 1999. Data on health care spending show substantial shifts over the last 20 years.

What We Know

- After accounting for inflation and population growth, total health care spending rose steadily from 1975 until the early 1990s. The mid-1990s saw relatively small annual drops in expenditure per capita. The trend reversed in 1997 and 1998, the latest years for which inflation-adjusted figures are available. Unadjusted for inflation, per capita spending is estimated to have grown by 4% in 1999.
- Since the mid-1970s, the share of total health care dollars devoted to hospitals, the largest single category of health expenditures, has dropped every year. After relatively rapid growth through the mid-1980s, the growth of spending on physician services slowed during the 1990s. In 1997, drug costs overtook spending on physician services, to become the second-largest component of health expenditures.

- 17 • Currently, almost 70% of health care services is publicly funded. Growth in private spending on health care through supplementary insurance and out-of-pocket health care expenses outpaced growth in public sector spending in the early to mid-1990s. All other G7 countries, except the United States, had larger public shares of total health expenditures than Canada in 1997. However, Canada ranked fourth in terms of the level of public health care spending per person.
- 20 • In 1998/99, 74% of Canadians reported some coverage (public, private or both) for prescription drugs. Only 51% reported coverage for glasses or contact lenses, and slightly more for dental care. Seniors and young adults were the least likely to have insurance for these services, likely reflecting the importance of insurance benefits tied to employment.

What We Don't Know

- How changes in health expenditures affect the health of Canadians.
- Costs and spending trends for treating specific diseases and conditions.
- The federal government's total contribution to health care after the introduction of the Canada Health and Social Transfer.
- How spending on health care varies from community to community across the country.
- How much Canadians spend out-of-pocket on complementary and alternative medicine (for example, massage therapy, homeopathy, herbs and other similar remedies).

The Health Care Team

Canada's health care system has a complex and changing mix of health care providers. While we know quite a bit about the supply of registered nurses and physicians, we know much less about other health care providers and how recent changes have affected the working lives of all the people who make the system work.

What We Know

- In 1998, over 227,000 registered nurses were employed in nursing across the country. The proportions of nurses in Canada who work part-time and outside of the hospitals are growing. Canada's nurses are aging and fewer young people are entering the profession. 24
- Registered nurses and nursing assistants appear to miss work because of illness and disability more often than those in other occupations. Studies on work stress and other aspects of the work life of nurses are beginning to emerge. 25
- In 1998, there were over 56,000 non-military physicians in clinical and non-clinical practice in Canada. Over the past six years, there has been an increase in the proportion of specialists and a decrease in the proportion of family doctors. As with nurses, the average age of physicians is climbing. The proportion of all physicians who are women also continues to grow. 26
- In 1998, an estimated 569 physicians left Canada (90 fewer than the previous year) and 321 returned from abroad. Citizenship and Immigration Canada reports that 125 immigrants entered the country with pre-arranged employment as physicians, and a number of foreign physicians were working under temporary employment visas. 27

- 23
- Thousands of other professionals—including licensed practical nurses, pharmacists, dentists, physiotherapists, psychologists and optometrists—also provide care across the country. Some, such as dental hygienists, physiotherapists and chiropractors, saw growth of more than twenty percent in the number of health professionals per capita between 1989 and 1997. The largest drop was for licensed practical nurses (down 15%).

What We Don't Know

- The age, sex and working patterns of health professionals other than physicians and registered nurses (for example, occupational therapists, lab technicians and health care managers).
- The optimal number and mix of health care providers in a given region and what mechanisms can be used to ensure that the supply of caregivers matches needs across the country.
- How many registered nurses leave Canada each year and how many return.
- How changes in the health care system have affected the performance of all health care providers and the quality of their working lives.

Promotion, Prevention and Primary Care

Our health care system aims to promote and protect health, prevent illness and provide good quality care when it is needed. These functions start in the communities in which we live with public health programs, community-based initiatives and primary care.

What We Know

- Public health programs have seen many successes over the past century. For instance, immunization has eradicated smallpox and the worldwide elimination of polio and Canada-wide elimination of measles are in sight. Nevertheless, many challenges—such as HIV and AIDS, teen smoking, injury prevention and threats to the physical environment—remain. 33
- Family doctors play a central role in our health care system, referring patients on to other health care providers as needed. Fifty years ago, before universal medical insurance was introduced, the richest Canadians were more likely than the poorest to have paid for physician services or dental care and received more services. Today, Canadians in all income groups are about equally likely to have visited a family doctor in the last year, but low income Canadians are still less likely to have seen a dentist. In 1998/99, about 40% of low income Canadians reported receiving dental services in the previous year compared to just under 80% of Canada's most affluent citizens. 34
- Use of screening programs—designed to detect disease early—varies across the country. Overall, 77% of women ages 18 to 69 surveyed in 1998/99 reported having had a pap smear in the last three years. Sixty-six per cent of women ages 50 to 69 said that they had had a mammogram within the period generally recommended (the last two years). Women with low levels of income and education and those without a regular doctor were less likely to have been screened. 36

- 38 • In 1998/99, about 2.5 million Canadians reported visiting a chiropractor and close to two million saw another complementary and alternative care provider (for example, a massage therapist or homeopath). Use of these services was highest in western Canada.

What We Don't Know

- How many children in Canada receive all recommended immunizations on schedule.
- What services are provided by physicians and other primary care providers who are not paid on a fee-for-service basis and how patterns of care and outcomes differ depending on who delivers services.
- The financial and programmatic contribution of voluntary, community and faith organizations and self-help/mutual aid groups to health promotion, disease prevention and health protection activities.
- The frequency of use, safety and effectiveness of many unregulated herbs and other remedies.

Hospitals

Canada's hospital sector is changing. The numbers of beds and overnight admissions have been shrinking for more than a decade, average lengths of stay have fallen to varying degrees across the country and an increasing proportion of patients are being treated through day surgery programs. Yet significant variations in length of stay, surgery rates, admissions for conditions that may not require hospitalization and other hospital characteristics remain across the country.

What We Know

- In 1997, there were over 800 general and allied special hospitals across the country with over 132,000 approved beds. Care for seniors (Canadians ages 65 and older) and pregnancy and childbirth account for the lion's share of acute care hospitalizations. 41
- Recent research from Manitoba suggests that those who live in low-income neighbourhoods may be more likely to be hospitalized than citizens who live in high-income areas. However, in both Winnipeg and in other research covering Ontario, residents of low-income areas were less likely to receive certain surgical procedures, such as bypass surgery. 42
- Surgery rates vary significantly over time and across the country. For example, despite recommendations from the World Health Organization that no more than 10 to 15% of mothers and babies benefit from Caesarean sections (C-sections), Canadian rates have been above 15% since 1979. In 1997/98, 18.7% of Canadian hospital births were Caesarean deliveries, up from 17.7% five years earlier. Yet there are pockets of the country with higher and lower rates. Six of the country's largest health regions (with a population of 100,000 or more) had rates below 15% in 1997/98; but in four regions, over 25% of mothers had C-sections. 42
- Wide variations are also observed in rates of other types of procedures. And studies have shown that outcomes for some types of conditions—such as deaths after heart attacks—differ significantly from community to community, even after adjusting for variations in risk factors. 44

45 • The annual number of organ transplants continues to increase and survival rates for transplant recipients are improving. In 1997, more than 12,000 Canadians were living with functioning transplanted organs (62% of these were kidneys, followed by livers, hearts and lungs). Organ donation rates (14.4 per million Canadians in 1997) are not keeping pace with the growth in demand, leading to increases in waiting lists.

47 • Millions of Canadians visit emergency rooms each year. In many communities, visits to ERs peak in the winter months and headlines about ER crowding tend to occur at about the same time as the flu season peaks. In a study of 14 hospitals scattered across the country, over half of patients admitted through the ER waited less than two hours for a bed after a health care professional determined that they should be admitted. However, average waiting times were over an hour longer in January and February than in the summer months. In some communities, health authorities have begun using this type of information to design programs that aim to prevent illness and manage peak ER periods. Early indications suggest that, in at least some cases, these plans are working.

49 • Comprehensive data on waiting times for surgical procedures and other care are not available across the country. Current studies offer snapshots of experiences in certain provinces or for particular conditions, as well as examples of how systematic reporting of waiting times might be approached.

What We Don't Know

- What kind of services are provided in emergency rooms and outpatient clinics, who uses them and whether or not waiting times are within recommended guidelines.
- How waiting times for care vary across Canada and the impact that waiting has on patients and their families.
- How patients fare after they leave hospital.
- How often hospital services meet accepted clinical guidelines and how this varies by type of care, patient group and community.
- The extent to which patients and their families are satisfied with hospital care across the country.

Care Beyond Hospitals

Many Canadians need a variety of follow-up care and long-term services provided through rehabilitation facilities, home care, chronic care institutions and other programs. Compared to hospitals, relatively little information is available about these types of care, although systematic tracking of the types of patients served and their outcomes is becoming more common.

What We Know

- In 1996/97, 185,000 seniors lived in health care institutions. Over half of those who moved into an institution between 1994/95 and 1996/97 were over age 80 and most reported a new diagnosis of certain chronic conditions that often require higher levels of regular care, such as incontinence, stroke, Alzheimer disease or other dementia.

- 58 • About 12% of seniors reported having received services from provincial home care programs in 1998/99. Assistance with housework was the most commonly reported service, followed by nursing care and personal care.
 - 59 • Studies suggest that home care can be a cost-effective alternative to recovery in hospital or long-term care in residential facilities for some patients. For example, researchers in Saskatchewan found that patients who convalesced at home with the assistance of home care had equally good outcomes and similar satisfaction with care as those who finished recovering in hospital—and the average cost was \$830 less per case. A British Columbia study found significant cost savings for the province for many, although not all, continuing care patients who were supported at home.
 - 60 • Family members and friends frequently provide care for older Canadians with long-term health problems and disabilities. In 1996, some 2.1 million adult Canadians, mostly family members, provided support for one or more seniors with a long-term health problem. They reported both pros and cons to caregiving.
- Who uses publicly and privately funded home care services, who provides these services, how effective these services are and how satisfied users are.
 - The number, types and quality of palliative care services for gravely ill and dying people across the country.

What We Don't Know

- How well hospital and community-based services are coordinated for people with long-term, chronic health problems.
- Outcomes from rehabilitation, home care, continuing care and other types of services and how they compare across the country.

Introduction

Good health and a first-class health care system are high priorities for Canadians. Compared with most countries of the world, we have much about which we can feel proud. But we have by no means achieved all that is possible in health status or in the quality of our health care system.

It is difficult to improve what we do not measure. The Canadian Institute for Health Information (CIHI) and Statistics Canada are beginning to meet this challenge by jointly reporting on the health of the population and the performance of the health care system. This report, *Health Care in Canada 2000: A First Annual Report*, focuses on the system. Its companion report, called *How healthy are Canadians?*, focuses on the health status of Canadians and the factors

that determine or affect our health. Statistics Canada published this report in the spring of 2000, as a special issue of *Health Reports*.

About This Report

This report and the companion report released by Statistics Canada are the first in a series that will provide up-to-date information on the health of Canadians in all regions of the country, on how differences in health status are related to the various determinants of health and on how the health care system affects health. The data to support these reports are drawn from many sources. Statistics Canada generates much of the information on health status and the non-medical determinants of health. The Canadian Institute for Health Information compiles much of the information on the resources and performance of the health care system.



This report is divided into three parts:

Part A: **The Changing Face of Canada's Health Care System** provides an overview of what we know and don't know about how the health care system is changing, public perceptions of the system, the cost of health care and the changing mix of health care providers.

Part B: **The Continuum of Care** provides an overview of what we know and don't know about the complex mix of health services that make up the health care system in Canada. It draws on data for core health care system indicators defined at the May 1999 National Consensus Conference on Population Health Indicators, as well as findings from recent research in local, regional and provincial settings.

Part C: **Future Directions** suggests what needs to be done to provide a more complete picture of overall performance in subsequent reporting on Canada's health care system.

The report comes with an insert entitled *Health Indicators 2000*. It provides the first-ever comparative data on a range of health and health system indicators for Canada's 63 largest health regions (accounting for over 90% of the total population) and the provinces and territories. Throughout the text, a distinctive icon (shown on left) identifies parts of the report for which related regional or provincial/territorial data are shown in the insert.

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For More Information

Both highlights and the full text of this report are available free of charge on the CIHI Web site: <http://www.cihi.ca>. To order additional print copies of this report (nominal payment required to cover printing, shipping and handling costs), please contact:

Canadian Institute for
Health Information
Order Desk
377 Dalhousie Street, Suite 200
Ottawa, Ontario K1N 9N8
Tel: (613) 241-7860
Fax: (613) 241-8120

To improve the readability of the report, references to studies discussed in the text have been gathered together at the end of parts A, B and C. Additional details on the data sources and research methods used in the report and the insert are also available through CIHI's Web site.

We welcome comments and suggestions on this report and on how to make future reports more useful and informative. For your convenience, a feedback sheet, *It's Your Turn*, is provided at the end of this report. You can also e-mail healthreports@cihi.ca.

We also invite you to sign up to receive e-mails with regular updates to the report. Full details on how to access this service are available on CIHI's Web site.

The companion document *Health Reports: How healthy are Canadians?* can be ordered through Statistics Canada's Web site: <http://www.statcan.ca>.

Part A: The Changing Face of Canada's Health Care System

On October 4, 1998, Calgary's Bow Valley Health Centre, a city-centre hospital, blew up. It wasn't the work of terrorists. It wasn't an accident. It was part of the regional health authority's strategy to restructure the city's health care system to meet the needs of the future.

The results of health care reform may not have been as dramatic elsewhere. But the 1990s have seen profound changes in how health care services are organized and delivered across the country. This section provides an overview of what we know about recent changes in the health care system.

1. The More Things Change ...

There have been many changes in health care delivery in Canada in the 20th century. Yet some things have remained constant, and likely will continue to do so for the foreseeable future.

The first constant is that the health of individuals and populations depends on much more than health care. What makes a person or a community healthy? Health depends on factors such as income and education, whether we grew up in a safe and nurturing environment, whether we are employed and the genes that we inherited from our parents. Our personal habits, such as smoking, wearing seatbelts and healthy eating make a difference. So do the physical and social environments in which we live and work, as well as a broad range of government activities from garbage collection to welfare programs.¹

The health care system also affects our health. Services such as childhood vaccinations, medications to reduce high blood pressure and heart surgery make a tremendous difference to the well-being of individuals. But, even with universal access to health care, major differences in health persist between groups in society.²

Other constants are geography and demographics. Canada is a very large country with a diverse, aging population that is widely scattered from Corner Brook to Coquitlam. These factors are important drivers for the way our health care system is now, and will be in the future.

How Healthy Are Canadians?

Life expectancy in Canada has risen steadily in this century—up from 59 years in the early 1920s and 69 years in the 1950s. In 1997, Canadian life expectancy at birth was 79 years, second only to Japan (80 years) and tied with Iceland.*

But not everyone in Canada has the same chances for a long life. Statistics Canada has recently calculated life expectancy for 136 health regions across Canada, which cover over 99% of the population.³ The results vary considerably. For example, some rural and northern regions have life expectancies under 75 years, while the leading region in Canada (Richmond, B.C.) has a life expectancy of over 81 years. There are a number of regions in Ontario and British Columbia with life expectancies of over 80 years.

Some cities have a similar spread of life expectancy within them. In Vancouver, for example, a 1995 study found large variations in mortality rates in different parts of the city, such as the Downtown Eastside and Point Grey.⁴ Similarly, there was a gap of over 10 years (70.7 to 81.4) between the shortest and longest life expectancies for municipalities on the island of Montréal (1995 to 1997).⁵

Studies have also shown that Aboriginal people in Canada have life expectancies that are five or more years less than those of the total Canadian population.⁶ In large part, this gap probably reflects the fact that the Aboriginal population is disproportionately likely to be unemployed, less educated, poorly housed and living in poverty.⁷

A five- to six-year gap in life expectancy is a large difference. It has been estimated that for a jurisdiction to increase life expectancy by five years would require the elimination of all deaths from the leading cause of death (cardiovascular disease) and almost all deaths from cancer, the second leading cause of death.⁸

Why are some regions doing so much better than others?

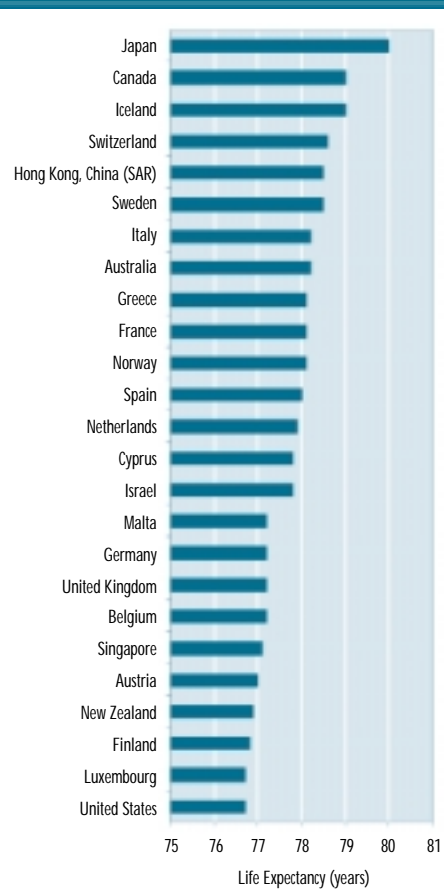
Although the answer to this question is not yet entirely clear, we do know that regional differences in life expectancy are the consequence of a complex interaction of many factors. Areas with a higher life expectancy generally have higher incomes, higher levels of education and higher levels of employment. Other factors associated with better health for a population include a more equitable distribution of income, better housing, a supportive social environment and good opportunities for early childhood development. The availability of health care services is important for restoring people's health when they become ill and for preventive, promotional and protective services, but it is of secondary

importance in explaining the wide variations noted.⁹

Exactly why people with less income, less education, more unemployment, less social support and a less advantageous start in childhood are more susceptible to illness is not completely understood. Higher rates of smoking and other adverse lifestyle choices among those with lower socioeconomic status explain only a fraction of the differences. Other possibilities include an increased susceptibility to stress, related to a lack of control over life's circumstances, and a lack of the appropriate coping skills and social supports that mitigate such stress.¹⁰

* Annual life expectancy figures are based on age-specific death rates in the population in that year.

The World's Top 25 Life expectancy at birth in the 25 nations with the longest life expectancy (1997 data).



Source: 1999 Human Development Report, United Nations Development Programme

Our Changing Health Care System

Canada's health care system allows all citizens, regardless of ability to pay, to receive medically necessary services from physicians and hospitals. Over time, the system has evolved into a series of interlocking health care insurance plans, administered by the provinces and territories within common national principles. The federal government is directly responsible for some health services for specific groups, including the Royal Canadian Mounted Police and armed forces, veterans, status Indians and Inuit, and inmates in federal jails.

Canadians also use other health care services, such as drugs, dental care, physiotherapy and alternative therapies. These supplementary services are funded through a complex mix of public and private insurance and out-of-pocket personal payments.

Health Care System Reform

In the 1980s, fiscal pressures and an increased interest in health promotion led to a number of reviews of the health care system. One-by-one, a series of provincial Royal Commission and Task Force reports ushered in health care system reform across the country.

Health care system reform is not confined to the last decade or to Canada. Governments and citizens around the world face similar issues. Most countries are debating who should pay for what, as well as how best to organize and deliver health services, to use health dollars in the face of pressures to reduce debt and

Key Dates in Canadian Health Care Policy

- 1867: *The British North America Act* establishes the basis for provincial responsibility for hospitals.
- 1947: Saskatchewan introduces Canada's first publicly funded universal hospital insurance program.
- 1957: The federal *Hospital Insurance and Diagnostic Services Act* is passed. All provinces and territories are covered under the cost-sharing program for hospital insurance by 1961.
- 1966: The federal *Medical Care Act* introduces federal/provincial and territorial cost-sharing for physician services outside hospitals. By 1971, all provinces were participating in the program.
- 1974: *A New Perspective on the Health of Canadians* is released by the federal health minister. It reinforces the idea of broad determinants of health and calls for a reorientation of health care services toward health promotion.
- 1977: The *Established Programmes Financing Act* introduces a program of federal transfers that are not directly tied to the costs of the provincial/territorial programs.
- 1984: The *Canada Health Act* reinforces the basic principles which provinces and territories must meet to qualify for federal funding: public administration and operation, comprehensiveness, universality, portability and accessibility. It outlaws out-of-pocket charges for services covered under the act.
- 1996/97: The federal contribution to health and social services is consolidated into the *Canada Health and Social Transfer*, a major change in federal/provincial and territorial cost-sharing arrangements for health services.

government spending, and to work toward a healthier society.

The pace of change has varied across Canada, but the direction has been similar. Generally, the vision of health reform has been to focus on population health and the broad range of factors that affect it. This includes the need to maintain and improve health through an integrated and accountable health care system: one that provides the right services to the right people, at the right time, in the most effective and efficient manner. Plans have tended to emphasize alternatives to institutional care, for example, using the savings from closed hospital beds to provide more community-based services, such as home care.¹¹

The regionalization of health services is the other major change. Throughout most of the country, provinces and territories have been carved up into smaller geographic regions in an effort to bring the planning and delivery of health care services closer to residents. The size of regions varies considerably. For example, the Montréal-Centre Health Region covers 1.8 million people and provides specialized services to many more in the surrounding areas. In contrast, the Churchill Region in northern Manitoba serves about one thousand people.

