The mandate of the National Health Expenditure Database (NHEX) at the Canadian Institute for Health Information (CIHI) is twofold:

1. To support the development and evaluation of health programs in Canada by all levels of government and within the private sector.
2. To compile information on health expenditures that will accurately portray the importance of health care as a component of national expenditure.

Health expenditure — Includes any type of expenditure for which the primary objective is to improve or prevent the deterioration of health status.

7 K LG VH ¿ Q LDW OLRRQ Z Q RD PL W L YLEWL HD V XD HF GR UG SQ L P SX U S R V H D QY H F R Q H H U F W L YL K D W Q G H U Z D W K Q L U H X F W S R L F S U R Y L Q J or maintaining health are included. Other activities are not included, even though they may impact health. For example, funds aligning with housing and income support policies that have social welfare goals as their primary purpose are not considered to be health expenditures, yet they are recognized as powerful factors in determining population health.

The variables and concepts used to report national health expenditures in Canada are E D V HR Q V \ V WR HP O D V V L ¿F DW RQ V L Z LW Q WH U QV DW LR QG DO G H V O R S H G by the Organisation for Economic Cooperation and Development (OECD) for reporting health expenditures.

Please note that throughout this document and other NHEX products (e.g., snapshot, infographics), numbers may not add to the total due to rounding.

Hospitals — Institutions where patients are accommodated on the basis of medical need and are provided with continuing medical care and supporting diagnostic and therapeutic services. Hospitals are licensed or approved as hospitals by a provincial/territorial government, or are operated by the Government of Canada, and include those providing acute care, extended and chronic care, rehabilitation and convalescent care, and psychiatric care, as well as nursing stations or outpost hospitals.

Other Institutions — Include 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. Residential care facilities include homes for the aged (such as nursing homes); facilities for persons with physical disabilities, developmental delays, psychiatric disabilities, and alcohol and drug problems; and facilities for emotionally disturbed children. In these facilities, a mix of health and social services is provided; health services are largely at the level of nursing care, in combination with personal care services. The medical components of care are much less intensive than those provided in hospitals. Facilities solely of a custodial or domiciliary nature and facilities for transients or delinquents are excluded.

Physicians — Expenditures include primarily professional fees paid by provincial/territorial medical care insurance plans to physicians in private practice. Fees for services rendered

Other Health Spending

Other Health Spending: Home and Community Care (HCC) — CIHI has been undertaking G D W D G H Y H O R S P H Q W I R U K R P H D Q G F R P P X Q L W \ F D U H V H U Y L F H V and community care have been expanded to include home support and community-based

Gross domestic product (GDP) [1] — Is the sum of gross value-added originating within the boundaries of Canada, regardless of the ownership of the factors of production. GDP can be valued either at factor cost or at market prices. In NHEX publications, GDP is valued at market prices and is expressed in terms of the prices actually paid by the purchaser. It includes all indirect taxes, such as sales and excise taxes, customs duties and property W D [HDVQ G O VRÀ HVF KWHV S DFWX E V L \ P H Q W V

Implicit price indices — See Calculation of constant dollars in the section Calculation methods.

Purchasing power parity (PPP) [2] — Purchasing power parities are the rates of currency F R Q Y H UWKLEWRX D OWLKSHK U F K DSVRLZQRUG L ‡ H UF N Q WH Q7 K LPHVD QWKDJL Y H Q V X RI P R Q HZ\K HFQR Q Y HLUQWHLG H UF N Q WH Q WLKH3U D WZHLVE XOW KHD P H basket of goods and services in all countries. Thus PPPs are the rates of currency conversion W KHDWL P LGQLD‡WHU H LQQFUHLF HY EHDWZ FRXQ W U L H V

' D WLDF R O O HU FWHG Y HVURXHU E EQG Q F O XG H VE Q JD VRVLQY D Q E Q DRU P D W L R Q 7 K HG D WVR O O HDQWHG V VDLF FHGUWRE W K FWD E GELDVKHHYGLFRZP P L W W H H CIHI analysts and external experts continue to improve the comprehensiveness, accuracy and currency of the data to provide the most complete and objective estimates possible. Notwithstanding, national health expenditure data is estimated and should be used accordingly.

The coding standards for national health expenditures in Canada are based on a system
R I

7RWDO SURYLQFLDO WHUULWRULDO JRYHUQPHQW KHDOWK VSH
services reported by the provincial/territorial ministry of health as well as by other departments
WKDW UHSRUW VSHQGLQJ RQ KHDOWK DFFRUGLQJ WR QDWLRQD

During the preparation of NHEX reports, a package of information, including CIHI's estimates
RI SURYLQFLDO WHUULWRULDO JRYHUQPHQW KHDOWK H[SHQGL
provincial/territorial ministry of health for its review and feedback. This is to ensure that the
1+(; HVWLPDWHV UHÀHFW WKH SURYLQFLDO WHUULWRULDO PLQ

National health expenditure data is

Both NHEX and the Canadian MIS Database (CMDB) collect hospital expenditure data. An internal analysis comparing the 2 data holdings is conducted annually to understand WKHLU GL‡HUHQFHV DQG WR PRQLWRU FKDQJHV RYHU WLPH

:KLOH GDWD VRXUFHV GL‡HU 1+(; DQG &0'% GDWD DUH DOLJQH approach, in that the data is collected from administrative public accounts at the provincial/ WHUULWRULDO OHYHO ZKLOH WKH &0'% WDNHV D ³ERWWRP XS´ the facility and regional health authority levels and then aggregated to the provincial/territorial and national levels.

