Acute Care Patient-Reported Experience Measures

Methodology Notes
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1 Background

The web tool Your Health System: In Depth and In Brief allows hospitals to compare themselves with others based on results from the Canadian Patient Experiences Survey — Inpatient Care (CPES-IC). More information on the CPES-IC and the Canadian Patient Experiences Reporting System (CPERS) can be found on CIHI’s website.

Results foster quality improvement activities and facilitate sharing of best practices across jurisdictions. Your Health System allows for comparisons with peers and with other hospitals from across the country.

As of May 2022, results for 5 measures (Communication With Doctors, Communication With Nurses, Involvement in Decision-Making and Treatment Options, Information and Understanding When Leaving the Hospital, Overall Hospital Experience) are available in Your Health System for the first time. Details on performance assessment, funnel plots, trending and suppressions are outlined in Section 7.

2 Purpose

The purpose of these methodology notes is to provide details behind the calculation and reporting of the CPES-IC results. This information helps users interpret the results and highlights important considerations when drawing comparisons.

3 Survey administration

The Canadian Patient Experiences Survey — Inpatient Care Procedure Manual outlines the requirements for survey administration for jurisdictions that participate in and submit data to CPERS.
4 Measures calculation

The CPES-IC consists of 23 patient-reported experience measures (10 composite, 9 single and 4 overall hospital rating measures). The composite measures are derived by combining survey questions with similar concepts. The single measures are stand-alone survey questions measuring a distinct concept. Please see the Canadian Patient Experiences Survey — Inpatient Care: Patient-Reported Experience Measures for further details.

Top Box results are publicly reported in Your Health System: In Depth and In Brief for 5 measures: Communication With Doctors, Communication With Nurses, Involvement in Decision-Making and Treatment Options, Information and Understanding When Leaving the Hospital and Overall Hospital Experience.

Results for the patient experience measures are reported as Top Box and Bottom Box results. Top Box results calculate the percentage of survey respondents who chose the most positive response(s) to a given survey question. The higher the Top Box result, the higher the number of patients who responded favourably. A higher Bottom Box result indicates that a higher number of patients responded unfavourably. Top Box and Bottom Box are defined based on the response scale for a given survey question. Table 1 provides examples of how Top Box and Bottom Box are defined for different response scales from the CPES-IC survey questions. All Top Box and Bottom Box percentage results have been adjusted for survey design, non-response, mode of survey completion and service line; they have also been age–sex standardized, where applicable, to the hospital population. Please see Section 5.3 for more details.
### Table 1  Defining Top Box and Bottom Box

<table>
<thead>
<tr>
<th>CPES-IC survey question response scale</th>
<th>Top Box definition</th>
<th>Bottom Box definition</th>
</tr>
</thead>
</table>
| 1. During this hospital stay, how often did nurses treat you with *courtesy and respect*?  
  • Never  
  • Sometimes  
  • Usually  
  • Always | Always | Never |
| 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?  
  • 0 (Worst hospital possible)  
  • 1  
  • 2  
  • 3  
  • 4  
  • 5  
  • 6  
  • 7  
  • 8  
  • 9  
  • 10 (Best hospital possible) | 9 or 10 | 0 to 6 |
| 22. Would you recommend this hospital to your friends and family?  
  • Definitely no  
  • Probably no  
  • Probably yes  
  • Definitely yes | Definitely yes | Definitely no |
| 25. Was your admission into the hospital organized?  
  • Not at all  
  • Partly  
  • Quite a bit  
  • Completely | Completely | Not at all |
4.1 Composite measures

The Top Box and Bottom Box hospital results for a composite measure are calculated by averaging the Top or Bottom Box results for each corresponding survey question. To calculate a hospital’s Top Box result, all respondents from a hospital who responded with a Top Box (most positive) category for each question in a measure are summed and divided by the total number of respondents from the hospital for that question. For example, the Communication With Nurses composite is made up of 3 survey questions (questions 1, 2 and 3). If the Top Box result for the first survey question for a facility is 80%, for the second survey question is 75% and for the third survey question is 70%, the composite Top Box result for Communication With Nurses would be 75%: \( \frac{80\% + 75\% + 70\%}{3} = 75\% \).

