Appendix E
Overview of Measure Information Form and Flowchart Formats

Measure Information Form Introduction

Measure Set

The specific national hospital quality measure set to which an individual measure belongs (e.g., acute myocardial infarction, pneumonia).

Set Measure ID #

A unique alpha-numeric identifier assigned to a measure. Information associated with a measure is identified by this unique alpha-numeric number.

Performance Measure Name

A brief title that uniquely identifies the measure.

Description

A brief explanation of the measure's focus, such as the activity or the area on which the measure centers attention (e.g., pain management for terminally ill patients)

Rationale

An explanation that states why it is important to receive data/information on this measure. This may include specific literature references, evidence based information, expert consensus, etc.

Type of Measure

Indicates whether the measure is used to examine a process or an outcome over time.

- **Process**: A measure used to assess a goal directed, interrelated series of actions, events, mechanisms, or steps, such as measure of performance that describes what is done to, for, or by patients, as in performance of a procedure.
- **Outcome**: A measure that indicates the result of performance (or non-performance) of a function(s) or process(es).

Improvement Noted As

Describes how improvement would be indicated by the measure.

- An increase in the rate/score/number of occurrences (for example, immunizations)
- A decrease in the rate/score/number of occurrences (for example, surgical site infections)

- Either an increase or a decrease in the rate/score/number of occurrences, depending upon the context of the measure (for example, utilization)

Numerator Statement

Represents the portion of the denominator population that satisfies the conditions of the performance measure to be an indicator event.

Note: If the measure is reported as a rate (proportion or ratio), the Numerator and Denominator Statement are completed. If a performance measure does not have both a numerator and a denominator, then a Continuous Variable Statement is completed.

Included Population in Numerator Specific information describing the population(s) comprising the numerator, not contained in the numerator statement, or not applicable

Excluded Population in Numerator Specific information describing the population(s) that should not be included in the numerator, or none

Data Elements Those data elements necessary or required to construct the numerator.

Denominator Statement

Represents the population evaluated by the performance measure.

Note: If measure is reported as a rate (proportion or ratio), the Numerator and Denominator Statement are completed. If a performance measure does not have both a numerator and a denominator, then a Continuous Variable Statement is completed.

Included Population in Denominator Specific information describing the population(s) comprising the denominator, not contained in the denominator statement or not applicable

Excluded Population in Denominator Specific information describing the population(s) that should not be included in the denominator, or none

Data Elements Those data elements required to construct the denominator

Continuous Variable Statement

Describes an aggregate data measure in which the value of each measurement can fall anywhere along a continuous scale.

Note: If measure is reported as a central tendency, Continuous Variable Statement is completed. This item is only completed when the performance measure does not have numerator and denominator statements.

Included Population in Continuous Variable Specific information describing the population(s) comprising the performance measure, not contained in the continuous variable statement or not applicable

Excluded Population in Continuous Variable Specific information describing the population(s) that should not be included in the performance measure or none

Date Elements
Those data elements required to construct the measure for a continuous variable

Risk Adjustment

Indicates whether a measure is subject to the statistical process for reducing, removing, or clarifying the influences of confounding factors to allow more useful comparisons.

Data Collection Approach

Recommended timing for when data should be collected for a measure. Data collection approaches include retrospective, concurrent or prospective data collection. **Retrospective** data collection involves collecting data for events that have already occurred. **Concurrent** data collection is the process of gathering data on how a process works or is working while a patient is in active treatment. **Prospective** data collection is data collection in anticipation of an event or occurrence.

Data Accuracy

Recommendations to reduce identifiable data errors, to the extent possible.

Measure Analysis Suggestions

Recommendations to assist in the process of interpreting data and drawing valid conclusions.

Sampling

Indicates whether a measure is amenable to selecting a random subset of a population in order to estimate the organization's performance level without collecting data for the entire population.

Data Reported As

Indicates how data will be reported for a measure.

- Aggregate rate generated from count data reported as a ***proportion*** (for example, rate-based measures which report summary data generated from the number of Cesarean sections as a proportion of deliveries)

- Aggregate rate generated from count data reported as a ***ratio*** (e.g., bloodstream infection per 1,000 line days).
- Aggregate measures of ***central tendency*** (e.g., continuous variables which report means and medians such as length of stay).

Selected References

Specific literature references that are used to support the importance of the performance measure.

Flowchart Introduction

Each measure is described by a unique calculation algorithm (flowchart). An algorithm is a predefined set of rules that help to break down complex processes into simple, repetitive steps.

Algorithms serve two purposes. First, they evaluate and identify which episode of care (EOC) records contain missing and/or invalid data that will prohibit the ability to properly evaluate the measure. Second, they determine if:

- For rate-based measures, the patient's EOC record belongs in the measure population of interest described by the denominator, and if the patient experienced the event described in the numerator.
- For continuous variable measures, the patient's EOC record belongs in the patient population described in the measure's statement and, if so, to define and calculate the *measurement* value.

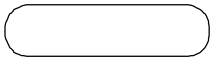
This section contains some standard flow-charting conventions used to develop each algorithm:

- **Flow lines** are used to guide the reader to different parts of the algorithm, with arrows denoting the direction of movement. Generally, movement is from the top to the bottom of the chart.

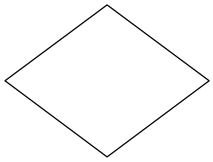
- **Symbols** used in each algorithm flow charts are described later in this section under Flow Chart Symbols.

- **Temporary variables** within the algorithm are noted in the variable key at the top of each page.

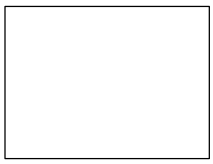
Flowchart Symbols



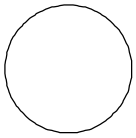
Start/Stop denotes the beginning or end of an algorithm.



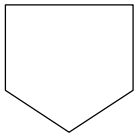
Diamonds represent "If...Then" decision points for logic tests and comparisons. Two or three flow lines exit the decision point to reflect alternative actions based upon an evaluation of the condition(s) stated around the decision point.



Rectangles or process boxes show when computation or manipulation of the data are required, such as a calculation or summarization.

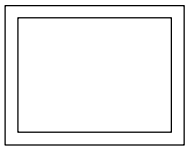


Circle or "On-page: connectors, labeled with a letter, show a link to sections of the algorithm which are continued on the same page.

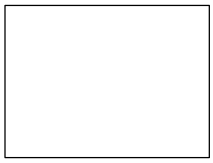


Five-sided or "Off-page" connectors, labeled with a letter, show a link to sections of the algorithm which are continued on different pages.

Note: Both circular, On-page, and five-sided, Off-page, Connectors containing the letters A, B, C, D, E, F, or G lead to measure Outcome Boxes.



Outcome Boxes represent the result of data passed through the algorithm. Connectors extending from outcome boxes lead to the end of the algorithm, or to risk adjustment procedures, where applicable. This symbol is also used to identify the strata within a stratified measure.



Symbol to represent comments that should be taken into account when programming flowchart.