### **IHE In Your Pocket**

A Handbook of Health Economic Statistics





INSTITUTE OF HEALTH ECONOMICS ALBERTA CANADA The Institute of Health Economics (IHE) is an independent, notfor-profit organization that performs research in health economics and synthesizes evidence in health technology assessment to assist health policy making and best medical practices.

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The Institute of Health Economics (IHE) is a non-profit organization that provides research to support policy and practice in a broad range of areas which impact health, including health care, public health, education, legal, and other services. The IHE produces a large number of evaluations within our health technology assessment (HTA) and economic modelling programs, along with other economics intelligence studies that inform policy. The IHE also facilitates discussions about current issues in health through a number of initiatives, such as our series of consensus development conferences, policy forums, and targeted knowledge exchange programs.

The secretariats of the main international organizations in the fields of HTA are located within the IHE, namely HTAi (Health Technology Assessment International) and INAHTA (International Network of Agencies in Health Technology Assessment).

### Introduction

*IHE In Your Pocket* was designed to provide a compact, comprehensive, and comparative overview of the economic aspects of the Canadian health care system. It was first published in 2006. The 2017 version follows the pattern of the previous, 2014 edition. We use similar categories to those in 2014, including aggregate costs, utilization and cost data for separate sectors or provider groups, population indicators, and system-wide performance indicators. All data sources are referenced.

In the present version we have expanded some components, notably pharmaceuticals and long-term care, where new data has become available. We provide data comparing provinces and countries that have similar levels of economic development to Canada. We have placed cross-provincial and cross-national indicators on adjacent pages; the reader should note that these numbers sometimes come from different sources, and they are not always strictly comparable. We also provide trend graphs where data was available.

We hope you like *IHE In Your Pocket 2017* and we would appreciate any comments or suggestions you might have. You can send these to info@ihe.ca, or write to us at the address on the back cover.

**IHE project staff** for the 2017 version included Philip Jacobs, who has directed *IHE In Your Pocket* since it was conceived by Egon Jonsson, the IHE CEO. Fernanda Nagase conducted the research and writing of this version, along with Jian Wang. Lisa Tjosvold, Dagmara Chojecki, and Carla Martin conducted searches and provided referencing guidance, and Stefanie Kletke assisted with editing and formatting.

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### Health Care Expenditures



### Total health expenditure by category of funds Canada, 2015

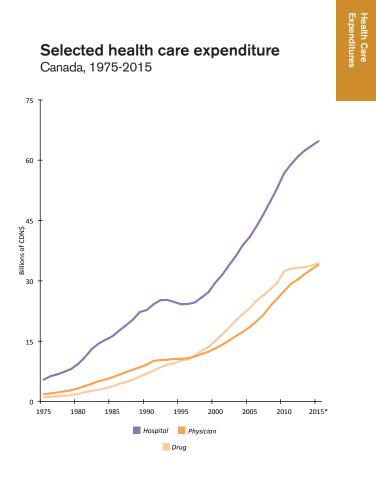
Public health \$12.1 Other health spending \$10.1 \$13.6 \$9.9 \$15.1 Administration and capital Other professionals \$21.9 (\$1.9) Other institutions\* \$16.4 \$23.4 Physicians \$34.0 Drugs \$12.6 \$34.4 Hospitals \$58.5 \$64.8 20 30 40 70 0 10 50 60 Total spending in billions of CDN\$ (public spending) Total health care expenditure = \$219.1 billion Public Private Total health care expenditure in billions of CDN\$ 400 Canada, 1975-2012 200

\*CIHI defines other institutions as \*residential care types of facilities (for the chronically ill or disabled, who reside at the institution more or less permanently) and that are approved, funded or licensed by provincial or territorial departments of health and/or social services\*

\*\*Forecast data

Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on October 2, 2016. www.cihi.ca

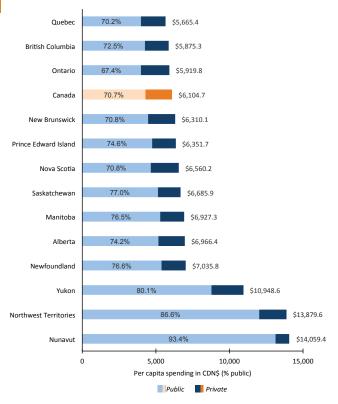
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\*Forecast data

Source: National health expenditure trends, 1975-2015, Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on October 2, 2016. www.cihi.ca

#### Health care expenditure per capita Canada, 2015

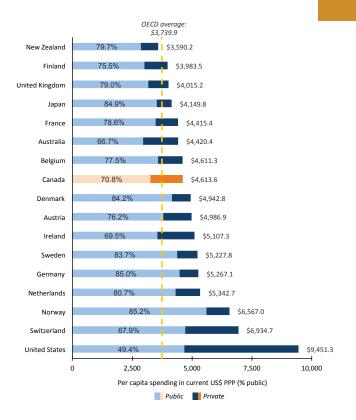


Note: Forecast data for 2015

Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on March 23, 2016. www.cihi.ca

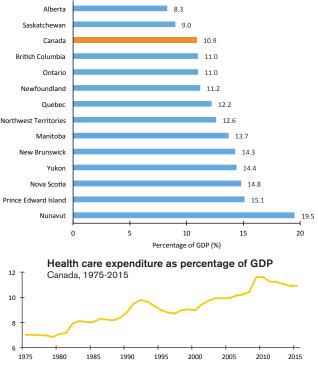
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### Health care expenditure per capita selected OECD countries, 2015



Source: OEOD health statistics, 2015. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en# on July 14, 2016. www.oecd.org

### Health care expenditure as percentage of gross domestic product (GDP) Canada, 2015



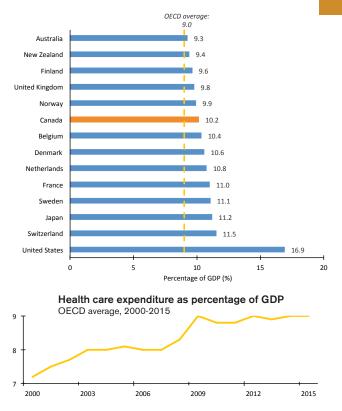
<sup>\*2014</sup> and 2015 are forecast data

Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on October 2, 2016. www.cihi.ca

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# Health care expenditure as percentage of GDP

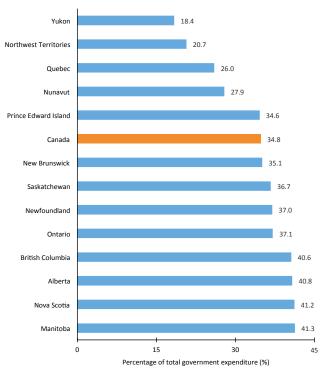
selected OECD countries, 2015



Source: OEOD health statistics, 2015. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en# on July 7, 2016. www.oecd.org

# Provincial health care expenditure as percentage of provincial government expenditure

Canada, 2014



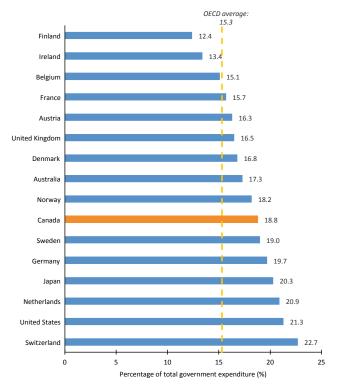
Note: Forecast data for 2014

Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on October 2, 2016. www.cihi.ca

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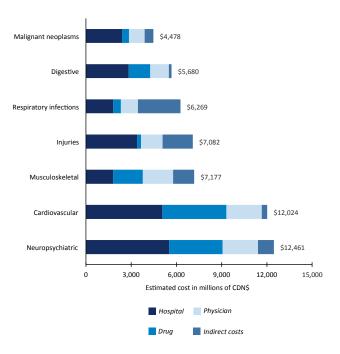
### National health care expenditure as percentage of government expenditure

selected OECD countries, 2014



Source: Percentage of total government expenditure on health as percentage of total government expenditure. The World Health Organization. Accessed at http://www.who.int/gho/health\_financing/ government\_expenditure/en/ or July 7, 2016. www.who.int

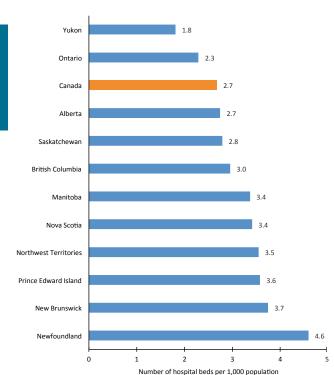
### Estimated cost for selected diagnostic categories by major cost categories Canada, 2008



Source: Economic burden of illness in Canada (EBIC). Public Health Agency of Canada. Accessed at http://ebic-femc.phac-aspc.gc.ca/index.php on August 25, 2016. www.phac-aspc.gc.ca

### **Hospital Inpatient Services**

### Hospital beds per 1,000 population Canada, 2014-2015

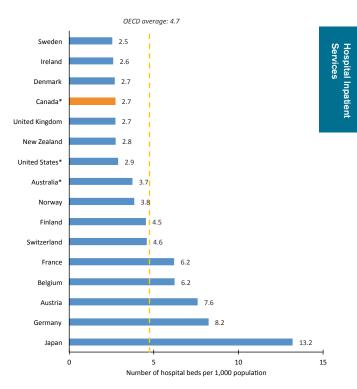


Note: Represents the number of beds and cribs available in hospitals for intensive care, obstetrics, pediatrics, psychiatry, rehabilitation, long-term care, and other acute care. Data was not available for Nunavut and Yukon.