5 Weighting of CPES-IC survey measures

5.1 Sample design weighting

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 (DSRS), or a census. Sample design weighting is intended to ensure that the sample is as representative of the eligible hospital population as possible. The calculation steps to prepare the weighted hospital result for a composite measure are shown in Table 2 as an example.

A disproportionate sampling method indicates that the size of the sample randomly drawn from a particular stratum is not proportional to the relative size of that population. For example, a stratum could be a surgical unit that may account for only 20% of all hospital patients but 40% of the resources used in a hospital. In this case, a disproportionate sample could be used to represent the resources used (i.e., 40%) rather than the number of patients.

Where applicable, hospital-level measure results are weighted for sample design. Peer, regional, provincial and national CPERS averages are also weighted for sample design.
### Table 2  Sampling design weighted result calculation

<table>
<thead>
<tr>
<th>Step</th>
<th>Equation</th>
</tr>
</thead>
</table>
| 1. **Sampling weights:** Calculate sampling weights for each sampling stratum and apply to each respondent record in the stratum | \[
\text{Sampling weight for } S_j = \frac{\text{# of eligible patients discharged from } S_j}{\text{# sampled from } S_j}
\]
|  | Sampling weight for \( S_j \) equals number of eligible patients discharged from \( S_j \) divided by number sampled from \( S_j \) |
| 2. **Denominator for each question within a stratum:** Within each sampling stratum, sum the sampling weights for all respondents for each question with evaluative response | \[
\text{Weighted population for } S_j \text{ equals number of responses for } Q_i \text{ for } S_j \text{ multiplied by sampling weight for } S_j
\]
| 3. **Numerator for each question:** Within each sampling stratum, sum the sampling weights for all respondents that selected the Top Box result | \[
\text{Weighted Top Box cases for } S_j \text{ equals number of Top Box responses for } Q_i \text{ for } S_j \text{ multiplied by sampling weight for } S_j
\]
| 4. **Calculate the question results for each facility:** Sum of the numerator from all sampling strata divided by sum of the denominator from all sampling strata | \[
\text{Facility weighted score for } Q_i = \frac{\sum_j \text{Weighted Top Box cases for } Q_i \text{ for } S_j}{\sum_j \text{Weighted population for } S_j}
\]
|  | Facility weighted result for \( Q_i \) equals sum of weighted Top Box cases for \( Q_i \) for all \( S_j \) divided by the sum of weighted population for all \( S_j \) |
| 5. **Create facility-level weighted measure result by averaging question results for each measure** | \[
\text{Composite measure result for each facility} = \frac{\sum_i \text{Facility weighted score for } Q_i}{\text{# of questions in composite}}
\]
|  | Composite measure result for each facility equals sum of facility weighted result for all questions in composite divided by number of questions in composite |

**Notes**

* Sampling weights may differ for different strata if a DSRS sampling approach was used.
† Depending on the sampling approach, stratum may refer to the entire hospital population, hospital unit, program or service area.

- \( S_j \): Stratum within a hospital.
- \( Q_i \): Survey questions (1 through 41).
- \( \Sigma_j \): Sum of all strata within a hospital.
5.2 Non-response adjustment and standardization

To compensate for patients with certain characteristics who are more or less likely to respond to a survey, age–sex standardization has been applied to results, where applicable. As part of standardization, a non-response adjustment was applied.

Standardization is applied to ensure that the respondent population is as representative of the eligible population as possible and to compensate for the fact that persons with certain characteristics are more or less likely to respond to a survey. Among medium community hospitals, large community hospitals and teaching hospitals, adjustment is applied for sex (male and female) and age (18 to 59, 60 to 79, and 80+) separately for maternity, nonmaternity and all patients. Due to low volumes, hospital-level results for small community hospitals have not been age–sex standardized. Only maternity status has been used to standardize these hospital populations.