Each health region has an organization (often called a regional health authority) that is responsible for some of the health care services provided in the area. Except in Ontario, regional authorities usually manage hospital care, long-term care, community health services and public health programs. In most cases, funding for physician services, cancer care, pharmaceuticals and some specialized services remains at a provincial or territorial level.¹²

Recognizing the increasing importance of regions in today's health care system, comparisons in this report and the

accompanying Health Indicators 2000 insert are presented at regional levels where possible.

What Do Hospital Bed Cuts Mean for Our Health?

One of the biggest changes in the health care system in the 1990s was the shrinking of Canada's acute care hospitals. Typically, acute care beds are occupied by people who are in hospital for births, surgery or the treatment of a serious illness.

Over the last decade, the number of hospital beds, the number of admissions and the length of hospital stays have dropped, year after year. Compared with 1984/85, hospitals in 1997/98 had about 25% fewer beds, but visits to hospital emergency rooms and clinics were up 9%. There were also almost three times as many outpatient services in 1997/98 as in 1984/85 (Figure 3).

Why has this occurred? Beyond the need to reduce costs and the inappropriate use of acute care beds for long-term stay patients, several studies have shown that many patients can often be treated successfully outside hospitals.¹³⁻¹⁷ In addition, early discharge after childbirth is now the accepted norm. Another explanation is the growing use of outpatient (same day) surgery. Some types of operations, such as transplants and hip replacements, still require several days in the hospital. But new approaches mean that many types of surgery (such as cataract surgery) can often be done safely and less expensively on an outpatient basis, provided that appropriate preparation is done in advance.

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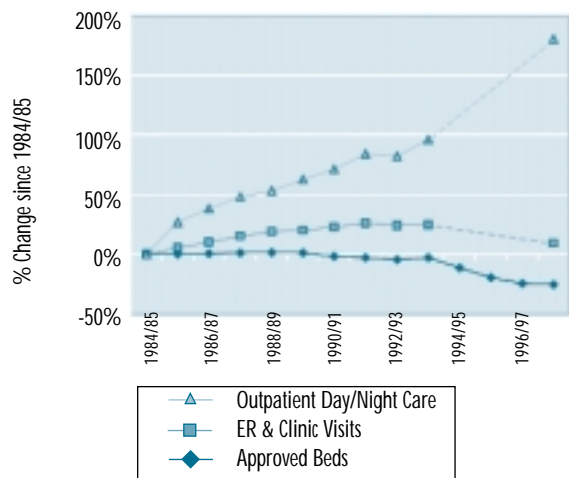
Keeping Tabs on Health Care Reform in Montréal

The Montréal-Centre Regional Health and Social Services Board launched their health systems transformation strategy in 1995, shifting the focus more towards community-based and long term care services. At the time, they introduced a series of indicators to track their progress. Today, they continue to use the information for planning and for monitoring four key areas—access to care, use of services in the community, outcomes of care and financial stability.

The staff and board of the region continue to monitor these indicators and use them to evaluate their success and plan for the future. Residents of the region can watch them too. Do you want to know the number of patients on stretchers in Montréal emergency rooms this morning, or how many people were waiting for cardiac surgery earlier in the month? Visit www.rrsss06.gouv.qc.ca.

How Hospitals Are Changing

Percent change in the volume of approved beds and selected services in general hospitals since 1984/85; 1984/85 to 1997/98.



Source: Annual Hospital Survey, Statistics Canada (to 1994/95) and CIHI (1997/98*)
* Preliminary estimates based on reporting hospitals.

What have these changes meant for Canadians' health? It is too soon for a conclusive answer, but early results from provincial and local studies are more positive than many predicted. This is demonstrated in the following research from rural Saskatchewan and Manitoba (an urban experience).

The Saskatchewan Experience

In 1993, 52 small hospitals in rural Saskatchewan (each had on average 10 or fewer patients) were closed or converted to health centres.

A recent study from Saskatchewan's Health Services Utilization and Research Commission (HSURC) evaluated the impact of the cuts.¹⁸ The study looked at public satisfaction with the changes, access to health services and health status. To do this, the researchers identified three groups of rural communities—affected

areas that had lost hospitals, ones that had never had a hospital, and ones that kept their small hospitals. These communities were compared before and after the cuts.

Consistent with national trends, overnight hospitalization rates fell between 1990 and 1996 in all the communities. Not surprisingly, communities affected by the hospital cuts had the sharpest decline in hospital use.

Over half (54%) of surveyed residents said they were unhappy with current health care services and most (82%) remembered being satisfied prior to the 1993 hospital cuts. They were particularly concerned about the availability of emergency services and physicians.

At the same time as these valid concerns were expressed, other HSURC findings told a different story (Figure 4). Against a backdrop of province-wide falling death rates, communities that lost hospitals in 1993 experienced the largest overall *improvement* in health status. Communities that kept their small hospitals saw the smallest gains. Best off throughout the study period were communities that had never had a hospital. Death rates from heart attacks and motor vehicle accidents—life threatening events known to be especially sensitive to emergency service response times and capacity—fell more after the 1993 cuts in affected communities than in those that retained their small hospitals. Nevertheless, these results should be interpreted cautiously since the total number of deaths was small.

Death Rates Before and After the 1993 Cuts

Percent change in age/sex adjusted death rates per 100,000 population for three community groups and the rest of the province before and after the 1993 hospital funding cuts in Saskatchewan.

Community Group	% change
Hospital closed	-6%
Kept hospital	-2%
Never had hospital	-5%
Rest of province	-3%

Source: Health Services Utilization and Research Commission, Saskatchewan

These findings matched what residents told researchers in a telephone survey. Despite their fears to the contrary, respondents overwhelmingly (89%) reported that the funding cuts did not harm their health. Similarly, half of those surveyed had expected that the hospital cuts would limit their access to health care services. But almost three quarters said that their use of services had stayed the same or increased.

More detailed focus groups held in 10 of the affected communities offer further insight. While some communities continued to struggle with the cuts, others appeared to have adapted well as a result of strong community leadership, the development of well-accepted alternatives to hospital services, and local support for innovative solutions.

The Commission concluded that "spending scarce resources on expensive types of health care services such as small rural hospitals is not effective." They also pointed out that some questions remain unanswered—notably, why health status seemed to improve more quickly in communities that saw cuts to rural hospitals and why communities that never had a small hospital appear to have lower death rates compared with the rest of the province.

Closing Hospital Beds in Winnipeg

The Manitoba Centre for Health Policy and Evaluation found similar results in studies of Winnipeg hospital bed closures. Researchers found that, despite the closure of 727 hospital beds over several years in the mid-1990s, access to hospitals, the quality of care people received and the health of Winnipeg residents did not worsen.¹⁹

In 1997, Winnipeg hospitals treated as many patients as before bed closures. As beds were closed, hospitals adapted. Surgery was more often done on an outpatient (same day) basis and the average length of stay in hospital dropped.

Interviews with Winnipeggers ages 65 years and up showed an overall drop in the level of satisfaction with hospital care one year after the second round of cuts, as negative media reports increased.²⁰ However, the quality of care—as measured by death rates, doctor's office and emergency room visits, and readmissions after discharge for common conditions—did not deteriorate after the cuts. Some other important factors, such as the length of time patients spent waiting in hospital observation units to get an inpatient bed, quality of life after discharge, and the opinions of health care providers, could not be assessed with the available data.

Interestingly, people who were actually hospitalized during the period when the greatest number of Winnipeg beds were closed had the most confidence about access and appropriate wait times, while those who were not hospitalized felt the least confident. The researchers suggested that these findings confirm the theory that individuals' ratings of aspects of the health care system seem to be most influenced by

the media when their own experience provides little guidance.²¹

Generally, the health of Winnipeg residents remained stable between 1991 and 1996. There was one exception: the health of Winnipeg's poorest residents appeared to deteriorate. But given that this group's access to hospital care did not change, the researchers concluded that hospital cuts were unlikely to be the explanation.

Meeting Canadians' Expectations

Health care providers aim to achieve a high quality of care, while providing services as cost-effectively as possible. In doing so, they hope to meet the expectations of the patients and communities they serve. How well are they doing?

This section looks at what communities and patients say when they are asked about the health care system in general and the care that they and their families have received, as well as how often they seek care south of the border.

Patient and Community Satisfaction

Many organizations including newspapers, governments and advocacy groups sponsor opinion polls on the health care system.* Individual hospitals also periodically send out patient satisfaction surveys.

Except for periodic opinion polls, province-wide surveys are relatively rare. One exception is a series of questions put to Albertans in Statistics Canada's National Population Health Survey in 1996/97. In this survey, 85% of Albertans rated the overall quality of health care personally

received in the past year as good or excellent. As is common in these types of surveys, respondents gave slightly lower (but still fairly high) scores for the overall quality of health care in their community: 74% rated it as good or excellent.

More recently, many Ontario hospitals participated in a patient satisfaction survey as part of the Ontario Hospital Association/University of Toronto *Hospital Report '99*.²² Hospital-by-hospital results varied, but patients who stayed overnight in acute care hospitals in Ontario were generally quite satisfied with their experience: 88% of patients rated their care as good or excellent. A similar proportion (87%) would return to the hospital for future medical care. Only a few patients (5%) said that they would not recommend the hospital to their friends and family.

Researchers also looked at patient opinion in a number of specific areas. According to the University of Toronto researchers, "for some indicators, the highest-rated hospitals in Ontario would be considered excellent by any yardstick." In particular, most patients praised the nursing and physician staff, but were somewhat less enthusiastic about hospital support services, such as food and housekeeping.

A repeat survey is planned for the year 2000. By systematically tracking satisfaction levels over time, individual hospitals, and the hospital system as a whole, can monitor their success in responding to patient and community expectations.

* Different surveys and polls often ask different questions and use different survey methods. As a result, findings are often not directly comparable.

The Public's View: An International Comparison

Statistics on how much different countries spend on health care are easily available from the World Health Organization, Organization for Economic Co-operation and Development and other groups. Comparative data on the public's views of the health care they pay for are less frequently tracked and reported.

One exception is the Commonwealth Fund's *1998 International Health Policy Survey*²³ of five countries (Australia, Canada, New Zealand, the United Kingdom and the United States). Researchers found that fewer than one in four respondents in 1998 said that their health care system works well the way it is,

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What the Public Thinks

Percent of people in a 1998 international survey of five countries who reported the views in the chart below.*

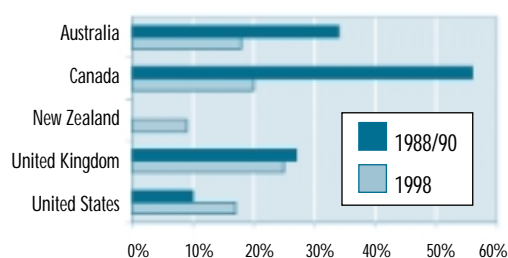
	Australia	Canada	New Zealand	United Kingdom	United States
The health care system needs only minor changes	19%	20%	9%	25%	17%
There was a time in the past 12 months when I needed medical care but did not get it	8%	10%	12%	10%	14%
It is extremely or very difficult to see specialists/consultants when required	14%	16%	17%	10%	15%
I had problems paying medical bills in the last year	10%	5%	15%	3%	18%
My previous year's out-of-pocket bills for medical services were \$750 US or more	19%	9%	10%	1%	29%
Overall, medical care that I and my family received in last 12 months was excellent (EX) or very good (VG)	EX:19% VG:35%	EX:24% VG:30%	EX:20% VG:34%	EX:15% VG:35%	EX:19% VG:30%

Source: Commonwealth Fund 1998 International Health Policy Survey
* Results are generally accurate to within 3 percentage points, 19 times out of 20.

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Trends in Public Confidence

Percent surveyed who said that "only minor changes are needed" to the health care system (five countries).



Source: Donelan, et al. (1999)

although a significantly higher proportion gave very good or excellent scores to the care that they and their family received. The researchers found that "different systems pose different problems: In systems with universal coverage, dissatisfaction is with the level of funding and administration, including queues. In the United States, the public is primarily concerned with financial access."

The level of public confidence in Canada—while still second only to the United Kingdom—was down to 20%, compared to 56% in 1988. Nevertheless, over half of those surveyed said that, overall, the medical care that they and their family had personally received in the last year was very good or excellent. This is consistent with other surveys which have found that, on average, people tend to report higher levels of satisfaction with their own care than with the health care system overall.

Cross-border Shopping for Health Care?

With most of the Canadian population living within a few hundred kilometers of the United States, cross-border care-seeking may be a warning sign of potential access problems in Canada's health care system.

How common is it?

Cross-border care-seeking happens in four ways: including emergency services for visitors to the U.S., care for Canadians living in the U.S. temporarily, services purchased by provincial insurance plans from American hospitals, and those who independently seek care south of the border. Despite concerns to the contrary, cross-border care-seeking is too rare to be reliably measured in current national surveys. Fewer than 0.1% of Canadians reported being treated in the U.S. in the past year in the 1998/99 National Population Health Survey.

A 1998 report on Ontario Medicare spending in the U.S. provides some further details. Researchers found that Ontario's total bill for care delivered in that country was less than 1% of overall spending between 1987 and 1995. The majority was spent before restrictions on how much the province would pay for out-of-country care were introduced in 1991.²⁴

A significant portion of Ontario spending for U.S. care was for services for long-term visitors, such as senior "snowbirds" wintering in the U.S. For the years 1992 to 1995, the researchers found that cross-border care-seeking was not widespread. However, the 1998 study showed that some Ontarians went south for specific types of services, such as bypass surgery, residential substance abuse

treatment, experimental cancer therapy and a particular type of specialized orthopedic surgery. The extent to which this occurred for particular types of care varied from year to year, partly because of provincial programs that purchase services on behalf of the public deemed to be in short supply relative to need. These types of programs continue periodically. For example, Cancer Care Ontario recently announced that it would pay for radiotherapy services in the U.S. for some cancer patients.

Current follow-up research at the University of British Columbia (working with U.S. colleagues)²⁵ uses similar approaches to look at cross-border care-seeking by residents of several more provinces and a number of potential care sites in the U.S. To date, the researchers have again found no evidence of substantial cross-border care-seeking. With few exceptions, even high profile sites rated as "America's Best Hospitals" treated very few Canadians.

Of course, the border is open in both directions. For example, in 1998/99 CIHI data show that over 3,200 Americans stayed overnight in acute care hospitals in Atlantic Canada, Ontario, Alberta, Saskatchewan, British Columbia and the territories. The largest single group was patients traveling north to have their hernias repaired.

Information Gaps: Health Care Reform

What We Know

- The health status of Canadians, as measured by life expectancy and mortality rates, continued to improve during the period of health reform.
- According to opinion poll data and media reports, significant portions of the public and health care providers express concern about the quality of care and access to care. Survey respondents tend to rate the care that they personally receive higher than the health care system overall.
- In at least two settings—rural Saskatchewan and urban Winnipeg—the quality of care (measured by indicators such as death rates, readmissions and emergency room visits) did not appear to deteriorate after their hospital cuts.

What We Don't Know

- Do the findings from studies and opinion polls in specific areas apply to other jurisdictions?
- Have there been changes in quality of life after discharge, levels of stress on family and friends who act as caregivers, and patient and family satisfaction with the changes that have accompanied health care reform?
- How has the overall performance of the system changed as health system reform has been introduced?

What's Happening

- Researchers, managers and policy-makers in several parts of the country continue to track the immediate and long-term implications of health care system reform.
- Collaborative efforts to measure changes related to reform have been implemented in some areas.
- A third province-wide hospital satisfaction survey, with an expanded scope, is planned for Ontario in 2000.

2. The Cost of Health Care

In 1997, health care-related activities accounted for 8.9% of Canada's economic output. Among the G-7 countries, Canada continued to rank fourth, after the United States, France and Germany. The U.S. spent the highest proportion of its gross domestic product (GDP) on health care (13.9%).

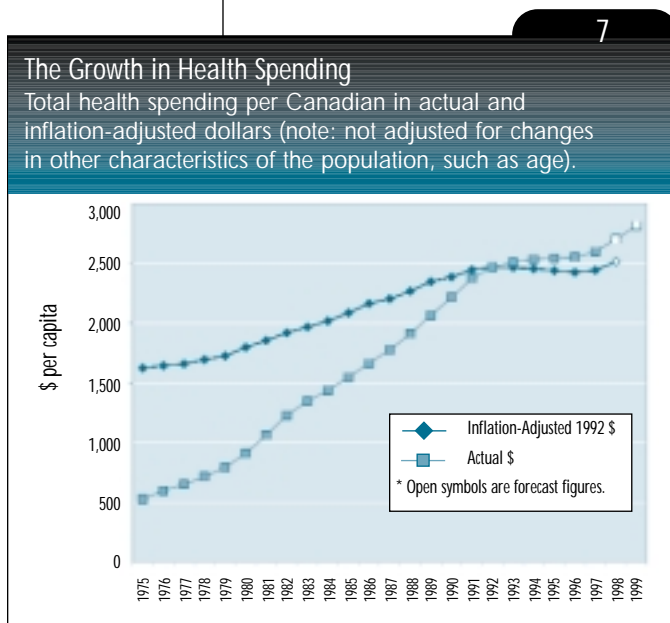
Does higher spending imply better health? Not necessarily. The U.S. spent considerably more, but Canadians live longer and newborns are less likely to die. And some countries who spend less than we do (such as Japan) achieve higher life expectancy and lower infant mortality rates than Canada.

How Health Care Dollars Are Spent

In 1999, health care in Canada cost \$2,815 per person, according to CIHI's latest forecasts. Total public and private health care spending in 1999 was expected to reach \$86 billion, up 5% or about \$100 per person from the year before. Canada's health care spending is estimated to have risen to 9.1% of GDP in 1998 and 9.2% in 1999.

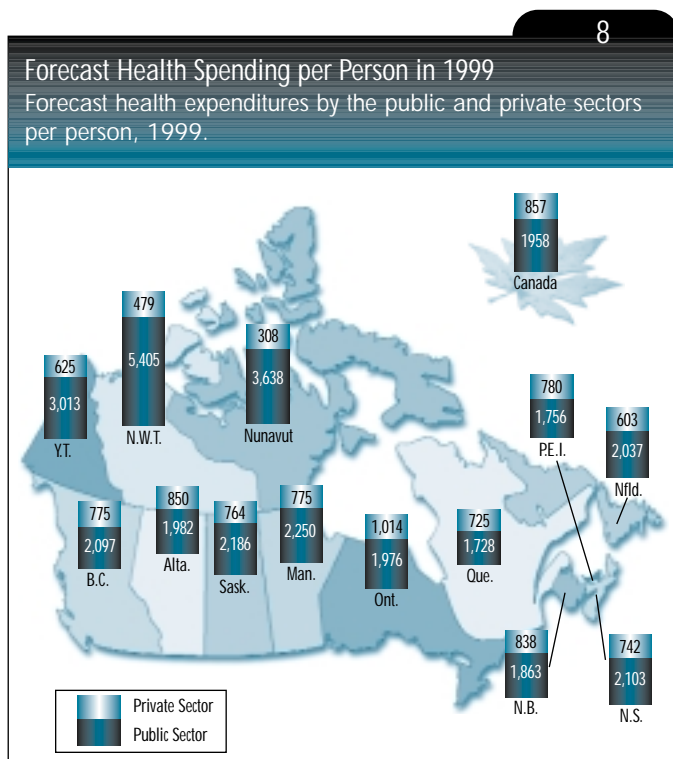
Rising health care costs have been the norm in Canada for the last 25 years. Factors that may cause cost increases include a growing population, increasing costs for established services and providing more intensive services for the same type of condition.

Even after accounting for inflation and a growing population, health care spending rose steadily from 1975 until the early 1990s. Between 1993 and 1996 there were relatively small annual drops in expenditure per capita. The trend reversed in 1997 and 1998, the latest years for which inflation-adjusted figures are available. Unadjusted for inflation, per capita spending was expected to have grown by 4% in 1999.



Source: National Health Expenditure Database, CIHI

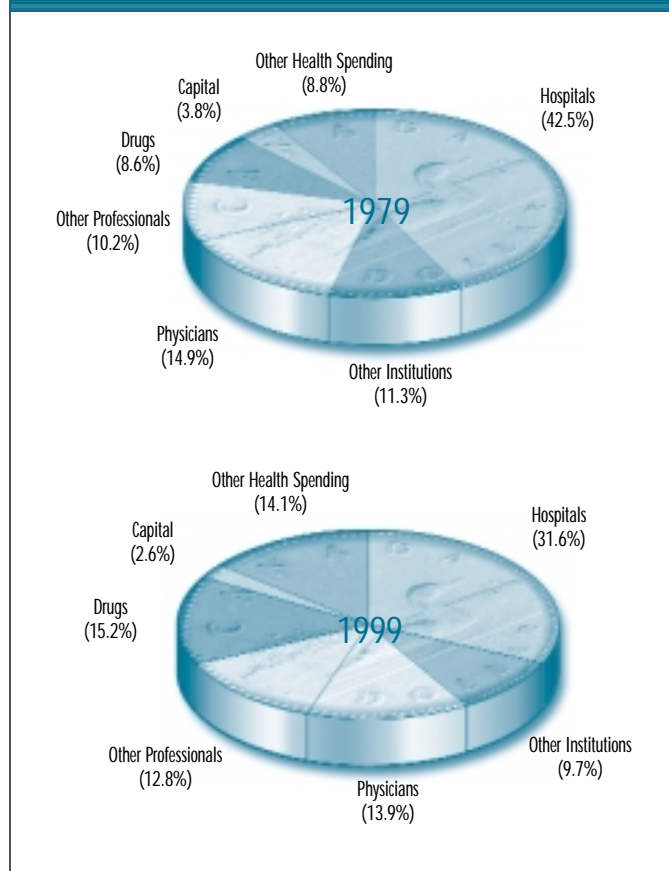
Per capita health care spending continues to be highest in the territories, partly as a result of the costs of serving a relatively small population distributed over a large geographic area. Among the provinces, the spread of health care spending is narrower. Manitoba was projected to have spent the most per person in 1999, closely followed by Ontario and Saskatchewan. Prince Edward Island and Quebec were expected to have had the lowest expenditures per capita (Figure 8).