Source: Hospital beds and staffed in operation, 2014-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/quick-stats on July 7, 2016. www.cihi.ca

Population by year, by province and territory. Statistics Canada. Accessed at http://www.statcan.gc.ca/ tables-tableaux/sum-som/l01/cst01/demo02a-eng.htm on July 7, 2016. www.statcan.gc.ca

### Hospital beds per 1,000 population selected OECD countries, 2014



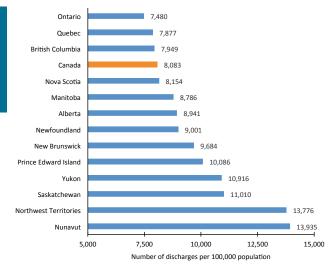
Note: Represents the number of beds available in hospitals for acute care, psychiatric care, and other specialist care

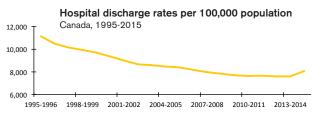
\*2013 data

Source: Health care resources. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on March 23, 2017. www.oecd.org

# Hospital discharge rates per 100,000 population

Canada, 2014-2015



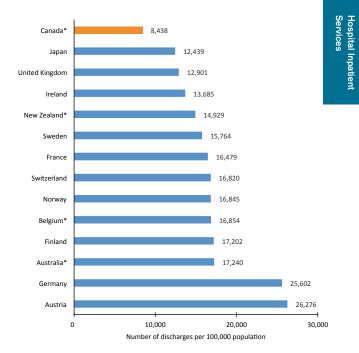


Note: Data standardized by age and sex

Source: Inpatient hospitalizations: Volumes, length of stay, and standardized rates. Canadian Institute for Health Information. Accessed at https://apps.cihi.ca/mstrapp/asp/Main.aspx?Server=apmstrextprd\_i&pr oject=Quick%20Stats&uid=pce\_pub\_en&pwd=&evt=2048001&visualizationMode=0&documentID=C6 F8B4144B03958E3AE3CABSDD440EA7 on March 23, 2017. www.cihi.ca

# Hospital discharge rates per 100,000 population

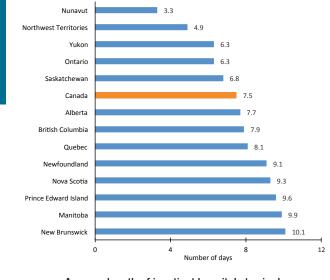
selected OECD countries, 2014

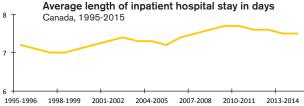


\*2013 data

Source: Health care utilization. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_PROC&lang=en# on July 14, 2016. www.oecd.org

### Average length of inpatient hospital stay Canada, 2014-2015

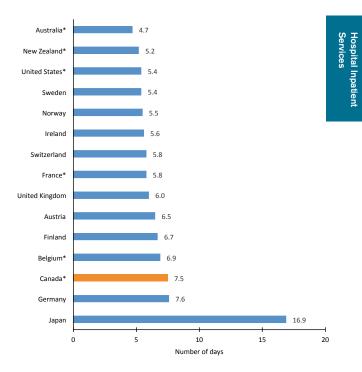




Source: Inpatient hospitalizations: Volumes, length of stay, and standardized rates. Canadian Institute for Health Information. Accessed at https://apps.cihi.ca/mstrapp/asp/Main.aspr?Server=apmstrextprd\_i&project=Ouick%20Stats&uid=pcc\_pub\_en&pwd=&evt=2048001&visualizationMode=0&documentI D=C6F8B4144B0395&E3AE3CABSDD440EA7 on July 14, 2016. www.cihi.ca

### Average length of stay for acute care

selected OECD countries, 2014



\*2013 data

Source: Health care utilization. Organization for Economic Co-operation and Development. Accessed at http://stats.occd.org/viewhtml.aspx?datasetcode=HEALTH\_PROC&lang=en# on July 14, 2016. www.occd.org

# Number of MRI and CT scanners per 1,000,000 population

Canada, 2012



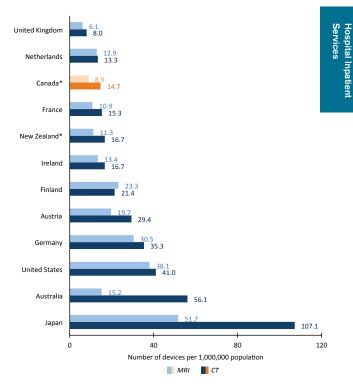
Note: MRI data was not available for Yukon and Northwest Territories. No data was available for Nunavut.

Source: Quickstats - Selected medical equipment in Canada. Canadian Institute for Health Information. Accessed at https://apps.cihi.ca/mstrapp/asp/Main.aspx?Server=apmstrextprd\_i&project=Quick%620 Stats&uid=pce\_pub\_en&pwd=&evt=2048001&visualizationMode=0&documentID=50A7B0D5472B6 AE40049E7AA062D42EC on March 23, 2017. www.cihi.ca

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## Number of MRI and CT scanners per 1,000,000 population

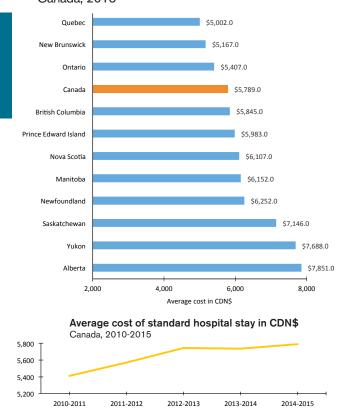
selected OECD countries, 2014



\*2013 data

Source: Health equipment. Organization for Economic Co-operation and Development. Accessed at https://data.oecd.org/healtheqt/magnetic-resonance-imaging-mri-units.htm#indicator-chart and https://data.oecd.org/healtheqt/computed-tomography-ct-scanners.htm#indicator-chart on July 7, 2016. www.oecd.org

### Average cost of standard hospital stay Canada, 2015



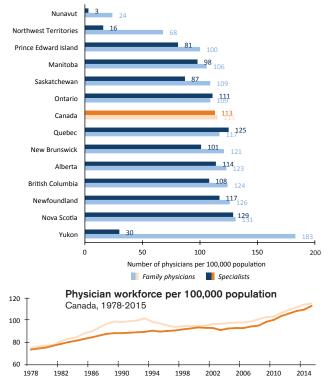
Source: Your health system: Cost of a standard hospital stay. Canadian Institute for Health Information. Accessed at https://yourhealthsystem.cihi.ca/hsp/inbiref?lang=en#l/indicators/015/cost-of-a-standardhospital-stay-cshs/mapCi\_mapLevel2/ on February 2, 2017. www.cihi.ca

### **Physician Services**



# Physician workforce per 100,000 population

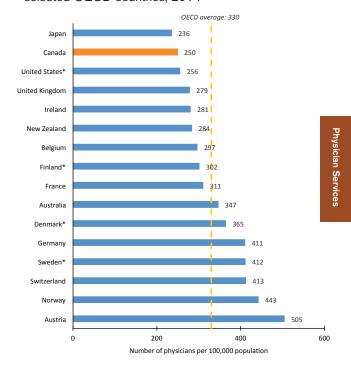
Canada, 2015



Note: CIHI includes "active physicians in clinical and non-clinical practice (e.g., research and academia) who have an MD degree and a valid mailing address"; it excludes "residents, physicians in the military, as well as semi-retired and retired physicians"

Source: Supply, distribution and migration of physicians in Canada, 2015. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC3269 on March 23, 2017. www.cihi.ca

### Physician workforce per 100,000 population selected OECD countries, 2014

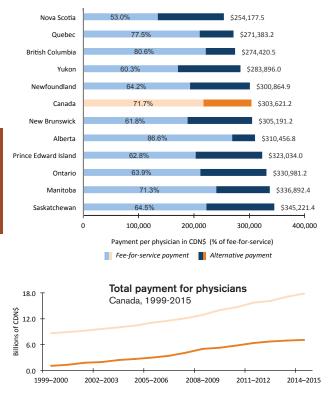


Note: Data collected on practicing physicians who "provide services directly to patients"; excludes "students who have not graduated; physicians working in administration, research and in other posts that exclude direct contact with patients; unemployed physicians and retired physicians"

#### \*2013 data

Source: Health care resources: Physicians. Organization for Economics Co-operation and Development. Accessed at http://stats.oecd.org/index.aspx?DataSetCode=SHA# on July 7, 2016. www.oecd.org

#### Average gross payment per physician Canada, 2014-2015



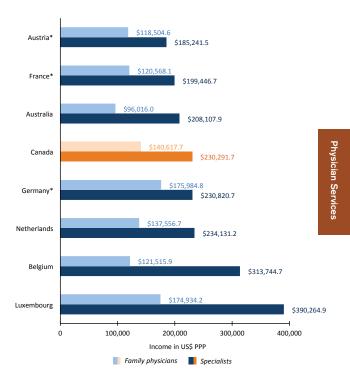
Note: Nunavut and Northwest Territories have not submitted data

Source: National Physician Database, 2013-1014. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC3268 on March 23, 2017. www.cihi.ca

Supply, distribution and migration of physicians in Canada, 2015. Canadian Institute for Health Information. Accessed at https://secure.chi.ca/estore/productFamily.htm?locale=en&pf=PFC3269 on March 23, 2017. www.chi.ca