Non-response adjustment is calculated as the hospital or stratum sample size divided by the number of respondents. As described in Table 3, survey respondents within each facility are assigned to a post-stratum formed by their age and sex (e.g., male age 18 to 59) and maternity status for DSRS hospitals or maternity status for non-DSRS hospitals. If applicable, non-response adjustments are multiplied with the sampling weights to calculate the non–response adjusted weighted population for each post-stratum.

The reference population for standardization is prepared by creating a facility population from the Discharge Abstract Database (DAD). The DAD facility population is narrowed down by applying the criteria for inclusion and exclusion that are described in the CPES-IC Procedure Manual.

Standardization is applied to make the age–sex distribution of each hospital reflect the DAD eligible population from each hospital. The standardization adjustment is calculated as the ratio of the DAD eligible population to the non–response adjusted weighted population for each age–sex stratum separately by maternity and non-maternity patients.

The standardization weights are calculated as a product of the standardization adjustment and the non–response adjusted sampling weights. These weights are then applied to each patient’s response.
### Table 3  Standardization

<table>
<thead>
<tr>
<th>Step</th>
<th>Equation</th>
</tr>
</thead>
</table>
| 1a. **Calculate standardization weights: Calculate sampling weights for each sampling stratum** | $\text{Sampling weight for } S_j = \frac{\text{# of eligible patients discharged from } S_j}{\text{# sampled from } S_j}$

Sampling weight for $S_j$ equals number of eligible patients discharged from $S_j$ divided by number sampled from $S_j$ |
| 1b. **Calculate standardization weights: Define nonresponse adjustment for each sampling stratum** | $\text{Non–response adjustment for } S_j = \frac{\text{# sampled from } S_j}{\text{# of respondents from } S_j}$

Non-response adjustment for $S_j$ equals number sampled from $S_j$ divided by number of respondents from $S_j$ |
| 1c. **Calculate standardization weights: Define non–response adjusted sampling weights** | $\text{Non–response adjusted sampling weights for } S_j$ equals sampling weight for $S_j$ multiplied by non–response adjustment for $S_j$ |
| 1d. **Calculate standardization weights: Assign the non–response adjusted sampling weights to each respondent** | n/a |
| 1e. **Calculate standardization weights: Sum nonresponse adjusted sampling weights to age–sex poststratum level** | $\text{Non–response adjusted weighted population for } AG_j$ equals sum of non–response adjusted sampling weights for each post-stratum $AG_j$ |
| 1f. **Calculate standardization weights: Get the eligible population counts from reference population at poststratum level** | $\text{Reference population for } AG_j$ equals sum of number of eligible population from reference population for each post-stratum $AG_j$  

CIHI calculated the eligible population with DAD records. Facilities wanting to reproduce the result would require their own eligible population. |
<table>
<thead>
<tr>
<th>Step</th>
<th>Equation</th>
</tr>
</thead>
</table>
| 1g. Calculate standardization weights: Define standardization adjustment | Standardization adjustment for AG<sub>j</sub> = \[
\frac{\text{Reference population for AG}_j}{\text{Non-response adjusted weighted population for AG}_j}
\] Standardization adjustment for AG<sub>j</sub> equals reference population for AG<sub>j</sub> divided by non-response adjusted weighted population for AG<sub>j</sub> |
| 1h. Calculate standardization weights: Define final standardization weight | Standardization weight for AG<sub>j</sub> equals non-response adjusted sampling weight multiplied by standardization adjustment for AG<sub>j</sub> |
| 2. Denominator for each question: Sum the standardization weights for each question with an evaluative response across all post-strata | Standardized population = \[\sum_j \text{Standardization weight for Q}_i \text{ for AG}_j\] Standardized population equals sum of standardization weight for Q<sub>i</sub> for all AG<sub>j</sub> |
| 3. Numerator for each question: Sum the standardization-weighted Top Box results for each question across all post-strata | Standardized Top Box = \[\sum_j \text{Standardization-weighted Top Box responses for Q}_i \text{ for AG}_j\] Standardized Top Box equals sum of standardization-weighted Top Box responses for Q<sub>i</sub> for all AG<sub>j</sub> |
| 4. Calculate the question results for each facility | Standardized facility score for Q<sub>i</sub> = \[\frac{\text{Standardized Top Box for Q}_i}{\text{Standardized population for Q}_i}\] Standardized facility result for Q<sub>i</sub> equals standardized Top Box for Q<sub>i</sub> divided by standardized population for Q<sub>i</sub> |
| 5. Create facility-level weighted measure result by averaging question results for each measure | Composite measure result for each facility = \[\frac{\sum_i \text{Standardized facility score for Q}_i}{\text{# of questions in composite}}\] Composite measure result for each facility equals sum of standardized facility result for all questions in composite divided by number of questions in composite |

