3.0 Total Health Expenditure by Use of Funds

Health dollars are used to purchase health care goods and services, to provide capital investment, to administer public and private insurance plans as well as public health programs, and to fund research. These uses are grouped into nine major categories (uses of funds) throughout most of the national health expenditure data series. Data table series A.3.1 to A.3.3 reports national estimates for 13 categories.

Hospitals make up the largest component of health care spending, accounting for 29.5% of total health expenditures in 2011. Drugs represent the second-largest share (16.5%), while physicians make up the third-largest share (14.6%) (Figure 15).

Figure 15: Total Health Expenditure by Use of Funds, Canada, 2011 (Billions of Dollars and Percentage Share)

Note
See tables C.1.1 and C.1.2 and Section 8.1 for definitions.

Source
National Health Expenditure Database, Canadian Institute for Health Information.
Figure 16 presents the public and private shares of the nine major uses of funds at the national level in 2011. Hospitals and physicians are financed mainly by the public sector, while drugs and other professionals are financed primarily by the private sector.

Note
See tables C.1.1, C.2.1 and C.3.1 and Section 8.1 for definitions.

Source
National Health Expenditure Database, Canadian Institute for Health Information.
Figure 17 presents how shares of health care expenditure have changed over time for the three largest spending categories: hospitals, physicians and drugs. In 1975, hospital spending accounted for almost half of total health spending. There has been a notable decreasing trend in hospitals’ share of spending over the years. However, hospital spending still takes the largest share of total health care funding; this trend has been stable since 2001. In contrast, drug expenditures’ share has been increasing since the mid-1980s, and it has accounted for the second-largest share since 1997, after hospital spending. The growth of drug spending has been stable since 2004. Physician spending as a percentage of total health expenditure edged down in the early 1990s. From 1991 to 2005, physician spending’s share dropped from 15.2% to 13.2%. Since 2006, physician spending as a share of total health care spending has increased.

Note
See Table A.3.1.1.
Source
National Health Expenditure Database, Canadian Institute for Health Information.
Figure 18 shows per capita spending on hospitals, drugs and physicians in Canada. In 2011, Canadians spent $1,710 per person on hospitals, $956 on drugs and $848 on physicians. Forecasts for 2013 are $1,773, $977 and $889 per person on hospitals, drugs and physicians, respectively.

**Figure 18: Total Expenditure per Capita, Selected Use of Funds, Canada, 1975 to 2013**

![Graph showing per capita expenditure on hospitals, drugs, and physicians from 1975 to 2013, with data points for 2011 and forecasts for 2013.](image)

**Note**
See Table C.1.3.

**Source**
National Health Expenditure Database, Canadian Institute for Health Information.
3.1 Hospitals

In 2011, Canadians spent $59.0 billion on hospitals, accounting for 29.5% of total health expenditure. Hospital spending is forecast to be $61.0 billion in 2012 and $62.6 billion in 2013, representing 29.6% of total health expenditure for both forward-looking years.

Public-sector spending accounts for more than 90% of total hospital expenditure. Provincial and territorial governments are by far the major financing sources of hospitals (89.9%), as shown in Table 4.

| Table 4: Hospital Expenditure Summary by Sector of Finance, Canada, 2011 |
|--------------------------------------|----------------|----------------|----------------|----------------|
|                                      | Provincial/Territorial | Other Public* | Private        | Total          |
| Total Expenditure ($ Millions)       | $53,034.8            | $725.8        | $5,216.9       | $58,977.4      |
| Expenditure per Capita               | $1,538.0             | $21.0         | $151.3         | $1,710.3       |
| Share of Total                       | 89.9%                | 1.2%          | 8.9%           | 100.00%        |

Notes
* The other public category includes federal government direct, municipal governments, workers' compensation boards and the Quebec Drug Insurance Fund.