### Income of self-employed physicians

selected OECD countries, 2013



Note: OECD defines self-employed physicians as "physicians who are primarily non-salaried. That is, they are either self-employed, or operate independently, usually receiving (mainly) either capitation or fee-forservice reinbursement"

\*2011 data

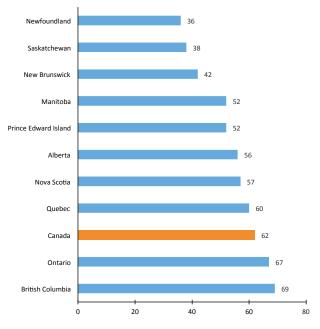
Source: Health care resources: Remuneration of health professionals. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\_ STAT# on March 24, 2017. www.oecd.org


### **Other Providers**



### Dentist workforce per 100,000 population

Canada, 2013

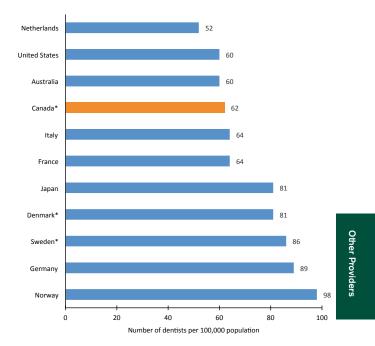


Number of dentists per 100,000 population

Source: Canada's health care providers: Provincial profiles, 2013. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?pf=PFC3045&lang=en&media=0 on March 23, 2017. www.cihi.ca

# Dentist workforce per 100,000 population

selected OECD countries, 2014

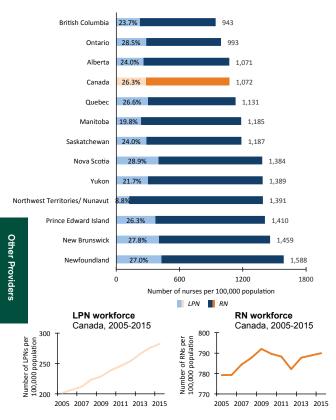


\*2013 data

Source: Health care resources statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.cecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on March 23, 2017. www.oecd.org

# Regulated nurse workforce per 100,000 population

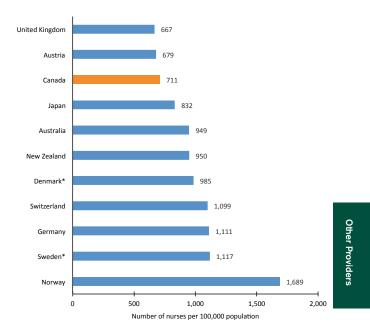
Canada, 2015



Source: Regulated nurses, 2015. Canadian Institute for Health Information. Accessed at https://secure. cihi.ca/estore/productFamily.htm?pf=PFC3152&lang=en&media=0 on July 7, 2016. www.cihi.ca

## Professional nurse workforce per 100,000 population

selected OECD countries, 2014

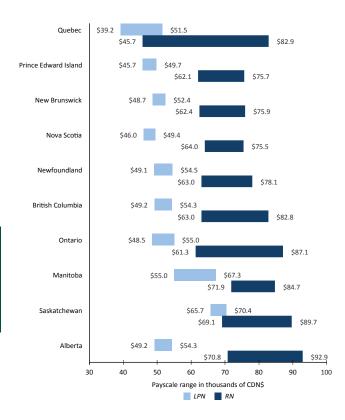


Note: OECD defines *professional nurse* as "nursing professionals assume responsibility for the planning and management of the care of patients, including the supervision of other health care workers, working autonomously or in teams with medical doctors and others in the practical application of preventive and curative measures." This excludes midwives, university lecturers, paramedical lecturers, and associate professional nurses (LPNs).

\*2013 data

Source: Health care resources statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on July 7, 2016. www.oecd.org

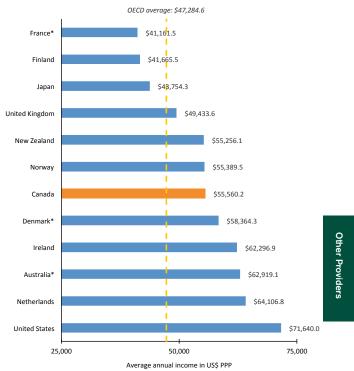
### Annual payscale range for nurses Canada, 2015



Source: Overview of key nursing contract provisions. Canadian Federation of Nurses Unions. Accessed at https://nursesunions.ca/sites/default/files/2015-10-31\_contract\_comparison.pdf on March 23, 2017. www.nursesunions.ca

## Average annual income of hospital nurses

selected OECD countries, 2014

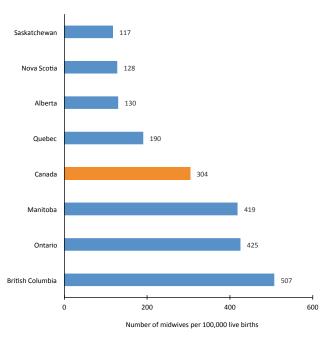


Note: Includes "certified/registered nurses actively practicing in public and private hospitals and who receive most of their income via a salary"; excludes nurses working without certification and part-time nurses

\*2013 data

Source: Health care resources. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on July 7, 2016. www.oecd.org

### Ratio of midwives to births Canada, 2013-2014



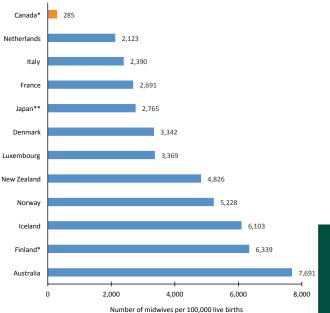
Note: Data was not available for Prince Edward Island, Newfoundland, New Brunswick, and territories

Source: Canada's health care providers: Provincial profiles, 2013. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?pf=PFC3045&lang=en&media=0 on March 23, 2017. www.cihi.ca

Births, estimates, by province and territory. Statistics Canada. Accessed at http://www.statcan.gc.ca/ tables-tableaux/sum-som/l01/cst01/demo04a-eng.htm on March 23, 2017. www.statcan.gc.ca

## Ratio of midwives to births

selected OECD countries, 2013



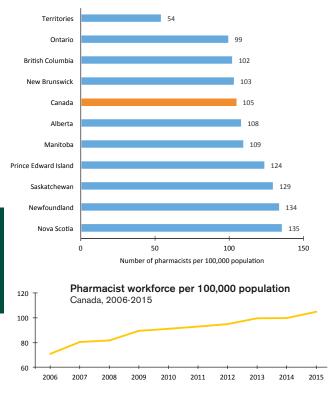
Other Providers

\*2012 data

\*\*2010 data

Source: Health care resources statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on March 23, 2017. www.oecd.org

### Pharmacist workforce per 100,000 population Canada, 2015



Note: Data was not available for Quebec

Source: Pharmacists, 2015. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/ estore/productFamily.htm?pf=PFC3363&lang=en&media=0 on March 23, 2017. www.cihi.ca

### Pharmacist workforce per 100,000 population selected OECD countries, 2014

Netherlands 27 Denmark\* 63 New Zealand 76 77 Germany Sweden\* 82 Norway 88 United States 91 Australia 96 Canada 98 France 112 Finland\*\* 149 0 50 100 150

Number of pharmacists per 100,000 population

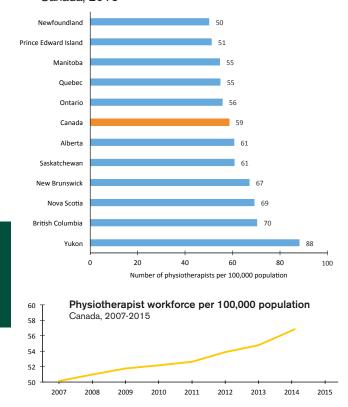
Other Providers

\*2013 data

\*\*2012 data

Source: Health care resources statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on July 14, 2016. www.oecd.org

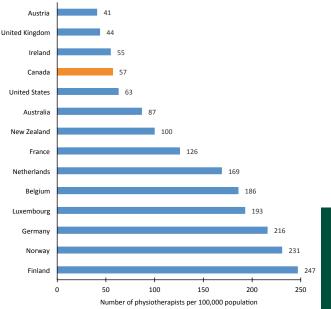
### Physiotherapist workforce per 100,000 population Canada, 2015



Source: Physiotherapists, 2015. Canadian Institute for Health Information. Accessed at https://www.cihi. ca/en/access-data-reports/results?f[0]=field\_primary\_theme%3A2047 on March 23, 2017. www.cihi.ca

## Physiotherapist workforce per 100,000 population

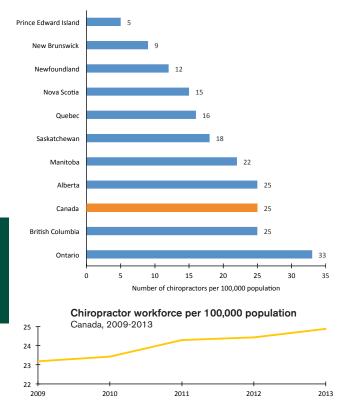
selected OECD countries, 2014



Source: Health care resources statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.occd.org/viewhtml.aspx?datasetcode=HEALTH\_REAC&lang=en# on July 7, 2016. www.occd.org