Where Health Care Dollars Are Spent

Historically, hospital care has been by far the largest category of health care expenditure. In 1976, it accounted for just over 45% of total spending. Since then, the share of total health care dollars devoted to hospitals has dropped every year, along with the rate of overnight hospital stays.

Where Health Care Dollars are Spent
Percentage of total public and private health care expenditures in Canada by use of funds, 1979 and 1999 (forecast).



Source: National Health Expenditure Database, CIHI

In 1999, hospital spending was expected to be \$27.2 billion, accounting for just under one-third of total health care expenditures. In spite of the first increases in hospital spending since 1993 (3.9% in 1998 and 3.2% in 1999), the hospital share of overall health care dollars is expected to have continued to fall through 1999.

Retail drug sales now account for an extra six dollars out of every 100 dollars spent on health care, compared to the late 1970s. In 1997, drug costs overtook spending on physician services—which has been the second-largest category since at least 1975, when comparable data began to be collected. The total amount spent on

drugs was \$11.3 billion, up almost 10% from the year before. Most was for prescription drugs, but just over one-quarter was for other products, including over-the-counter drugs and personal health supplies, such as pregnancy test kits and contact lens solution. It is expected that final data from 1998 and 1999 will reveal continuing increases.

In 1997, \$11.1 billion was spent on physician services. After relatively rapid growth through the mid-1980s, spending growth for this sector slowed during the 1990s. This led to a decline in the share of total health care expenditures for physician services. CIHI's projections show continued below-average growth rates through 1999.

Who Pays? Public and Private Sector Spending

The public/private funding debate continues to be front-page news. Currently, almost 70% of Canada's health care services are publicly funded. But there are some services, such as drugs and dental care, that people generally have to pay for themselves—through supplementary insurance (usually employer sponsored) or out of their own pocket.

The current debate is the latest in a long history of working to find a balance that is acceptable to Canadians between services that Canadians pay for privately and those that are paid for collectively through public funds.

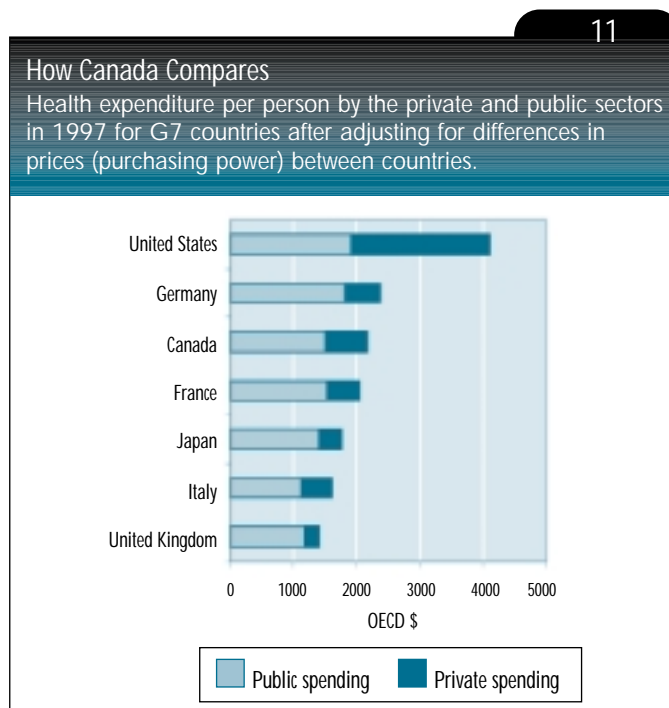
The Public Share

Public sector spending uses taxes collected by federal, provincial, territorial and



Source: Adapted from a Publication of the National Forum on Health

municipal governments to fund health care services. In 1997, the public share of total health expenditures was 69% (\$54 billion). All other G-7 countries, except the U.S. (46%), had a higher proportion of public financing in comparison to Canada.



Source: Organization for Economic Cooperation and Development (OECD) Health Data 1999

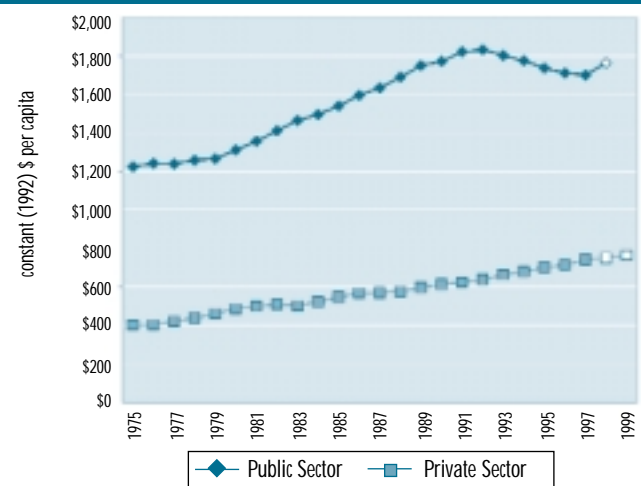
The United Kingdom topped the list at 85%. However, Canada ranked fourth in terms of the level of public health care spending per person.

Per capita public health care spending by Canadian governments and government agencies increased steadily throughout the 1980s, then dropped from 1993 to 1996 as governments moved to contain costs. Recently, public sector health care spending has begun to rise again. Further growth of about 4% per year before inflation is expected in 1999.

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How Health Spending Has Changed

Health expenditure per person by the public and private sectors from 1975 to 1997 after adjusting for inflation (in constant 1992 dollars).



Source: National Health Expenditure Database, CIHI

The provinces and territories are responsible for administering the bulk of the public sector health care budget, a portion of which is financed through federal transfers of cash and tax points. With tax point transfers, the federal government reduces its tax rate, allowing provincial governments to increase their tax rate without changing the "bottom line" that a taxpayer pays. The resulting taxes go into provincial general revenues and can be used for a range of purposes.

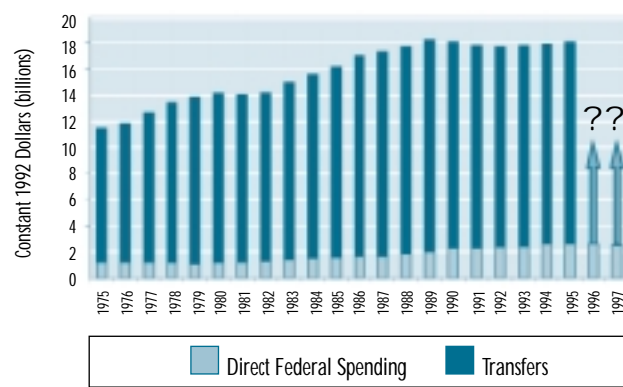
In 1975, federal health care transfers represented just under 39% of provincial/territorial government health spending. After double-digit growth in transfers in the 1970s and early 1980s, the rate of growth slowed. Increases had dropped to less than 2% in 1995 as funding formulas were changed and transfer growth reduced. By 1995, the federal share of health care spending had dropped to 33%.

Following the introduction of the Canada Health and Social Transfer (CHST) in April 1996, total federal contributions to health care cannot be clearly defined. The CHST is a block cash and tax transfer to the provinces and territories to support health care, post-secondary education, social assistance and other social programs. The provinces and territories are free to allocate the CHST to health and other social programs according to their individual priorities. As a result, except in special cases—such as the agreement announced in 1999 to put an extra \$11.5 billion over five years towards

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Ottawa's Contribution to Health Care

Federal spending on health care includes health transfers to provinces and territories plus expenditures by the almost 30 federal government departments and agencies that provide direct health care services to Canadians. Data on health transfers are not available as of 1996 because of the introduction of the *Canada Health and Social Transfer*.



Source: National Health Expenditure Database, CIHI

health care—information on the allocation of CHST funds is not available, as the Auditor General pointed out in his 1999 annual report.

Private Sector Spending

On average, each Canadian will spend over \$850 on insurance (much through employment) and out-of-pocket health care costs in 1999—a total of \$26 billion. Private spending is generally concentrated in areas such as drugs, dental services and vision care. Many Canadians are also paying out-of-pocket for complementary and alternative drugs and therapies, although we do not know how much. Studies in other countries suggest that the amount may be significant.^{26, 27}

Private spending tends to be more volatile than public expenditures, following cyclical trends in the general economy. Overall, it grew during the 1990s in all parts of the country. In the mid-1990s, growth in private spending

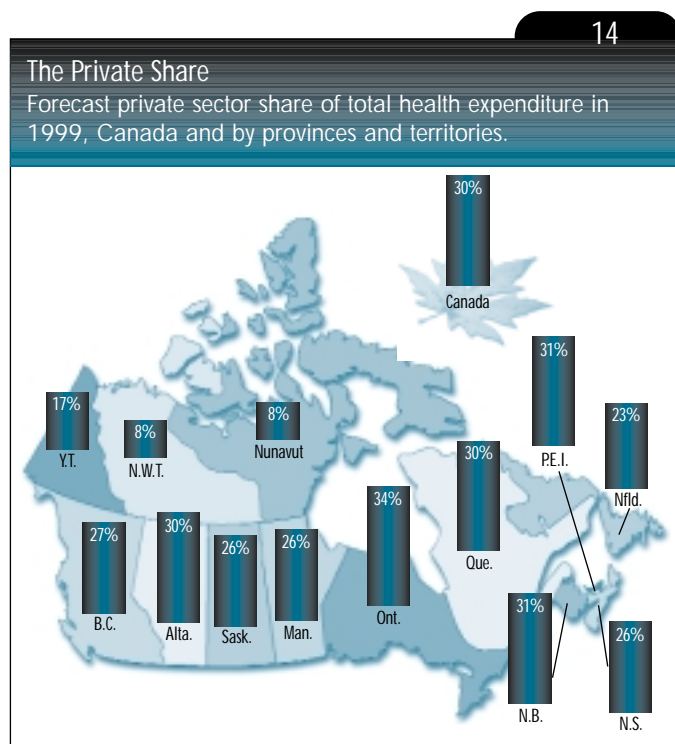
outpaced that of the public sector, leading to an increase in the private sector's share of total health care spending. Public and private spending were expected to have grown at about the same rate in 1999.

In 1997, Ontario had the highest proportion (33.8%) of health care expenditures financed from private sources, followed by Alberta and New Brunswick. Projections suggest that in 1999, these provinces, along with Prince Edward Island, continue to have the highest private shares. (Figure 14).

A Patchwork of Access: Insurance For Drugs, Dentists and Eye Care

Canada's universal health care insurance system was initially set up to cover hospitals, then physician services. Over time, individual provinces and territories have added a mixed basket of other services for some groups, such as home care and prescription drugs. This has created a patchwork of access to these services across the country. Governments have also introduced income-related tax credits for a range of medical expenses.

Most Canadians still pay for prescription drugs (unless they are in hospital), dental care and vision care—either personally or through an insurance plan, or both. Supplementary health insurance is often employer-sponsored. Indirectly, business-paid health and dental benefits are subsidized through the tax system since the firms can deduct the insurance premiums, but employees do not have to pay tax on the benefits.

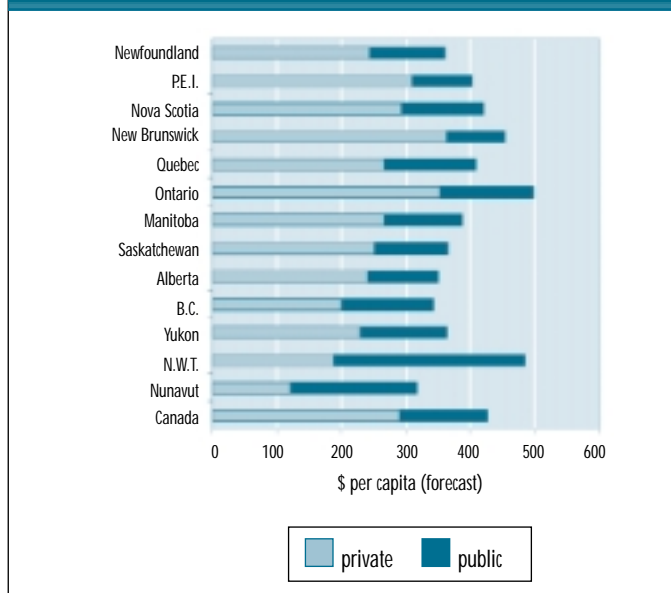


Source: National Health Expenditure Database, CIHI

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Drug Spending: The Public/Private Split

Forecast dollars per capita spent on drugs by the private and public sectors by province and territory, 1999.



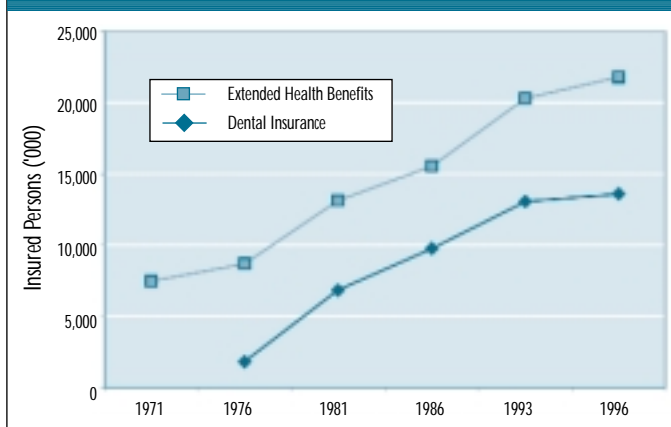
Source: National Health Expenditures, CIHI

Private insurance coverage grew rapidly in the late 1970s, a time when public supplemental programs were also expanding. For example, all but a few people paid dental fees out-of-pocket before 1976. By the end of the decade, the number with private insurance had jumped by almost 5 million people.

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Private Coverage Trends

Thousands of Canadians with private dental and extended health benefits insurance coverage (including work-sponsored plans), 1971-1996.



Source: Canadian Life and Health Insurance Association

Throughout the 1980s and early 1990s, supplementary health insurance coverage increased by about 4% a year. More recently, annual growth has slowed to about 2.5%. Dental insurance followed a similar pattern until 1993, but growth has been slower recently (Figure 16).

In the 1998/99 National Population Health Survey, 74% of Canadians ages 12 and older reported some coverage for prescription drugs (whether public or private). Coverage was up significantly from two years earlier, partly because of a new public insurance program introduced in Quebec in August 1996. Levels of supplemental insurance coverage for prescription drugs vary across the country, partly because of differences in publicly-funded programs (Figure 17). Quebec saw the largest gains in coverage from 1996/97 to 1998/99, but rates in Manitoba, Saskatchewan and Alberta were also up significantly from two years before.

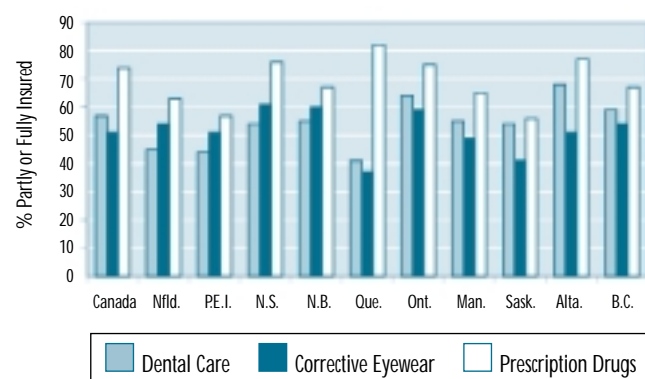
Fewer people have other types of insurance. Fifty-one per cent of Canadians reported coverage for glasses or contact lenses, and slightly more reported coverage for dental care. Seniors and young adults (ages 20 to 24) were least likely to have insurance for these types of care. In part, this likely reflects the fact that private insurance is often an employment benefit that typically covers the employee and his or her dependents.

Just as the rates of supplemental insurance coverage vary across the country, so do benefits. Persons receiving social assistance are covered under government-sponsored drug plans in all provinces and territories. Most also cover seniors (although coverage is based on income in some provinces) and persons with specific diseases, such as HIV/AIDS

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Insurance Coverage Across the Country

Proportion of the population reporting some (public or private) insurance coverage for selected services in 1998/99.



Source: National Population Health Survey, Statistics Canada

and cancer, who often require expensive drug therapy. Most plans require clients to share part of the cost of their drugs through deductibles and/or copayments.

Despite these programs, in 1998/99 Canadians with low incomes and low levels of education were much less likely than their richer and better-educated counterparts to have full or partial private insurance for dental care, eyeglasses and prescription drugs (Figure 18).

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The Great Divide: Insurance by Education and Income

Percent of Canadians by education and income who reported some insurance coverage in 1998/99.

	Dental Care	Corrective Eyewear	Prescription Drugs
Less than high school	48%	45%	71%
High school	55%	52%	72%
College	59%	51%	75%
University	66%	60%	80%
Lowest income	30%	29%	58%
Lower middle income	41%	37%	66%
Upper middle income	65%	59%	80%
Highest income	79%	70%	87%
Not stated	50%	46%	73%

Source: National Population Health Survey, Statistics Canada

Information Gaps: The Cost of Health Care

What We Know

- How much is spent in each province and territory on various types of health care, such as hospitals, physician services and drugs.
- Whether expenditures were made by the public or private sectors.
- How spending has changed over time.
- How spending in Canada compares to other countries.

What We Don't Know

- How do changes in health expenditures affect the health of the population?
- How does health spending differ between regions within provinces?
- What are the costs of treating specific diseases?
- How much do Canadians spend out-of-pocket on complementary and alternative medicine (for example, massage therapy, homeopathy, herbs and other similar remedies)?
- What are the costs of rehabilitation, health promotion and other community-based services?

What's Happening

- A review of methods for collecting private sector expenditure data was recently completed.
- Work is underway to estimate spending by health region.
- Statistics on the financial cost of illness in Canada are being updated.
- Several provinces have plans to improve the consistency and timeliness of hospital financial data.
- Experts are investigating ways to better measure inflation in the health sector.

3. The Health Care Team

Health care providers and administrators are the backbone of our health care system. They are trained to promote good health, to care for and comfort the sick, to expand what we know about health and health care and to improve the effectiveness of the way the health care system functions.

A Changing Mix

Medicine and healing are ancient arts that were traditionally carried out by designated individuals in a community. More recently, a complex mix of formal

health professions has evolved. More than 30 groups are now regulated under legislation in at least one province or territory. Still more are currently unregulated.

Each profession tends to specialize in certain areas, although skills and roles vary across the country and often overlap. In some northern communities, for instance, specialist nurses may be responsible for care during pregnancy, labour and after birth. In larger centres in the south, obstetricians and family physicians usually perform deliveries. But change is occurring. Midwives have recently become licensed to manage planned home births and hospital births, and are now eligible for public funding in some provinces.

Every year, thousands of students graduate from health professional training programs at colleges, universities and other institutions across the country (Figure 20).

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A Changing Mix
Licensed professionals per 100,000 Canadians and percent change from 1989 to 1997 for health care professions regulated in all provinces.*

	1989	1997	Change
Registered Nurses	804	762	- 5%
Licensed Practical Nurses	301	255	- 15%
Physicians	187	183	- 2%
Pharmacists	67	76	+ 13%
Dentists	52	54	+ 4%
Physiotherapists	37	48**	+ 30%
Psychologists	32	38**	+ 19%
Dental Hygienists	29	44**	+ 52%
Chiropractors	12	15	+ 23%
Optometrists	11	12**	+ 9%

* RN numbers based on those employed in nursing.
** Estimates

Source: Health Personnel Database, CIHI

The Next Generation

The number of graduates in 1988 and 1997 in Canada in selected health care professions that were regulated in all provinces in 1997, and which provinces hosted their training programs.

	# '88 grads	# '97 grads	NF	PEI	NS	NB	PQ	ON	MB	SK	AB	BC
Chiropractors	134	151					x†	x				
Dental Hygienists	561	n/a			x		x	x	x		x	x
Dentists	504	477			x		x	x	x	x	x	x
Licensed Practical Nurses	2,589	n/a	x	x	x	x	x	x	x	x	x	x
Optometrists	100	97					x	x				
Pharmacists	722	674	x		x		x	x†	x	x	x	x
Physicians	1,781	1,577	x		x		x	x	x	x	x	x
Physiotherapists	444	636			x		x	x	x	x	x	x
Registered Nurses*	9,246	n/a	x	x	x	x	x	x	x	x	x	x
Respiratory Therapists	320	n/a	x			x	x	x	x		x	x

* Includes initial diploma and basic baccalaureate graduates and programs. † Program existed, but did not produce graduates in 1997. ‡ No students graduated from the University of Toronto in 1997 due to a change from a four-to five-year training program.