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

From the mid-1970s to the early 1990s, as shown in Figure 19, the growth rate in public-sector hospital expenditure was slightly lower than that in public-sector health expenditure. In the mid-1990s, public-sector hospital expenditure decreased, while public-sector health expenditure continued to grow, albeit at a very diminished pace. Hospitals were particularly affected at that time by fiscal restraint measures, as federal and provincial/territorial governments focused on reducing or eliminating budget deficits. This was a period of hospital consolidation, restructuring and bed closures. There was systematic shifting from inpatient to outpatient care, especially to day surgery procedures and ambulatory clinics in hospital settings. These measures resulted in a sharp fall in the hospital share of public-sector health expenditure. Over the last 11 years, the two growth rates have been similar and the hospital share of public-sector health expenditure has been relatively stable.
Hospital Spending Cost Drivers

In the context of the health care cost drivers project, public-sector hospital spending was analyzed with a focus on the most recent 10 years for which comprehensive data was available (1998 to 2008). The analysis used the common analytical framework consisting of price effects, population growth and aging, as well as other effects.²

The estimated average annual growth rate for public-sector hospitals in this decade was 6.7%, which can be broken down as 2.8% for price effects (as measured by Statistics Canada’s GDP deflator), 1.0% for population growth, 1.0% for population aging and 1.9% for other effects.

Price inflation has also been a major factor in the growth of hospital costs.
The health care sector in general is labour intensive, and hospitals are no exception. Compensation constitutes 60% of total hospital costs, and the single largest component of the workforce in hospitals is nurses. Compensation of the hospital workforce has also grown faster than compensation in non-health sectors. Increases in hospital employees’ wages have exceeded increases in the Industrial Composite wage rates and the health and social sector component reported in Statistics Canada’s Survey of Employment, Payrolls and Hours. The hourly paid hospital employees wage index increased by an average of 3.4% per year between 1998 and 2008. As for general wage costs in the health sector, between 1998 and 2008, nominal hourly wages grew at an average annual rate of 3.1% in the health and social assistance sector, compared with 2.5% in the general economy. This could be due, in part, to the increased demand for health professionals in hospitals.

Other effects include the volume and mix of services and the effects of technology and innovation. These factors are difficult to estimate explicitly in the hospital sector, since there have been myriad changes in models of care during the last decade. Some of these changes have tended to reduce costs (for example, the shift from inpatient to ambulatory care) while others have tended to increase costs (for example, higher average resource requirements for inpatient care).

The following issues will affect hospital expenditure trends in the future. The first three can be seen as cost drivers, while the fourth suggests that administrative action to limit the effects of cost drivers may be more difficult in the future:

- Hospital inflation outpacing general inflation
- Growing impact of technological changes
- Expansion of hospital services, such as hip and knee replacements and diagnostic imaging
- Limited opportunities for further cost savings from shifting care from an inpatient to an outpatient setting
3.2 Drugs

Retail sales\textsuperscript{vi} of prescribed and non-prescribed drugs together constituted the second-largest category of health expenditure in 2011, at $33.0 billion. Spending on drugs is forecast to have increased by another 2.1% in 2012, to $33.7 billion, and by 2.4% in 2013, to $34.5 billion.

Prescribed drugs amounted to 84.6% of total expenditure on drugs in 2011 (Figure 20), of which 36.3% is attributed to the public sector and 48.3% to the private sector.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure20.png}
\caption{Drugs by Source of Finance and Type, Canada, 2011 (Billions of Dollars and Percentage Share)}
\end{figure}

\textbf{Notes}
Non-prescribed drugs include over-the-counter (OTC) drugs and personal health supplies (PHS). See tables A.3.1.1, A.3.2.1 and A.3.3.1.

\textbf{Source}
National Health Expenditure Database, Canadian Institute for Health Information.

\textsuperscript{vi} The drug category does not include drugs dispensed in hospitals and, generally, in other institutions. These are included in the categories of hospitals and other institutions.
As shown in Figure 21, the private sector accounted for 79.5% of expenditure for prescribed drugs in 1975. This share decreased to 52.4% by 1992 and has remained relatively stable since. In 2013, it is expected to be 58.4%.

Figure 21: Prescribed Drug Expenditure, Private-Sector Share, Canada, 1975 to 2013

Notes
See tables A.3.2.1 and A.3.3.1.
The spike in private prescribed drug spending observed in 2010 is due to the redesign of Survey of Household Spending (SHS) by Statistics Canada in 2010. See Section 8.0: Methodological Notes for further details.

Source
National Health Expenditure Database, Canadian Institute for Health Information.
Private prescribed drug expenditures are split between households (out of pocket) and private health insurance. As shown in Figure 22, private health insurance accounts for a bigger share, and its overall trend is to increase over time. The share of out-of-pocket expenditure decreased from 44.5% in 1988 to 40.4% in 2011.

