Advanced HCAHPS Data Quality Checks

Note: The information covered in this podcast was current at the time of posting. CMS will occasionally update guidelines and calculations.

*Slide 1-Advanced HCAHPS Data Quality Checks*

Welcome to the CAHPS Hospital Survey Podcast Series. This podcast will review advanced HCAHPS data quality checks.

*Slide 2-Overview*

The data quality checks discussed during this podcast include creation of a quality check, or QC, dataset for tracking all data elements from sampling counts to survey responses.

Additionally, suggested quality checks for internal processing changes will be reviewed.

*Slide 3-Quality Check (QC) Dataset*

QC datasets can be created for each quarter, or even smaller intervals such as discharge month.

These datasets should include all data elements collected by the survey vendor or self-administering hospital.

Possible data elements include patient counts, survey responses, and administrative variables collected for HCAHPS implementation.

Development of QC datasets across multiple quarters will allow for easy comparison of counts and percentages for key data elements.

*Slide 4-QC Dataset Creation*

An example QC dataset layout is presented in the next few slides. This example assumes a survey vendor is collecting HCAHPS data for 40 hospitals.

In the QC dataset, each hospital is represented in the rows and each data element is represented in the columns.

These columns contain patient count variables such as eligibles, sample size, non-respondents, ineligibles, and completed surveys.
Slide 5- QC Dataset Creation, cont’d

The QC dataset should also contain counts and percentages from the patient response data elements.

Additional columns can be added to include functions of existing columns, such as an average column for questions within a composite measure.

Patient-reported demographic questions from the HCAHPS survey, especially variables used in patient-mix adjustment, should also be in the QC dataset.

Slide 6- QC Dataset Creation, cont’d

Here is a snapshot of potential administrative data elements to also include in a QC dataset. Again, hospital counts and averages are useful metrics to monitor in QC datasets.

Slide 7- QC Dataset Environment

Creation of master QC datasets for each quarter allows for easier comparisons across quarters for each hospital.

Smaller QC datasets at the monthly level may also be useful. Additionally, creating yearly versions may also be desirable by stacking the quarterly QC datasets together.

Slide 8- Using QC Datasets: Sampling Process

After creation, QC datasets can be used to detect unusual changes in data elements.

This example shows a large decrease in eligible discharge size for Hospital 2 in Q218. There could be an error with the number of eligible patients sent by Hospital 2 to their survey vendor.

Slide 9- Using QC Datasets: PMA Variables

This example shows maternity rates across four consecutive quarters of QC datasets.

Notice the large maternity rate increase in Q418 for Hospital 1; this change should be verified with the hospital.

Hospital 2 likely specializes in maternity services; whereas hospital 40 may be a surgical specialty hospital.

These assumptions should be verified and recorded for future review of each hospital.

Slide 10- Using QC Datasets: Patient Experience

This slide shows an example for the patient experience question on cleanliness of hospital environment, which is question 8 on the HCAHPS survey.

Notice in Q218 Hospital 1 experienced a large increase in patient responses of “Always” to question 8.
Such a large change should be verified to ensure data collection or processing errors did not occur.

*Slide 11- Using QC Datasets: Missingness Rates*

Self-administering hospitals and survey vendors should attempt to minimize the missing rates for each HCAHPS data element.

Inclusion of these missing rates in the QC dataset is a useful tool for identification of potential errors.

Hospital 1 had relatively high missing rates for Overall Health and Education, which could indicate an issue with patients “breaking off” before finishing the HCAHPS survey.

Hospital 2 had a high missing rate for service line; the survey vendor should discuss this issue with the hospital.

*Slide 12-Verify Changes in Processing*

CMS and the HCAHPS Project Team often observe cases of unintentional errors made by hospitals and survey vendors when attempting to update internal software code or processing steps.

Safeguards should be practiced to minimize unintended consequences to HCAHPS data elements.

*Slide 13-Verify Changes in Processing, cont’d*

The following are suggested steps to minimize processing errors in a data environment.

Current software code should be saved, and perhaps renamed, prior to making code changes.

After software code is updated, a hospital or survey vendor should have a different team member verify the update.

Next, execute the new piece of code or processing step.

Finally, conduct an exhaustive comparison of old and new data, even for data elements that were assumed to be unaffected by the change.

*Slide 14-Summary*

In summary, this podcast discussed the creation of a master QC dataset for HCAHPS data elements as well as the numerous quality checks that can be performed once a QC dataset is created.

Installation of software or processing updates for HCAHPS data elements can often have unintended consequences. Installation of standard quality control steps can minimize these errors.
Slide 15- Questions and HCAHPS Technical Support

Please contact HCAHPS technical assistance at HCAHPS@hsag.com or 1-888-884-4007 for any questions. For more information about the HCAHPS survey, you can visit the HCAHPS website at: https://www.hcahpsonline.org/.

Thank you for listening to the HCAHPS podcast Advanced HCAHPS Data Quality Checks.

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