## Chiropractor workforce per 100,000 population

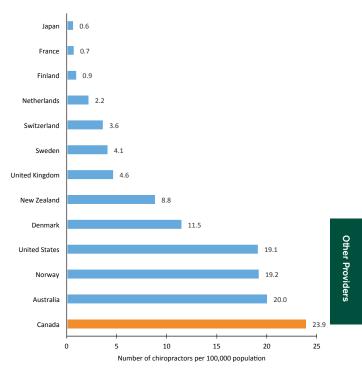
Canada, 2013



Source: Canada's health care providers: Provincial profiles, 2013. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?locale=en&pte=PFC3045 on March 23, 2017. www.cihi.ca

## Chiropractor workforce per 100,000 population

selected OECD countries, 2015



Source: Global statistics - Chiropractor statistics. Chiropractic Diplomatic Corp. Accessed at http://www. chiropracticdiplomatic.com/global-statistics-page/ on March 23, 2017. www.chiropractordiplomatic.com

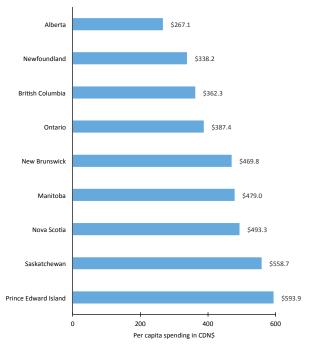
World population prospects, the 2015 revision. United Nations. Accessed at https://esa.un.org/unpd/ wpp/Download/Standard/Population/ on March 24, 2017. www.esa.un.org


## **Continuing Care and Home Care**



## Expenditure on nursing homes per capita

Canada, 2013



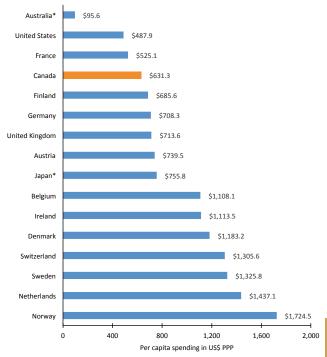
Note: Data was not available for Northwest Territories, Nunavut, and Quebec. *Nursing homes* are defined as "long-term care facilities" designated for people who "do not need to be in hospital but who do need access to 24 hours nursing care."

Source: Residential long-term care financial data tables 2013. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?locale=en&pt=PFC2740 on March 23, 2017. www.cihi.ca

National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.chic.a/en/spending-and-health-workforce/spending/national-health-expendituretrends on March 23, 2017. www.chic.a

## Expenditure on long-term nursing care per capita

selected OECD countries, 2014

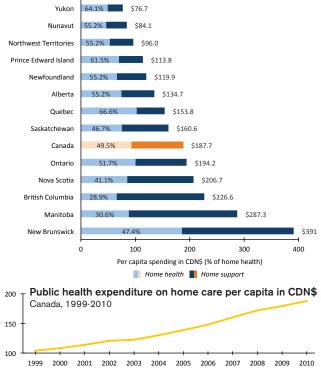


Note: Results are based on health care services expenditures and do not include social services. Long-term nursing care "comprises nursing care delivered to in-patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activity of daily living. It is provided in institutions or community facilities."

\*2013 data

Source: Health care expenditure and financing. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en# on July 14, 2016. www.oecd.org

### Public expenditure on home care per capita Canada, 2010

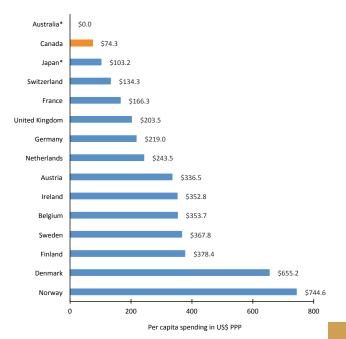


Source: Home and community care in Canada: An economic footprint. The Conference Board of Canada. Accessed at http://www.conferenceboard.ca/elibrary/abstract.aspx?did=4841 on March 23, 2017. www.conferenceboard.ca

National health expenditure trends, 1975-2016. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-health-expenditure-trends on March 23, 2017. www.cihi.ca

## Continuing Care and Home Care

### Public expenditure on long-term home care per capita selected OECD countries. 2014

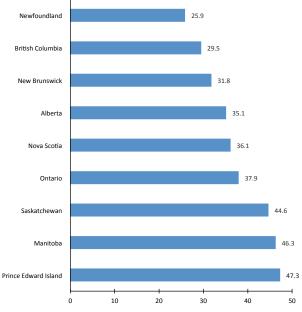


#### \*2013 data

Note: Results are based on health care services expenditures and do not include social services and drug expenses

Source: Health care expenditure and financing. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en# on July 14, 2016. www.oecd.org

### Number of beds in nursing homes per 1,000 population over 65 years old Canada, 2013



Number of beds per 1,000 population over 65

Note: Data was not available for Northwest Territories, Nunavut, and Quebec. Data was based on beds staffed and in operation.

Source: Residential long-term care financial data tables 2013. Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/estore/productFamily.htm?locale=en&pt=PFC2740 on March 23, 2017. www.cihi.ca

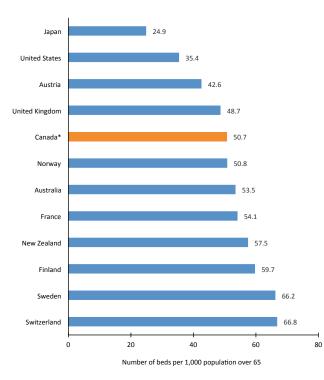
Table 051-000: Estimates of population, by age group and sex for July 1, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/ csv/00510001-eng.zip on March 24, 2017. www.statcan.gc.ca

## Continuing Care and Home Care

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## Number of beds in residential long-term care facilities per 1,000 population over 65 years old

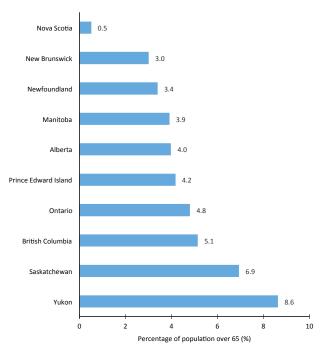
selected OECD countries, 2014



\*2012 data

Source: Long-term care resources and utilization. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_ LTCR&lang=en# on July 7, 2016. www.oecd.org

### Elderly users of residential care facilities as a percentage of the population over 65 years old Canada, 2015



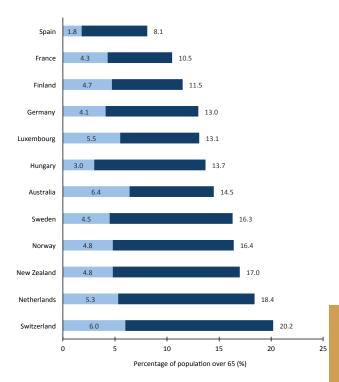
Note: Data not available for Quebec, Northwest Territories, and Nunavut

Source: CCRS quick stats, 2015-2016. Canadian Institute for Health Information. Accessed at https:// secure.cihi.ca/estore/productFamily.htm?locale=en&pf=PFC2740 on November 17, 2015. www.cihi.ca

Table 051-0001: Estimates of population, by age group and sex for July 1, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaus/cansim/ csv/00510001-eng.zip on March 24, 2017. www.statcan.gc.ca

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Elderly users of long-term care facilities as a percentage of the population over 65 years old selected OECD countries, 2014



Source: Long-term care resources and utilization. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_ LTCR&lang=en# on July 22, 2016. www.oecd.org

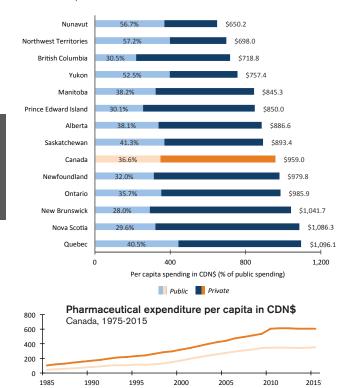
# **Continuing Care**

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## Pharmaceuticals



### Pharmaceutical expenditure per capita Canada, 2015

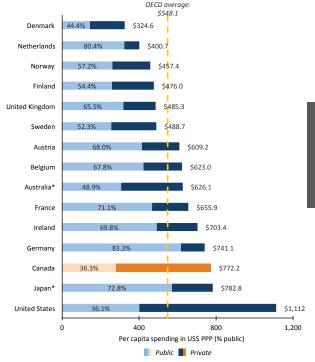


\*2014 and 2015 are forecast data

Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/spending/national-healthexpenditure-trends on October 29, 2015. www.cihi.ca

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# Pharmaceutical expenditure per capita selected OECD countries, 2014

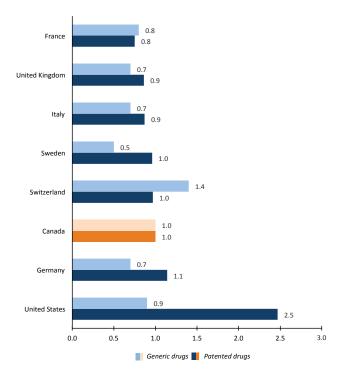


\*2013 data

Source: Health expenditure and financing. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/Index.aspx?DataSetCode=SHA# on July 7, 2016. www.oecd.org

## Average foreign-to-Canadian price ratio for drugs

selected OECD countries, 2014

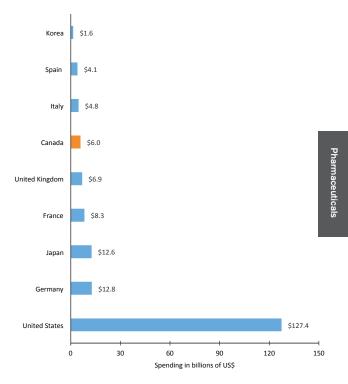


Source: Annual report, 2014. Patented Medicine Prices Review Board. Accessed at http://www. pmptb-cepmb.gc.ca/CMFiles/Publications/Annual%20Reports/2014/2014\_Annual\_Report\_Final\_ ENpdf on July 14, 2016. www.pmptb-cepmb.gc.ca