Source: Health Personnel in Canada, CIHI

Nurses

Nursing is the largest health care profession. Nurses work in a wide range of circumstances and settings—from crisis care in busy emergency rooms to acute care on hospital wards, assisting new mothers in their homes and taking action to ensure smoke-free public places. They do research in universities, work in home care and much more. There are three regulated nursing groups: registered nurses (RNs), licensed practical nurses (LPNs) and registered psychiatric nurses (RPNs).

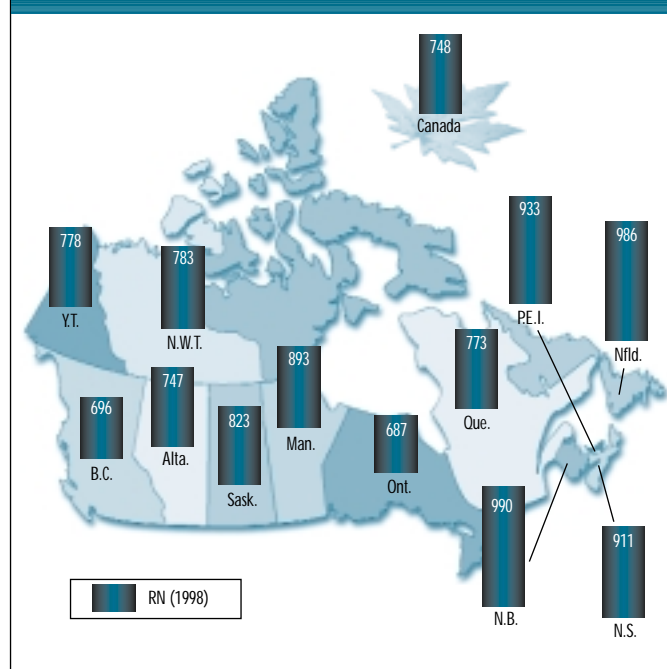
In 1998, more than 227,000 RNs were employed in nursing across the country, according to figures from CIHI's Registered Nurses Database. Just under half (48%) worked part-time, up from 39% five years earlier. Most (62%) still worked in hospitals, but as the role of community-based care expands more nurses have taken jobs outside of hospitals. From 1993 to 1998, the proportion of RNs working in community health and home care grew from 9.2% to 11.5%.

i

Canada's nursing workforce is getting older and fewer young people are joining the profession. By 1998, the number of practising registered nurses over 50 years of age was almost 20% higher than five years earlier. This group now represents over one-quarter of all active RNs. In contrast, only 10% of working RNs were under 29 years of age, down more than 30% from 1993 to 1998.

Canada's RNs

Registered Nurses (RNs) employed in nursing per capita by province and territory, 1998.



Source: Registered Nurses Database, CIHI

The Health and Work Life of Nurses

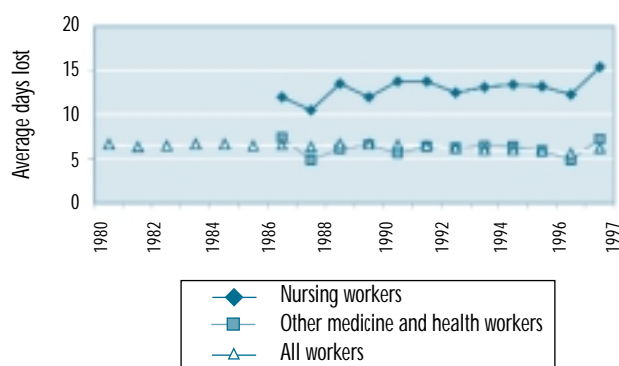
If one of the goals of the health care system is to promote health and prevent illness and injury, it may be logical to start with those who work in the system. How healthy are members of the largest group of health workers?

Data from Statistics Canada's 1997 *Labour Force Survey* show that each week an average of 8.4% of full-time nurses (including RNs, nursing assistants and similar professions) missed work due to an illness or disability.²⁸ People in other medical and health occupations were

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Lost Work Days

Average work days lost due to illness or disability per full-time paid worker for nursing workers (nurses, orderlies, nursing attendants and assistants); all health, social services and religion workers and all workers, 1980 to 1997.*



Source: Labour Force Survey, Statistics Canada

* Unlike 1997 figures quoted in the text, time trend data on days worked include time on maternity leave.

about half as likely (4.8%) to have missed work. Over the year, nurses lost over three weeks of work on average (15.6 days) due to illness and disability—more than any other group. Blue-collar processing workers and transport operators, the next highest groups, each lost less than ten days. The average for occupations in all sectors was 6.2 days per worker.

A recent study by researchers at the Institute for Work and Health provides some clues as to why these high absenteeism rates may be occurring. They used a number of variables to measure work stress in three groups of women working in health care in 1994/95. Nurses made up the bulk of one of the groups. When they were compared to women in comparable occupations in other sectors, the nurses "reported higher levels of psychological demand, lower levels of decision authority, higher levels of physical demand, heavier work, and lower levels of job satisfaction."²⁹

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What RNs Say About Quality of Care

Percentage of nurses working in acute care hospitals surveyed in November 1998 who agreed with the statements below.

	B.C.	Alberta	Ontario
The overall quality of care in my unit is good or excellent	88.4%	89.9%	89.6%
The quality of nursing care on my last shift was good or excellent	80.0%	84.2%	88.5%
I would recommend the hospital where I work to my friends or family if they needed care	82.0%	87.5%	85.1%

Note: In Ontario, the reported quality of care was higher in small hospitals, than in larger community or teaching hospitals. Because nurses in small hospitals were more likely to have been surveyed, the overall quality estimate reported may be higher than if all Ontario nurses were asked the same questions.

Source: Hospital and Patient Outcomes: A Cross-National Study

Hospital Nurses Speak Up

Canadian researchers recently surveyed thousands of RNs working in acute care hospitals in Ontario, Alberta and British Columbia as part of an international study on hospital staffing.³⁰ Analysis of the data continues, but early highlights from the November 1998 survey are now available.

The vast majority of registered nurses working in acute care hospitals in all three provinces said that they would recommend the hospital in which they work if a family member needed care. More than 80% also felt that the quality of care on their unit was good or excellent, both overall and on their last shift, even though some reported leaving necessary tasks undone because of lack of time. For example, although over 80% of Alberta nurses reported that necessary tasks such as preparing patients and families for discharge from hospital, oral hygiene and documenting nursing care were completed on their last shift, more said they were unable to complete routine teaching (24%), comforting and talking to patients (44%) and developing nursing care plans (45%).

The study also provides a snapshot in time of nurses' perceptions of hospital working conditions and job satisfaction. Early findings include:

- *Job Satisfaction:* Most RNs said that they were satisfied with their profession (75% in British Columbia and 80% in Alberta), but slightly fewer were satisfied with their current job (66% and 72%, respectively). Likewise, the majority of Ontario nurses felt that their job provided rewards at least as great as the effort they put in. But 14% said their efforts at work exceeded the rewards they received. These nurses were more likely to have back, neck or shoulder pain and to be among the 36% of Ontario hospital RNs with signs of burnout.
- *Emotional Exhaustion (Burnout):* Levels of emotional exhaustion—measured by questions such as the extent to which nurses felt emotionally drained, used up, burned out, frustrated or experienced stress from working with people—were similar in all three provinces. Alberta nurses averaged 21.8 out of 45 on this scale (the higher the score, the more emotional exhaustion). RNs in Ontario and British Columbia averaged 22.0 and 22.9.
- *Workplace Safety:* Significant numbers of nurses reported experiencing violence in the workplace in their last five shifts. Hurtful attitudes or remarks, such as insults, humiliation before the work team or coercion, were most common—reported by 38% of RNs in both British Columbia and Alberta. In addition, 23% in British Columbia and 18% in Alberta said that they had received verbal or written threats indicating harm; 21% in British Columbia and 17% in Alberta were spit on, bitten, hit, pushed or otherwise physically assaulted. Verbal sexual harassment—repeated, unwanted intimate questions or remarks of a sexual nature—was reported by 8% of RNs in both provinces. One percent or less experienced sexual assault (defined as forced physical sexual contact or acts, including touching, fondling and intercourse). Patients were the source of the vast majority of all types of assaults. However, data from Alberta suggest that 26% of hurtful attitudes or remarks originated from other members of the care team—half from doctors and half from nursing co-workers.

Physicians

After RNs and LPNs, physicians are the second-largest regulated health care profession. In 1998, CIHI's Southam Medical Database counted more than 56,000 non-military doctors in clinical and non-clinical practice in Canada. Over the past six years, the number of specialists has climbed by 7.2%. During the same period, there has been a drop of 2.8% in the number of family doctors. Overall, the national physician-to-population ratio has remained relatively stable throughout the 1990s.

As with nurses, the proportion of older physicians has been increasing. In 1993, physicians ages 50 to 59 represented 18% of the total supply, compared to 22% in 1998. The latest figures show that almost

16% of Canada's active doctors are over age 60.

The demographics of the profession are changing in other ways as well. According to the Association of Canadian Medical Colleges, almost half of today's new medical students are women, up from about 12% in the 1970s. As a result, the proportion of all physicians who are women continues to grow. In 1998, 28% of all practising doctors were female, up from 25% five years earlier.



Moving Away and Coming In: Physician Migration Patterns

While the total number of physicians leaving the country varies from year to year, since the 1980s typically 1 to 2% have left each year. According to CIHI, in 1998 an estimated 569 doctors left Canada, 90 fewer than in the previous year.

At the same time, some of those who had left the country returned from abroad (estimated at 321 in 1998). In addition, many physicians immigrate to Canada with the intention of practising here. There were 125 landed immigrants with arranged employment and 133 without arranged employment in 1998, according to Citizenship and Immigration Canada. In addition, physicians may enter the country under temporary employment visas. In 1997, there were 790 doctors in Canada under this type of arrangement.³¹

Physicians also move within Canada. Quebec posted the highest net loss of physicians (82) in 1998. British Columbia, with a net gain of 123 doctors, continued to be a preferred location for physicians.

Managers of the System

Managing the day-to-day operations of Canada's health care system and planning for the future is the role of health service executives. Their responsibilities include developing organizational objectives and innovative policies, programs and systems to meet changing needs; recruiting staff; coordinating the work of departments, programs, divisions and regions; and representing the organization in negotiations or other functions.

Since no formal registration process exists for health service executives, exact numbers are not available. Estimates come from membership lists of the Canadian College of Health Services Executives (CCHSE). As membership in CCHSE is voluntary and the employment status of members is not known, the actual number of managers in the health care system will differ from the available estimates.

Annual membership in CCHSE has fluctuated over the last decade, from a low of approximately 2,500 members in 1988 to a high of slightly over 3,000 in 1994 and 1995. Membership fell between 1995 and 1997, returning to numbers similar (2,675 in 1997) to those of the late 1980s. To what extent the drop in the mid-1990s was related to the changes accompanying restructuring in the health system is not clear.



Source: Southam Medical Database, CIHI (migration data) and Citizenship and Immigration Canada (data on immigrants)

Health Care Managers at Work in Quebec

Little is known about health system managers, their working conditions and how they have been impacted by changes in the health system. A recent survey of members of Quebec's professional association for managers in the health system begins to answer some of these questions.³²

The researchers surveyed members of the association in full-time management positions in August 1999. Most (69%) were between the ages of 45 and 54 and worked in general and psychiatric hospitals, long term care or rehabilitation facilities. On average, they each directly supervised 28.6 people, with 8% of managers supervising 70 or more employees.

Turnover rates among managers were significant—only 68% had been in the same position since 1996. Of those who were in the same job, 80% felt that their position had grown since 1996. The most common reason—reported by 47% of respondents with job growth—was an increase in the number of people that they supervised.

Information Gaps: The Health Care Team

Information about the supply and distribution of health care workers is essential for planning the future of the health system.

What We Know

- The number of physicians by age and sex, the area where they work and migration patterns.
- The number of registered nurses by age and sex and where they work.
- The number of active professionals for some other types of health workers.

What We Don't Know

- The age, sex and working patterns of health professionals (other than physicians and nurses).
- How many nurses and other health care providers (except physicians) leave Canada each year? How many return?
- What is the "right" number of physicians, nurses and other health care professionals for a particular community?

- How quickly are health care providers aging? How many retire every year? And how will this affect access to care in the future?
- How are employment and practice patterns changing over time? How many health care workers prefer less than full-time work? How do differences in labour arrangements affect the health care system's ability to respond to changing needs?
- How have organizational changes impacted on the performance of health care workers and the quality of their working lives?

What's Happening

- The first national counts since 1995 will shortly be published for 19 health professions.
- A pilot project to expand information about licensed practical nurses is planned.
- A new report profiling RN supply and distribution in Canada will be published in July 2000. Other projects to improve the quality and usefulness of data on physicians and RNs are also under way.

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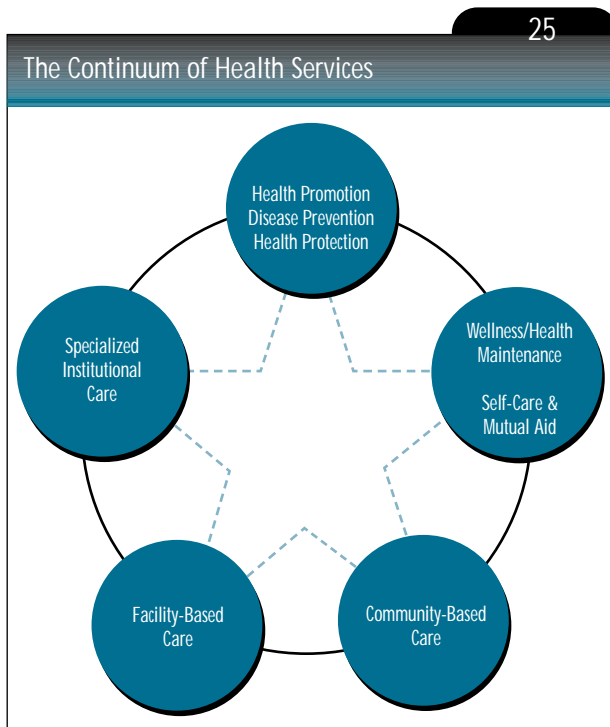
Part B: The Continuum of Care

Beth is an active 74-year-old from Halifax. Her health is generally good, but she is somewhat overweight and has a history of heart problems.

One day, Beth tripped on her way out the door. Luckily, her neighbour saw her fall and called an ambulance to take her to the emergency room. After an X-ray showed that Beth had broken her hip, she was admitted to hospital. The next day, an orthopedic surgeon and surgical team were on hand to pin her hip. Because of her past health problems, the surgeon consulted with her family doctor and cardiologist before operating.

A couple of days later, Beth was thinking about what would happen next. Together with her family and care team, she decided that the best option for her was to take advantage of the physiotherapy and other rehabilitation services in the hospital. She would then go home as soon as she was able, with some extra help from home care staff and her family.

Beth is an imaginary person with an imaginary health history. But stories like hers happen every day. At different times, in different ways, all of us come into



Source: Focus on Health: Public Health in Health Services Restructuring, Canadian Public Health Association, 1995

contact with parts of Canada's large and complex health care system—at school, in physicians' offices, pharmacies, community health centres, hospitals, home care, nursing homes and other places. Ideally, these various providers and organizations work together to provide a continuum of high quality care (Figure 25).

The story of who provides care, how they do it and how they work together is constantly evolving. It is not possible to provide a full description of all the parts of our large and complex health care system. What follows instead are brief highlights focusing on some of the key components of our health system and how they are evolving. They provide a preview of what is possible if governments, health authorities, professional groups and the public cooperate to develop better indicators and comparable information about the 'health' of the health care system across the country.

4. Promotion, Prevention and Primary Care

Our health care system aims to promote and protect health, prevent illness and provide good quality care when it is needed. These functions start in the communities where we live with public health programs, community-based initiatives and primary care.

Promoting Health — Preventing Illness

Activities that promote and protect health and prevent illness range from bylaws that limit smoking in public places to well-baby clinics in community health centres. They include media campaigns, addiction counseling, recreation and fitness programs, advice from family doctors on quitting smoking, immunization, food and water safety and programs to clean up the communities in which we live.

By necessity, these efforts involve a broad mix of partners, both within and outside the traditional health care sector. In addition, public and community health departments, voluntary health associations, community and faith organizations, mutual aid groups and others play important roles in health promotion, health protection and disease prevention.

As shown in Figure 26, public health has had impressive historical achievements that have significantly improved health and reduced the burden of disease both in Canada and around the world.

The miracle of immunization is one of public health's greatest accomplishments. Smallpox is gone. The worldwide eradication of polio and Canada-wide eradication of measles are in sight. Yet communicable diseases, which are transmitted directly or indirectly from one person to another, continue to affect thousands of Canadians each year.

Many challenges remain: HIV and AIDS, teen smoking, falls among seniors and threats to the physical environment, to name a few.



Source: MMWR, US Centres for Disease Control and Prevention, April 1999

Getting the Tobacco Message Across: The Good, The Bad and The Ugly

First, the good news: the vast majority of Canadians know that smoking is a health hazard. According to Statistics Canada, only 4% of Canadians 12 and over in 1996/97 felt that there were no smoking-related health risks for those who light up. A somewhat larger group, 14%, thought that environmental tobacco smoke was not a health risk.

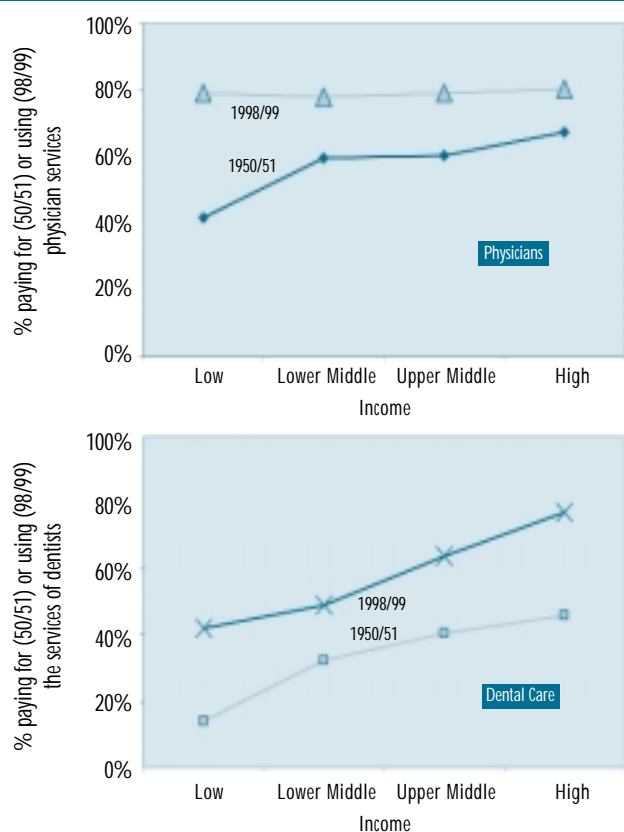
The bad news is that this knowledge is unevenly spread across the country. In Quebec, the province with the highest smoking rate, 6% felt that smoking cigarettes does not cause health problems. Quebec residents were also twice as likely to believe that environmental tobacco smoke is not a health risk as those from Newfoundland, Alberta and British Columbia.

The worst news is that, despite widespread knowledge of the dangers of smoking, over a quarter of Canadians age 12 and up still smoke daily or occasionally, putting them at higher risk for lung cancer, heart disease and other health problems. And significant numbers of young Canadians start smoking each year.

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Changing Times

Percent of households who reported paying for physician services (top) and dental services (bottom) in 1950/51 and percent of Canadians who visited a physician (top) or dentist (bottom) in 1998/99.



Sources: Canadian Sickness Survey (50/51) and National Population Health Survey (98/99), Statistics Canada

Primary Health Care

Primary health care takes place at the first point of contact in the health care system—often in physicians' offices, health clinics and community health centres. It is meant to be the first step in a continuum of health care services.

Then and Now: How Access to Physicians and Dentists Has Changed

Towards a Healthy Future: Second Report on the Health of Canadians reinforced what we have known for some time—low income Canadians are more likely to die early and to suffer more illnesses than Canadians with higher incomes. This is true even after taking differences in age, sex, race and place of residence into account. In fact, as income rises, Canadians have lower risk of illness and longer life expectancies, and they enjoy better health.¹

As a result, one generally expects the need for health care services to drop as income rises.

In 1950/51, before the introduction of universal health insurance, the richest Canadian households were more likely than the poorest households to have paid for physician services or dental care and received more services. In 1998/99, almost 50 years later, Canadians of all income levels are about equally likely to have visited a family doctor in the last year. The same is not true for dentists. With each step up the income ladder, Canadians were more likely to have visited a dentist. Only about 40% of low-income Canadians reported receiving dental services, compared to just under 80% of the most affluent in the 1998/99 National Population Health Survey (Figure 27).

The Situation Today

Family doctors play a central role in our health care system, referring patients on to

other health care providers as needed. In 1998/99, most Canadians (88%) reported having a regular doctor, but patterns varied across the country.

