

## EXCEL WORKSHEETS FOR CHARTS ON DATA, TRENDS, AND RATES TO POPULATE THE POWERPOINT PRESENTATION

**What is the purpose of this tool?** This tool takes the rates you have calculated about your hospital's performance on the AHRQ Pediatric Quality Indicators (PDIs) and displays the information graphically.

**Who are the target audiences?** The key users of this tool are the quality officers, quantitative analysts, and programmers involved in calculating the rates.

**How can it help you?** This tool helps you easily create graphs that display your hospital's results on the AHRQ PDIs and how they compare with national averages. Although this tool uses national averages as the comparator, you may choose your State's rate, the national rate, or some other rate (e.g., benchmark).

**How does this tool relate to others?** Tool B.2a (sample SAS program output) provides information on how to calculate the rates requested in this tool. Copy and paste the graphs produced by this tool into B.3b (display PDI results), which provides a PowerPoint template for presenting the results of your analysis.

**Note:** The current version of the AHRQ QI software does not have risk-adjustment capabilities. However, the tools described below include information about risk adjustment that will be relevant when looking at past performance (using ICD-9<sup>i</sup> codes and software) and when later versions of the AHRQ QI software with risk adjustment capabilities are released. In addition, national average data using ICD-10 data are not currently available from AHRQ but are expected to be available in the future.

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<sup>i</sup> ICD-9 = International Classification of Diseases, 9<sup>th</sup> Revision. ICD-10 is the 10<sup>th</sup> Revision.

## Instructions

1. Determine which comparisons and/or trend analyses you would like to perform (see Tool B.1).
  - a. The worksheet “compare-PDI-rates-average” can be used to get an overall picture of the hospital’s overall pediatric patient safety performance relative to a national sample of hospitals.
  - b. The “trend-observed,” “trend-observed-expected,” and “trend-risk-adjusted-smoothed” worksheets can be used to compare performance for a single indicator over time. The “trend-observed” sheet also has a place to enter count data and a chart for monitoring changes in counts over time.
  - c. The “trend-risk-adjusted-smoothed” worksheet can be used to compare the risk-adjusted rate and smoothed rate for a single indicator over time.
  - d. The “trend-expected-average” worksheet can be used to track how expected performance on a single indicator (based on case mix) relative to national average performance fluctuates over time.
  - e. The “trend-risk-adjusted-average” worksheet can be used to track how a hospital’s performance on an indicator and the national average performance for that indicator fluctuate over time.
2. Obtain your rates using the QI software for SAS or Windows (see Tool B.2).
3. Erase the sample data and enter your data in the yellow cells.

See the other B tools for more information (B.1 explains what the rates mean; B.2a and B.2b show how to use the software with your data and obtain these rates).

The **observed rate** is the actual rate at which events measured by the indicator occurred in your hospital. This can be acquired from the SAS output or the Windows QI output from the Quick Report. If another organization provides these data for you, you may also obtain it from them.

**Note:** At this time, the following are only available for versions of the software that use ICD-9-CM diagnosis codes:

- The **expected rate** is the rate a hospital would have if it had performed the same as the reference population given the hospital’s actual case mix. This can be acquired from the SAS output or the Windows QI output from the Provider Report.
- The **risk-adjusted rate** is the estimate of how a hospital would perform on an indicator for an average case mix of patients, rather than its own case mix. This rate can be found in the provider-level reports from the Windows or SAS QI programs.
- The **confidence interval of the risk-adjusted rate** is identified in the SAS output as the lower CL (lower confidence limit) and upper CL (upper confidence limit). When creating provider-level reports using the Windows QI software, the user must specify that the confidence levels be included in the report.

- The **smoothed rate** is a weighted average of the hospital's risk-adjusted rate and the reference population rate, where the weight reflects the reliability of the hospital's risk-adjusted rate. This can be found in the SAS output or the Windows QI Provider Report.
4. Fill in the comparator rates from the group of hospitals that you would like to use for comparison. Compare\_PDI\_rates\_average will automatically compute percent difference and display how your hospital is performing relative to the national average rate.

The **national average** is the rate used here as a comparison point. As noted above, you may choose your State's rate, the national rate, or any other rate that you may wish to use as a comparison. See Tool B.5 for more information about comparators.

**Note:** National average data for indicators calculated with ICD-10-CM rates are not yet available from AHRQ.

5. Modify the title of the graph or chart so that it reflects the years and indicators that you would like to observe over time.
6. Copy and paste the charts into the PowerPoint template or another document for display.