6HYHUDO IDFWRUV PD\ FRQWULEXWH WR WKH GL‡HUHQFHV LQ K LGHQWL¿HG WKURXJK D GHWDLOHG UHFRQFLOLDWLRQ EHWZHHQ

- Hospitals in Canada obtain revenues from provincial/territorial ministries of health, other public funders and private sources (e.g., preferred accommodation fees, parking and cafeteria sales, donations). Consistent with international standards and the OECD's System of Health Accounts, NHEX distinguishes among the sources and reports the expenditure under corresponding funders. When comparing the expenditure data from the 2 databases, it is important to account for this distinction in NHEX.
- NHEX includes payments for hospital services provided to out-of-province/-territory residents in Canada.
- NHEX data is at an aggregate level without detailed breakdowns (e.g., for drugs, capital and physician compensation). Expenditures for physicians who are paid by hospitals FDQQRW EH H[SOLFLWO\ LGHQWL¿HG DQG DUH LQFOXGHG LQ W

NPDUIS includes claim-level data adjudicated by public drug programs and submitted by the ministry of health. The amount paid by the drug program toward an individual's prescription costs is reported, including the drug cost, professional fees paid to the pharmacy and the P D U NFXKSD U JE HWGKSHK D U P D\ IF LDVP R XRQDWR UP D \Q RUWH À WFKMP S DRFDVQ \ rebates from drug manufacturers.

NHEX drug spending includes administration costs of pharmacare programs and drug spending from the ministry health and other ministries.

Statistics Canada (Public Sector Statistics Division) publishes estimates of government health expenditure as part of its comprehensive reporting of all government expenditures, W K*HR Y H U Q PLHQDWG FHD W L*V W L*F V G D W W [W U DIFUWRDPG P L Q L V WHDW L Y H and derived from other Statistics Canada surveys and/or other sources.[5]

The GFS public-sector health spending estimates are comparable to those reported in NHEX, H Y HWQK R XG LK H UF H Q W V L PHDWKLRQDS S OLQHG Q D U U RGZH UQ LRWKLHDQD W K H [S H Q G L W X H L G V K*H 6 + H U H U H P H D F W R K B L W J F W Q W U L G X W H U H Q F H V between the 2 databases:

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6 Ongoing quality improvement

Forecasts

NHEX contains actual expenditures from 1975 to 2021. To improve the timeliness of the data, health expenditures are forecasted for the latest 2 years so that a time series is available XS WR WKH FXUUHQW \HDU 3UHOLPLQDU\ HVWLPDWHV IRU D WDEOHV E\ WKHOYHWSWHOLPLQDU\ HVWLPDWHV DUH VXEMHFW W becomes available in subsequent years. Therefore, users should exercise caution when interpreting trends.

Provincial/territorial government health spending forecasts are based on the main estimates and budgets that are published earlier in the year; the forecasts are reviewed by the jurisdictions prior to publication. Depending on the jurisdiction,

- The numbers reported in the main estimates or budgets are used as the amounts for provincial/territorial government health spending for the forecast years; or
- Growth rates that are derived based on the main estimates or budgets are applied to the last year that has actual numbers to get the forecast numbers for the latest 2 years.

When deciding whether to use the numbers reported in the budgets or the derived growth rates, the NHEX team evaluates how close budget numbers have been to actual numbers in that jurisdiction in the past.

Forecasts for federal direct health care spending are based on information from the national public accounts and the Treasury Board of Canada's main estimates.

Forecasts for workers' compensation boards, municipal governments and the private sector are PDGH EDVHG HQWLUHO\ RQ HFRQRPHWULF DQDO\VLV RI WLPH VH

For Capital expenditures, estimates are obtained from Statistics Canada. The 2022 ¿JXUHV DUH EDVHG RQ SUHOLPLQDU\ DFWXDO GDWD ZKLOH

*'3 ¿JXUHV DW ERWK WKH QDWLRQDO DQG SURYLQFLDO WHUULW
and 2023 by applying The Conference Board of Canada's forecasted growth rate of GDP IRU WKH \HDU WR WKH SUHYLRXV \HDU ¿JXUHV &DQDGD

Forecasts for the government current expenditure price index are based on The Conference Board of Canada's latest forecasts of this index for Canada, Ontario and Quebec, and on CIHI's forecasts for the remaining provinces and territories.

The health component of the consumer price index (CPI) is forecast to December of the latest year based on the average of the monthly index up to April of the same year, which is the latest information available prior to the publication of the annual NHEX report.