Today, the provinces and territories pay for most services provided by Canadian physicians on a fee-for-service basis. In

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How Doctors are Paid

Estimated percent of active physicians who received 100% of their reimbursement from the province on a fee-for-service basis (as opposed to salary, sessional or mixed payment methods), 1989/90 and 1995/96.*

Province	1989/90	1995/96
Newfoundland	81%	73%
P.E.I.	n/a	92%
Nova Scotia	92%	74%
New Brunswick	n/a	52%
Quebec	68%	62%
Ontario	n/a	94%
Manitoba	52%	47%
Saskatchewan	87%	84%
Alberta	n/a	98%
British Columbia	n/a	92%

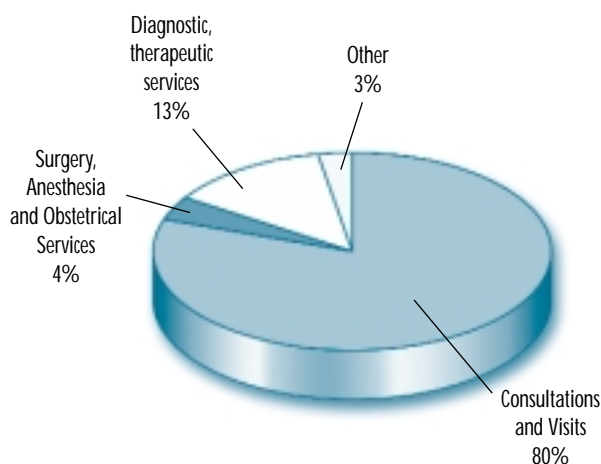
* New Brunswick data are based on the percent of expenditures on physician services, not the percent of physicians. British Columbia and Saskatchewan figures are estimates. In some provinces, many physicians who do not receive all of their remuneration on a fee-for-service basis are still primarily funded using this approach.

Source: Provincial Ministries of Health

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What Doctors Do: Services Provided Under Medicare

In 1995/96, Canadian physicians provided almost 240 million services that were paid for on a fee-for-service basis by provincial insurance programs. The vast majority were consultations and visits.



Source: National Physician Database, CIHI

1995/96, CIHI data showed that provincial insurance plans covered almost 240 million professional services. Each service cost, on average, \$32.51, for a total of \$7.8 billion over the year. Visits and consultations cost an average of \$28.79, compared with \$47.76 for procedures.

Some physicians are paid in other ways. Their compensation comes from salaries, sessional arrangements or a combination of these and fee-for-service payments. These physicians and the services they provide are not comprehensively tracked in all jurisdictions.

For several years, debates about primary care reform have been taking place across the country.² The discussions centre on how to redesign the system to better serve the needs of patients. Central to the debate are questions about how to fund primary care in a way that encourages the development of a continuum of prevention and treatment services, in which a team of caregivers works together to ensure high quality services and outcomes. Who should do what, when, how should they do it and how should they be paid?

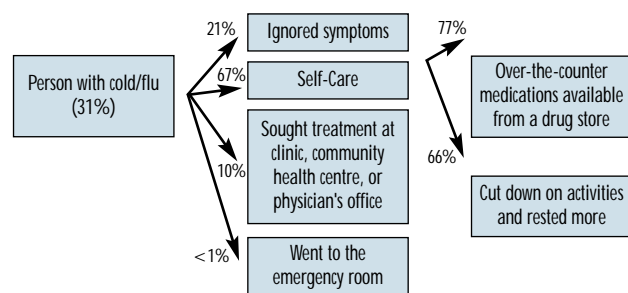
Caring For Ourselves

Canadians don't always seek help from doctors or hospitals when they are sick. For minor problems, we often treat ourselves. For example, 31% of respondents in the 1998/99 National Population Health Survey reported having had a sore throat, cold or the flu in the previous month. When they first developed symptoms, most treated themselves or ignored their condition. If the symptoms persisted, cold and flu sufferers were then more likely to seek outside help (55%), rather than treating themselves (42%), or ignoring the symptoms (3%).

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When Cold or Flu Symptoms Appear

Percentage of Canadians who reported having had a sore throat, cold, or the flu in the previous month and the actions they took when the symptoms first appeared (note: self-care actions total to more than 100% because some people reported multiple responses).



Source: 1998/99 National Population Health Survey, Statistics Canada

Doing What Works: Two Snapshots

Primary care means different things to different people. This section focuses on two specific types of services—screening programs and preventing hospital admissions for patients with chronic health problems.

Catching Disease Early: Pap Smears and Mammograms

The Canadian Task Force on Preventive Health Care weighs the evidence on what should—and should not—be included in regular checkups for Canadians of different ages. The Task Force recommends that women receive regular pap smears upon becoming sexually active (or at age 18) and until age 69. The frequency can be reduced to every three years after two normal test results. In the 1998/99 National Population Health Survey, 77% of women ages 18 to 69 had received a pap smear within the last three years.

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Who Was Least Likely to Have Had a Pap Smear?

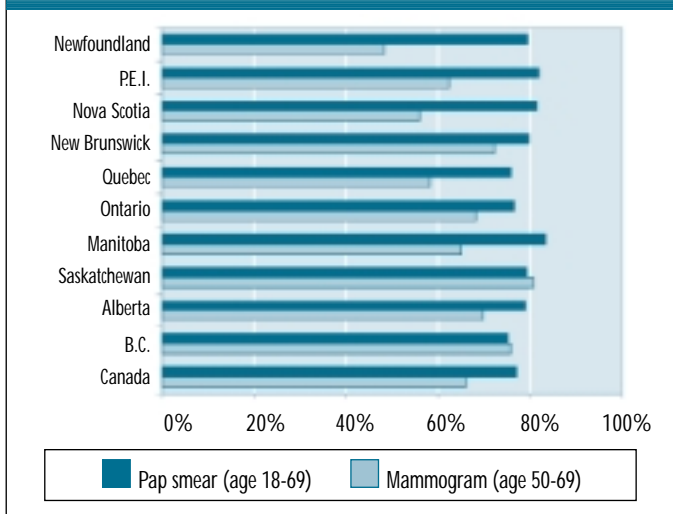
According to the 1998/99 National Population Health Survey, the following groups were least likely to have had a pap smear within the last three years:

- young women (43% of those age 18 to 19 had had a pap smear compared to 56% of those age 65 to 69)
- women without a regular doctor (64% had had a pap smear versus 79% for those who had a regular doctor)
- women with lower levels of education (68% of women without a high school diploma had had a pap smear compared to 81% for those with some university education)
- women with low incomes (71% of women in the lowest income bracket had had a pap smear versus 85% for those with the highest incomes).

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Screening Rates (Pap Smears & Mammograms) Across the Country

Percent of women in the recommended age group who reported receiving pap smears or mammograms within the suggested period in 1998/99.



Source: 1998/99 National Population Health Survey, Statistics Canada

Similarly, clinical examinations and mammography can help detect breast cancer early, when treatment may be more successful. The Task Force recommends screening mammograms every two years for women age 50 to 69.

The 1998/99 National Population Health Survey found that 66% of Canadian women in this age group had a mammogram within the suggested period, up slightly from two years before. Some were served through dedicated mammography centres; others were referred to hospital-based programs by physicians. Women with lower incomes, less education and no regular physician were least likely to have had a mammogram.

Staying Out of Hospital

Some long-term conditions, such as diabetes, asthma and hypertension, can often be managed by patients who take an active role in their care, with the assistance of their physicians and other

health care providers. Hospital admissions are usually not needed, as long as there is timely access to high quality care in the community. Not all hospitalizations are avoidable, but research suggests that higher rates of "preventable admissions" may reflect problems in access to disease prevention initiatives or appropriate primary care.³

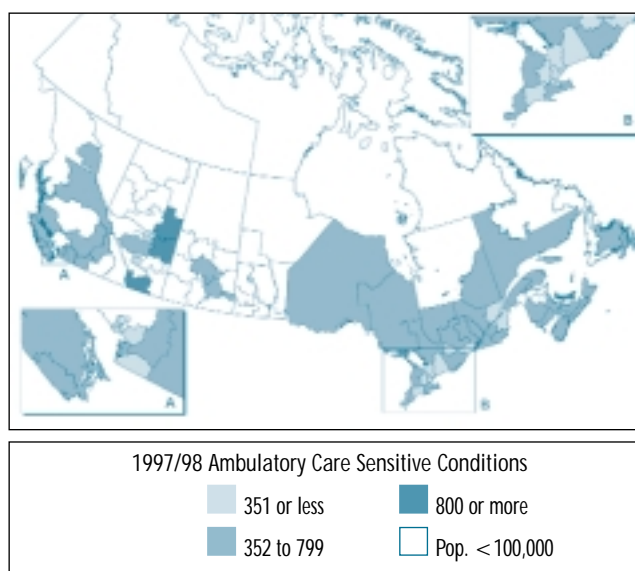
Across the country, there are wide variations in rates of preventable admissions, which are called "ambulatory care sensitive" hospitalizations. As shown in Figure 32, about a quarter of Canada's largest regions, (those with a population of 100,000 or greater) had rates of preventable admissions below 352 per 100,000 population in 1997/98. But a handful of regions had rates of 800 or more per 100,000 population. In part, these differences may reflect variations in disease rates, as well as the availability of community care. Comparable data on the

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Preventable Admissions

Hospitalizations for ambulatory care sensitive conditions, age standardized rate per 100,000 residents of health regions with a population of 100,000 or more in 1997/98.



Source: Hospital Morbidity Database, CIHI

frequency of chronic conditions at a regional level are not available yet. But they are coming soon as part of the new Canadian Community Health Survey.

Other Options: Complementary and Alternative Medicine

Massage therapy, traditional Aboriginal and Chinese medicine, homeopathy and herbal products are examples of healing practices and products that can be used along with (complementary to) or instead of (alternatives for) conventional medical treatment.

Statistics Canada reports that about 2.5 million Canadians visited a chiropractor and nearly two million used the services of other complementary and alternative care providers in 1998/99, about the same proportion as two years earlier. Of the latter, consultations with massage therapists were most common, followed by homeopaths or naturopaths and acupuncturists.

The use of alternative therapies is highest in western Canada. Fewer than 4% of Atlantic Canadians reported having

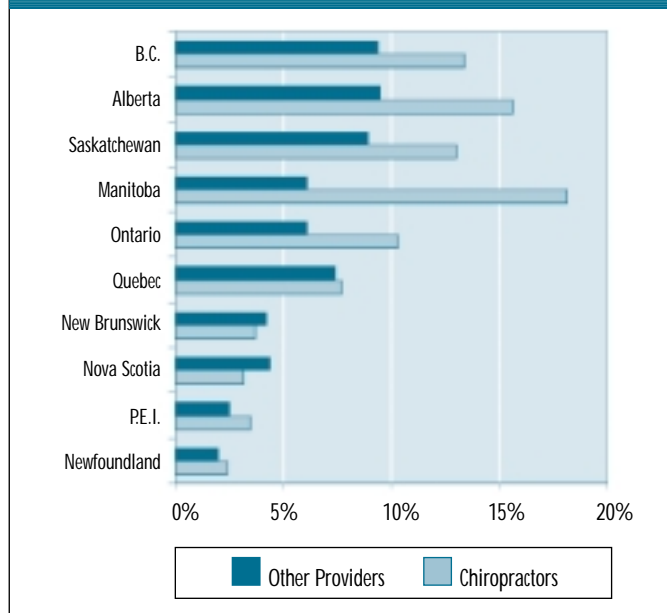
Who is Most Likely to See Complementary and Alternative Care Providers?

According to the 1998/99 National Population Health Survey, the following groups are most likely to see complementary and alternative care providers other than chiropractors:

- women (almost twice as likely as men)
- people with chronic conditions, such as cancer and the after-effects of a stroke
- Canadians with higher incomes and higher levels of education
- Canadians ages 25 to 54

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Use of Complementary and Alternative Providers
Percent of Canadians age 12 and over who reported seeing chiropractors or at least one other complementary and alternative health care provider in the year prior to the 1998/99 National Population Health Survey.



Source: 1998/99 National Population Health Survey, Statistics Canada

visited a chiropractor, compared with 13% or more of those living in each of the western provinces. Similarly, only 4% of Atlantic Canadians used the services of other alternative providers, compared with 7% in central Canada and 9% in western Canada. Data were not available for residents of the territories.

The use of alternative medicines is also common in Canada. For example, 38% of people who treated their cold or flu symptoms themselves reported using herbal or vitamin supplements. Another 26% used home remedies.

Information Gaps: Promotion, Prevention and Primary Care

What We Know

- Use of some prevention services (e.g. pap smears and flu shots) by province.
- Services provided by physicians paid on a fee-for-service basis.
- Rates of selected communicable diseases.
- Reported use of complementary and alternative medicine practitioners.

What We Don't Know

- How many Canadian children receive all recommended immunizations on schedule?
- What services are delivered by physicians who are not paid on a fee-for-service basis and other primary care

providers? How do patterns of care or health outcomes differ based on who delivers services?

- What impact would different types of primary care reform have on costs, outcomes and access to services?
- How do voluntary, community and mutual aid groups contribute to health promotion, disease prevention and health protection efforts?

What's Happening

- A variety of models for the delivery of primary care services are being tested across the country. Many include evaluation plans.
- A national effort to improve tracking and reporting of childhood immunization is under way.
- The Canadian Community Health Survey will measure use of prevention services for regions within provinces, beginning in the fall of 2000.

5. Bricks and Mortar: Inside Canada's Hospitals



Canada's health care institutions are often the most visible symbols of the health care system in our communities. They come in all sizes and shapes—from teaching hospitals to rehabilitation centres, chronic care facilities, nursing homes and outpost nursing stations.

The majority of hospitals offer short-term diagnostic and treatment services for patients with a wide range of illnesses and injuries. Some also have separate groups of beds, wings or buildings devoted to long-term care. Other hospitals specialize in treating particular groups of patients, such as children, mothers giving birth and patients with cancer or psychiatric conditions. Still others are devoted to providing rehabilitation services or long-term care.

The in-patient hospital sector in Canada has been shrinking for more than a decade. CIHI's 1997 Annual Hospital Survey counted over 800 hospitals across the country. Together, they had over 132,000 approved beds, down substantially from five years earlier as was shown in Figure 3.*

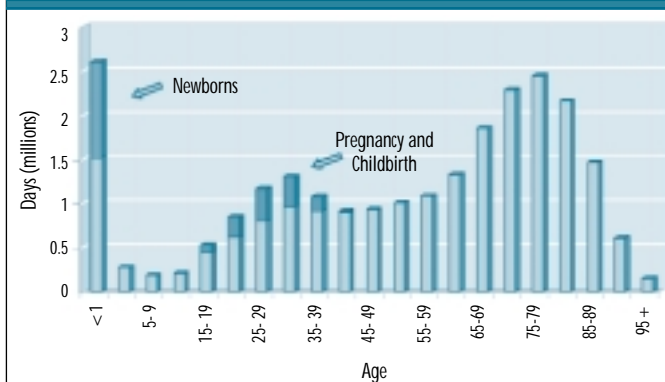
This section focuses on Canada's acute care hospitals, a sector for which more data are available than for many other health care services. It looks at who is using these hospitals and provides snapshots about access to hospital care, appropriateness of obstetrical services, waiting times and hospital efficiency.

Who Uses Canada's Hospitals?

Care for seniors (Canadians age 65 and older) and pregnancy and childbirth account for the lion's share of acute care hospitalizations. In 1997/98, seniors made up 12% of the Canadian population, but they accounted for 31% of acute hospital stays and half of the days in hospitals. Heart and stroke disease, respiratory conditions and digestive problems were the leading causes of overnight hospitalization for Canadians age 65 and over. At the same time, many seniors are healthier than ever before. There is some evidence to suggest that it is not primarily the aging of the population per se, but rather the more intensive manner in which they are being treated that has led to a higher use of health care services among seniors.⁴

* Preliminary estimates based on reporting hospitals. Note: This shift is partly due to a change in reporting practices for some small hospitals.

How Acute Hospital Days Are Used
Millions of inpatient days in acute care hospitals by patient age in 1997/98.



Source: Hospital Morbidity Database, CIHI

Equal Access Under Medicare: Fact or Fiction?

Medicare takes away one factor that affects utilization rates in some other countries—the patient's ability to pay for care. The *Canada Health Act* guarantees universal access to all medically necessary hospital and physician services. How well does this legislation remove barriers to care, for people with low incomes?

A 1997 study by researchers at the Manitoba Centre for Health Policy and Evaluation⁵ found that residents of Winnipeg's poorest neighbourhoods were more likely to see family doctors and to be hospitalized than those in middle or upper income areas.

The same was not true for referrals to specialists. Referrals were about equally common for all income levels. Nor was it true for some types of procedures, such as coronary bypass surgery. Despite higher death rates from ischemic heart disease, bypass surgery rates were 36% lower in the poorest areas in Winnipeg compared with those in the richest neighbourhoods.

Recent studies elsewhere in Canada have shown similar results. For example, a 1999 study by researchers at the Institute of Clinical and Evaluative Sciences in Ontario⁶ focused on care after heart attacks between April 1994 and March 1997. The researchers found that Ontario residents living in lower and middle income areas, despite having similar or worse disease, were less likely to receive cardiac surgery compared with those in the wealthiest neighbourhoods. They were also significantly more likely to die in the year after hospitalization with a heart attack.

How Winnipeg Neighbourhoods Compared

Ratios compared to the wealthiest neighbourhoods in 1992. A ratio that is less than 1 means that the value or rate in the wealthiest neighbourhoods was higher than in the poorer community (e.g., average income in the poorest areas was 30% of that in the most affluent).

	Highest Income	Middle Income	Lowest Income
Income	1.0	0.6	0.3
High school graduation	1.0	0.9	0.8
Overnight hospitalizations	1.0	1.3	1.7
GP services	1.0	1.1	1.4
Referrals to specialists	1.0	1.0	1.0
Bypass surgery	1.0	1.2	0.6
Death rate, age 0-74	1.0	1.4	3.4

Source: Manitoba Centre for Health Policy and Evaluation study

How Babies are Born: Serving Hospitals' Largest Client Group

On average, about 1,000 babies are born in Canada every day, mostly in hospitals. This puts mothers and babies among the most frequent clients of hospitals.

In the vast majority of cases, pregnancy and childbirth are a normal, natural part of life. With this in mind, experts from the Society of Obstetricians and Gynecologists of Canada weighed the evidence and developed a series of guidelines for

appropriate care before, during and after birth.⁷ Among other things, they note that most women, even a large proportion of those who have previously had Caesareans (C-sections), can safely deliver vaginally. In fact, they suggest that vaginal births after C-sections typically carry lower health risks for mothers and require shorter hospital stays than having an optional surgical delivery.

As early as 1985, international experts convened by the World Health Organization concluded that no more than 10 to 15% of mothers (and their babies) could benefit from C-sections.⁸ The last time the Canadian rate was below 15% was 1979. Our rates rose steadily from that year to 1987, then dropped gradually until the mid-1990s. The rates have since begun to creep back up. According to the most recent national data, 18.7% of Canadian hospital births were C-sections in 1997/98, up from 17.7% five years earlier.

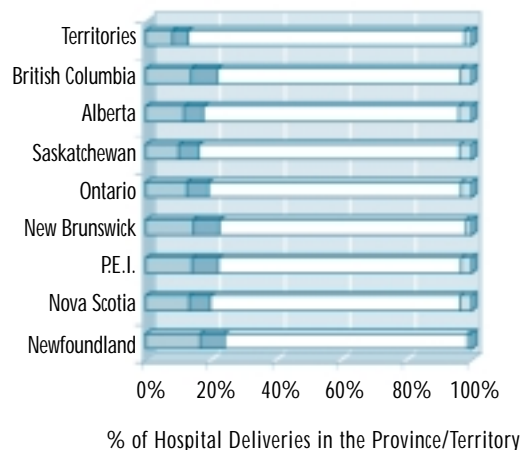
There are pockets of the country where rates of C-sections are both significantly

lower and higher than the national average. Six of the country's largest health regions (with a population of 100,000 or more) had rates below 15% in 1997/98, but in four regions, more than 25% of mothers had C-sections. Rates for these regions are available in the accompanying *Health Indicators 2000* insert.



How Babies Are Born

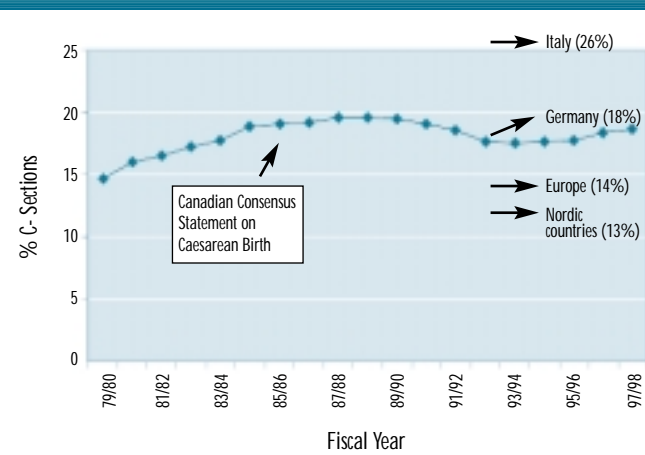
In 1998/99, most Canadian babies born in hospital were delivered vaginally. However, as shown below, C-section rates varied substantially across the country. (Data from Quebec and Manitoba were not available).



