

# How Canada Compares: Results From The Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians — Methodology Notes

## Sampling methodology

The Commonwealth Fund 2015 International Health Policy Survey of Primary Care Physicians reflects the experience and perceptions of a random sample of primary care physicians (PCPs) in 11 countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States. Please note, however, that data from France was not available at the time the chartbook and data tables were prepared.

**Table 1** Total number of interviews completed

Countries	Total interviews	Provinces and territories	Total interviews	Percentage distribution
Australia	747	Newfoundland and Labrador	166	7.3%
<b>Canada</b>	<b>2,284</b>	Nova Scotia	173	7.6%
France	n/a	New Brunswick	180	7.9%
Germany	559	Quebec	455	19.9%
Netherlands	618	Ontario	558	24.4%
New Zealand	503	Manitoba	183	8.0%
Norway	864	Saskatchewan	189	8.3%
Sweden	2,905	Alberta	179	7.8%
Switzerland	1,065	British Columbia	196	8.6%
United Kingdom	1,001	Other*	5	0.2%
United States	1,001	<b>Total</b>	<b>2,284</b>	<b>100%</b>

**Note**

\* Other includes Prince Edward Island, Yukon, the Northwest Territories and Nunavut.

The Commonwealth Fund funded 500 completed interviews across Canada. Sample sizes were further increased by 250 and 323 in Quebec and Ontario, respectively, with funding from the Commissaire à la santé et au bien-être du Québec and Health Quality Ontario. The Canadian Institute for Health Information (CIHI), the Canadian Institutes of Health Research (CIHR) and Canada Health Infoway funded 1,211 additional completed interviews across Canada, for a total of 2,284 respondents.

### Data collection

The survey consisted of paper, online and computer-assisted telephone interviews of PCPs using a common questionnaire that was translated and adjusted for country-specific wording as needed. In Canada, participants were recruited via postal mail and invited to participate in a paper or online version of the survey, which was in the field from March 5 to June 5, 2015. A total of 2,284 respondents were surveyed by Social Science Research Solutions (SSRS), a firm contracted by The Commonwealth Fund to manage Canadian data collection. Among these respondents, 52% were male and 48% were female.

**Table 2** Response rates by country

Country	Total
Australia	25%
<b>Canada</b>	<b>32%</b>
France	n/a
Germany	19%
Netherlands	41%
New Zealand	28%
Norway	44%
Sweden	47%
Switzerland	39%
United Kingdom	39%
United States	31%

**Note**

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

### Coverage

The 2015 survey focused on PCPs. As such, some physicians were excluded (e.g., those working exclusively in emergency departments and in research or teaching positions). The following subjects were covered:

- Health system views, practice experience and practice satisfaction
- PCPs' perceptions of patient access
- Patient mix and preparedness

- Caring for and coordinating care for patients with chronic conditions
- Coordination and information flow between providers and sites of care
- Talking to patients about end-of-life care
- Office systems and information technology use
- Quality measurement and improvement

### Weighting of results

The PCP data in Canada was weighted to account for

- The over-representation of PCPs in some provinces;
- The availability of an email address (since respondents with email addresses could be contacted by both mail and email); and
- Differential non-response along known geographic and demographic parameters.

The weighting adjustment was conducted in 2 stages:

1. *Design weight:* The distributions by email availability and province were balanced to the breakdown in the sampling frame. The design-weight adjustment for email availability was done separately for Ontario, Quebec and the rest of Canada. In addition, a design-weight adjustment for each province was done for non-Ontario/non-Quebec provinces.
2. *Post-stratification weight:* An iterative proportional fitting (IPF) procedure was used to create the post-stratification weights. This is a procedure in which the data is repeatedly balanced to match the known marginal distribution of population parameters.

Data was weighted by age and gender within Ontario, Quebec and the rest of Canada. Additionally, it was subsequently weighted to reflect Canada's PCP distribution by province. All benchmarks were derived from the CMA Masterfile, January 2015, Canadian Medical Association.

**Table 3** Weighted and unweighted distributions of PCPs by province

Province	Unweighted distribution	Weighted distribution
Newfoundland and Labrador	7.3%	2.4%
Nova Scotia	7.6%	3.5%
New Brunswick and Prince Edward Island	8.1%	3.4%
Quebec	19.9%	23.9%
Ontario	24.4%	33.3%
Manitoba	8.0%	3.7%
Saskatchewan	8.3%	3.6%
Alberta	7.8%	11.9%
British Columbia	8.6%	14.4%

The weights help ensure that the final outcome is representative of the PCP population, based on the population parameters and selected specialty types. Weighting procedures were, overall, consistent with the 2012 survey protocol.

### Significance testing

CIHI developed statistical methods to determine whether

- Canadian results were significantly different from the average of 10 countries;
- Provincial results were significantly different from the international average; and
- Provincial results were significantly different from the Canadian average.

An asterisk (\*) is used in the chartbook to indicate when results are significantly different on bar graphs. Moreover, a colour code legend is used in results tables, bar graphs and elsewhere in the chartbook.

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.