Quality assurance assessment

For quality assurance, an assessment of forecast accuracy is conducted annually. The purpose of this assessment is to monitor and improve the accuracy of the forecasts, and to ensure transparency. The assessment is conducted by sector: total health expenditure, provincial/territorial government health expenditure, public health expenditure and private health expenditure. Comparisons of accuracy between the provinces and territories and comparisons of accuracy between the uses of funds are performed. One component of this analysis is a comparison of preliminary estimates with actuals when the data becomes available. To do the comparison, the forecast errors are calculated as follows:

)RUHFDVW HUURU$FWXDO)RUHFDVW

\HDU HUURU /DVW$FWXDO/DVW)RUHFDVW

)RU H[DPSOH LQ WKH UHSRUW ¿JXUHV DUH DFWXDO D
calculated based on the 2017 forecast in the 2018 report. Figure 2 presents the forecast error for provincial/territorial government spending by use of funds.

Figure 2

$GGLWLRQDOO\ PDGH XS DERXW)RU FDWHJRULHV W
total spending, big forecast variances won't result in large dollar amounts. For a better sense of the forecast accuracy in each category, Figure 3 presents the variations in dollars, calculated by multiplying the average revisions during the period 2014 to 2018 by health spending in 2019.[6]

Figure 3

5-year forecasts

Although health expenditures are forecasted for the latest 2 years in NHEX reports, 5-year forecasts of national health expenditures based on econometric models are conducted annually as an internal data quality exercise.

The 5-year forecasts of health expenditures are derived using macroeconometric models for public- and private-sector health expenditure. The 2 models are summed to provide total projected health expenditure. Autoregressive econometric models are used due to their time series nature and reliance on the 1-year lagged relative sector health expenditure, which proves W R E H K L J K O \ V W D W L V W L F D O O \ V L J Q L ¿ F D Q W

3HUVRQDO KHDOWK H[SHQGLWXUHV DUH FODVVL¿HG ZLWKLQ FD
FDUH XVHG &HUWDLQ FDWHJRULHV RI RXWSDWLHQW VHUYLFHV RU RWKHU
overlapping categories of expenditure is as follows:

- Institutional setting — Health care services consumed in hospitals or other institutions are allocated to the institutional setting category if the institution purchases the services on behalf of its patients. For example, physician services and drugs paid through hospital EXGJHWV DUH FODVVL¿HG DV
actually paid by patients or their agents in the form of government or insurance companies.
,W DOVR UHÀHFWV GDWD DYDLODELOLW\
- Self-employed provider of service — For example, all expenses of physicians' practices are considered to be expenditures for physician services, even though some of these expenses would be for employment of other health professionals, drugs or personal health supplies.
- Type of good and service — Drugs, personal health supplies and appliances are examples.

$Q H[FHSWLRQ WR WKH KLHUDUFK\ RI FODVVL¿FDWLRQ LV H\H
eyeglasses and contact lenses sold by optometrists are combined as 1 category: vision care services.

7KH GH¿QLWLRQV DQG PHWKRGV XVHG LQ WKH SUHSDUDWLRQ
based on those adopted in 1994 by the National Health Expenditure Methodology Review Committee. This committee included representation from Health Canada, Statistics Canada, the ministère de la Santé et des Services sociaux du Québec (MSSS), the Canadian Medical Association and the Canadian Healthcare Association.

The following is intended as a general overview of the methods applied to calculate estimates of health expenditure in Canada.

Provincial/territorial government

Data is extracted annually from provincial/territorial government public accounts. Programs
DQG RU SURJUDP LWHPV DUH FODVVL¿HG LQWR KHDOWK H[SHQ
DQG VWDQGDUGL]HG PHWKRGV DQG GH¿QLWLRQV XVHG LQ HVW
Data from the public accounts is supplemented with information from provincial/territorial government department annual reports and annual statistical reports when available,
DV ZHOO DV LQIRUPDWLRQ SURYLGHG E\ SURYLQFLDO
WHUULWRULDO JRYHUQPHQW KHDOWK VSHQGLQJ ¿JXUHV LQFOX
by the provincial/territorial ministry responsible for health as well as by other departments that report VSHQGLQJ RQ KHDOWK DFFRUGLQJ WR QDWLRQDO KHDOW

7KH PDLQ GL‡HUHQFHV EHWZHHQ WKH PHWKRGV UHODWH WR W
H[FOXGHG EHFDXVH RI WKHLU ³VRFLDO´ QDWXUH WKH UHYLVLR
and the inclusion of special government health funds, whose expenses should have been
LQFOXGHG 7KHVH UHYLVLRQV LQL¿FDQW FKDQJHV LPS\ D EUHDN LQ WKH
and 2015–2016. In particular, the following are observed:

- $ VLJQL¿FDQW LQFUHDVH LQ WRWDO H[SHQGLWXUHV IXQGHG E
  attributable to the inclusion of expenditures of the Health and Social Services Fund
  (FINESSS); and
- $ VLJQL¿FDQW LQFUHDVH LQ H[SHQGLWXUHV LQ FDWHJRULHV
  – 2WKHU 3URIHVVLRQDOV ² 0DLQO\ GXH WR WKH UHFODVVL¿FD
    previously recognized in other categories;
  – Other Health Spending — Mainly due to the inclusion of expenditures that were not
    included in the previous method (e.g., expenditure on home help); and
  – 2WKHU ,QVWLWXWLRQV ² 0DLQO\ GXH WR WKH LQFOXVLRQ RI
    and people in rehabilitation centres.