Generic drugs in Canada, 2013. Patented Medicine Prices Review Board. Accessed at http://www. pmptb-cepmb.gc.ca/CMFiles/NPDUIS\_Generics\_360\_Report\_E.pdf on July 7, 2016. www.pmptb-cepmb.gc.ca

## Expenditure on biologic drugs

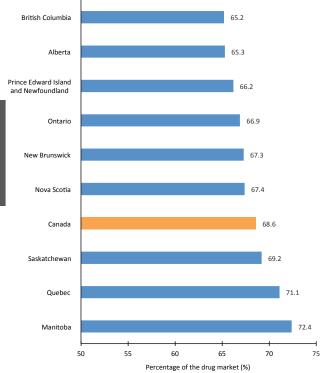
selected OECD countries, 2015



Source: The international biosimiliar experience: Lessons for Alberta - 2016 Institute of Health Economics Alberta Biosimiliar Forum. Institute of Health Economics. Accessed at http://www.ihe.ca/publications/theinternational-biosimiliar-sequerience-lessons-for-alberta on February 2, 2017. www.ihe.ca

## Generic share of the prescription drug market

Canada, 2015



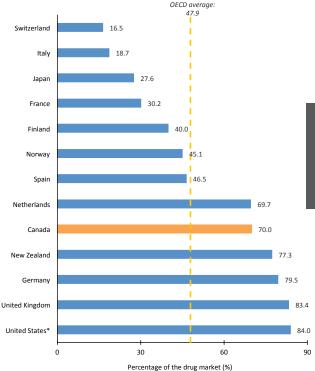
Source: Prescription drug market, 2015. Canadian Generic Pharmaceutical Association. Accessed at http://canadiangenerics.ca/resources/reports-submissions/ on March 23, 2017. www.canadiangenerics.ca

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Pharmaceuticals

## Generic share of the pharmaceutical market

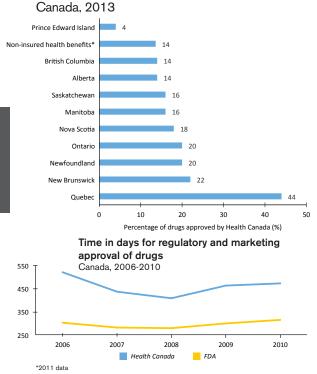
selected OECD countries, 2013



\*2012 data

Source: Health at glance, 2015. Organization for Economic Co-operation and Development. Accessed at http://www.oecd-illbrary.org/social-issues-migration-health/health-at-ar-glance\_19991312 on March 24, 2017. www.oecd.org

## Percentage of drugs approved by Health Canada listed for public insurance coverage



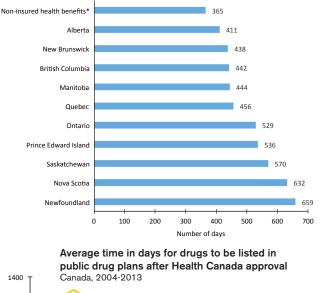
Source: Coverage for new medicines in Canada's public drug plans, 2015. Canadian Health Policy. Accessed at http://www.canadianhealthpolicy.com/products/coverage-for-new-medicines-in-canada---s-public-drug-plans-2015-html on January 14, 2016. www.canadianhealthpolicy.com

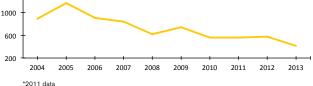
Access delayed, access denied 2012 - waiting for new medicines in Canada. Fraser Institute. Accessed at https://www.fraserinstitute.org/sites/default/files/access-delayed-access-denied-2012. pdf on January 15, 2016. www.fraserinstitute.org

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## Time in days for drugs to be listed in public drug plans after Health Canada's approval

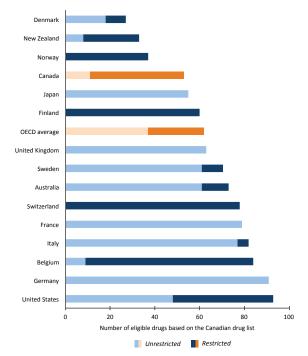
Canada, 2013





Source: Coverage for new medicines in Canada's public drug plans, 2015. Canadian Health Policy. Accessed at http://www.canadianhealthpolicy.coverage/for-new-medicines-in-canada---spublic-drug-plans-2015-html on January 14, 2016. www.canadianhealthpolicy.com Pharmaceuticals

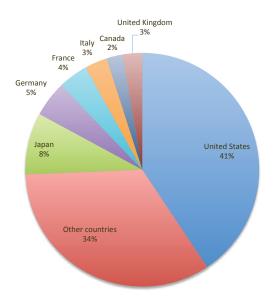
### International positive reimbursement of eligible drugs based on a Canadian drug list 2011-2012



Note: The Canadian drug list was set with 153 drugs for 175 indications reviewed by Canada's Common Drug Review, and an additional 51 drugs for 82 indications reviewed by Joi Oncology Drug Review

Source: The Rx&D international report on access to medicines, 2011-2012. Wyatt Health and Canada's Research-Based Pharmaceutical Companies. Accessed at http://www.wyatthealth.com/ wp-content/uplads/IRAM/iram-2011-2012-English.pdf on January 21, 2016. www.wyatthealth.com/

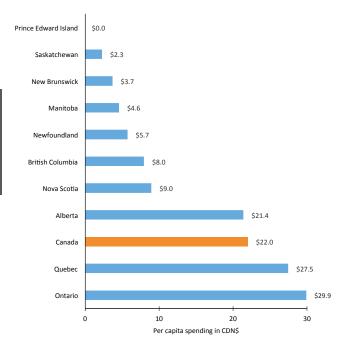
## Worldwide distribution of drug sales 2014



Note: Part of the data was from the MIDAS IMS database

Source: Annual report, 2014. Patented Medicine Prices Review Board. Accessed at http://www. pmptb-cepmb.gc.ca/CMFiles/Publications/Annual%o20Reports/2014/2014\_Annual\_Report\_Final\_ EN,pdf on July 7, 2016. www.pmptb-cepmb.gc.ca

# Expenditure on pharmaceutical research and development per capita Canada, 2015



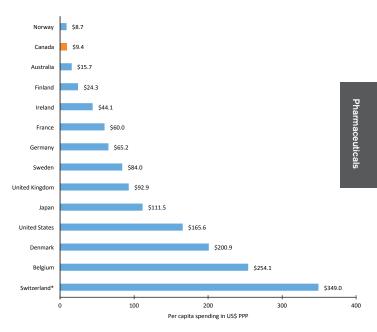
Note: Expenditure on pharmaceutical research and development in the territories was \$0.0

Source: Annual report, 2015. Patented Medicine Prices Review Board. Accessed at http://www. pmprb-cepmb.gc.ca/view.asp?ccid=1273 on March 23, 2017. www.pmprb-cepmb.gc.ca

National health expenditure trends, 1975-2016. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/national-health-expenditure-trends on March 23, 2017. www.cihi.ca

## Business expenditure on research and development in pharmaceutical industries per capita

selected OECD countries, 2013

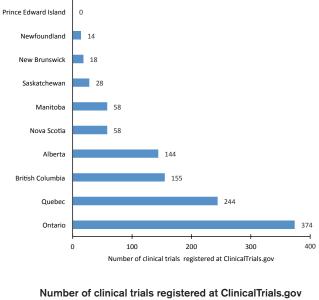


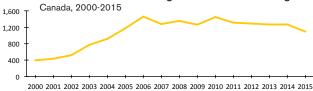
#### \*2012 data

Source: Main science and technology indicators. Organization for Economic Co-operation and Development. Accessed at http://www.oecd-ilibrary.org/science-and-technology/data/oecd-sciencetechnology-and-rd-statistics/main-science-and-technology-indicators\_data-00182-en on April 20, 2017. www.oecd.org

Population and vital statistics. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=ALFS\_POP\_VITAL&lang=en# on July 7, 2016. www.oecd.org

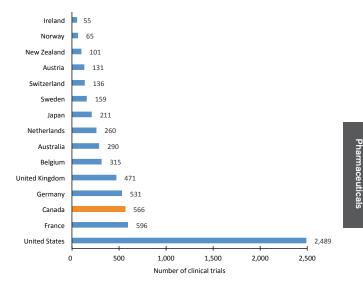
### Number of clinical trials registered with ClinicalTrials.gov started in 2015 Canada



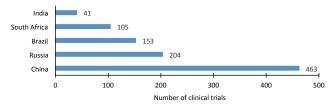


Source: Studies on map. Clinical Trials. Accessed at https://clinicaltrials.gov/ct2/search/map on June 24, 2016. www.clinicaltrials.gov

# Number of clinical trials started in 2015 selected OECD countries



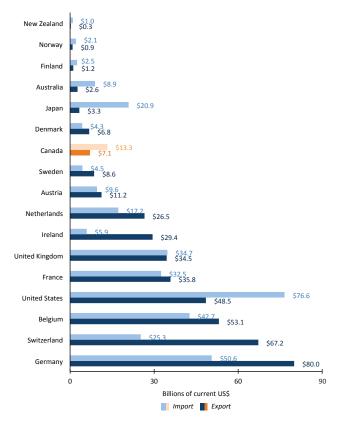
## Number of clinical trials started in 2015 BRICS countries