**Notes**
- Standardization was performed separately for maternity, non-maternity and all patients.
- n/a: Not applicable.
- S<sub>j</sub>: Sampling stratum within a hospital.
- AG<sub>j</sub>: Age and sex post-stratum.
- Q<sub>i</sub>: Survey questions (1 through 41).
- \(\Sigma\): Sum of all strata within a hospital.
5.3 Mode and service line adjustments

The CPES-IC survey is currently completed in 3 modes: mail, online and telephone. The mode of survey completion may impact results by influencing the composition of respondents and the way respondents answer questions. Furthermore, the impact of mode of survey completion on CPES-IC results differs by the type of service a patient has received. Therefore, to take into account the influence of these factors, CIHI has quantified the impact of mode and service line on CPES-IC question responses and generated a set of adjustment values on a log scale for each question.

To apply these adjustments to the CPES-IC results, unweighted and unadjusted Top and Bottom Box results are first calculated at the finest aggregate grouping available in the data — facility, survey cycle, survey stratum, age, sex, mode and service line — before being converted into the log-odds scale. The adjustment values are then subtracted from these, and the adjusted results are merged back with the individual-level data after being converted back into proportions. Weights and age–sex standardization are then applied to generate adjusted Top and Bottom Box results, which are used to calculate the final measures.

Please refer to the Excel file CPES-IC Mode and Service Line Adjustments — Data Tables.

6 Comparative Results tool:
Important information

6.1 Data year

For more information on jurisdictions reported within each fiscal year, please see the FAQ.

6.2 Calculation of averages

To facilitate comparisons across jurisdictions, a blended average methodology is used to calculate peer, regional, provincial and national CPERS averages for each measure. In this methodology, individual patient responses within each hospital’s most recent data year are used to calculate CPERS averages for each measure. The contribution of each hospital to the average depends on the size of its eligible population. Similar to hospital-level results, averages have been adjusted for survey design, nonresponse, mode of survey completion and service line; they have also been age–sex standardized, where applicable, to the hospital population. All respondents from each hospital’s most recent year of data are included in the averages. For instance, the national average for fiscal year 2016–2017 would include results from New Brunswick, Ontario and Manitoba facilities; in this example,
2015–2016 data from New Brunswick would be blended with the 2016–2017 data from Ontario and Manitoba to calculate the average, as New Brunswick surveys every 3 years. Blended averages will include data up to a maximum of 3 fiscal years only. This methodology was introduced because of differences in sampling periods and survey frequencies among participating jurisdictions and to enable comparisons and benchmarking year over year when data isn’t available annually. For more information on jurisdictions reported within each fiscal year, please see the FAQ. For more details on CIHI’s peer group methodology, please see the Peer Group Methodology document.

6.3 Calculation of confidence intervals

Confidence intervals (CIs) are used to aid in interpretation of measure results. The width of the CI illustrates the degree of variability associated with a measure. The CI also establishes whether a measure is statistically different from a comparator’s results. Measure values are accurate within the upper and lower CI 19 times out of 20 (95% CI). Confidence intervals at the facility level may appear wide where there are low volumes of responses. Confidence intervals may appear to be narrow where there is a lack of variability in patient responses.

Table 4 describes the calculation of a 95% CI for a measure at the facility level using a simple random sampling approach; for facilities with other sampling approaches, a different CI methodology would be required. This calculation is performed for each measure individually. It takes into account whether the measure is based on a composite of questions or a single question.