It should be noted that the decline in Public Health expenditures resulted from both
WKH UHFODVVL¿FDWLRQ RI FHUWDLQ H[SHQGLWXUHV DQG FKDQ
network as of April 1, 2015, notably the abolition of the agencies. The decline in Administration
H[SHQGLWXUHV PDLQO\ UHÀHFWV WKH JRYHUQPHQWDO JXLGHO
(again, tied to the abolition of the agencies).

In 2016, the Northwest Territories' Department of Health and Social Services reviewed
the health H[SHQGLWXUHV PHWKRGRORJ\ EDVHG RQ WKH 1+(; GH¿QL
DQG UH¿QHPHQWV ZHUH PDGH 7KHVH [LQ KHDOWK [LQ RWKHU LQVWLWXWLRQV [LQ SK\VLFLDQV [LQ DGPLQLVWUDWLRQ DQG [LQ SXEOLF KHDOWK
variations for Hospitals, Other Institutions, Physicians, Administration and Public Health in
2010–2011 data.

On April 1, 1999, Nunavut was formed from the eastern part of the Northwest Territories.
The

Private sector

Private-sector data was revised in 1995, following a methodology review that began in the early 1990s. Private-sector data under the revised methodology incorporated information estimated directly from new sources for 1988 and subsequent years.

Expenditure amounts prior to 1988 were estimated using trend data. Therefore, readers should exercise caution when using the private-sector expenditure data for small provinces and for years prior to 1988.

Health insurance F O D L P V E \ F D W H J R U \ D Q G S U H P L X P V D U H F R O O H F W H insurance companies and the Canadian Life and Health Insurance Association (CLHIA), Z K L F K V X U Y H \ V L W V P H 7 P K E H H G G L ‡ R H P U S H D Q Q F L H W Z H W Z H H Q F O D L P V D Q G S allocated to the category of prepayment administration, which includes operating costs, S U R Y L V L R Q V I R U I X W X U H E H Q H ¿ W V G L Y L G H Q G V D Q G H [S H U L H Q W H U U L W R U L D O W D [H V H J S U H P L X P W D [H V F D S L W D O D Q G L Q F D U H V S H Q G L Q J E \ F D V X D O W \ L Q V X U D Q F H F R P S D Q L H V Z L W K F R companies is included in the estimates. Since 2018, the new CLHIA survey data is the only V R X U F H I R U K H D O W K L Q V X U D Q F H F O D L P V E H F D X V H L W D O V R F R As a result, spending on physician care, other health care goods and other health services F D Q Q R W E H L G H Q W L ¿ H G

Out-of-pocket health expenditures are based mostly on data from the Survey of Household 6 S H Q G L Q J 6 + 6 I R U P H U O \ W K H) D P L O \ ([S H Q G L W X U H 6 X U Y H \ ¿ From the SHS health care category, only data on direct costs is used; for data on other medicines, drugs and pharmaceuticals (i.e., not prescribed by a doctor) and hospital care, NHEX uses other data sources, as described below. National health expenditure estimates are equal to the average expenditure per household for each category multiplied by the estimated number of households.

The SHS is an annual survey that began in 1996. Prior to 1996, full surveys that included both urban and rural areas were carried out in 1986 and 1992. In 1990, a survey was conducted that included only metropolitan areas. In years when complete surveys are carried out, data is available for the 10 provinces and for 17 urban centres. The urban centres include Yellowknife and Whitehorse, which are used to derive estimates of expenditure in the territories. Metropolitan expenditures per household tend to be somewhat higher than provincial/territorial estimates. All relevant categories were updated in complete survey years. In years when only

Historically, Public Health and Administration in the federal direct sector have been reported as 1 combined category. In an attempt to break out the category into separate components for public health and administration, an analysis of more detailed data available from 1988 to 2003 was undertaken. The estimated distribution between the categories during this period was applied to the historical data from 1975 to 1987 to produce separate estimates for public health and administration for the entire time series.

Municipal government

Municipal government health care spending is based on information from Statistics Canada up to 2008. Since then, Statistics Canada has reported government statistics based on the Government Finance Statistics (GFS) accounting framework. As a result, the consolidated municipal government–sector data on health is currently not available. After the methodology review of municipal health spending in NHEX, the data is now estimated based on the growth UDWHV FDOFXODWHG IURP DQQXDO UHSRUWV RU ¿QDQFLDO VW publications are available. Historical revisions have been made from 2009 to the present year.

