



# Patient Experience in Canadian Hospitals

## Methodology Notes



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# 1 Background

Comparative public reporting enables jurisdictions to situate themselves relative to their peers. This discussion of results fosters quality improvement and facilitates the sharing of best practices across jurisdictions. The digital report [Patient Experience in Canadian Hospitals](#) provides a high-level summary of results from the Canadian Patient Experiences Survey — Inpatient Care (CPES-IC). This report offers a first look at results captured in the Canadian Institute for Health Information's (CIHI's) Canadian Patient Experiences Reporting System (CPERS). It examines how Canadian patients feel about how information was communicated and shared at different stages of their hospital stay. More information on the CPES-IC and CPERS can be found on [CIHI's website](#).

## 2 Purpose

These notes provide an overview of the methodology used for preparing the results presented in the report as well as important issues to consider when interpreting the results.

## 3 Survey information

The CPES-IC is a standardized questionnaire that lets patients provide feedback about the quality of care they received during their most recent stay in a Canadian hospital. This standardized tool

- Helps hospitals conduct a structured assessment of patient experiences with care;
- Promotes the use of patient experiences to inform the delivery of patient-centred care and quality improvement initiatives; and
- Provides a platform for national comparisons and benchmarking for the measurement of patient experiences.

The CPES-IC has been endorsed by Accreditation Canada and meets the accreditation requirements for patient experience surveying in acute care. The survey includes

- 22 questions about patient experiences from the U.S.-based Hospital Consumer Assessment of Healthcare Providers and Systems Survey;
- 19 questions that address key areas relevant to the Canadian context (e.g., discharge and transitions); and
- 7 questions to collect demographic information.

Read more about the [survey](#), as well as the [development process and consultation](#).

## 4 Survey administration

The [Canadian Patient Experiences Survey — Inpatient Care Procedure Manual, January 2019](#) outlines the requirements for survey administration for jurisdictions that participate in and submit data to CPERS. CIHI works closely with submitting hospitals and jurisdictions to ensure adherence to these requirements. Standards ensure that the data is collected consistently, allowing results to be compared across Canada and internationally.

## 5 Provincial information

As a result of variation in survey and data submission cycles, this report includes the most recent year of data available that has been submitted to CPERS from New Brunswick, Ontario, Manitoba, Alberta and British Columbia. Table 1 presents the number of survey respondents, number of hospitals and survey administration information by submitting province.

**Table 1** CPES-IC participants and survey response details

Province	Data year	Coverage	Number of survey respondents	Number of hospitals	Survey mode	Response rate
<b>New Brunswick</b>	2015–2016	Complete	6,314 (6.9%)	19	Mail	47.4%
<b>Ontario</b>	2017–2018	Partial	34,970 (38.2%)	65	Mail/online/telephone	38.3%
<b>Manitoba</b>	2017–2018	Complete	10,414 (11.4%)	49	Mail/online	34.9%
<b>Alberta</b>	2017–2018	Complete	19,717 (21.6%)	93	Telephone	25.8%
<b>British Columbia</b>	2016–2017	Complete	20,020 (21.9%)	77	Telephone/online	37.6%

**Note**

The response rate includes maternity patients due to an inability to exclude them from the calculation at this time.

**Source**

Canadian Patient Experiences Reporting System, 2015–2016 to 2017–2018, Canadian Institute for Health Information.

To further aid interpretation of results at the provincial level, Table 2 presents the number of hospitals and survey respondents by peer group. Peer group categories are used to group facilities that have similar structural and patient characteristics. For more details, please see the [peer group methodology notes](#).

**Table 2** Number of hospitals and survey respondents, by peer group and province

Province	Teaching hospital		Community Large hospital		Community Medium hospital		Community Small hospital	
	Number of hospitals	Number of survey respondents	Number of hospitals	Number of survey respondents	Number of hospitals	Number of survey respondents	Number of hospitals	Number of survey respondents
New Brunswick	1	1,539	3	2,844	6	1,540	9	391
Ontario	12	17,764	20	10,890	21	5,127	12	1,189
Manitoba	2	3,092	4	2,782	7	2,117	36	2,423
Alberta	7	11,502	6	3,808	5	886	75	3,521
British Columbia	11	8,945	11	5,594	18	3,680	37	1,801

**Source**

Canadian Patient Experiences Reporting System, 2015–2016 to 2017–2018, Canadian Institute for Health Information.

## 6 Survey mode

At this time, jurisdictions submitting data to CPERS collect survey data in varying modes, including by mail, telephone and online. Table 3 presents the different survey modes and the number of respondents for each mode included in the report.

**Table 3** CPES-IC survey modes and number of respondents

Survey mode	Number of respondents	% of all surveys in the report
Mail	50,008	54.6%
Online	4,203	4.6%
Telephone	37,224	40.7%
<b>Total</b>	91,435	Not applicable

**Source**

Canadian Patient Experiences Reporting System, 2015–2016 to 2017–2018, Canadian Institute for Health Information.

