General Overview

What is the Measure Authoring Tool?

The Measure Authoring Tool (MAT) is a web-based, publicly-available tool that helps measure developers create and maintain quality measures in an electronic format. Using the MAT, measure developers can create standardized electronic measures (eMeasures) that are compatible with or 'readable' by electronic health record (EHR) systems and other clinical IT systems.

Why was the MAT created?

To date, the majority of performance measures have been developed and are available in a paper-based format. Organizations implementing measures typically perform manual abstraction of clinical information from patient records and manually merge this information with administrative data to evaluate their performance, compare outcomes, and report to external entities. Using an EHR to extract, aggregate, and report performance data can alleviate the burden of this manual effort, allowing providers to devote resources to analyzing performance rather than data abstraction.

To allow providers to take advantage of their EHRs for performance measurement, measure requirements need to be created in a format that can be readable by clinical IT systems. The MAT is the first tool of its kind to offer the measurement community an accessible, non-proprietary way to develop eMeasures using a structured and streamlined process. Standardizing the measure format and content using eMeasures helps ensure that performance measures are consistently defined, implemented, and compatible across EHRs and other clinical IT systems. This standardization will make performance measurement more accurate and cost-effective, less burdensome for providers, and easier to compare across settings and conditions.

Why are eMeasures important?

eMeasures will promote:

- greater comparability across measures as well as performance and outcomes data;

- greater precision regarding what is being measured and what data are necessary — meaning more effective measurement and ability to improve performance; and

- better care delivery through access to more comparable and accurate performance information.

Who should use the MAT?

The MAT is expected to be used primarily by measure developers to create and maintain standardized eMeasures. However, other key stakeholders in the quality and health IT community — including clinical system vendors, quality improvement organizations, and inpatient and ambulatory providers — will benefit from the MAT as it will promote better access to, capture of, and reporting on comparable performance data.

Feedback gained from users will be instrumental in shaping future versions of the tool. The MAT is accessible through **NQF's website**.

Where can I access the MAT?

The MAT is available at **https://mat.qualityforum.org**. Users must first request an account and log-information **here**. A user name and password will then be assigned and emailed within two business days.

Users can also access the MAT through **NQF's website**.

Are there any costs associated with the MAT?

No. There are no fees required to use the MAT.

The use of health information technology (health IT) is instrumental in achieving national goals of making care safer, more affordable, and better coordinated. Accordingly, it is anticipated that beginning in Fall 2012, all measures submitted for NQF endorsement must include an eMeasure component. The MAT is designed to help meet this need and ultimately support broader aims to improve healthcare quality.

With the MAT, measure developers can more accurately create standardized eMeasures to use across electronic health records (EHRs) and other clinical IT systems. The MAT also can reduce the time required to create new quality measures and convert existing paper-based measures to an EHR-readable format.

eMeasures created with the MAT will be an integral part of a more efficient electronic healthcare system, as they will offer:

- greater comparability across measures as well as performance and outcomes data;

- greater precision regarding what is being measured and what data are necessary—meaning more effective measurement and ability to improve performance; and

- better care delivery through access to more comparable and accurate performance information.

How the MAT Works

What are the major features of the MAT?

Measure developers using the MAT can:

- Create and share eMeasures and their corresponding code lists with other users;

- Apply a standardized grammar, the **Quality Data Model** (QDM), to specify an eMeasure;

- Create and reuse standard value sets to define individual data elements using code sets or vocabularies;

- Create and reuse measure components, or phrases, limiting rework as new measures are developed;

- Export eMeasures in an EHR-readable format to enable collection of comparable healthcare quality data;

- Create and maintain multiple versions of a measure;

- Search and reuse value sets created by other users;

- Provide narrative text to accompany measure components so users clearly understand a measure's purpose;

- Stratify measure components by specific criteria – such as age or location – to better manage measure building and output; and

- Specify supplemental data for measure evaluation to support risk adjustment specified in some measures.

What is the relationship between the Quality Data Model and the MAT?

The MAT uses the Quality Data Model (QDM) as the structure to fully define and express eMeasures in a standard way. The QDM provides the grammar that allows measure developers to express measure criteria precisely and consistently for sharing information across clinical IT systems.

Will the MAT functionality change over time?

Yes. NQF plans to annually update the MAT to include additional features and functions based on users' needs and feedback. It will also evolve as measurement requirements, the Quality Data Model, and underlying interoperability standards evolve over time.

How can I learn how to use the MAT?

A comprehensive User Guide for the MAT is available on the **NQF website** and at **https://mat.qualityforum.org**. The User Guide contains the following:

1. Description of the overall purpose of the MAT;

2. Detailed guidelines and instructions on how to use the MAT to build an eMeasure;

3. Descriptions of the MAT's features and capabilities; and

4. Key issues to consider when developing measures and eMeasures specifically, as well as key questions to ask prior to creating a measure.

The User Guide will be updated based on user feedback and with each new release of the MAT.

Is technical assistance be available?

In addition to the **User Guide**, a Technical Help Desk is available with live support at

1-800-673-0655 from 8:30 am – 6:00 pm ET, Monday through Friday. Inquiries and questions also can be submitted via email to NQF's Help Desk at **MATsupport@qualityforum.org**.

Additional training and user support tools are available, including MAT webinars and tutorials. Visit **NQF's website** for more details.

How can I suggest improvements to the MAT?

NQF welcomes feedback and suggestions for improving the MAT. Please send comments to **MATsupport@qualityforum.org**.

NQF Measure Endorsement

If measures are currently going through NQF's endorsement process, will the measure stewards also need to submit their measure in an eMeasure format?

In the near future, NQF's endorsement process will require measure developers to submit eMeasures for measures that address data present in the clinical record. More information will be available early in 2012. The eMeasure format is accepted but not required for measures submitted prior to that time or currently in process.

Will NQF require measure stewards to use the MAT as part of the endorsement process?

No. Measure stewards are not required to use the MAT to develop their eMeasures for NQF endorsement submission. However, NQF strongly encourages stewards to use the MAT when developing measures for endorsement, as it is the only tool that creates standardized, precise eMeasures.

Does NQF automatically endorse eMeasures created through the MAT?

No. NQF does not automatically endorse eMeasures created through the MAT. All eMeasures must be submitted for endorsement through NQF's **Consensus Development Process**.

Does the MAT identify if a measure is NQF endorsed or not?

No. The MAT will not indicate if a measure is NQF endorsed.

To look up a specific measure or to find information on NQF endorsed measures, please visit **http://www.qualityforum.org/QPS**.