Social security funds

In Canada, social security funds include the health care spending by workers' compensation boards and the Drug Insurance Fund component of the MSSS drug subsidy program.
The workers' compensation board data is derived from special tabulations from each provincial and territorial workers' compensation board of its medical aid expenditures. Income replacement and occupational rehabilitation are not included. Items included as medical aid that do not meet WKH QDWLRQDO KHDOWK H[SHQGLWXUH GH¿QLWLRQ RI KHDOWK

COVID-19 response funding by governments

The federal, provincial and territorial governments have included COVID-19 response funding in their public accounts, budgets and main estimates. The COVID-19 pandemic initially started in Canada in early 2020 and receded in 2022. Therefore, COVID-19 spending is available only LQ ¿VFDO \HDUV ± ± DQG ± ERWK DW WKH &D province and territory. Starting in 2022–2023, COVID-19 response funding is not forecasted as a stand-alone spending category. With COVID-19 response activities being incorporated into operational budgets, COVID-19 spending cannot be separated out from NHEX spending categories such as Hospitals, Long-Term Care, Public Health and Administration. As the SDQGHPLF VWDUWHG LQ HDUO\ DOO &29,' UHVSRQVH IXQ \HDU LV LQFOXGHG LQ WKH FDOHQGDU \HDU :KHQ FRQYHUW RQH TXDUWHU RI ¿VFDO \HDU ± &29,' UHVSRQVH IXQGLQ

Limitations

Due to uncertainties related to the pandemic, there is limited information from governments on COVID-19 response funding broken down by health spending category. Some jurisdictions have partial COVID-19 spending at a category level. Some provinces can identify only total COVID-19 spending with no further details at a category level. It is also possible that some health spending F D W H J R U L H V H J + R V S L W D O V P D \ L Q F O X G H V R P H & 2 9 , ' V S H separately. Therefore, identifying COVID-19 spending exclusively from other spending categories is a current limitation. As a result, total COVID-19 Response Funding is reported in NHEX as a V W D Q G D O R Q H F D W H J R U \ Z K H U H Y H U H [S O L F L W O \ L G H Q W L ¿ H G I F Once

Calculation of constant dollars

Real health expenditure and real per capita health expenditure are presented in constant (1997) dollars. In the absence of a universal health care price index, constant dollar expenditure was calculated using price indices for public and private expenditures in each province and territory. The indices are the implicit price indices (IPIs) for government current expenditure, ZKLFK DUH XVHG WR GHÀDWH SXEOLF VHFWRU KHDOWK FDUH V &3, ZKLFK LV XVHG WR GHÀDWH SULYDWH VHFWRU KHDOWK FD both sets of indices. A more complete explanation of the methodology for calculating IPIs is available in Statistics Canada publications.[1]

Hospitals

The distribution of provincial/territorial government hospital expenditure by age and sex is based on information from CIHI's Discharge Abstract Database (DAD) Ø L Y

Weighted case information from the DAD and the HMDB is for acute inpatient care only. Weighted cases for the majority of hospital-based ambulatory care (day surgery, emergency departments and clinics) are currently limited to some facilities in a couple of provinces.

At the time of publication of the most recent NHEX report, data was unavailable for Quebec for all years. The weighted patient counts for Canada (minus Quebec) from the RCF were used as a proxy for Quebec's distribution of Other Institutions expenditure.

After the RCF was terminated, Statistics Canada's 2016 Collective Dwelling Census was used to estimate the provincial/territorial age and sex distribution for other institutions in 2016. 2 types of collective dwelling are used for this analysis: nursing home and/or residence for senior citizens; and residential care facility, such as a group home for persons with disabilities RU DGGLFWLRQV 6LQFH WKH SUR¿OH RI UHVLGHQWV LQ &, (CCRS) has been used to estimate the age and sex distribution for Other Institutions.

Drugs

Provincial/territorial government prescribed drug expenditure primarily includes drugs that are dispensed through provincial/territorial drug subsidy programs. The level of coverage under WKHVH SURJUDPV YDULHV DFURVV WKH FRXQWU\ 8QLYHUVDO G all residents are currently not available in any province/territory. Most provincial/territorial government plans provide prescribed drugs to seniors and welfare recipients. Manitoba, Saskatchewan and British Columbia provide some coverage to all residents with an assortment of substantial individual deductibles and copayments. Similarly, Quebec instituted a universal plan in 1997 that requires Quebec residents to be covered under the provincial plan if a private group plan, usually available through an employer, is not available.

CIHI requested drug claims that were paid in a given year by age and sex from each provincial/territorial drug subsidy program. Some data from 2005–2006 was obtained from CIHI's NPDUIS. Drug claim information by age and sex is currently unavailable for Quebec, the Northwest Territories and Nunavut.

Provincial drug expenditures for Newfoundland and Labrador are distributed by age and sex based on the data received from the Newfoundland and Labrador Prescription Drug Program (NLPDP). Data collected from the NLPDP consists of 5 main plans (the Foundation Plan, 65Plus Plan, Access Plan, Assurance Plan and Select Needs Plan) and prescription drug claims paid by the Department of Health and Community Services. Prior to 2007–2008, drug expenditures were distributed by age and sex using the distribution of some New Brunswick drug plans as a proxy, based on their eligibility criteria.