Source: Discharge Abstract Database, CIHI

National Caesarean Section Rate

Caesarean sections as a percent of total deliveries in Canadian hospitals between 1979/80-1997/98 and the percent Caesarean deliveries in selected European countries in 1997.



Sources: Health Reports, Statistics Canada (1979/80-1993/94), Hospital Morbidity Database, CIHI (1994/95-1997/98) and Health for All Database, World Health Organization Regional Office for Europe (European data)

Some fundamental questions remain: Why did 24.8% of Victoria mothers have C-sections, compared to 20.2% in Simon Fraser and 21.3% in Vancouver/Richmond? Why were Caesarean rates for residents of the Thames Valley District Health Council area (London area) below 15%, while one in five mothers in Toronto (20.1%) had surgical deliveries?

No one is entirely sure why. But over half the variation among Canada's health regions appears to be explained by how often mothers from the area who have had a previous C-section later deliver vaginally,

a practice more common in communities with lower overall C-section rates. Why this happens—whether because of differences in preferences of mothers, practice patterns of medical staff in the area, or something else—is generally not known.

Hospital Surgery Highs and Lows

Who needs surgery? Ask two physicians and you may get two different opinions. In deciding to operate, surgeons must weigh a wide range of potential risks and benefits. Many things enter into the decision—such as whether there are other treatment options, the risk associated with the operation, as well as the patient's condition, risk factors, preferences and potential to benefit from the surgery. At a regional level, the prevalence of disease, the availability of surgical and non-surgical resources and other factors may also affect how often surgery is performed.

There are wide differences in surgical and other practice patterns across the country. For example, consider the rates of

three common types of hospital surgery whose use has been changing over time—hip and knee replacements and hysterectomies (Figure 38).

Even after adjusting for differences in population age, surgery is much more common for residents of some of Canada's largest health regions (those with 100,000 or more residents) than others. In 1997/98, there was a two- to threefold difference between provincial capital health regions with the highest and lowest rates for these procedures (Figure 39).

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Surgery in Canada's Capital Regions

Age adjusted rate per 100,000 regional residents for surgical procedures in 1997/98 (hysterectomy rates are for women age 20 and up).

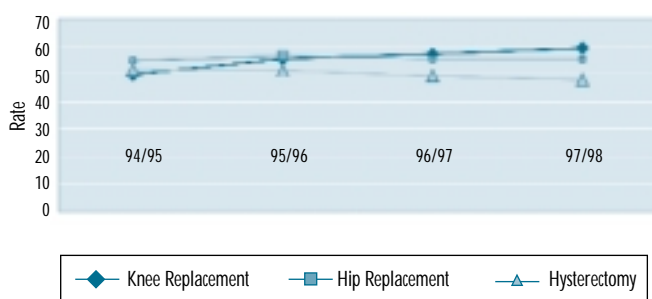
Provincial Capital Region	Hip Replacement	Knee Replacement	Hysterectomy
Saint John's area	31	33	538
Central Nova Scotia	68	87	539
Region 3, New Brunswick	64	84	549
Région de Québec	34	30	519
Toronto	55	56	327
Winnipeg	63	71	342
Regina	61	66	590
Edmonton	63	70	450
Victoria	62	40	531
High/Low Ratio	2.2	2.9	1.8
Canadian Rate	56	60	481

Source: Hospital Morbidity Database, CIHI

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Surgical Trends

Canadian age standardized rates of hospitalization between 1994/95 and 1997/98 where selected surgical procedures were performed (hip and knee replacement rates are per 100,000 population and hysterectomy rates are per 10,000 women age 20 and over).



Source: Hospital Morbidity Database, CIHI

What is the most appropriate rate for a particular community? Are too many people receiving surgery in some regions and not enough in others? Or are residents of some parts of the country more likely to be sick, or to be more severely ill? Why are procedure rates changing? No one knows exactly. But the large differences in rates of surgical procedures do suggest a need to work toward better information about what works best for whom, when and with what risks and benefits.

In some areas, significant strides have already been taken. For example, the Institute for Clinical and Evaluative Science's (ICES) recent comprehensive report *Cardiovascular Health and Services in Ontario* provides a broad overview of heart disease and care in the province.⁹

Researchers found that the burden of coronary disease varied significantly across the province. For instance, people who lived in Ottawa were hospitalized with heart attacks less than half as often as residents of Kent County between 1992/93 and 1996/97. ICES also found that at least one-third of the variations in disease burden between regions of Ontario could be explained by traditional risk factors such as smoking, obesity, inactive lifestyles, high-fat diets, diabetes and high blood pressure.

Patterns of care varied too. Region to region, hospital to hospital, substantial differences were observed in a number of areas, such as the likelihood that a patient would see a specialist within six months after a heart attack and how often life-prolonging beta-blockers were used.

In addition, even after adjusting for risk factors, the probability of dying after a heart attack differed across the province. For example, people living in the area served by the Muskoka, Nipissing, Parry Sound and Timiskaming District Health Council were more likely to have died within a year of having a heart attack than those in the Halton-Peel District Health Council area (risk-adjusted mortality rate of 27.4% versus 20.8%).

Living Longer After Transplants

When a patient's kidneys stop working, there are typically only two possible treatments: long-term dialysis or a kidney

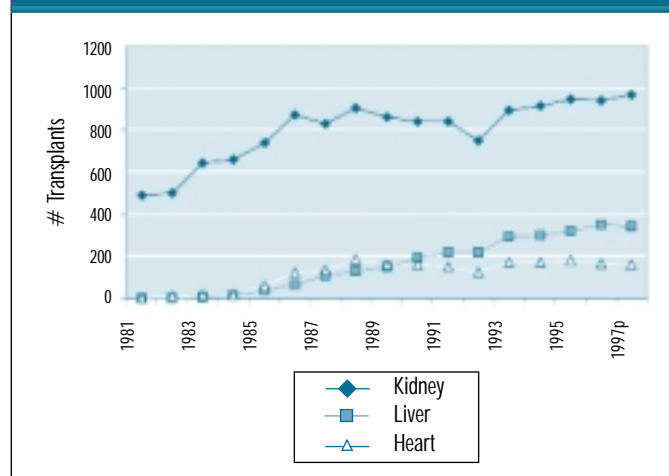
transplant. When the problem is with the heart, liver or lungs, often the only alternative is a transplant.

At the end of 1997, more than 12,000 Canadians were living with functioning transplanted organs. The number of people with transplants increases each year. In 1997 alone, another 1,500 transplants were performed across the country. Kidneys (62%) top the list of single organ transplants, followed by livers, hearts and lungs.

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Growth in the Number of Transplants

Number of selected transplants per million population, 1981 to 1997 (preliminary estimate).



Source: Canadian Organ Replacement Register, CIHI

Thanks to advances in medical technology, greater surgical experience and a better understanding of how to care for patients after surgery, transplant recipients are living longer than ever before. One year after surgery, 86% of patients who received livers between 1992 and 1997 were still alive, compared to 75% of those who were treated between 1986 and 1991. Survival was also better for kidney and heart transplants.

Between 1992 and 1997, survival rates were relatively similar across the country, as shown in Figure 42.

International comparisons are more difficult because of systematic differences in the age, health and other characteristics of organ donors and recipients, as well as in how survival data are collected. Bearing these cautions in mind, one-year survival rates (not adjusted for possible differences in risk factors) for patients who received transplants in Canada and the United States in 1995 and 1996 were quite close. There were some differences—sometimes higher and sometimes lower—in survival estimates for particular groups, but not more than could be explained by random variation.

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One Year Later

Percent of patients receiving kidney (deceased donors only), liver and heart transplants who were alive one year later, by the year of transplant.

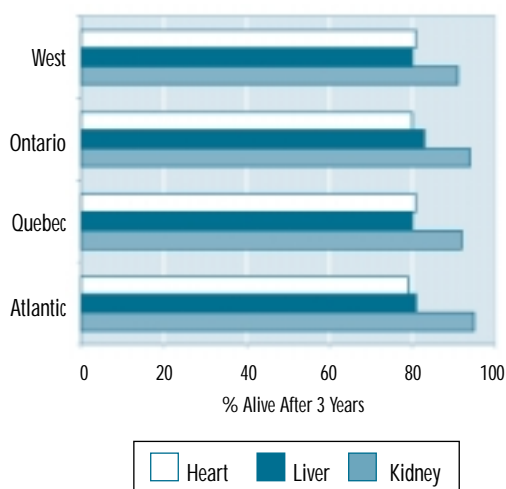
Year of Transplant	Kidney	Liver	Heart
1986-91	95%	75%	80%
1992-97	96%	86%	84%

Source: Canadian Organ Replacement Register, CIHI

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Transplant Survival Across Canada

Patients who received transplants between 1992 and 1997 had relatively similar outcomes across the country. Small differences between regions may be explained by random variation. Estimates are less precise for smaller regions.



Source: Canadian Organ Replacement Register, CIHI

Unfortunately, not everyone can take advantage of the benefits that transplants have to offer. As of December 31, 1998, there were 3,434 patients waiting for an organ transplant in Canada, up 12% from the year before and 88% more than in 1991. In 1998, most (81%) patients were waiting for a kidney.

Many people are waiting for transplants because organ donations are not keeping pace with demand. The number of transplants being done is up considerably (36% from 1992 to 1997), but donations have changed little in the last five years. And donation rates in Canada (14.4 per million population in 1997) continue to fall below those in some other developed countries.

Waiting for Care: How Long and How Often?

Waiting for services such as cancer therapy, cardiac surgery and diagnostic tests has become a major issue across the country. Wait times are affected by a range of factors, including changes in the burden of disease, the supply of health care practitioners, referral patterns and the availability of operating room time or other resources.

Unfortunately, valid comparable data about who is waiting for what, for how long, and the factors that influence waiting are rare. Research teams commissioned by Health Canada to study the issue in 1998 concluded that:

With rare exceptions, waiting lists in Canada, as in most countries, are non-standardized, capriciously organized, poorly monitored and (according to

most informed observers) in grave need of retooling. As such, most of those currently in use are at best misleading sources of data on access to care, and at worst instruments of misinformation, propaganda and general mischief. Where waiting list data are carefully and accurately compiled and routinely monitored, e.g. for cardiac procedures in Ontario or radiation oncology in British Columbia, the public clearly benefits.¹⁰

The problem is compounded by the lack of evidence about when waiting for surgery, chemotherapy or other procedures affects patient outcomes in the long term.

Nevertheless, there are areas where good data are available and better methods of tracking waiting times and sharing comparable information are coming. This report focuses on two areas where data exist today—waiting in the emergency room for a hospital bed and surgery waiting times.

Emergency Room Crowding: Predictable and Preventable?

In January 2000, crowded emergency rooms (ERs) made headlines across the country. As they did last winter. And the year before.

What is happening?

How busy an ER is depends on how many people come to the ER, how sick they are, what happens in the emergency department, the number of available beds in the hospital, the availability of community care and other factors. Patients who need admission end up on stretchers

in hallways of overcrowded ERs when all available beds are full.

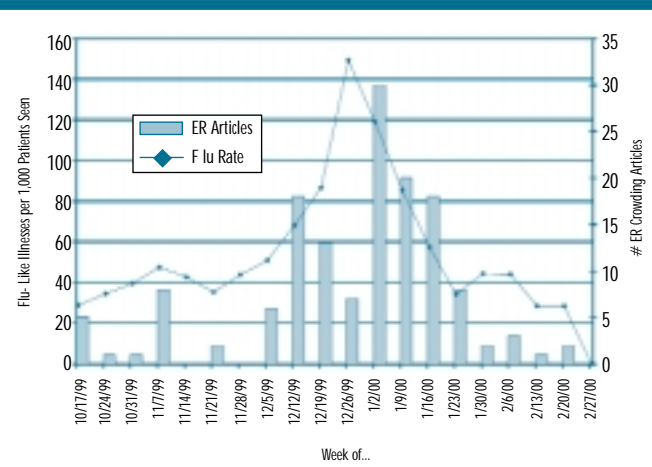
Studies in several provinces confirm that ER visits peak with the winter flu season. For example, a Quebec government report¹¹ published last year found that the average number of visits per month was 6.7% higher in 1998/99 than in 1994/95. The greatest increases were in November, February and March—primarily because of higher levels of respiratory and other lung disease.

Similarly, researchers from the Manitoba Centre for Health Policy and Evaluation tracked seasonal patterns of in-patient hospital use in Winnipeg over more than a decade.¹² The study showed that high pressure points—times when hospital use was much higher than normal—occurred almost every year. For a short but intense period of one to three weeks sometime between December and April, local

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ER Headlines Highest During Flu Season

In the year 2000, the peak rate of reported flu-like illnesses in early January coincided with a flurry of media stories about ER crowding. Stories from a few cities offered a contrast—attributed, in some cases, to successful prevention strategies designed to reduce demands on hospitals. The chart below shows the rate of flu-like illnesses per 1,000 patients seen by physicians and the number of stories on ER crowding appearing in 11 of Canada's 15 largest circulation newspapers.



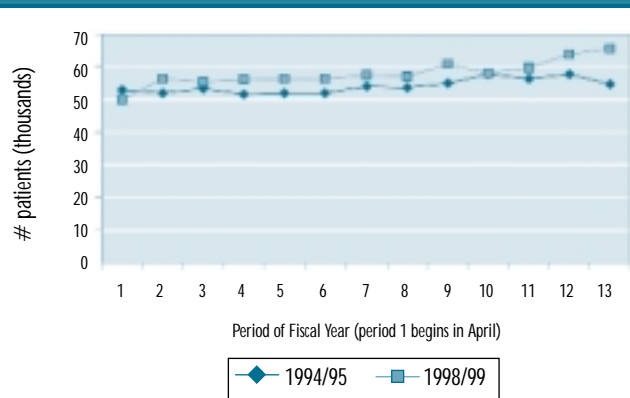
Sources: FluWatch, Health Canada and various electronic clipping services

hospitals were swamped with unusually high numbers of non-surgical patients. Many of the 70 to 80 additional in-patients above typical levels had the flu or a related illness.

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Patterns of Emergency Room Use in Quebec

Thousands of persons received on stretchers in emergency rooms in Quebec, 1994/95 and 1998/99.



Source: Situation dans les urgences en 1999

Similar patterns occur across Canada. Since October 1996, 14 hospitals scattered across the country have tracked ER wait times as part of a national pilot project sponsored by the Canadian Council on Health Services Accreditation. In 1998/99, over half of patients admitted through the ER waited less than two hours for a hospital bed after a health care professional determined that they should be admitted. A small number of patients with long waits pushed the average waiting time higher. But there were clear seasonal patterns. For example, in 1998/99, average waiting times in January and February were over an hour longer than those in the summer months (Figure 45).

Are more beds the answer? Probably not. The Manitoba researchers found similar winter peaks in in-patient hospital use over 11 years, a period that saw 700 hospital beds in Winnipeg close. In the national

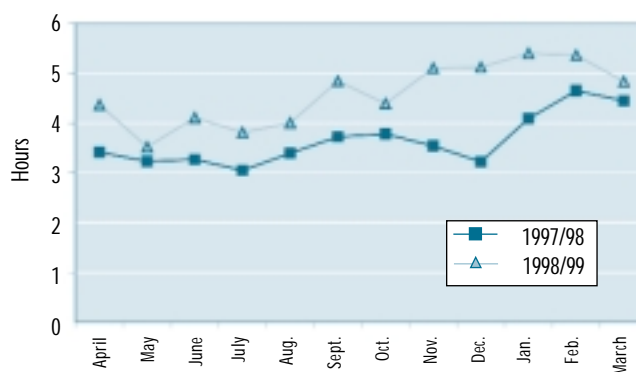
pilot study, in over 85% of cases when someone waited in the ER more than one day for a bed, there was another patient in the same hospital at the same time whom doctors said was well enough to be cared for elsewhere. He or she probably still needed care, but not necessarily in an acute care hospital.

Health authorities are using this type of information to try to reduce demands on ERs in peak times. Early indications seem to suggest that their efforts may be making a difference in some communities. For instance, Manitoba announced a five-point plan to address hallway medicine in November 1999.¹³ The plan included extra hospital beds to meet expected flu season needs, streamlined hospital admission and discharge procedures and expanded flu immunization, home care and other community programs. It still is too early for final conclusions but, in the short-term, these and related efforts seem to have had a positive effect. For example, the number of "alert points"—times when there are 60 or more admitted patients in ERs across

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Waiting for a Bed

Average number of hours patients admitted through the ER waited for a hospital bed in 14 pilot hospitals reporting data from April 1997 to March 1999 (excludes patients with unknown wait times).*



* Based on discharges and deaths between April 1, 1997 and March 31, 1999.

Source: CCHSA Pilot Project, Discharge Abstract Database, CIHI

Winnipeg waiting for medical beds—was lower in December 1999 and January 2000 than in the year before. And Manitoba Health reports that the average number of admitted patients waiting in emergency department hallways was also down. In fact, unlike the year before, on six days in January 2000, there were no patients waiting in ER hallways for an inpatient bed.

As in Manitoba, flu vaccines are a cornerstone of most communities' programs to reduce ER visits. Health Canada recommends annual immunization against the flu for seniors (including those in nursing homes) and high-risk groups. According to the 1996/97 National Population Health Survey, only 51% of Canadians age 65 or older reported having had a flu shot in the previous year. Immunization rates varied considerably from a low of 34% in Quebec to 60% in Nova Scotia and Ontario. Improving information about what's happening in the ER should help to track the results of prevention programs, as well as to better plan for the future.

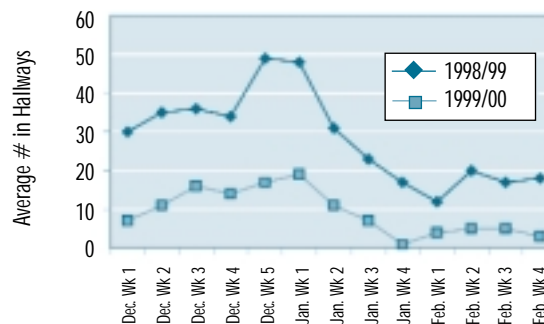
Trends in Surgical Wait Times

There's no such thing as a Canada-wide waiting list for surgery. In most regions, for most procedures, there is not even a single shared list of all patients waiting for care. Nevertheless, there are pockets of information about who is waiting for what—and for how long.

How have waiting times changed in the 1990s? From a patient's point of view, waiting begins when the need for further care is identified. For example, after an assessment by a family physician and referral to a cardiologist, patients with heart problems may then be referred to a

Out of the Hallways

Average daily number of admitted patients waiting in the hallways of Winnipeg emergency rooms in December, January, and February of 1998/99 and 1999/00.



Source: Manitoba Health

surgeon for diagnostic tests and surgery. Recent studies from British Columbia, Manitoba and Nova Scotia have looked at the last part of this process.

In British Columbia, over 30 of the province's largest hospitals regularly report waiting times for a range of surgical procedures to the Ministry of Health and Ministry Responsible for Seniors. Results—by hospital and surgeon—for wait times between when surgery was booked and when it happened are posted on the ministry Web site. Their data show that waiting times vary from hospital to hospital and specialist to specialist.¹⁴

The latest B.C. status report¹⁵ includes data, in most cases to June 1999, for 17 categories of non-emergency surgery. Median waits—the period at which half of all patients wait less time and half wait longer—ranged from 2.4 weeks for vascular surgery to 4.3 months for corneal transplants.* For many types of surgery waits were up, compared to those reported six months before. In most cases, the

* Waiting times for corneal and other types of transplants depend heavily on the availability of appropriate donated tissue or organs.

increases were less than a week. Waits for hip and knee replacements increased the most (4.0 and 3.4 weeks, respectively). Patients receiving certain types of surgery tended to wait shorter periods—one week less for cardiac surgery and 0.7 weeks less for corneal transplants—or about the same amount of time (0.1 weeks less for ophthalmological and cataract surgery).

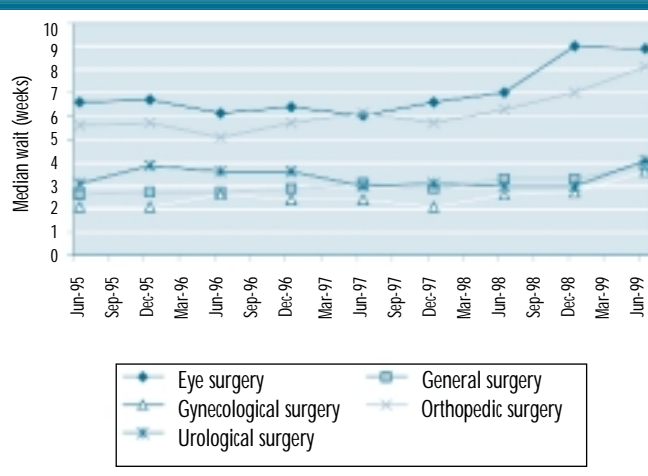
The Manitoba researchers¹⁶ used provincial Medicare claims to track the time between when the decision to perform a procedure was probably made and the surgery itself. They focused on eight non-emergency surgical procedures (such as gallbladder removal, tonsillectomy and carpal tunnel release), two coronary procedures (bypass surgery and angioplasty), and cataract surgery. They found that waiting times for elective surgery were relatively stable between 1992/93 and 1996/97. In fact, waits for three of the procedures were down by four to seven days. Only two were longer—waits for varicose vein removal increased by 13 days and carpal tunnel release grew by eight days.

