

# Methodology Notes



## How Canada Compares

Results From The Commonwealth Fund's  
2016 International Health Policy Survey  
of Adults in 11 Countries



Canadian Institute  
for Health Information

Institut canadien  
d'information sur la santé

Production of this document is made possible by financial contributions from Health Canada and provincial and territorial governments. The views expressed herein do not necessarily represent the views of Health Canada or any provincial or territorial government.

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For permission or information, please contact CIHI:

Canadian Institute for Health Information  
495 Richmond Road, Suite 600  
Ottawa, Ontario K2A 4H6

Phone: 613-241-7860

Fax: 613-241-8120

[www.cihi.ca](http://www.cihi.ca)

[copyright@cihi.ca](mailto:copyright@cihi.ca)

ISBN 978-1-77109-559-4 (PDF)

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How to cite this document:

Canadian Institute for Health Information. *How Canada Compares: Results From The Commonwealth Fund's 2016 International Health Policy Survey of Adults in 11 Countries — Methodology Notes*. Ottawa, ON: CIHI; 2016.

Cette publication est aussi disponible en français sous le titre *Résultats du Canada : Enquête internationale de 2016 du Fonds du Commonwealth sur les politiques de santé réalisée auprès d'adultes dans 11 pays — notes méthodologiques*.

ISBN 978-1-77109-560-0 (PDF)

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# Sampling methodology

The Commonwealth Fund's 2016 International Health Policy Survey of Adults reflects patients' experiences and perceptions among a random sample age 18 and older in 11 countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States.

**Table 1** Total number of interviews completed

Countries	Total interviews	Provinces/ territories	Total interviews	Percentage distribution
Australia	5,248	Newfoundland and Labrador	253	5.6%
Canada	<b>4,547</b>	Prince Edward Island	251	5.5%
France	1,103	Nova Scotia	253	5.6%
Germany	1,000	New Brunswick	251	5.5%
Netherlands	1,227	Quebec	1,002	22.0%
New Zealand	1,000	Ontario	1,500	33.0%
Norway	1,093	Manitoba	255	5.6%
Sweden	7,124	Saskatchewan	251	5.5%
Switzerland	1,520	Alberta	271	6.0%
United Kingdom	1,000	British Columbia	254	5.6%
United States	2,001	Territories (Yukon, Northwest Territories, Nunavut)	6	0.1%
		<b>Total</b>	<b>4,547</b>	<b>100%</b>

The Commonwealth Fund funded 1,000 completed interviews across Canada. The Canadian Institute for Health Information (CIHI) and the Canadian Institutes of Health Research (CIHR) funded additional interviews to reach 250 completed interviews in each province. Sample sizes were further increased in Quebec and Ontario with funding from the Commissaire à la santé et au bien-être du Québec and Health Quality Ontario, respectively. In total, 4,547 interviews were completed across Canada.

# Data collection

The survey consisted of computer-assisted telephone interviews (landline and cell phone) using a common questionnaire that was translated and adjusted for country-specific wording as needed. Switzerland also offered an online option.

In Canada, the sampling design covered more than 95% of in-service landline/cell phone numbers. Landlines included voice-over-internet protocol (VoIP) phones. Telephone numbers of people in long-term care residential facilities and on Aboriginal reserves were included in the sampling design. The survey was conducted from March 2 to May 19, 2016, by Social Science Research Solutions (SSRS), a firm contracted by The Commonwealth Fund to manage Canadian data collection. Separate landline and cell phone programs were staffed with bilingual interviewers in order to accommodate French-speaking Canadians. Among the 4,547 respondents, 59% were female and 41% male. 73% of the respondents were reached by landline and 27% by cell phone.

**Table 2** Response rates by country

Country	Total
Australia	25.4%
Canada	<b>21.4%</b>
France	25.2%
Germany	26.9%
Netherlands	32.4%
New Zealand	31.1%
Norway	10.9%
Sweden	16.9%
Switzerland	46.9%
United Kingdom	21.9%
United States	18.1%

**Note**

Response rates are calculated using the approach of the American Association for Public Opinion Research.