Provincial drug expenditures for Nova Scotia are distributed by age and sex based on the data received from the Nova Scotia Seniors Pharmacare Program and prescription drug claims paid by the Department of Community Services through the Income Assistance 3URJUDP)DPLO\ %HQH¿WV 3URJUDP DQG)DPLO\ 3KDUPDFDUH 3

From 1995–1996 to 2002–2003, provincial drug expenditures for Alberta were distributed by age and sex based on data supplied by Alberta Health. Data was supplied for all 4 of Alberta's prescription drug plans: Seniors, Widow's Pension, Regular and Palliative Care. Alberta Human Resources and Employment provided data for its prescription drug expenditure under the Employment and Income Assistance programs (formerly under Alberta Family and Social Services) for 1995–1996 to 1998–1999 and for 2000–2001 onward. The age–sex distribution for 1999–2000 Alberta Human Resources and Employment's drug plan is based on 1998–1999 data. From 2003–2004 to 2006–2007, the age and sex distribution for Alberta's 4 prescription drug plans based on 2002–2003 data was used in the calculation. From 2007 to the present, NPDUIS data is used to distribute Alberta provincial drug expenditures by age and sex.

From 1996 to 2014, British Columbia's Ministry of Health Services supplied claims paid by age and sex of the client in calendar year for each plan administered by the PharmaCare program. NHEX drug plan expenditures for British Columbia were converted to calendar year and then applied to the distribution of the appropriate data supplied by the province. From 2015 to the present, NPDUIS data is used to distribute British Columbia provincial drug expenditures by age and sex.

Up to 2014, Yukon government drug expenditures were distributed by age and sex based on the data supplied by Yukon's Department of Health and Social Services. The data supplied included drug expenditure claims for 3 administered drug plans: Seniors, Child Drug Plan and Chronic Care Drug Plan. Data from 1995–1996 to 2004–2005 was provided for each plan, with the exception of the Child Drug Plan, which was implemented in 1997–1998. From 2015 to the present, NPDUIS data is used to distribute Yukon drug expenditures by age and sex.

Northwest Territories drug spending is distributed by age and sex based on the data supplied by the Northwest Territories Department of Health and Social Services.

Nunavut's Drugs category expenditure is based on the age–sex distribution for the Northwest Territories drug plans.

The provincial/territorial government drug estim 200distre preseam.

Other Professionals

Provincial/territorial governments provide a variety of health services delivered by health professionals other than physicians, including primarily dentists, optometrists, chiropractors and physiotherapists. All provinces provide various programs for seniors and children, as well as programs for income assistance recipients. However, the services provided vary considerably across Canada. Target populations, copayments and deductibles also vary from one province/territory to another. CIHI requested from each province/territory data for claims that were paid for by provincial/territorial governments in a given year, by age, sex and type of service provided by other health care professionals. Details of data availability and estimation methods are described below.

Data was unavailable from Prince Edward Island, New Brunswick and Nunavut. The remaining provinces and territories were able to supply data by age and sex for DSSUR[LPDWHO\ RU PRUH RI RWKHU SURIHVVLRQDO VHUYLFH ZDV XQDEOH WR Vservices, CIHI estimated the age and sex distribution for these services by using data from programs from other provinces/territories with similar coverage and eligibility levels. The age–sex distributions of the category Other Professionals for Prince Edward Island, New Brunswick and Nunavut (1999 onward) were estimated for 1998 onward. Dental expenditure by age and sex in Prince Edward Island was based on Newfoundland and Labrador Dental Health Plan clients age 3 to 16. Similarly, New Brunswick's dental expenditure for the Youth Income Assistance Plan was based on clients up to age 17 from the Newfoundland and Labrador dental plan. New Brunswick's age and sex distribution for the Income Assistance Optometry Plan was based on Saskatchewan Health's Supplementary Health Optometry Plan. As was the case with Nunavut's drug expenditure, Nunavut's Other Professionals category expenditure was based on the age–sex distribution for the Northwest Territories. Quebec's physiotherapy expenditure was distributed across a combined age–sex distribution of Ontario and British Columbia's fee-for-service physiotherapy plans. British Columbia's dental and optical spending from the Ministry of Social Development and Economic Security and Manitoba's dental and optical spending from Manitoba Family Services was distributed across the age and sex distribution of the Saskatchewan Supplementary Health Dental Program and Optical Program spending separately. Alberta's optical spending from Alberta Human Resources was distributed across the age and sex distribution of Saskatchewan's Supplementary Health Optical Program spending.

The provincial/territorial government expenditure estimates for Other Professionals at the program level are allocated to a given age group based on the value of claims paid in that age group relative to total claims paid. In provinces/territories with more than one program, the age–sex-distributed programs were combined to represent a total estimate for the SURYLQFLDO WHUULWRULDO 2WKHU 3URIHVVLRQDOV H[SHQGLW and converted to calendar year (see Calculation methods).

Total provincial/territorial government health expenditure by age and sex

To age–sex standardize total provincial/territorial government health expenditures, it is necessary that all categories of expenditure be distributed by age and sex for each province and territory. Unfortunately, age–sex distributions for all provincial/territorial government expenditures are currently not available in all provinces and territories. Consequently, CIHI estimated the missing data using the following methods.