The Nova Scotia study¹⁷ used similar methods to track waiting times for the top 100 elective procedures (ones that treat conditions that pose no immediate risk to the patient) between 1992/93 and 1995/96. They found that the total number of procedures performed in the province had grown and waiting times had generally dropped. Average waits for orthopaedic surgery, joint replacement, hysterectomies and gallbladder removal were down. But the average wait for cataract surgery increased.

The Fraser Institute looks at physician opinion on expected wait times, rather than observed patient experience. It

How Long B.C. Patients Wait

Median number of weeks that patients in British Columbia waited between the time surgery was booked and performed for the five most common categories of surgery reported, 1995 to 1999.



Source: Provincial Waiting List Trends, B.C. Ministry of Health and Ministry Responsible for Seniors

surveys physician specialists about waiting list size, how long new patients could expect to wait for treatment, and opinions about 'reasonable' waiting times.

Specialists responding to the latest survey (23% of those asked),¹⁸ generally felt that more Canadians were waiting for treatment (up 13% between 1997 and 1998), and that waits were getting longer. Exceptions to the perceived general increases were reported in some provinces. Comparisons are difficult because of the differences in definitions used. But for many types of surgery, it appears that expected waits reported prospectively through the Fraser Institute study in 1998 were significantly longer than observed waits reported retrospectively by hospitals for the same period of time.

More about Waiting Times for Cardiac Care

Understanding cardiac care waiting times—like those for other types of care—is very complex. First, simply knowing how long someone waits is not sufficient. It is also essential to know how great the risk is of developing serious problems while waiting, including death or a heart attack. This risk is not the same for all patients. Even for those patients who have a very low risk while waiting, there can still be a major impact on their lives, such as the inability to work or to care for other family members. Thus, we need to better understand the risk that patients face while waiting and the effects of waiting on quality of life.

Second, waiting times can be defined differently. For example, the starting point of the wait for bypass surgery can be defined as the date of cardiac catheterization or as the date of

consultation with a cardiac surgeon. Neither definition is "correct." There are advantages and disadvantages to each. Nonetheless, these differences have to be reconciled if meaningful comparisons between jurisdictions are to be made.

Third, it is misleading to look at waiting times for just one procedure in isolation. For example, the extent to which angioplasty facilities are used to treat emergencies such as heart attacks will affect their availability to treat elective angioplasty patients. At the same time, some of the patients treated by emergency angioplasty will thereby avoid the need for bypass surgery, influencing waiting times for surgery. Because the use of emergency angioplasty is not uniform across the country, wait times for angioplasty and bypass surgery have to be considered jointly as well as separately.

Finally, although there is some information available about wait times for specific procedures (such as cardiac catheterization, angioplasty and bypass surgery), these represent only a portion of the total wait from the patient's perspective. For instance, we also need to know how long a patient with cardiac symptoms may wait to see their family physician, for a referral to a cardiac specialist, for preliminary tests and for other services (Figure 49).

In an effort to collect information on how many people are waiting and for how long, physicians and health care planners have set up cardiac registries in several provinces. These projects include the British Columbia Cardiac Registry, APPROACH (Alberta Provincial Program on Outcome Assessment in Coronary Heart Disease), Cardiac Care Network (CCN) in Ontario working with the

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Untangling the Evidence

The results of the wait time studies seem to be contradictory, but the differences may be explained by the methods and data sources used. For instance, a recent review by the Canadian Health Services Research Foundation¹⁹ suggests that the provincial reports that use data on observed waits may be a better measure of actual experience, while physician opinion surveys may better reflect how satisfied providers are with access times. The table below outlines some of the differences between the waiting time studies discussed above.

Study	Data Source	General Finding	Wait(s) Measured	Time Period
B.C.	Actual patient experience reported by hospitals	Waits generally stable to end of 1998; tended to rise in next 6 months	Surgery booking to surgery	June 1995 - June 1999
Manitoba	Actual patient experience from Medicare claims	Little overall change in waits	Specialist visit to surgery	1992/93 - 1996/97
Nova Scotia	Actual patient experience from Medicare claims	Waits generally down, except for cataract surgery	Specialist visit to surgery	1992/93-1995/96
Fraser Institute	Survey of physician opinion on expected waits	Waits generally up	GP visit to specialist to treatment	1991-1998

Institute for Clinical Evaluative Sciences (ICES), central and eastern Quebec (Laval), Improving Cardiovascular Outcomes in Nova Scotia (ICONS) and the Halifax node of the Society of Thoracic Surgeons database. A group of investigators from these registries have begun to work together, as part of an initiative known as the Canadian Cardiovascular Information Network, to enhance our understanding of cardiac waiting times and to address the issues described above. At present, meaningful comparisons of wait times between provinces are not feasible. This type of information is expected to emerge as the group works toward common definitions and enhanced data collection.

Changing How Hospitals are Used

Across the country, managers in the health care system are looking for ways to deliver care that is both cost-effective and appropriate to patient needs. Two areas of particular interest are the length of hospital stays and the use of appropriate alternatives to acute hospital care.

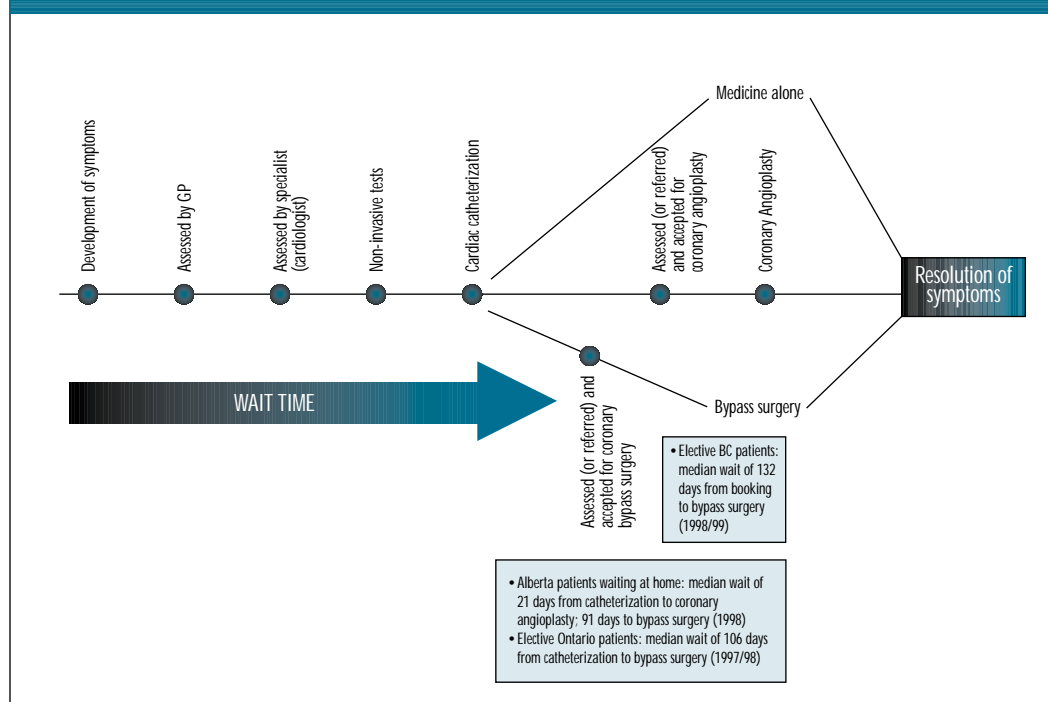
Leaving Hospital Earlier

One of the ways that acute care hospitals measure efficiency is by comparing expected versus actual lengths of stay. Expected lengths of stay take into account the types of patients served, their ages and whether they have complications or other conditions that may make their care more complex.

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Understanding Waiting Times for Cardiac Care

The figure below shows a typical path that patients may travel from development to resolution of cardiac symptoms, as well as sample wait times for patients in British Columbia, Alberta and Ontario based on the methods of measuring wait times in use in the year of data collection. Because of differences in time periods and definitions, these wait times are not directly comparable.



Source: B.C. Cardiac Registry, APPROACH and the Cardiac Care Network with ICES

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On average, residents of some regions of the country have had consistently shorter hospital stays for several years. For example, residents of several health regions in British Columbia, Alberta and Ontario had average stays that were shorter than expected in both 1997/98 and 1998/99. Expected stays for Quebec and Manitoba (except Winnipeg) could not be calculated from available data.

Alternatives to Hospital Care

How can the health care system continue to improve the use of available funds? One way is by making sure that cost-effective alternatives to overnight stays in hospital exist for patients who can be cared for elsewhere.

In some areas, significant progress has been made. For example, thanks to new surgical techniques, better pre- and post-surgery planning and other advances, day surgery programs are expanding across the country. Ontario hospitals performed more than one million day surgeries for the first time in 1997/98, and numbers rose again the following year.

Nevertheless, there is still room for improvement. For example, every year thousands of patients across the country are admitted for conditions that experts say may not have needed hospitalization. These include procedures such as tonsillectomies, which can often be done on an outpatient basis, and physicians admitting patients (such as young children with croup) for observation. Most of these patients needed care, but not necessarily a hospital bed.

Rates of possibly unnecessary hospitalizations vary considerably across the country. In 1998/99, they tended to be

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The Length of Hospital Stays

Average versus expected lengths of stay in 1998/99 for Canadian health regions with at least 100,000 residents (data not available for Quebec regions).



1998/99 Average Number of Days Over/Under Expected



Source: Discharge Abstract Database, CIHI

lowest in urban regions, such as Hamilton-Wentworth; Edmonton and the Quinte, Kingston and Rideau District Health Council. Canada's more remote regions often showed higher rates, possibly because alternatives to hospital care are not as available in rural and remote areas.

i

When it is time to go home...

For many patients, follow-up care must be arranged before they can leave the hospital. Discharge planners have the job of helping patients get the support they need to go home or to move easily on to other types of care. Only Ontario hospitals systematically track whether or not these specialists were called in for particular patients. As might be expected, 1998/99 data from CIHI show that discharge planners were more likely to be involved with patients who were ultimately transferred to other health care facilities, such as chronic care, rehabilitation, nursing homes and home care, than those who did not receive these services.

Information Gaps: Hospitals, including Emergency Rooms (ERs)

What We Know

- The types of patients who receive inpatient care in hospitals, how long they stay and what procedures they receive.
- Financial information (including funding sources and how hospital dollars are used) from reporting hospitals.
- Numbers of emergency visits, clinic visits and other services provided by reporting hospitals.
- Selected local and provincial data on ER wait times and services.
- Studies on waiting times for selected surgical procedures in some provinces.

What We Don't Know

- What types of services are provided in emergency departments and outpatient clinics? How well is the changing mix of hospital services meeting the needs of the community?
- Are waiting times in the ER and for other types of hospital care within recommended guidelines?

- To what extent is ER and inpatient capacity adjusted seasonally? To what extent can it be?
- To what extent are patients and their families across the country satisfied with the hospital care they receive?
- How do patients fare after they leave hospital?

What's Happening

- An updated set of information standards for inpatient care in acute care hospitals will be introduced shortly.
- Researchers continue to develop and report on innovative new indicators to track hospital performance.
- Province-wide standardized information on emergency department services is already available in Alberta; reporting in Ontario starts in mid-2000.
- More hospitals are starting to track and share waiting times for patients admitted to hospital through the ER.
- The Western Canada Waiting List Project aims to develop clinically valid and useful tools to help manage waiting lists for cataract surgery, children's mental health services, general surgery, hip and knee replacements and MRI scanning.
- Efforts are under way in several provinces to improve the reporting of hospital financial data.

6. Care that Continues Beyond Hospital

When the need for acute care is over, many patients need a variety of follow-up and long-term services, provided through rehabilitation facilities, home care, chronic care facilities and other programs.

Compared to acute care hospitals, relatively little information is reported by other health care facilities and programs. There are areas, however, where data are beginning to be available. This section showcases four such areas—rehabilitation care, long-term care, home care and palliative care.

A Glimpse Inside Canadian Rehabilitation Facilities

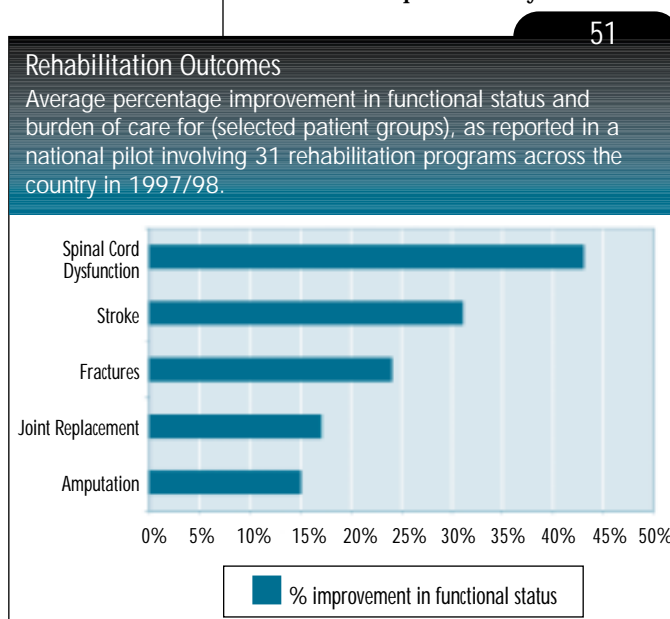
After a stroke, amputation, joint replacement or other event, many patients need help to regain and improve basic skills, such as walking, climbing stairs, talking and remembering. Helping people recover these types of skills is the goal of rehabilitation services offered through general hospitals, specialized facilities, home care and other programs.

From August 1997 to July 1998, 31 rehabilitation programs scattered across six provinces tracked information on the effectiveness of their services as part of a national pilot run by CIHI. The study involved more than 2,000 adult patients

who needed help for problems such as strokes, fractures or dislocations, joint replacements, amputations, brain injury, spinal problems and other conditions.

What did they find?

During the pilot, some groups—such as patients with amputations—started off with relatively high levels of functioning on admission, and they generally saw small gains during their stay. Others, such as those with spinal problems, made greater improvements. Per day spent in the program, patients with hip and knee replacements had the highest average increases in functional status.



Source: National Rehabilitation Reporting System Pilot, CIHI

Rehabilitation services also aim to help patients reduce the severity of their pain and the impact that it has on their daily lives. A substantial number of those reporting pain on admission saw improvements during inpatient rehabilitation treatment. Patients with joint replacements, fractures or dislocations, and spinal cord injuries were most likely to have reductions in pain.

After a successful pilot, a Canada-wide rehabilitation prototype reporting system is being implemented in April 2000. Hospitals in eight provinces have indicated an interest in participating.

When a Health Care Institution is Home

In 1996/97, 185,000 seniors lived in health care institutions, about the same number as in 1994/95 according to the National Population Health Survey. Half (51%) were recent arrivals, having moved into the institution in the previous two years. Most of the new residents (59%) moved from private households.

Seniors who moved to health care institutions from home tended to be older (54% age 80 and over) than all Canadian seniors. They were also more likely to have new diagnoses of certain chronic conditions which often require higher levels of regular care. For example, almost two-thirds of seniors who moved into institutions between 1994/95 and 1996/97 reported a new diagnosis of incontinence, stroke, Alzheimer disease, or other dementia. Only 8% of those who remained in private households experienced the onset of these conditions over the same period.

Deaths in health care institutions also contributed to the changes in the

institutionalized population. Like other seniors, heart disease was the leading cause of death (29% for residents). Cancer deaths were less common than in the general population (8% for seniors in institutions, compared with 25% for all seniors). In contrast, deaths from Alzheimer disease and other dementia were more than twice as common among institutionalized seniors (9%) as among all Canadian seniors (4%).

Complex Continuing Care in Ontario

In Ontario, patients with on-going chronic conditions who need hospitalization may receive what is called "complex continuing care." Since July 1996, nurses and other care providers have been asked to complete standardized clinical assessments for all patients in complex continuing care beds, whether in acute care hospitals or free-standing facilities.

These assessments report that over 27,000 patients were admitted to complex continuing care in 1997/98 and 1998/99 combined. A typical patient was over 70 years of age, female and widowed. Almost three-quarters of patients were transferred from acute care hospitals.

The vast majority of complex continuing care patients had at least one chronic condition. Many had more. In 1997/98, over a quarter of patients had experienced a stroke.²⁰ Allergies, hypertension, arthritis and cancer also occurred in more than 15% of patients. In addition, just over two thirds of all patients had mild to very severe cognitive impairment. Newly admitted patients had consistently less disability and cognitive impairment than existing residents.

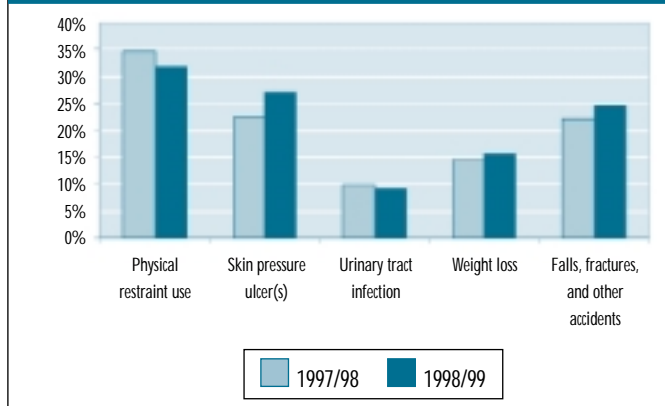
While some patients spend several years in complex continuing care, most have relatively short stays. Thus, only about 11% of new arrivals in 1997/98 and 1998/99 stayed long enough for a first quarterly assessment (between 75 and 105 days after admission). Of these patients, about half had left the facility by the end of the second year. Thirty-six percent of these patients died in the institution. Others were transferred to nursing homes (21%), hospitals (14%), or went elsewhere.

Through the assessments, information is also collected on several indicators of the quality of care. For example, it is possible to track measures such as how often trunk, limb or chair restraints are used or how many patients have skin pressure ulcers, urinary tract infections, pain, weight loss or falls. While these conditions cannot be avoided for all patients, higher levels may suggest possibilities for quality improvement. In some cases, difficult judgements must be made. For example, physical restraints may be used for safety reasons, but there is some evidence that they may lead to pressure ulcers, bone and muscle loss, constipation, incontinence and other health problems in the long term.²¹

A study of a range of quality indicators for patients in 1997/98²² found that no single region of the province or facility performed better or worse on all indicators. However, the researchers found that there may be more potential quality problems in facilities in western Ontario, and fewer in facilities in central Ontario (Toronto, York, Durham and Peel) compared with other regions of the province. Recent analysis shows similar results for new long stay patients in both 1997/98 and 1998/99.

How New Patients Fare

Percent of new complex continuing care patients in Ontario in 1997/98 and 1998/99 (preliminary estimates) with first quarter assessments completed within 75 to 105 days of admission who have various characteristics.



Source: Ontario Chronic Care Patient System, CIHI

What differences in quality of care exist and why do they occur? Is it because of differences in the types of conditions being treated or in how ill patients are? Or is it a result of variations in patterns of care? The assessment data and other research are beginning to provide some answers in Ontario. Saskatchewan has plans to implement a similar tool in 2001. Other provinces have also indicated interest in collecting similar data.

Everything Old is New Again: Home Care in Canada

Decades ago, almost all care was home care. Friends and family cared for people who were sick. If you were able to afford a doctor's fees, he or she would treat you at home. Very few patients were admitted to hospitals.

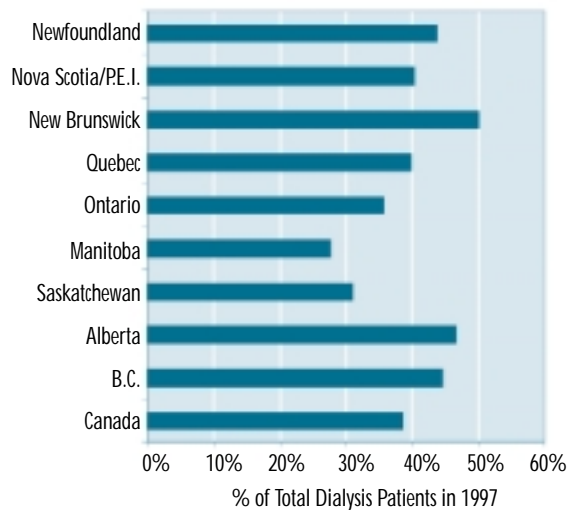
While care in the home for serious and long-term illness is still not as common as it once was, there is growing interest in

alternatives to institutional care. Public funding for province/territory-wide home care began in the 1970s and 1980s. Many of today's home care services used to be provided in acute and long term care institutions. Home care allows some patients to recover at home and fills gaps between the services that a client needs and the help his or her family and friends can provide. Some types of medical care, such as dialysis, are also now frequently provided at home (Figure 53).

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Home Dialysis

Some types of medical care, such as dialysis, are now routinely provided in patients' homes. In 1997, almost 4,700 Canadian dialysis patients (39%) received their treatments at home, but the proportion varied across the country.