![Figure 22: Private Prescribed Drug Expenditure, Shares by Source of Finance, Canada, 1988 to 2011](image)

Note
The spike in households’ (Out of Pocket) prescribed drug spending observed starting from 2010 is due to the redesign of Survey of Household Spending (SHS) by Statistics Canada in 2010. See Section 8.0: Methodological Notes for further details.

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

Drivers of Retail Prescription Drug Spending

Over the past two decades, pharmaceuticals have been one of the fastest-growing components of health system spending in Canada. However, between 2007 and 2009, drug spending grew more slowly than hospital spending, physician spending and total health care spending. In 2011, CIHI released a report looking at factors that influenced retail prescription drug expenditure in the latest 10 years.3

The study examined the cost drivers of retail prescription drugs between 1998 and 2007, the latest year for which data was available. During this period, the average annual growth rate was 10.1%. Increased volume of use and changes in the mix of treatments being used were the largest contributors, accounting for average annual growth of 6.2% and 2.0%, respectively. Both volume and mix effects were due in part to changes in treatment guidelines, increased disease prevalence and the uptake of new drugs.

vii. It should be noted that the drug cost drivers report used multiple data sources to examine overall drug spending. For further details on the data sources, see its appendices A and B.
Population growth and aging had a more modest impact on spending during the study period, each accounting for average annual growth of 1.0%, while price changes did not have a significant role.

Cholesterol-lowering drugs, cancer drugs and immunosuppressants accounted for roughly one-third of overall growth in drug spending; the growth of cancer drugs and immunosuppressants was due in part to the uptake of newer biologic drugs. Trends in drug development suggest that these classes may continue to drive spending in the years to come. Although these therapeutic categories historically accounted for less than 10% of all approved drugs on the market, they account for 20% of drugs approved in the past decade and nearly 30% of drugs under clinical development today.

Some cost savings may also be available in the future due to the increased availability of generic drugs. In 2009, drugs whose patents were set to expire between 2010 and 2014 accounted for nearly $8.7 billion in wholesale purchases. This was equal to more than one-third (38.2%) of all wholesale spending on prescription drugs in Canada.

In addition to a high number of generic products recently coming, or about to come, to market, there has been a trend recently for public drug programs to regulate generic prices as a percentage of the equivalent brand name product (these prices are often applied by private drug programs as well).

### 3.3 Physicians

Physician services constituted the third-largest category of total health expenditure in 2011, at $29.3 billion, representing 14.6% of total health expenditure. In 2013, this category is forecast to have grown by 3.6% from 2012 to reach $31.4 billion, reflecting 14.8% of total health expenditure.

Public-sector expenditure on physicians has remained above 98% of total physician expenditure since 1975. Public-sector physician health expenditure per capita in Canada was $837 in 2011. Forecasts for 2012 and 2013 are expected to be $856 and $877 (Figure 23), with growth rates of 2.3% and 2.5%, respectively.

As Figure 23 illustrates, public-sector physician spending as a percentage of total health expenditure declined from 1992 to 2004. This share increased from 13.0% in 2005 to 14.4% in 2011.

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viii. Households account for almost all private spending for physician services. Insurance for supplementary charges to patients for medically necessary services is discouraged under the Canada Health Act.
Physician Spending Cost Drivers

Physician expenditure in Canada has increased steadily since 1975, with the exception of a few years during the 1990s. It was one of the fastest-growing categories of health expenditure in the last seven years (except 2010), outpacing growth in spending on hospitals or drugs. CIHI presented the results of an analysis of physician cost drivers in 2011. This report focused on the period 1998 to 2008, the most recent 10 years for which comprehensive data was available. The key points from the analysis are summarized below:

- Total public-sector spending on physicians increased at an average annual rate of 6.8% between 1998 and 2008.
- Physician fee increases (average annual increase of 3.6%) were the main cost driver during this period, accounting for approximately one-half of annual growth in expenditure.
- Physician fees have grown faster than wages for other health and social services workers.
- Population growth and aging accounted for combined average annual increases of 1.6% in expenditure.
- Physician supply per 1,000 Canadians grew more rapidly from 2004 to 2008, despite the relatively low supply level in Canada compared with that in other OECD countries.
A number of factors identified in the study have the potential to affect future trends in expenditure for physicians’ services.