The Canadian response rate of 21% is comparable to the 24% attained in the 2013 Commonwealth Fund International Health Policy Survey of the General Public.

# Coverage

The Commonwealth Fund's 2016 survey focused on adults age 18 and older. The following subjects were covered:

- Patient's access to primary and preventive care, including promptness of attention (e.g., availability of same-day appointment)
- Patient's experience with regular doctor/general practitioner, including coordination of health care services
- Patient's use of and experience with specialists
- Patient's experience with care in the hospital and emergency department
- Health care coverage, affordability of care, experience with administrative/financial burdens and out-of-pocket costs
- Experience with prescription medication and medical errors
- Patient's overall health and chronic medical conditions
- Behavioural factors affecting health and social context
- Overall views of the health care system

# Weighting of results

Data was weighted to help ensure the final outcome is representative of adults age 18 and older in each country.

Survey data for Canada was weighted by age, gender, educational attainment and phone status (landline phone with multiple adults versus single adult in household; cell phone only versus dual usage of landline and cell phone) within each province. Data was weighted for knowledge of official languages in Quebec and in Canada as a whole. Additionally, data was then weighted to reflect Canada's overall geographic distribution for all provinces and territories.

- Population parameters were derived from the Canadian 2011 Census.
- Phone status was derived from the 2013 Residential Telephone Service Survey for Canada as a whole and for all 10 provinces in particular. For each geographic unit, the cell phone-only percentage indicated in the data was a projected estimate based on International Telecommunication Union 2014 mobile usage subscriptions and Statistics Canada's 2014 Survey of Household Spending.

- To address concerns about selection bias, the following base-weight adjustments were implemented:
  - Within-household correction (WHC): Respondents reached by landline phone and living in households with 2 or more adults received a weight of 2. Those living in single-adult households received a weight of 1. Since no selection was done in cell phone households, the probability of selection there was 1.
  - Dual-usage correction (DUC): Adults answering both landlines and cell phones received a weigh of 0.5. Those answering only a single mode received a weight of 1.
  - A base weight was created equaling the product of WHC × DUC.
- With the base weight applied, the sample underwent iterative proportional fitting (or “raking”), a procedure in which the data was repeatedly balanced to match the known marginal distribution of the population parameters. This procedure was repeated until the total differences between the weighted sample and the population parameters were near 0.
- Weighting procedures were, overall, consistent with the protocol for The Commonwealth Fund’s 2013 survey of the general public and 2014 survey of older adults (age 55+).

**Table 3** Unweighted and weighted distributions of respondents, provinces and territories

Provinces/territories	Unweighted distribution	Weighted distribution
Newfoundland and Labrador	5.6%	1.6%
Prince Edward Island	5.5%	0.4%
Nova Scotia	5.6%	2.9%
New Brunswick	5.5%	2.3%
Quebec	22.0%	24.1%
Ontario	33.0%	38.1%
Manitoba	5.6%	3.5%
Saskatchewan	5.5%	3.0%
Alberta	6.0%	10.6%
British Columbia	5.6%	13.2%
Territories (Yukon, Northwest Territories, Nunavut)	0.1%	0.3%

# Significance testing

CIHI developed statistical methods to determine whether

- Canadian results were significantly different from the average of 11 countries; and
- Provincial results were significantly different from the international average.

A colour code legend is used in results tables, bar graphs and elsewhere in the chartbook<sup>i</sup> to indicate significantly different results.

For the calculation of variances and confidence intervals, standard methods for the variances of sums and differences of estimates from independent simple random samples were used, with the design effects provided by SSRS used to appropriately adjust the variances for the effects of the survey design and post-survey weight adjustments.

## Averages

In the chartbook, The Commonwealth Fund average was calculated by adding the results from the 11 countries and dividing by the number of countries. In the chartbook and data tables (a companion product), the Canadian average represents the average experience of Canadians in all provinces and territories (as opposed to the mean of provincial results).

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i. An accessible PDF is also available on [CIHI's website](#).

**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**

1010 Sherbrooke Street West  
Suite 602  
Montréal, Que.  
H3A 2R7  
**514-842-2226**

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cihi.ca

14346-1216

