



# Measure Management and You

Volume 3, Edition 6

## Welcome!

This month's newsletter provides an overview on specific measure testing tools, and how they help ensure the quality of electronic Clinical Quality Measures (eCQMs). Every edition includes links to the CMS Blueprint (the version in use at the time of publication), as well as a calendar of upcoming events and opportunities.

We hope you find this newsletter useful and we welcome any feedback or suggestions to make it even better. Please send comments or suggestions for future newsletters to [MMSSupport@battelle.org](mailto:MMSSupport@battelle.org).

## Measure Testing Tools

[April's newsletter](#) discussed measure testing in general. This month provides an overview on specific measure testing tools, and how they help ensure the quality of electronic Clinical Quality Measures (eCQMs). Three tools in use today are Bonnie, Cypress, and the NCOA measure testing process. Since eCQM's are very complex, these computerized tools make the process of checking eCQMs for errors and compliance much more effective and efficient.

- [Bonnie](#) was first released in 2014 and in its first year helped to reduce errors in measures 85%.
- [Cypress](#) is a multifaceted tool which allows developers to test whether electronic health record (EHR) systems can correctly calculate eCQMs.
- The [NCOA test development process](#) allows developers to look at all decision points within a measure, using up to 1,500 "synthetic" patients.

The best way to test a measure would be to see how well it works with an actual patient whose medical history

matches the measure. However, the need to protect patient privacy makes this very difficult to do. This is where Bonnie comes in. Bonnie allows developers to create "synthetic" patients: computer-generated profiles of patients using artificial data elements like name, birth location, and gender to create

patient profiles which simulate actual patient histories. These synthetic patients can then be tailored to test specific eCQMs.

In an eCQM, the measure logic refers to the programming language that follows the measure header in the technical specifications. The logic is expressed in Clinical Quality Language (CQL), which provides the ability to express logic that is human readable yet structured enough for it to be processed electronically. The logic relates attributes between data elements and uses filtering functions to construct complex clinical representations for electronic clinical quality measures.

Cypress takes the process further to test the actual logic of eCQMs against a population of synthetic patients to see if every population-defining eCQM has a patient that corresponds with that logic. The NCOA test development process uses hundreds of synthetic patients to test eCQMs multiple times to examine every decision point within the measure and find any possible conflicts or issues.

By using these tools developers can improve their confidence that the eCQM's logic is sound, that the measure is capturing the right patients, and is categorizing them appropriately. For more information about eCQM testing tools, see the [full article](#) on the MMS Website.

Figure 1: the CMS [eCQI Resource Center](#) provides a detailed listing of eCQM tools and resources

**eCQI Resource Center**  
The one-stop shop for the most current resources to support Electronic Clinical Quality Improvement.

Navigation: eCQM | EP/EC eCQMs | EH/CAH eCQMs | Tools and Resources | eCQI Standards | Learn More About | Contact Us

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### eCQM Tools & Resources

Version 2.0  
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**Key:** [Blue Box] Tool, [Orange Box] Output, [Yellow Box] Model, [Green Box] Standard, [Pink Circle] Resource

**Acronyms:**

- BPS: Binding Parameter Specification
- CMIT: Centers for Medicare/Medicaid Services
- CMS: Centers for Medicare/Medicaid Services
- CMS DRS: CMS Data Receiving System
- CQL: Clinical Quality Language
- CQM: Clinical Quality Measure
- eCQM: Electronic Clinical Quality Measure
- HL7: Health Level Seven International
- HQMF: Health Quality Measure Format
- IG: Implementation Guides
- JIRA: Issue and Project Tracking Software
- MAT: Measure Authoring Tool
- MLD: Measure Logic Document
- MMS: Measures Management System
- NQF: National Quality Forum
- ONC: Office of the National Coordinator for Health Information Technology
- PSVA: Pre-Submission Validation Application
- QDM: Quality Data Model
- QPP: Quality Payment Program
- QPS: Quality Positioning System
- QRDA: Quality Reporting Document Architecture
- UMLS: Unified Medical Language System
- USHLK: United States Health Information Knowledgebase
- VSAC: Value Set Authority Center and Collaboration Tool