Source: Canadian Organ Replacement Register, CIHI

Public home care programs include client assessment, case coordination and management, nursing services and home support, such as Meals-on-Wheels, help with bathing and dressing, homemaking and respite services. Some programs also offer physiotherapy, occupational therapy, oxygen therapy, specialized nursing and other services.

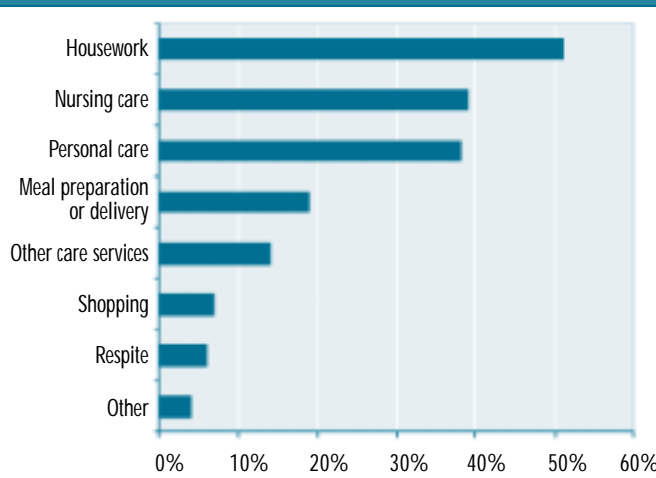
Who Uses Home Care?

Estimates of the number of clients served by provincial/territorial programs vary. The latest data (1998/99) from Statistics Canada's National Population Health Survey based on self-report data suggest that provincial home care programs serve about 400,000, or 12%, of Canada's seniors. Use of home care is less common for younger Canadians. Estimates from Health Canada and provincial/territorial sources tend to suggest somewhat higher use rates.

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A Helping Hand At Home

Percentage of publicly-funded home care clients ages 65 and over reporting use of a range of services in 1998/99.



Source: National Population Health Survey, Statistics Canada

Who Uses Publicly Funded Home Care?

According to the 1998/99 National Population Health Survey:

- Home care use increased with age: fewer than 1% of adults under 65 received public home care compared with 20% ages 80 to 84, and 37% age 85 and up.
- People who needed help with activities of daily living—such as preparing meals and housework—were six times more likely to receive care than those who did not need this kind of help.
- People in the lowest two income brackets were much more likely to receive public home care than those in the highest income bracket. In part, this is likely due to income-tests that most provinces apply for home support services.
- People in rural areas were just as likely to receive home care as city-dwellers.

The Cost-effectiveness of Home Care

When does it make sense to provide care in the home? Until recently, little has been known about how Canadian home care costs and outcomes compare to institutional alternatives. That is starting to change.

Studying Home Care in Saskatchewan

When can hospital patients go home and what difference does it make to them, their families and the health care system? These are questions that researchers at Saskatchewan's Health Services Utilization and Research Commission (HSURC) set out to answer in a recent study.²³

They found that many hospital patients could be going home sooner—and still have about the same health outcomes and satisfaction with their care as if they had finished convalescing in hospital. To reach this conclusion, HSURC researchers followed almost 800 Saskatchewan patients and their caregivers who volunteered to participate in the study while in hospital or when they started home-based intravenous drug therapy or palliative care. For patients in hospital, the study focused on the period after they had recovered sufficiently not to need full acute hospital care.

What difference did it make whether convalescing patients were cared for at home or stayed in the hospital? The simple answer is \$830 per case. That's the typical difference between what it cost patients, their at-home caregivers and the health care system to provide follow-up care in hospital rather than at home with home care. The main potential source of savings is early discharge: on average, patients in

the study stayed in hospital one-and-a-half days longer than clinically necessary.

Perhaps more important is what did not change. Whether patients recovered at home or in the hospital, their health outcomes and satisfaction with the care they received were about the same. So, too, was the amount of time that unpaid caregivers spent helping them. However, out-of-pocket costs for patients who received home care and their caregivers were slightly higher (\$11 on average, per case).

British Columbia's Study of Continuing Care

A 1999 study focused on a different group of home care clients.²⁴ Instead of cases where home care was a substitute for overnight stays in hospital, it looked at residents of British Columbia who needed "continuing care", whether at home or in other settings, such as long term care units or nursing homes.

The study tracked home care, residential care, drugs, fee-for-service physician visits and hospital care costs paid by the provincial government for one year before and three years after initial assessment of continuing care clients in 1987/88, 1990/91 and 1993/94. Like the Saskatchewan study, the British Columbia research found that home care can mean cost savings. The average bill for clients supported at home was half of that for clients in residential care facilities such as nursing homes. Savings were highest for clients whose health was stable at home. At the other extreme, costs were higher in home care for clients who died. Future studies will also look at costs to patients and their at-home caregivers.

Families and Friends: Providing Care for Older Canadians

Caring for older people can be very rewarding. It can be very stressful. It is certainly very important.

A recent Statistics Canada study found that some 2.1 million adult Canadians provided support for one or more seniors in 1996.²⁵ Eighty per cent of caregivers were family members including spouses or partners, adult children, siblings and extended family members. Most caregivers (61%) were women. They were most likely to help around the house, with personal care and to provide emotional support. Home maintenance and repair was more often done by male caregivers. On average, female caregivers spent 5 hours a week; men spent an average of 3 hours a week.

Those surveyed reported both pros and cons to caregiving. On the positive side, many caregivers felt that it was a chance to strengthen relationships with the care recipient or to 'give back' to either the person they were caring for or to life in general. On the other hand, some caregivers experienced guilt, disrupted sleep patterns and changes in social activities, including feeling that they did not have enough time for themselves. Some also reported lost income from delaying employment and education and extra expenses.

For both men and women, competing demands—such as full-time employment and a variety of care responsibilities—increased the social, psychological and economic impact of caregiving on their lives.

Informal support is an important part of health care in Canada. A better understanding of who provides care and

how it affects them helps to make sure that we recognize the important role that friends and families play in the care of seniors, and that we support caregivers in their role.

Care for the Dying

To heal sometimes. To relieve often. To comfort always.

— Mission of the Edmonton Palliative Care Program

Palliative care programs across the country aim to comfort and support individuals with life-threatening illnesses and their families. They provide a range of services from help with managing pain, nausea, breathing difficulties, bowel and bladder problems and other symptoms to programs that help patients, families and friends cope with death.

Palliative care is provided in a range of settings—at home, in nursing homes, in hospitals and elsewhere. Whether in a hospital or at home, end-of-life care typically relies on both health professionals and volunteers.

There is little comparable data on palliative care programs across the country. Pockets of information do, however, exist. For example, CIHI data show that there has been a steady increase in the number of patients treated in palliative care units in British Columbia's acute care hospitals.* In 1998/99, these units provided care during more than 4,000 hospitalizations, up by about 800 from 1995/96. About two-thirds of the time, the patient being cared for died in hospital. Most of the others were discharged home, with or without home care. In-hospital deaths occurred on average 16.6 days after admission.

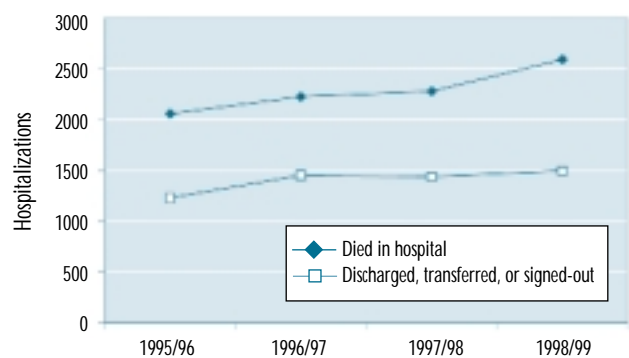
* Only British Columbia mandates the reporting of this information through the Hospital Discharge Abstract Database.

Patients who were discharged alive had an average hospital stay of 15.0 days. Those who were eventually transferred to chronic care facilities tended to have the longest length of stay, 38 days on average.

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Palliative Care in BC Hospitals

Number of hospitalizations in palliative care units in acute care hospitals in British Columbia, 1995/96-1998/99.



Source: Discharge Abstract Database, CIHI

Information Gaps: Care Beyond Acute Care Hospitals

What we know

- Numbers of hospital and residential care beds by type.
- Various estimates for the number of clients receiving publicly funded home care and some early indications regarding the cost-effectiveness of home care services.
- Local and provincial examples of information about rehabilitation and continuing care services and their outcomes.

What we don't know

- Who receives publicly funded home care across the country?
- Who is seeking and paying for private rehabilitation, continuing care and home care services? Who is providing this type of care? How is it monitored for quality? How satisfied are patients?
- How do home care outcomes compare with those in institutions? How do costs to the public sector, patients and families differ depending on whether or not patients receive services at home? How do effects on patients and their friends and family vary depending on where

care is delivered?

- Are there people who could benefit from services outside of hospital who aren't receiving them? For example, are there patients in hospital who would be as well or better off at home, with the appropriate help?
- How often do patients who are dying receive palliative care services? How can we measure outcomes and appropriateness for this type of care?

What's happening

- In 1999, the federal government's Health Transition Fund announced funding for 28 provincial and national home care pilot and evaluation projects.
- CIHI is convening home care stakeholders to discuss the possibility of collecting and sharing comparable home care data across the country.
- Ontario is tracking standardized data about services delivered to patients in complex continuing care and their outcomes. Other provinces have expressed an interest in collecting similar information.
- Consensus has been achieved on a national standard for data about rehabilitation services. Several facilities are likely to begin collecting and reporting data in 2000.

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Part C: Future Directions

For several years, debates about the health care system have been regular front-page news. Some say it needs more money, while others say we are spending in the wrong places. Some believe that the system needs to be privatized; others argue the reverse. How should we plan for the future?

7. In Conclusion

How healthy is our health care system? Compared to many other countries, Canada has a better information base to draw on for answers (Figure 56). This report begins to bring together what we know about the health care system across the country. In doing so, it complements more detailed reports by CIHI and a variety of other groups that focus on specific areas—such as care for injuries or heart disease—and particular regions of the country. Together, these reports aim to help identify areas where we are doing well and those where we need to take a closer look, as well as to encourage sharing, learning and collaboration.

The evidence in this report highlights some of the significant changes in our health system over the past decade. Regional health authorities have been introduced in most provinces; hospitals in many parts of the country have closed beds or merged; public sector spending has fluctuated; the number of Canadians with private health and dental insurance has grown; and health professionals are aging, to name but a few of the changes.

On the positive side, life expectancy is up across the country (although substantial differences remain within and between communities) and the vast majority of patients report being satisfied with the care that they personally receive. In addition, the evidence suggests that many parts of the system are working well. For example, some diseases—like polio—have been eradicated in Canada and others appear to be on their way out; survival after transplants is increasing; and there are examples of situations where available evidence is being used to respond to changing health care needs.

At the same time, there is evidence that public confidence in the system as a whole has eroded over the past decade and that aspects of the health system require improvement. For example, there are large unexplained differences in how often Caesarean sections and other types of procedures are performed across the country; Canada's organ donation rates continue to fall below some other countries; and there are pressure points and stresses in some other parts of the system.

Many questions about our health care system also remain unanswered (Figure 57). For example, how does the health care system—overall and for particular types of care—affect the health of Canadians? How long do patients wait for different types of care and what happens when services are not accessible in a

timely fashion? How well does the health care system respond to needs across the country?

In part, questions remain because health and health care are very complex. Our understanding of how various factors—

including health care—affect health and the relationships among these factors remains imperfect. As well, the compilation of comparable data on health and health care at sub-provincial levels is relatively new, and many gaps in data remain. So, in this first pan-Canadian report, the data, information and explanations are preliminary. There is not—nor can there currently be—a single, comprehensive measure of the performance of the health care system across the country.

A fuller understanding depends on a broader range of timely, reliable and comparable data on satisfaction, access, appropriateness, efficiency, effectiveness and safety (and perhaps other areas as well). These data will need to cover not just hospitals but also home care, nursing homes, pharmaceuticals, mental health and addictions, public health, primary care and other services. Better financial and human resources data are also needed.

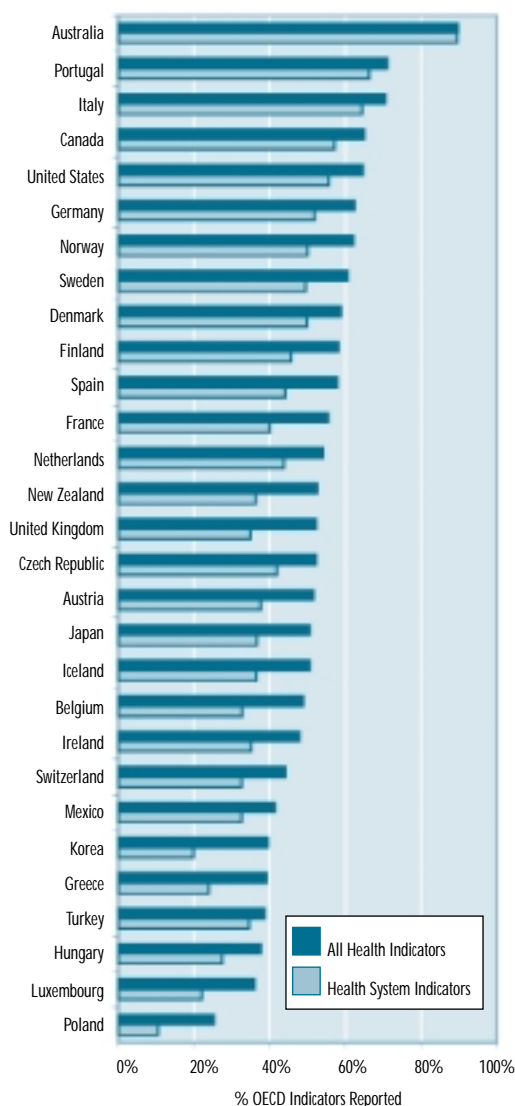
We have already started to take steps in this direction across the country (see Figure 57). For example, the Advisory Council on Health Infrastructure estimated that \$1.5 billion a year would be spent in Canada on information technology in the health field by the year 2000.¹ Much of this will go towards information infrastructure at provincial, territorial and regional levels. The federal government has also recently announced increased funding for health information activities.

These investments are substantial, but progress takes time. For instance, a new international standard for classifying diseases and related health problems has been ready for implementation since 1993. This standard is more comprehensive and up-to-date than those currently in use in Canada. The Federal/Provincial/Territorial

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Who Knows What: How Canadian Health Data Compare

While most countries can tell you how many babies were born and how many people died in a particular year, other types of national health statistics may or may not be available. The chart below shows what percentage of the more than 800 health indicators compiled by the Organization for Economic Cooperation and Development (OECD) member countries reported in 1999. Canada fares relatively well (ranking 4th overall), but is still well behind 1st place Australia.



Source: OECD Health Data 99

Conference of Deputy Ministers approved its adoption in 1995, but implementation of a Canadian version of the international standards will not begin until 2001.

Nevertheless, there is general agreement that decisions about the management and future of Canada's health care system should be based on solid evidence. Similarly, many health care providers agree that individual and collective decisions about health protection, prevention, promotion and illness treatment need to be based on proven practice guidelines. Continued progress will depend on everyone's active participation and support—from members of the public to health care providers, managers and politicians.

Looking Ahead

Even before the ink dries on the year 2000 report, planning is already underway for future reports. We intend to use feedback from the public, health professionals and others to make improvements. Consultations about priorities for filling information gaps started in March 2000. And we continue to track emerging health research and data sources. Please help us to make sure that future reports better meet your needs by completing the enclosed feedback sheet or emailing ideas to healthreports@cihi.ca.

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Towards Improved Reporting

The Canadian Council on Health Services Accreditation has identified eight dimensions of quality health services. The chart that follows defines these dimensions and provides examples of existing measures, reporting challenges and some highlights of new and extended initiatives that will improve future reporting.

Dimension of Health System Performance	Existing Measures	Reporting Challenges	New and Emerging Initiatives
Acceptability How well the health system is meeting our expectations	<ul style="list-style-type: none"> • Periodic polls of providers and the public about overall satisfaction with the health system • Local hospital and other patient satisfaction surveys 	<ul style="list-style-type: none"> • Broad surveys are costly and complicated • Possible response bias in how providers and the public respond to satisfaction surveys 	<ul style="list-style-type: none"> • Province-wide survey on patient satisfaction with acute hospital care conducted across Ontario in 1999; repeat planned for 2000 • Satisfaction identified as an indicator to be tracked in other provinces
Accessibility Whether or not we can obtain the services we need at the right place and time	<ul style="list-style-type: none"> • Use of prevention services (e.g., pap smears and flu shots) by province • Studies on who has access to particular types of care • Local/provincial waiting time data • Average distance travelled to hospital 	<ul style="list-style-type: none"> • When does waiting start (e.g., from onset of symptoms, visit to a physician, surgeon's decision to operate)? • Potential trade-offs between timely access and efficiency at the local level • How long is too long? Evidence on when waits affect outcomes is often scarce • How often do Canadians seek health care outside the country? Why? • Reliable measurement of unmet needs is difficult to do 	<ul style="list-style-type: none"> • New national survey will measure use of prevention services for regions within provinces • Several provinces now tracking waiting times in emergency for patients admitted to hospital • National effort to compare cardiac surgery wait times • Western Canada waiting list project is developing tools to manage wait lists in new areas (e.g., child mental health services)

Dimension of Health System Performance	Existing Measures	Reporting Challenges	New and Emerging Initiatives
<p>Appropriateness Whether care is relevant to our needs and is based on established standards</p>	<ul style="list-style-type: none"> How often mothers receive caesarean sections and vaginal births after previous caesareans Special studies on appropriateness of particular types of care (e.g. prescription drug use by seniors) 	<ul style="list-style-type: none"> Consensus on best health practices does not exist in all areas Best practice standards change as knowledge grows and new techniques are developed Appropriateness may depend on patient circumstances, as well as clinical factors Neither research nor guidelines define "gold standard" utilization rates for most procedures 	<ul style="list-style-type: none"> Saskatchewan and possibly other provinces will shortly join Ontario in tracking the appropriateness of continuing care services Review underway of how measures of hospital care appropriateness might be used nationally
<p>Competence The knowledge and skills of caregivers are appropriate to the care that they are providing</p>	<ul style="list-style-type: none"> Selected local/provincial records of continuing education, quality assurance activities, disciplinary proceedings, etc. 	<ul style="list-style-type: none"> Quality assurance activities tend to be conducted locally Care is often provided by teams with complementary skills 	
<p>Continuity How services fit together - coordination, integration, and ease of navigation</p>	<ul style="list-style-type: none"> Percentage of Canadians who have a regular family doctor by province Local/provincial information on how often formal plans are made for the care of patients after they leave hospital 	<ul style="list-style-type: none"> Absence of well-tested continuity measures in many areas Bringing together information from many service providers is difficult 	<ul style="list-style-type: none"> Research projects recently funded to develop and test continuity measures Increasing experience with integrating disparate information within privacy and confidentiality guidelines
<p>Effectiveness How well services work and how they affect our health</p>	<ul style="list-style-type: none"> Measures of how well we prevent disease or its progression (e.g., infectious disease rates and preventable hospitalizations) Research reports on clinical effectiveness of some treatments Long term survival for dialysis and transplant patients 	<ul style="list-style-type: none"> Comparing outcomes with and without interventions (except for short term, focused, clinical trials) Defining effectiveness when the best possible result is to slow the progress of a disease or to allow a patient to die in comfort Separating the impact of health services from other factors that affect our health 	<ul style="list-style-type: none"> Effort underway to develop information on survival rates for various types of cancer across the country Many rehabilitation facilities will begin reporting data for comparison purposes in April 2000 National consensus processes to identify indicators for home care, mental health and addictions, prescription drug utilization, and other areas are underway Major reports (e.g. from ICES) and cardiac registry data offer new information regarding cardiac care outcomes
<p>Efficiency Achieving best results at lowest cost</p>	<ul style="list-style-type: none"> Actual versus expected length of stay in hospital Hospital stays for patients who may not have needed admission Comparative data on the cost of physician services Local/provincial costs of particular services 	<ul style="list-style-type: none"> Distinguishing the efficiency of system components from the efficiency of the system as a whole Connecting events and costs to health impacts, often several years later Tracking costs to patients and families 	<ul style="list-style-type: none"> Several provinces have recently started projects to improve the quality of hospital financial data National standard guidelines for financial and statistical reporting are being adapted to meet the needs of health regions and cancer agencies

Dimension of Health System Performance	Existing Measures	Reporting Challenges	New and Emerging Initiatives
Safety Minimizing potential risks of a health environment or service	<ul style="list-style-type: none">• Hip fractures while in health care facilities and in the community• Workers' compensation claims for health sector workers• Some local info on needle stick injuries, etc.	<ul style="list-style-type: none">• The ideal outcome is that something harmful <i>does not</i> happen (e.g., how do you know if the health system successfully prevented the event or if it would not have happened anyway?)	<ul style="list-style-type: none">• Researchers from 3 provinces recently participated in an international study that compared injury rates for nurses (among other things)• \$43 million for accountability reporting by Health Canada on its health protection and other programs announced in 1999

Endnote Part C

1. Advisory Council on Health Infostructure. (1999). *Canada Health Infoway: Paths to Better Health. Final Report of the Advisory Council on Health Infostructure*. Ottawa: Health Canada.

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