For more information on calculating CIs, please email prems@cihi.ca.

**Table 4** Confidence interval calculation for facilities using a simple random sampling approach

<table>
<thead>
<tr>
<th>Step</th>
<th>Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Calculate weighted Top Box/Bottom Box average</td>
<td>$\bar{x}<em>k = \frac{\sum W_j \times x</em>{kj}}{\sum W_j}$</td>
</tr>
<tr>
<td></td>
<td>The weighted average for question k equals the sum of weighted Top (or Bottom) Box values, divided by the sum of all weights.</td>
</tr>
<tr>
<td>2. Calculate variance of question (for a single-question measure, skip to Step 5)</td>
<td>$V_k = \frac{\sum W_j^2}{(\sum W_j)^2} \times \frac{\sum W_j (x_{kj} - \bar{x})^2}{\sum W_j}$</td>
</tr>
<tr>
<td></td>
<td>The variance for question k equals the sum of squared weights divided by the square of the sum of all weights, then multiplied by the sum of the weighted squared difference between individual Top (or Bottom) box results of question k and the weighted average of question k, and then finally divided by the sum of weights of question k.</td>
</tr>
</tbody>
</table>
### Step 3. Calculate covariance between pairs of questions

\[
\text{COV}_{k,m} = \frac{\sum W_j^2}{(\sum W_j)^2} \times \sum W_j(x_{kj} - \bar{x}_k)(x_{mj} - \bar{x}_m)
\]

The covariance between questions k and m equals the sum of squared weights divided by the cube of the sum of all weights, then multiplied by the sum of the weighted products of the differences from their respective weighted average for questions k and m: weight j multiplied by the difference between Top (or Bottom) Box result of question k and weighted average of question k multiplied by the difference between Top (or Bottom) box result of question m and weighted average of question m.

### Step 4. Calculate variance at the hospital level for a 2 and 3-question measure

- **2-question measure:**
  \[
  V_d = \frac{V_k^2}{2^2} + \frac{V_m^2}{2^2} + 2 \frac{\text{COV}_{k,m}}{2^2}
  \]

- **3-question measure:**
  \[
  V_d = \frac{V_k^2}{3^2} + \frac{V_m^2}{3^2} + \frac{V_n^2}{3^2} + 2 \frac{\text{COV}_{k,m} + \text{COV}_{k,n} + \text{COV}_{m,n}}{3^2}
  \]

The variance for a 2-question measure equals the sum of the 2 questions’ variances and of twice their covariance, then divided by 4.

The variance for a 3-question measure equals the sum of the 3 questions’ variances and of twice the sum of all 3 covariances, then divided by 9.

### Step 5. Calculate standard error for measure

\[
\text{SE}_d = \sqrt{V_d}
\]

The standard error for measure d equals the square root of its variance.

### Step 6. Calculate degrees of freedom

\[
\text{df}_d = \left(\text{mean}(N_{km}) - \text{number of strata}\right)
\]

The degrees of freedom equals the difference between the mean number of non-missing question pairs (k,m) and the number of strata.

### Step 7. Calculate confidence interval for measure at the hospital level

\[
\text{CI}_d = \bar{x}_d \pm t_{df_d,\left(\frac{1-\alpha}{2}\right)} \times \text{SE}_d
\]

The confidence interval for measure d equals the weighted average for measure d plus or minus the critical value at 1 minus alpha over 2 from the Student’s t-distribution with \(df_d\) degrees of freedom multiplied by the standard error of measure d.