The mode of survey administration may impact hospital results by influencing the composition of respondents and the way respondents answer questions. The telephone interview format, for example, tends to lead to responses that are more positive over the self-administered paper-based format.<sup>1</sup>

## 7 Results calculation

### Measures calculation

The CPES-IC consists of 23 patient-reported experience measures (10 multi-question, 9 single and 4 overall hospital rating measures). Please see the table in [Canadian Patient Experiences Survey — Inpatient Care: Patient-Reported Experience Measures](#) for further details. Results presented in the report are a combination of CPES-IC question results and measures, including both multi-question and single-question measures.

- The single measures are stand-alone survey questions measuring a distinct concept.
- The multi-question measures (composite) are a combination of survey questions with similar concepts. Multi-question measures are calculated by averaging the most positive or least positive results (Top Box or Bottom Box scores).

### Most positive (Top Box) and least positive (Bottom Box) scores

Results are reported as the percentage of survey respondents who chose the most positive or least positive response(s) to a given survey question (Top Box or Bottom Box results).

- Top Box scores are the percentage of survey respondents who chose the most positive response(s) to a given survey question. The higher the Top Box score, the higher the number of patients who responded favourably.
- Bottom Box scores are the percentage of survey respondents who chose the most negative response(s) to a given survey question. The higher the Bottom Box score, the higher the number of patients who responded unfavourably.

Results are defined based on the response scale for a given survey question. Table 4 provides examples of how Top Box and Bottom Box data is defined for different response scales from the CPES-IC survey questions.

**Table 4** Defining Top Box and Bottom Box

CPES-IC survey question response scale	Top Box definition	Bottom Box definition
<p><b>1. During this hospital stay, how often did nurses treat you with <u>courtesy and respect</u>?</b></p> <p><input type="checkbox"/> Never</p> <p><input type="checkbox"/> Sometimes</p> <p><input type="checkbox"/> Usually</p> <p><input type="checkbox"/> Always</p>	Always	Never
<p><b>21. Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?</b></p> <p><input type="checkbox"/> 0 Worst hospital possible</p> <p><input type="checkbox"/> 1</p> <p><input type="checkbox"/> 2</p> <p><input type="checkbox"/> 3</p> <p><input type="checkbox"/> 4</p> <p><input type="checkbox"/> 5</p> <p><input type="checkbox"/> 6</p> <p><input type="checkbox"/> 7</p> <p><input type="checkbox"/> 8</p> <p><input type="checkbox"/> 9</p> <p><input type="checkbox"/> 10 Best hospital possible</p>	9 or 10	0 to 6
<p><b>22. Would you recommend this hospital to your friends and family?</b></p> <p><input type="checkbox"/> Definitely no</p> <p><input type="checkbox"/> Probably no</p> <p><input type="checkbox"/> Probably yes</p> <p><input type="checkbox"/> Definitely yes</p>	Definitely yes	Definitely no
<p><b>25. Was your admission into the hospital organized?</b></p> <p><input type="checkbox"/> Not at all</p> <p><input type="checkbox"/> Partly</p> <p><input type="checkbox"/> Quite a bit</p> <p><input type="checkbox"/> Completely</p>	Completely	Not at all



## Weighting and standardization

Since the CPES-IC is collected through a survey approach, all results are weighted to better reflect the population that each response represents. Jurisdictions and hospitals have adopted varying sampling approaches based on their number of discharges, patient characteristics and quality improvement goals. Sampling approaches applied are simple random sampling, proportionate or disproportionate stratified random sampling or a census. Sample design weighting is intended to ensure that the sample is as representative of the eligible hospital population as possible.

To compensate for patients with certain characteristics who are more or less likely to respond to a survey, age–gender standardization has been applied to results, where applicable. The reference population for standardization is prepared using the Discharge Abstract Database (DAD) and applying the inclusion and exclusion criteria described in the CPES-IC procedure manual. Standardization is applied to make the age–gender distribution reflect the DAD eligible population. As part of standardization, a non-response adjustment was applied.

For more information on weighting, non-response adjustment and standardization, please email [prems@cihi.ca](mailto:prems@cihi.ca).

## Patient groups

3 patient populations are targeted for CPES-IC data collection: maternity, surgical and medical patients. Currently, surgical and medical patients cannot be consistently separated within the respondent population.

To ensure comparability across hospitals and to prevent misinterpretation, results do not include maternity patients. Results have shown that maternity patients typically respond more favourably about their experience in hospital.

## 8 Resources

The following documents and tools are available to support the use of the results presented in the digital report [Patient Experience in Canadian Hospitals](#).

- [Canadian Patient Experiences Survey — Inpatient Care: Patient-Reported Experience Measures](#)
- [Canadian Patient Experiences Survey — Inpatient Care Data Dictionary Manual, January 2019](#)
- [Canadian Patient Experiences Survey — Inpatient Care Procedure Manual, January 2019](#)
- [Canadian Patient Experiences Survey — Inpatient Care](#)

## 9 References

1. Elliott MN, et al. [Effects of survey mode, patient mix, and nonresponse on CAHPS® hospital survey scores](#). *Health Services Research*. 2009.

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