Capital expenditure was estimated for all provinces and territories using the general provincial/ territorial populations by age and sex. This method was used based on 2 criteria: 1) capital investments in health care institutions typically last for decades, and those who do not use institutional services in a given year may use them in the future; and 2) given the uncertainty of illness, the availability of facilities has a value for all who potentially would use them if the need arose.

The remaining categories of Public Health, Administration and Other Health Spending were also estimated using the general provincial/territorial populations by age and sex based RQ WKH IROORZLQJ UDWLRQDOH 3XEOLF KHDOWK DQG KHDOWK DQG LW ZRXOG EH GLˆFXOW WR DWWULEXWH WKHP LQ GL‡HUHQ groups. Prepayment administration expenditures are accounted for mainly by the universal hospital and physicians' services plans. The rationale for distributing them according to the general population rather than based on utilization is because prepayment administration expenses are made up largely of the costs of registration systems for eligible residents, which cover the total population, and claims processing costs. The convention of allocating RWKHU KHDOWK H[SHQGLWXUH E\ SRSXODWLRQ GLVWULEXWLRQ error of the total provincial/territorial expenditure distributions.

Age–sex standardization of provincial/territorial government expenditures

For the purpose of age–sex standardization, CIHI used a direct method. Standardized expenditures by category were calculated by multiplying the male and female population of Canada in each of the 19 age groups by the expenditure per capita for each age group and sex by province and territory. Male and female standardized expenditure was aggregated and then divided by the total Canada population to generate the standardized per capita spending for a particular category by province and territory.

In the process of compiling the national health expenditure series from year to year, QHZ LQIRUPDWLRQ EHFRPHV DYDLODEOH PHWKRGV DQG FRQFHSWV are improved. The data is revised to incorporate these enhancements. This section refers to the data released in 2022.

Provincial/territorial government sector

The changes from 2012 onward for British Columbia and in 2020 for Manitoba and the 1RUWKZHVWHUULWRULHV ZHUH SULPDULO\ GXH WR D PHWKRGRORJ\ revisions were made for Ontario in 2019 and 2020 and for Nunavut in 2020 due to the availability of new information from the ministry.

Table 2

Year	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nun.	Canada
2012	—	—	—	—	—	—	—	—	—	37.1	—	—	—	37.1
2013	—	—	—	—	—	—	—	—	—	49.2	—	—	—	49.2
2014	—	—	—	—	—	—	—	—	—	50.9	—	—	—	50.9
2015	—	—	—	—	—	—	—	—	—	55.2	—	—	—	55.2
2016	—	—	—	—	—	—	—	—	—	58.8	—	—	—	58.8
2017	—	—	—	—	—	—	—	—	—	65.6	—	—	—	65.6
2018	—	—	—	—	—	—	—	—	—	114.6	—	—	—	114.6
2019	—	—	—	—	—	-39.9	—	—	—	157.9	—	—	—	117.9
2020	—	—	—	—	—	272.2	0.7	—	—	249.3	—	-47.2	1.0	476. 0

Note

[2] 1R VLJQL¿FDQW FKDQJH IURP WKH SUHYLRXV \HDU

Source

National Health Expenditure Database, Canadian Institute for Health Information.

Social security funds sector

7 K HF K D Q J R V O E H U W R D R Q Z D U G G R U L W H U W R D R Q Z D U G G R U L W H U W R P H W K R G R O R J H P H Q W
Historical revisions for Newfoundland and Labrador from 2015 onward were due to the availability of new information.

Table 4 Differences from previously reported social security funds–sector data, by province/territory and Canada, 2000 to 2020 ($ millions)

Year	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nun.	Canada
2000	—	—	—	—	—	—	—	—	106.0	—	—	—	—	106.0
2001	—	—	—	—	—	—	—	—	129.0	—	—	—	—	129.0
2002	—	—	—	—	—	—	—	—	112.3	—	—	—	—	112.3
2003	—	—	—	—	—	—	—	—	130.0	—	—	—	—	130.0
2004	—	—	—	—	—	—	—	—	116.3	—	—	—	—	116.3
2005	—	—	—	—	—	—	—	—	95.6	—	—	—	—	95.6
2006	—	—	—	—	—	—	—	—	57.8	—	—	—	—	57.8
2007	—	—	—	—	—	—	—	—	63.1	—	—	—	—	63.1
2008	—	—	—	—	—	—	—	—	36.7	—	—	—	—	36.7
2009	—	—	—	—	—	—	—	—	39.5	—	—	—	—	39.5
2010	—	—	—	—	—	—	—	—	55.5	—	—	—	—	55.5
2011	—	—	—	—	—	—	—	—	61.4	—	—	—	—	61.4
2012	—	—	—	—	—	—	—	—	50.4	—	—	—	—	50.4
2013	—	—	—	—	—	—	—	—	53.8	—	—	—	—	53.8
2014	—	—	—	—	—	—	—	—	61.9	—	—	—	—	61.9
2015	-0.6	—	—	—	—	—	—	—	76.0	—	—	—	—	75.4
2016	-0.5	—	—	—	—	—	—	—	48.2	—	—	—	—	47.7
2017	-0.2	—	—	—	—	—	—	—	62.9	—	—	—	—	62.7
2018	-1.6	—	—	—	—	—	—	—	—	—	—	—	—	—

Federal direct sector

7KH FKDQJHV LQ DFURVV MXULVGLFWLRQV ZHUH GXH WR D PHWKRGRORJ\ UH¿QH

Table 5

Year	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nun.	Canada
2020	5.1	1.5	15.8	15.9	9.9	-20.7	3.7	0.7	-24.8	-3.1	—	0.1	0.1	4.1

Note

[2] 1R VLJQL¿FDQW FKDQJH IURP WKH SUHYLRXV \HDU

Source

National Health Expenditure Database, Canadian Institute for Health Information.