### Notes

- \(x\) = Top Box/Bottom Box
- \(j\) = patient
- \(k\) = first question of a 2-question measure
- \(m\) = second question of a 2-question measure
- \(n\) = third question of a 3-question measure
- \(d\) = measure
- \(N_{km}\) = Number of non-missing question pairs (k,m)
- \(W\) = weight
- \(\Sigma\) = sum of all patients within a hospital

All responses that are non-missing are considered in the calculation of the confidence interval. Calculations shown here apply to facilities using simple random sampling as the sampling method. Top Box or Bottom Box value for each question has been converted to yes = 1 and no = 0.
6.4 Calculation of total number of respondents

The count for a single-question measure is calculated as the total number of respondents to its corresponding survey question. In the case of a composite measure, the total number of respondents is calculated as an average of the number of respondents to all the questions within the measure. For example, the Explanation About Medications composite is made up of 2 survey questions (questions 16 and 17). If the number of respondents for a facility is 110 for question 16 and 130 for question 17, the total number of respondents for the Explanation About Medications measure would be 120 \((110 + 130) \div 2 = 120\). Unknown values are not included in the calculation of the total number of respondents.

The same process is also applied for the calculation of the number of respondents who selected the most positive response(s).

7 Your Health System

7.1 Performance assessment

For each measure, performance at the hospital, regional and provincial levels is assessed against the most recent blended peer group average (for hospitals) or blended national average (for regions and provinces). Comparisons are based on confidence intervals. If CIs from the blended averages overlap with CIs for the hospital, region or province, then the measure results are considered to be no different than the average. If CIs from the blended averages don’t overlap with CIs for the hospital, region or province, then the measure results are considered either above-average performance or below-average performance. Performance assessment is not evaluated if the latest available year of data is more than 3 years old.

7.2 Funnel plots

Your Health System: In Depth visualizes performance using funnel plots. These plots show the number of respondents on the horizontal axis and the measure results on the vertical axis, and include all hospitals’ most recent year of data. In addition, the graphs also contain a dashed horizontal line to represent the national average, as well as 2 funnels. The funnels are derived mathematically and represent the 95% and 99.8% confidence limits for the national average as a function of the number of respondents. A lower number of respondents will lead to wider confidence limits and vice versa, thereby accounting for the higher variability that may occur in measure results from smaller hospitals.
The funnel plots allow for visual comparison of results against the national average and against hospitals from across the country. Note that data points outside the funnel limits indicate results that are higher or lower performers.

Funnel plots are available for regional results but not for provincial ones. Results are included in the funnel plot only if they fall within the 3 most recent data years.

7.3 Trending

Trending analysis in Your Health System allows for comparison of measure results over time at the hospital, regional and provincial levels. This analysis requires at least 3 years of data, including the most recent year.

Logistic regression is used to model the measure results as a function of the year. Statistical significance at the 5% level determines whether a trend exists or not (no change); where there is a trend, the sign of the regression coefficient estimate indicates if the measure results are improving or weakening over time.

7.4 Suppression rules

2 criteria are used in Your Health System to suppress results:

- **Denominator suppression**
  
  Results are suppressed if the denominator (total number of respondents) is less than 30. This rule is applied to ensure numerical stability of results.

- **Numerator suppression**
  
  Results are suppressed if the numerator (number of respondents who selected the most positive response[s]) is less than 5. This rule is applied to minimize the risk of identifiability and residual disclosure.
8 Demographics

Demographic information provides details about the survey respondents and the survey administration processes of each hospital. Table 5 describes the demographic measures and defines demographic measures pertaining to the characteristics of survey respondents. Table 6 describes the demographic measures pertaining to survey administration.