- Increases in physician fees have been above rates of inflation. Many provinces have multi-year contracts with physicians.
- Utilization increased at accelerated rates between 2003 and 2008. Higher expenditure per physician combined with an increasing physician supply could have added to these rates of growth in the few years following 2008.
- The scope of practice of non-physician health professionals is changing. Governments are examining whether other professionals (such as pharmacists or nurse practitioners) can complement physician services.

### 3.4 Other Professionals

The broad category of other professionals\(^\text{ix}\) includes care primarily provided by dental and vision care professionals. The category of other professionals accounted for $19.5 billion, or 9.8%, of total expenditures in 2011, and has maintained the highest percentage of private spending of all the major categories (91%).

In 2011, total per capita health expenditure on dental services in Canada, including the public and private sectors, was $346 (Figure 24). The private sector, which makes up the largest component of spending on dental services, grew annually at an average rate of 4.7% from 2000 to 2011. Private spending reached $325 per person in 2011, reflecting 57.3% of total expenditure on other professionals.

During the same period, total per capita spending on vision care grew at an average annual rate of 3.8% to reach $126 in 2011, which represents 22.3% of total other professionals spending.

Expenditures on dental services grew faster than those on vision care in the last decade. From 2000 to 2010, the average annual growth rate for dental services in Canada was 5.2%, while for vision care it was 4.3%.

\(^{ix}\) Care provided by nurses in hospitals is included in hospital expenditures.
Figure 24: Dental and Vision Care Services Expenditure, Total per Capita, Canada, 1975 to 2013

Note
The decreases in dental and vision care services spending observed starting from 2010 are due to the redesign of the Survey of Household Spending (SHS) by Statistics Canada in 2010. See Section 8.0: Methodological Notes for further details.

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

CIHI’s Health Personnel Database shows that between 2000 and 2011, the number of dentists and dental hygienists increased by 48.0%, from 32,182 to 47,643; this growth rate was almost four times that of the Canadian population. Growth in the number of optometrists, from 3,584 to 5,062, more than tripled the growth rate of the Canadian population.
Dental care and vision care are the major discrete categories of expenditure in the private sector for other professional services (Figure 25). The remaining subcategory (other) includes professionals such as chiropractors, massage therapists, physiotherapists, podiatrists and psychologists.

**Figure 25: Professionals Expenditure by Source of Finance and Type, Canada, 2011**
*(Billions of Dollars and Percentage Share)*

- **Private Sector, $17.8; 91.0%**
- **Public Sector, $1.7; 9.0%**
- **Dentists, $11.2; 67.3%**
- **Vision Care, $4.0; 20.6%**
- **Other, $2.6; 13.1%**
- **Dentists, $0.7; 3.7%**
- **Vision Care, $0.3; 1.7%**
- **Other, $0.7; 3.6%**

**Note**
See tables A.3.2.1 and A.3.3.1.

**Source**
National Health Expenditure Database, Canadian Institute for Health Information.
As shown in Figure 26, dental care accounted for 71.6% of private-sector expenditure for other professionals in 1975. This share is expected to decrease to 61.7% in 2013. The share of vision care in the private sector for other professional services is forecast to increase from 19.9% in 1975 to 23.3% in 2013.

Source
National Health Expenditure Database, Canadian Institute for Health Information.
For dental services, the shares of private insurance and of household (out-of-pocket) spending were almost equal in 1988. The share of household spending decreased to 40.8%, and that of private health insurance increased to 59.2%, in 2011 (Figure 27).

**Figure 27: Private Dental Expenditures, Shares by Source of Finance, Canada, 1988 to 2011**

Note
The decrease in dental expenditures observed starting from 2010 is due to the redesign of the Survey of Household Spending (SHS) by Statistics Canada in 2010. See Section 8.0: Methodological Notes for further details.

Source
National Health Expenditure Database, Canadian Institute for Health Information.
3.5 Other Institutions

In 2011, the category of other institutions, which includes nursing homes and residential care facilities, accounted for 10.4% of total health expenditures, or $20.8 billion. Other institutions’ share of total health expenditure is forecast to be 10.5% in both 2012 and 2013.

Other institutions’ health expenditure per capita increased during the period from 1975 to 2013 (Figure 28). It was $49 in 1975, increased more than tenfold to $602 in 2011, and is forecast to be $620 in 2012 and $632 in 2013. The annual growth rate was 2.8% in 2011 and is expected to be 2.9% in 2012 and 1.9% in 2013.