**Development:** QDM (Model), CMS Blueprint (Resource), Draft eCQM (Output), HQMF w/ CQL (Standard), NQF QPS (Resource), CMIT (Tool), VSAC (Tool), MAT (Tool), JIRA (Tool), Bonnie (Tool), UMLS (Resource), BPS (Resource)

**Testing:** Draft eCQM (Output), HQMF w/ CQL (Standard), JIRA (Tool), VSAC (Tool), Bonnie (Tool), Cypress (Tool), Pre-submission File Testing (Process), QualityNet (Tool), PSVA (Tool), QRDA III Converter (Tool), QRDA III Open Source (Tool), Cypress Validation Utility (Tool)

**Publishing:** Final eCQM (Output), HQMF w/ CQL (Standard), EH/CAH eCQMs (Resource), EP/EC eCQMs (Resource), VSAC (Tool), USHIK (Tool), CMIT (Tool), eCQI Resource Center (Tool)

**Implementation:** BPS (Resource), MLD (Resource), HL7 QRDA IG (Resource), CMS QRDA IG (Resource), VSAC (Tool), USHIK (Tool), JIRA (Tool), eCQI Resource Center (Tool), EH/CAH Release Notes (Resource), EP/EC Release Notes (Resource)

**Submission/Reporting:** Certified Health IT, CQM Module, or Data Analytics Engine (Tool), Aggregate Measure Report (Output), QRDA I (Resource), QRDA III (Resource), CMS DRS Edits Document (Resource), QPP Website (Resource), QPP Tools (Resource), QualityNet (Tool), QRDA III Open Source (Tool), popHealth (Tool)

## Special Announcements

### Now Open! JIRA MUC Project 2018 – CLOSES JUNE 15<sup>th</sup> (MIPS-Quality measures closed June 1st)

JIRA is now open to collect candidate measures for the CMS 2018 Measures under Consideration (MUC) List. If you are an authorized user of the 2017 or prior years' JIRA web interface for the MUC List, you should have access to the new 2018 MUC Project.

New candidate measures for most CMS programs will be accepted until June 15, 2018. The period to submit a quality measure to the Merit-based Incentive Payment System (MIPS) closed on June 1, 2018.

For access to JIRA and the 2018 MUC Project, you must have an ONC JIRA account in place and then be granted permission to the Project. Visit the [CMS Pre-Rulemaking website](#) to locate the [Measures under Consideration User Guide](#) and [Quick Start Guide](#) for more information.

Email [MMSSupport@battelle.org](mailto:MMSSupport@battelle.org) for more information.

### 2018 Pre-Rulemaking calendar

June 1, 2018	JIRA closed for MIPS-Quality measure submissions
June 15, 2018	JIRA closes for all other programs
December 1, 2018	2018 MUC List published

## Upcoming Events

*All times shown are Eastern Time zone*

- CMS Quality Measures: Development, Implementation, and You webinar on June 13, 2018 and June 14, 2018
  - Register for the webinar on June 13 at [12:00 PM](#) and the June 14 at [4:00 PM](#)
- The Abstraction Challenge Show: Real Questions, Real Answers - Hospital OQR Program webinar on June 20, 2018
  - Register for the event at [10:00 AM](#) and [2:00 PM](#)
- IMPACT Act: Frequently Asked Questions Call on June 21, 2018 at 2:00 PM
  - Register for the event [here](#)
- The Abstraction Challenge Show: Real Questions, Real Answers - ASCQR Program webinar on June 27, 2018 at 2:00 PM
  - Register for the event [here](#)

## Upcoming Opportunities

Opportunities for [Public Comment](#) on quality measures

Currently there are no open public comments. Please check the [CMS Quality Measures Public Comment Web Page](#) for current Public Comment announcements and summary reports.

Opportunities to participate in a [Technical Expert Panel \(TEP\)](#)

- MACRA Episode-Based Cost Measures – Call for Clinical Subcommittee
  - The TEP nomination period closed on March 20th, but nominations are being accepted on a continuous basis.

Please check the [CMS Quality Measures Call for TEP Web Page](#) for current TEP membership lists and meeting summaries.

### New to the Listserv?

*New to the listserv or missed a month? Find all our announcements as well as printer-friendly versions of past newsletters [here](#).*



*Please send comments and suggestions to [MMSSupport@battelle.org](mailto:MMSSupport@battelle.org)*