Source: Studies on map. Clinical Trials. Accessed at https://clinicaltrials.gov/ct2/search/map on June 24, 2016. www.clinicaltrials.gov

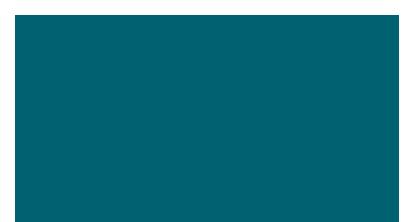
# International trade of pharmaceutical products

selected OECD countries, 2014

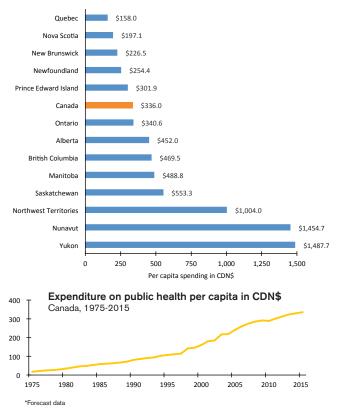


Source: International trade by commodity statistics. Organization for Economic Co-operation and Development. Accessed from a licensed version of the database on June 24, 2016. www.oecd.org

## **Public Health**



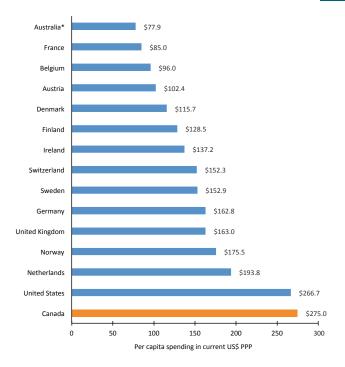
## Expenditure on public health per capita Canada, 2015



Source: National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/sites/default/files/document/nhex\_trends\_narrative\_report\_2015\_en.pdf on July 23, 2016. www.cihi.ca

# Expenditure on prevention and public health per capita

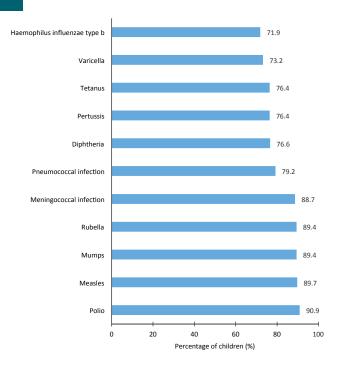
selected OECD countries, 2014



\*2013 data

Source: OECD stats - Health expenditure and financing. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en# on July 7, 2016. www.oecd.org

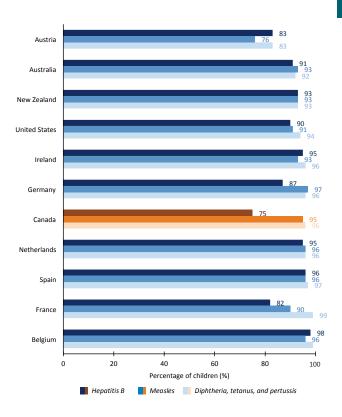
## Childhood immunization coverage Canada, 2013



Source: Childhood national immunization coverage survey, 2013. Statistics Canada. Accessed at http://www.statcan.gc.ca/daily-quotidier/150721/dq150721c-eng.htm on March 23, 2017. www.statcan.gc.ca

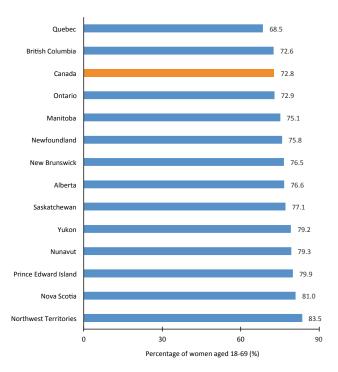
#### 72 INSTITUTE OF HEALTH ECONOMICS

# Childhood immunization coverage selected OECD countries, 2014



Source: Health care utilization. Organization for Economic Co-operation and Development. Accessed at http://www.oecd-ilibrary.org/social-issues-migration-health/data/oecd-health-statistics/oecd-healthdata-health-care-utilisation\_data-00542-en on July 7, 2016. www.oecd.org

## Percentage of women 18-69 years old receiving pap smear tests Canada, 2005

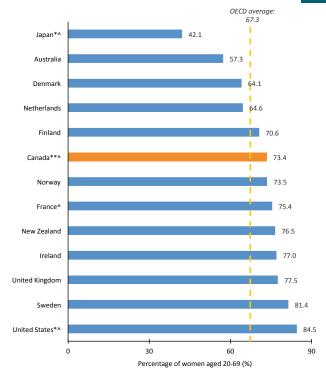


Source: Table 105-4042: Pap smear, females aged 18 to 69 years, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/01054042eng.zip on March 24, 2017. www.statcan.gc.ca

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# Percentage of women 20-69 years old receiving pap smear tests

selected OECD countries, 2014



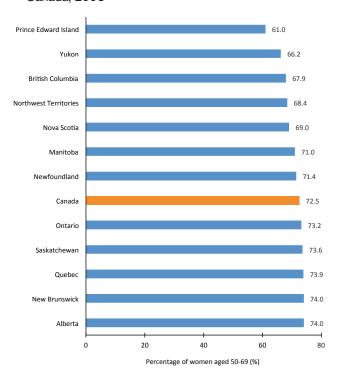
\*2013 data

\*\*2012 data

\*Results based on a survey

Source: Health care utilization. Organization for Economic Co-operation and Development. Accessed at http:// stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_PROC&lang=en# on July 7, 2016. www.oecd.org

## Percentage of women 50-69 years old receiving mammograms Canada, 2008

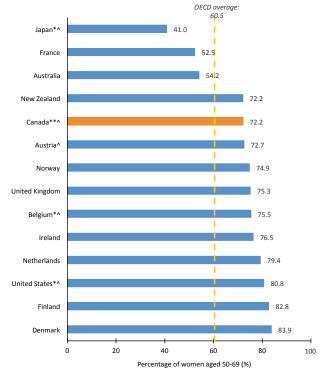


Note: Data was not available for Nunavut

Source: Table 105-0543: Mammogram obtained within the last 2 years, by age group, females aged 50 to 69 years, Canada, provinces, territories, health regions (2007 boundaries) and peer groups. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/01050543-eng.zip on March 24, 2017. www.statcan.gc.ca

# Percentage of women 50-69 years old receiving mammograms

selected OECD countries, 2014



\*2013 data

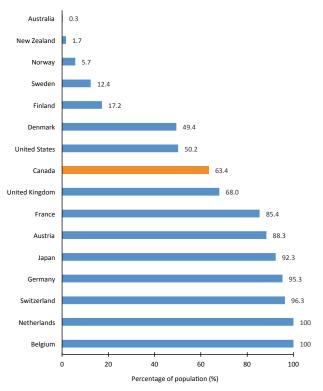
\*\*2012 data

\*Results based on a survey

Source: Health care utilization. Organization for Economic Co-operation and Development. Accessed at http:// stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_PROC&lang=en# on July 14, 2016. www.oecd.org

# Percentage of population exposed to PM2.5 air pollution

selected OECD countries, 2013



Note: An ambient concentration of PM2.5 is the level suggested in the WHO guidelines as the lowest concentration over which health adverse events are observed

Source: PM2.5 air pollution, population exposed to levels exceeding WHO guideline value (% of total). World Bank. Accessed at http://data.worldbank.org/indicator/EN.ATM.PM25.MC.ZS on January 8, 2016. www.worldbank.org

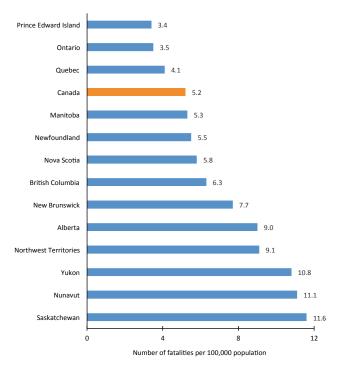
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## **Health Behaviours**



# Motor vehicle fatalities per 100,000 population

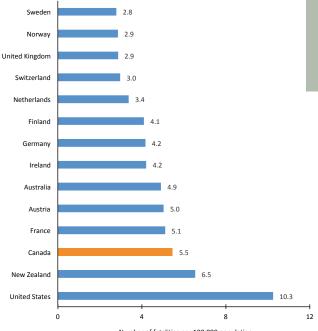
Canada, 2014



Source: Canadian motor vehicle traffic collision statistics, 2014. Transport Canada. Accessed at https://www.tc.gc.ca/eng/motorvehiclesafety/resources-researchstats-menu-847.htm on July 7, 2016. www.tc.gc.ca

# Motor vehicle fatalities per 100,000 population

selected OECD countries, 2014

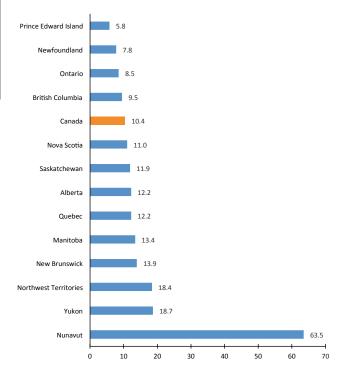


Number of fatalities per 100,000 population

Source: Road injury accidents. Organization for Economic Co-operation and Development. Accessed at http:// stats.oecd.org/Index.aspx?&datasetcode=ITF\_ROAD\_ACCIDENTS# on March 23, 2017. www.oecd.org