![Figure 28: Other Institutions Health Expenditure per Capita, Canada 1975 to 2013](image)

**Note**
See Table C.1.3.

**Source**
National Health Expenditure Database, Canadian Institute for Health Information.

Public expenditure is the main source of finance for other institutions. In many provinces, public responsibility is split between provincial and/or regional authorities; funding is often provided by both health and social services departments. In 2011, the public share of other institutions was 70.9%.
Despite the growth trend in spending on other institutions, the public-sector share of total other institutions expenditure is expected to drop to 69.6% in 2013 from 75.5% in 2000 (Figure 29).

Figure 29: Public-Sector Other Institutions Expenditure as a Percentage of Total Other Institutions Expenditure, Canada, 2000 to 2013

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

3.6 Administration

Prior to 2005, NHEX included a category of public health and administration in public-sector expenditure estimates. A study published in June 2002 examined the feasibility of breaking out the category into separate components for public health expenditure and administrative expenditure. A complete review of provincial estimates was carried out during the feasibility study to create separate subcategories for public health and certain public and private administration costs. The review identified two key factors that limit the degree of comparability of estimates from public sources and therefore are responsible for significant variation between the estimates of some provinces.

These factors are the following:

1. The degree of provincial/territorial detail for certain items in the public health subcategory was quite variable. Levels of detail for administrative costs also vary from province to province in public sources.

2. In the absence of a consistent reporting framework, the ability to produce consistent inter-provincial/-territorial comparisons is limited.
Results of the review were presented in the 2005 edition of National Health Expenditure Trends. Following consultation with the NHEX Expert Advisory Group, the original category of public health and administration was redefined and separated. The data tables were revised back to 1975.

Administration includes infrastructure costs to operate health departments, as well as prepayment administration (the administrative expenses of providing health insurance by governments and private health insurance companies). Administrative expenses for non-insured services are included under the relevant category of service. For example, administrative costs of operating hospitals are included under the hospital category, and administrative costs of operating long-term care programs are included under the other institutions category.

In 1975, administration accounted for 2.9% of total public-sector expenditure and 2.5% of total private-sector expenditure. The public- and private-sector trends have differed over time. While the public-sector share gradually declined to 1.8% in 2011, the private-sector share rose to 6.4%.

3.7 Public Health

NHEX captures public health spending by governments and government agencies and includes expenditures for items such as food and drug safety, health inspections, health promotion activities, community mental health programs, public health nursing, measures to prevent the spread of communicable disease and occupational health to promote and enhance health and safety at the workplace. The decision to broaden the definition of public health beyond the ambit of health promotion, disease prevention and health inspection is consistent with the definition of prevention and public health services used by the OECD in its manual, A System of Health Accounts (SHA). The SHA is the framework that Canada’s health accounts are based on.

In 1975, public health accounted for 3.3% of total expenditure. Growth in this category has generally been higher than in other categories throughout the series. During the period when governments practised policies of retrenchment in health care spending, particularly from 1992 to 1996, growth in public health was at least double the growth in total health expenditure. This relative difference resulted in the share of total expenditure increasing to 5.2% in 2011. The share is expected to be 5.2% in 2012 and 5.1% in 2013 (Figure 30).
3.8 Other Health Spending

In 2011, other health expenditures accounted for $12.0 billion, or 6.0% of total health expenditure. In 2012 and 2013, it is expected that other health spending will have grown by 2.0% and 2.1%, respectively.

The subcategory with the greatest impact on the category of other health spending is health research, which accounted for 1.7% of total health expenditure in 2011 for Canada. The remaining categories include medical transportation, hearing aids and appliances, voluntary health associations and explicitly identified home care.

Public-sector sources accounted for 75.0% of other health expenditures in 2011, most of which was for health research, medical transportation and home care.

Note
See Table A.3.1.2.

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

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x. Research funded by pharmaceutical companies is funded from drug sales and included in the drugs category.

xi. Certain services that are identified by data sources as home care are included under the broad category of other health spending. Private nursing care in the home, however, would be included in the other professionals category. Home care programs provided by hospitals are included in the hospitals category. Support services such as domestic maintenance and delivery of meals are considered to be social services within the current definition of home care and are removed where identified.