Table 5  Measures and definitions for demographic characteristics

<table>
<thead>
<tr>
<th>Measure name</th>
<th>Definition</th>
<th>Response categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender/Sex</td>
<td>Percentage of respondents who selected each response option based on the corresponding demographic question in the CPES-IC or as reported from the hospital’s administrative data</td>
<td>• Male&lt;br&gt;• Female&lt;br&gt;• Other&lt;br&gt;• Unknown</td>
</tr>
<tr>
<td>Age Group (except maternity)</td>
<td>Percentage of non-maternity respondents who answered the corresponding age demographic question in the CPES-IC or as reported from the hospital’s administrative data</td>
<td>• 18–59&lt;br&gt;• 60–79&lt;br&gt;• 80+&lt;br&gt;• Unknown/missing</td>
</tr>
<tr>
<td>Patient Group</td>
<td>Percentage of respondents who were identified as being maternity patients or non-maternity</td>
<td>• Maternity&lt;br&gt;• Non-maternity</td>
</tr>
<tr>
<td>Communities Served*</td>
<td>Percentage of respondents who selected each response option based on the corresponding demographic question in the CPES-IC</td>
<td>• Arab&lt;br&gt;• Black (North American, Caribbean, African, etc.)&lt;br&gt;• Chinese&lt;br&gt;• Filipino&lt;br&gt;• Japanese&lt;br&gt;• Korean&lt;br&gt;• Latin American&lt;br&gt;• South Asian (East Indian, Pakistani, Sri Lankan, etc.)&lt;br&gt;• Southeast Asian (Vietnamese, Cambodian, Malaysian, Laotian, etc.)&lt;br&gt;• West Asian (Iranian, Afghan, etc.)&lt;br&gt;• White (North American, European, etc.)&lt;br&gt;• Other&lt;br&gt;• Unknown/missing</td>
</tr>
</tbody>
</table>
### Measure name | Definition | Response categories
---|---|---
**Education Level** | Percentage of respondents who selected each response option based on the corresponding demographic question in the CPES-IC | • 8th grade or less  
• Some high school  
• High school graduate/GED  
• College/CEGEP or other certificate/diploma  
• Undergraduate/some university  
• Post-graduate/professional designation  
• Unknown/missing

**Note**  
* Indigenous response data has been temporarily excluded from this distribution to allow time for discussion with Indigenous groups regarding appropriate reporting.

### Table 6 Measures and definitions for survey administration

<table>
<thead>
<tr>
<th>Measure name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response Rate</strong></td>
<td>Total number of completed surveys divided by the number of eligible patients selected to complete a survey. A survey is considered complete if it contains responses to at least one survey question. The response rate equals the total number of completed surveys divided by the difference between the number of fielded surveys and the number of ineligible determined after contact. The response rate provides information about the number of sampled patients in the population to complete a survey. A lower response rate may indicate potential for bias in the results.</td>
</tr>
<tr>
<td><strong>Type of Hospital</strong></td>
<td>Hospitals are designated as teaching if they have confirmed teaching status from the provincial ministry or are identified as teaching in the provincial ministry’s submission to the Canadian MIS Database. Non-teaching hospitals are assigned to a large, medium or small community hospital peer group based on their volumes and patient complexities. For more details, please see CIHI’s <a href="#">Peer Group Methodology document</a>.</td>
</tr>
<tr>
<td><strong>Total Number of Respondents</strong></td>
<td>Total number of completed surveys for the most recent data year (at least one survey question completed).</td>
</tr>
<tr>
<td><strong>Number of Acute Care Hospital Stays</strong></td>
<td>A count of the total acute inpatient cases. Stillborn and cadaveric donor records are excluded.</td>
</tr>
<tr>
<td><strong>Sampling Approach</strong></td>
<td>Data collection method used to select eligible patients to complete a survey. Hospitals with fewer than 1,200 patients discharged each month are required to attempt a census.</td>
</tr>
<tr>
<td><strong>Survey Mode</strong></td>
<td>The survey mode(s) used by the hospital to collect patient data (telephone, mail or online).</td>
</tr>
<tr>
<td><strong>Frequency of Surveying</strong></td>
<td>The frequency of questionnaire administration (ongoing, annually, every 3 years).</td>
</tr>
</tbody>
</table>

**Note**  
* Reported in the All Data Export Report only.
9 Resources

The following documents and tool are available to support use of the results.

*Canadian Patient Experiences Survey — Inpatient Care: Patient-Reported Experience Measures*

*Canadian Patient Experiences Survey — Inpatient Care Data Dictionary Manual*

*Canadian Patient Experiences Survey — Inpatient Care Procedure Manual*

*Canadian Patient Experiences Survey — Inpatient Care*

**FAQ**

*Your Health System* web tool: Indicators to better understand your health system and the health of Canadians

*Your Health System: In Depth — Overall Results Matrix Methodology*

*Use of Funnel Plots for Reporting Indicator Results — Methodology Notes*

*Identifying Indicator Top Results and Trends — Methodology Notes*