# Age-standardized suicide rates per 100,000 population

Canada, 2012



Source: Table 102-0563: Leading causes of death, total population, by sex, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/ csv/01020563-eng.zip on March 24, 2017. www.statcan.gc.ca

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# Age-standardized suicide rates per 100,000 population

selected OECD countries, 2013

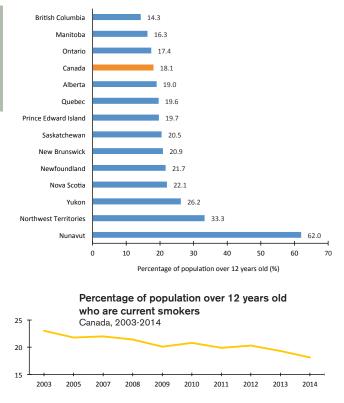


\*2012 data

\*\*2011 data

Source: Health status. Organization for Economic Co-operation and Development. Accessed at http://stats. oecd.org/viewhtml.aspx?datasetcode=HEALTH\_STAT&lang=en# on February 8, 2016. www.oecd.org

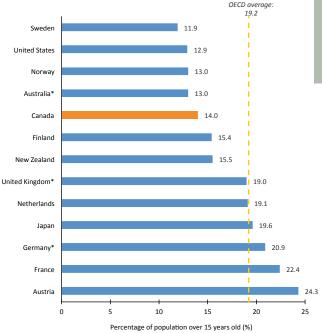
## Percentage of population over 12 years old who are current smokers Canada, 2014



Source: Table 105-0502: Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/01050502-eng.zip on March 24, 2017. www.statCan.gc.ca

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## Percentage of population over 15 years old who are current smokers selected OECD countries, 2014

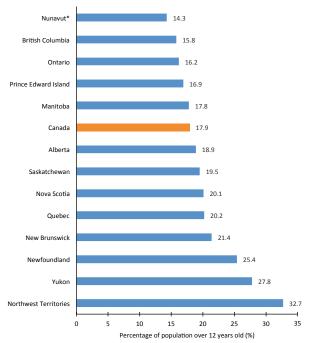


\*2013 data

Source: Non-medical determinants of health. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_LVNG&lang=en# on July 14, 2016. www.oecd.org

# Percentage of population over 12 years old who are heavy alcohol consumers

Canada, 2014



Note: Heavy alcohol consumption was defined as females and males, who reported, respectively, more than 4 and 5 drinks, at least once a month in the past 12 months

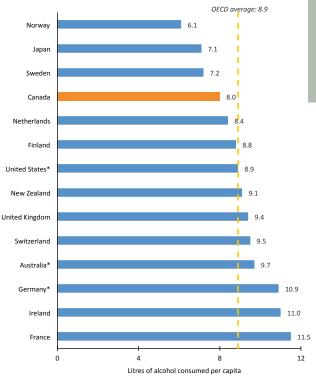
\*Use with caution

Source: Table 105-0502: Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/01050502-eng.zip on March 24, 2017. www.statcan.gc.ca

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# Alcohol consumption of population over 15 years old per capita

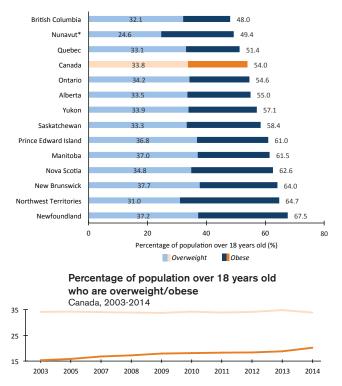
selected OECD countries, 2014



\*2013 data

Source: Non-medical determinants of health. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_LVNG&lang=en# on July 14, 2016. www.oecd.org

## Percentage of population over 18 years old who are overweight/obese Canada, 2014

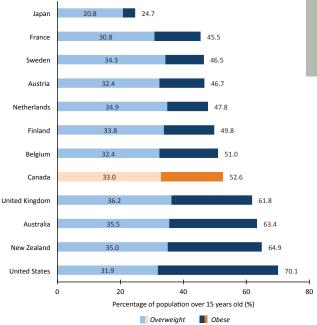


\*Use with caution

Source: Table 105-0502: Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups. Statistics Canada. Accessed at http://www2o.statcan.gc.ca/tables-tableaux/cansim/csv/01050502-eng.zip on March 24, 2017. www.statcan.gc.ca

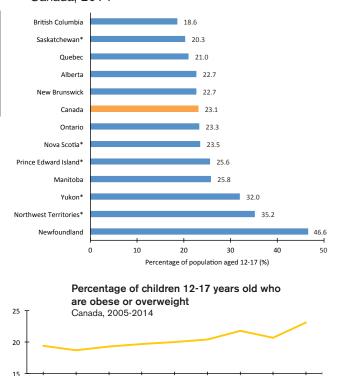
# Percentage of population over 15 years old who are overweight/ obese

selected OECD countries, 2014



Source: Non-medical determinants of health. Organization for Economic Co-operation and Development. Accessed at http://stats.occd.org/viewhtml.aspx?datasetcode=HEALTH\_LVNG&lang=en# on July 14, 2016. www.occd.org

## Percentage of children 12-17 years old who are obese or overweight Canada, 2014



\*Use with caution

2005

Source: Table 105-0502: Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2013 boundaries) and peer groups. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/01050502-eng.zip on March 24, 2017. www.statcan.gc.ca

2010

2011

2012

2013

2014

2007

2008

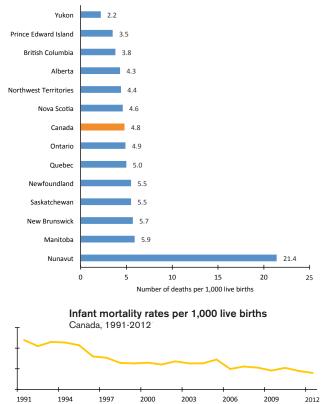
2009

## **Health Status**



## Infant mortality rates per 1,000 live births

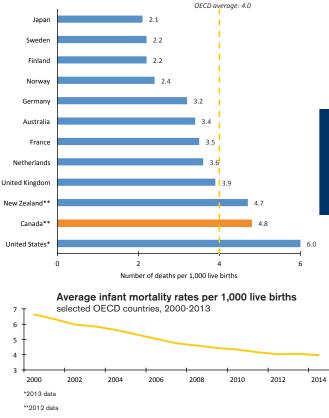
Canada, 2012



Source: Infant mortality rates, by province & territory. Statistics Canada. Accessed at http://www.statcan. gc.ca/tables-tableaux/sum-som/l01/cst01/health21a-eng.htm on March 23, 2017. www.statcan.gc.ca

# Infant mortality rates per 1,000 live births

selected OECD countries, 2014

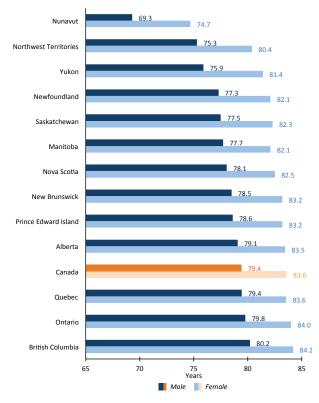


Source: Health status. Organization for Economic Co-operation and Development. Accessed at http://stats. oecd.org/viewhtml.aspx?datasetcode=HEALTH\_STAT&lang=en# on July 14, 2016. www.oecd.org

Health Status

## Life expectancy at birth

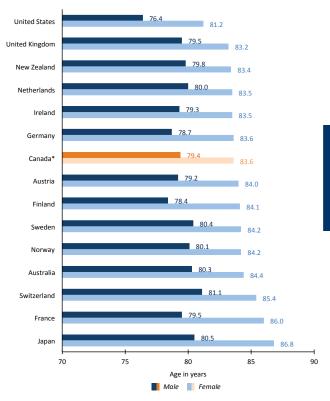
Canada, 2010-2012



Source: Table 053-0003: Elements of the life table, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/cansim/csv/00530003-eng.zip on March 24, 2017. www.statcan.gc.ca

**Health Status** 

## Life expectancy at birth selected OECD countries, 2014



\*2012 data

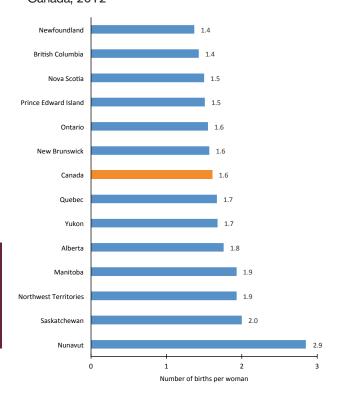
Source: Health status. Organization for Economic Co-operation and Development. Accessed at http:// stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_STAT&lang=en# on July 7, 2016. www.oecd.org

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## Demographics



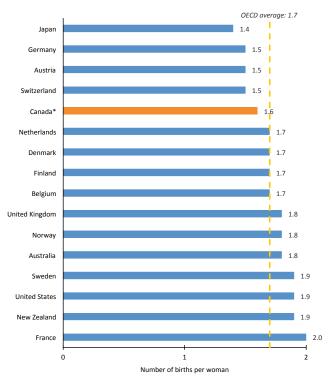
### Fertility rates Canada, 2012



Note: Fertility rate is the average number of children per woman between 15 to 49 years old

Source: Births and total fertility rate, by province and territory. Statistics Canada. Accessed at http://www. statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/hlth85b-eng.htm on March 24, 2017. www.statcan.gc.ca