Changes to the age–sex distributions from the previous year’s report occurred due to methodology revisions and new information from data sources.

Statistics Canada recently revised its population estimates back to 2020. The estimates in the NHEX report are now based on the latest released data of December 2022.

National health expenditure estimates are compiled based on information from the following sources.

- Provincial/territorial public accounts and main estimates.
- Provincial/territorial departments of health annual reports and statistical supplements where available.
- Annual reports of various foundations, agencies and commissions.
- 6 S H F L D O W D E X O D W L R Q V D Q G V S H F L ¿ F L Q I R U P D W L R Q I U R P Y D U reporting health expenditures.

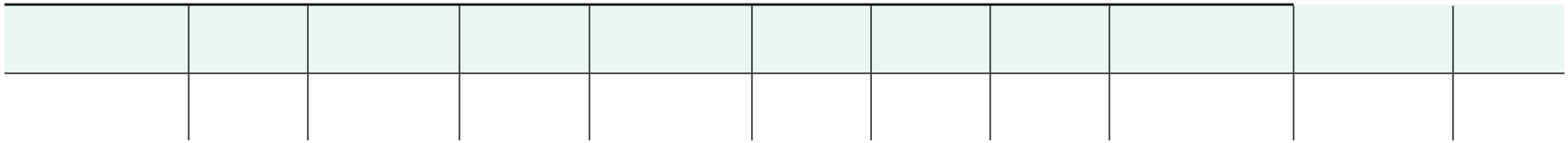
- Public Accounts of Canada.
- Main estimates of Treasury Board of Canada.
- Special tabulations/information from
  - Indigenous Services Canada;
  - ' H S D U W P H Q W R I ‡ D W V H U D Q V
  - Department of National Defence;
  - Public Safety Canada;
  - Statistics Canada;
  - Citizenship and Immigration Canada; and
  - Several organizations that are responsible for administering research funds from the federal government, such as the Canada Foundation for Innovation, the Canadian Foundation for Healthcare Improvement and the Canadian Institute for Advanced Research.

- Special tabulation from Statistics Canada.
- $QQXDO UHSRUWV RU ¿QDQFLDO VWDWHPHQWV RI YDULRXV FL

- Special tabulations on medical aid spending provided by the provincial/territorial workers' compensation boards.
- Annual reports of provincial/territorial workers' compensation boards.
- Special tabulations from the Quebec MSSS.

- Private insurance component:
  - 8QWLO WKH QRW IRU SUR¿W SRUWLRQ LV FDSWXUHG IUR WKH QRW IRU SUR¿W LQVXUDQFH FRPSDQLHV 6WDUWLQJ LQ tabulation provided by the Canadian Life and Health Insurance Association.
  - The commercial portion is captured from a special tabulation provided by the Canadian Life and Health Insurance Association.
- Out-of-pocket component:
  - SHS, Statistics Canada, except for the following categories:
    - Hospital accommodation (adjusted revenues from patient services) — Annual Return RI +HDOWK &DUH)DFLOLWLHV ¿HOGHG E\ 6WDWLVWLFV &D administered by CIHI from 1995–1996 onward.
    - Other institutions — 5&) 15&) ¿HOGHG E\ 6WDWLVWLFV &DQDGD
    - Over-the-counter drugs and personal health supplies — Market Review of Selected Drug Categories at Retail, a special tabulation purchased from the Nielsen Company Canada.
- Non-consumption component:
  - Hospital accommodation (adjusted revenues from non-patient services) — Annual 5HWXUQ RI +HDOWK &DUH)DFLOLWLHV 3DUW ¿HOGHG E\ 6 and the CMDB, from 1995–1996 onward.
  - Capital expenditures — Statistics Canada.
  - Health research — Association of Faculties of Medicine of Canada, Canadian Medical Education Statistics, Expenditure for Biomedical and Health Care Research of Canadian Faculties of Medicine by Source of Funds.

Figure 2: Forecast accuracy for provincial/territorial government expenditure by use of funds



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media@cihi.ca

CIHI Ottawa
495 Richmond Road
Suite 600
Ottawa, Ont.
K2A 4H6
613-241-7860

CIHI Toronto
4110 Yonge Street
Suite 300
Toronto, Ont.
M2P 2B7
416-481-2002

CIHI Victoria
880 Douglas Street
Suite 600
Victoria, B.C.
V8W 2B7
250-220-4100

CIHI Montréal