## Fertility rates selected OECD countries, 2014



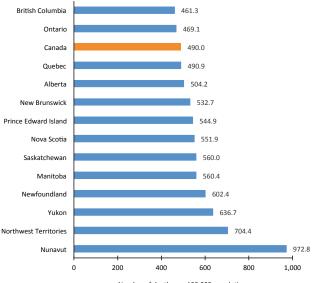
Note: Fertility rate is the average number of children per woman between 15 to 49 years old

\*2012 data

Source: Demography: Fertility rates. Organization for Economic Co-operation and Development. Accessed at https://data.oecd.org/pop/fertility-rates.htm on July 12, 2016. www.oecd.org

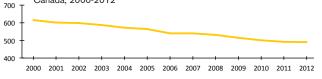
# Age-standardized mortality rates per 100,000 population

Canada, 2012



Number of deaths per 100,000 population

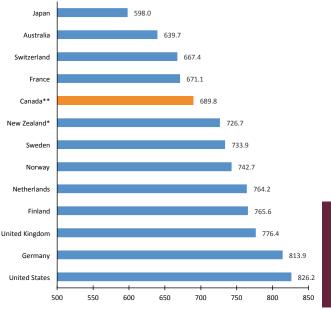
Age-standardized mortality rates per 100,000 population Canada, 2000-2012



Source: Table 102-0552: Deaths and mortality rate, by selected grouped causes and sex, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/ cansim/csv/01020552-eng.zip on March 24, 2017. www.statcan.gc.ca

# Age-standardized mortality rates per 100,000 population

selected OECD countries, 2013



Number of deaths per 100,000 population

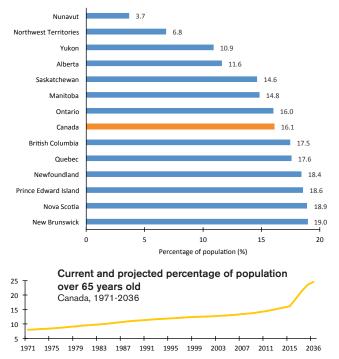
\*2012 data

\*\*2011 data

Source: Health status: Mortality. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\_LTCR# on July 12, 2016. www.oecd.org Demographics

# Percentage of population over 65 years old

Canada, 2015



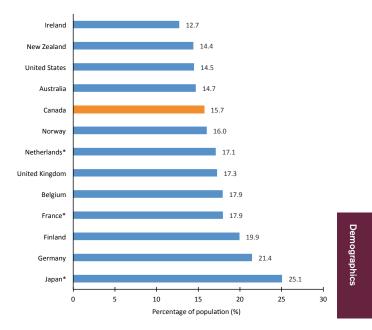
Note: 2015 data is an estimate from 2011 Census data

Source: Table 051-000: Estimates of population, by age group and sex for July 1, Canada, provinces and territories. Statistics Canada. Accessed at http://www2o.statcan.gc.ca/tables-tableaux/cansim/ csv/00510001-eng.zip on March 24, 2017. www.statcan.gc.ca

Table 10-1: Population projections for Canada, provinces and territories. Statistics Canada. Accessed at http://www.statcan.gc.ca/pub/91-520-x/91-520-x2010001-eng.htm on March 24, 2017. www.statcan.gc.ca

# Percentage of population over 65 years old

selected OECD countries, 2014

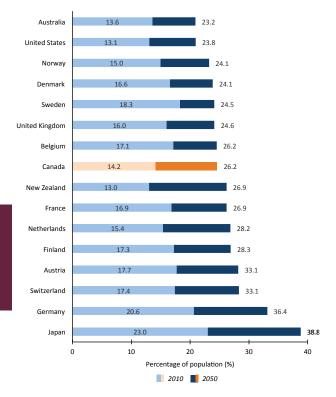


\*2013 data

Source: Labour force statistics. Organization for Economic Co-operation and Development. Accessed at http://www.oecd-ilibrary.org/employment/data/labour-force-statistics/summary-tables\_data-00286-en on March 23, 2017. www.oecd.org

## Percentage of population over 65 years old

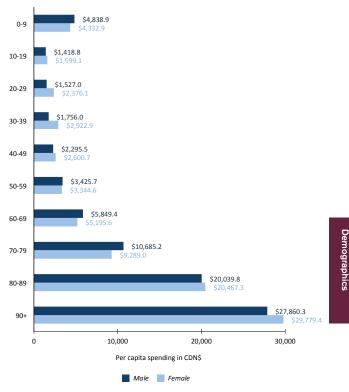
selected OECD countries, 2010 and 2050



Source: Health at a glance, 2015: Demographic trends. Organization for Economic Co-operation and Development. Accessed at http://www.oecd-ilibrary.org/social-issues-migration-health/health-at-aglance-2015/demographic-trends\_health\_glance-2015-71 en on January 8, 2016. www.oecd.org

# Health expenditure per capita, by age and sex

Canada, 2014



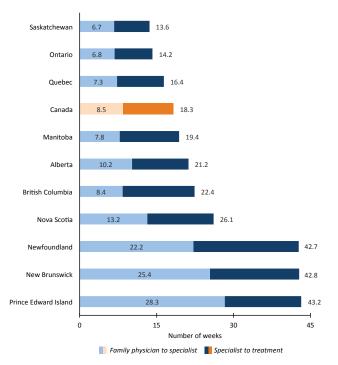
Source: National health expenditure database, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/national-health-expenditure-trends on March 23, 2017. www.cihi.ca

### Health System Performance



### Waiting time from referral by family physician to treatment

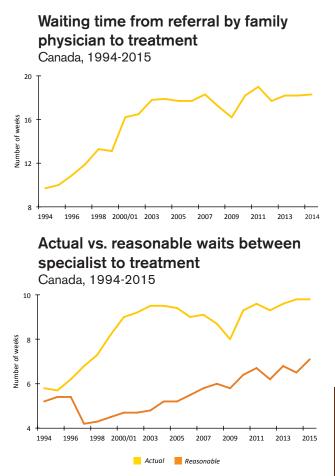
Canada, 2015



Note: Data was not available for Northwest Territories, Yukon, and Nunavut

Source: Waiting your turn: Wait times for health care in Canada, 2015 report. Fraser Institute. Accessed at https://www.fraserinstitute.org/sites/default/files/waiting-your-turn-2015.pdf on March 24, 2017. www.fraserinstitute.org

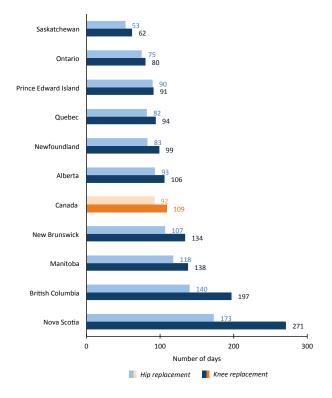
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Source: Waiting your turn: Wait times for health care in Canada, 2015 Report. Fraser Institute. Accessed at https://www.fraserinstitute.org/sites/default/files/waiting-your-turn-2015.pdf on July 17, 2016. www.fraserinstitute.org

# Hip and knee replacement - waiting time from specialist assessment to treatment

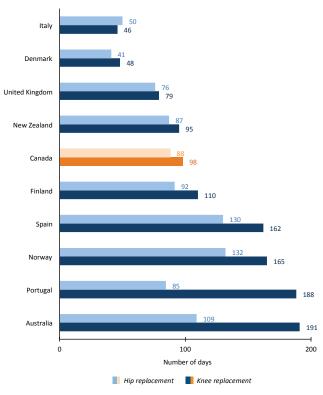
Canada, 2013



Source: Benchmarks for treatment and wait time trending across Canada. Canadian Institute for Health Information. Accessed at http://waittimes.cihi.ca on July 22, 2016. www.cihi.ca

# Hip and knee replacement - waiting time from specialist assessment to treatment

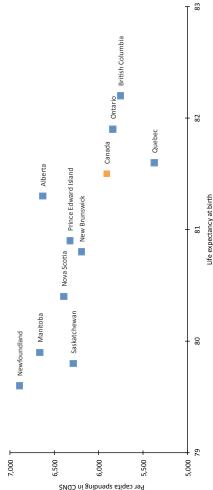
selected OECD countries, 2014



Source: Health care utilization: Waiting times. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/# on July 21, 2016. www.oecd.org



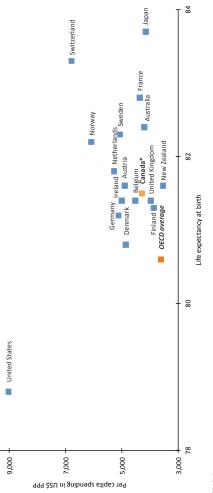




Source: Table 053-0003: Elements of the life table, Canada, provinces and territories. Statistics Canada. Accessed at http://www20.statcan.gc.ca/tables-tableaux/ cansim/csv/00530003-eng.zip on March 24, 2017, www.statcan.gc.ca

National health expenditure trends, 1975-2015. Canadian Institute for Health Information. Accessed at https://www.cihi.ca/en/spending-and-health-workforce/ spending/national-health-expenditure-trends on March 24, 2017. www.cihi.ca





\*2012 data

Source: OECD health statistics, 2015. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml. aspx?datasetcode=SHA&lang=en# on July 14, 2016. www.oecd.org Health status. Organization for Economic Co-operation and Development. Accessed at http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\_ STAT&lang=en# on July 7, 2016. www.oecd.org

Health System Performance


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