



Bonnie, MAT and MADiE User Group



December User Group

Hosted by:

ICF

December 15, 2022

Disclaimer

This meeting is being recorded to ensure notes and action items are captured accurately.

Attendees who have objections to the meeting being recording are asked to let the facilitator know at this time.

Agenda and Objectives

Agenda

1. MAT Updates
2. Bonnie Updates
3. MADiE Updates
4. Community Questions & Discussion
5. Review of Resources

Objectives

- Inform MAT, Bonnie and MADiE users of current and planned activities
- Create a forum to gather community feedback on future enhancements
- Foster Collaboration through open community discussion

Measure Authoring Tool

MAT 6.10 QDM & FHIR

Measure Authoring Tool: Current State

MAT 6.10

- MAT 6.10
- Maintenance release on 11/16/22 included:
 - Ability for measure owners to transfer FHIR measures from MAT to MADiE.
 - While a measure does not need to be versioned to transfer, clicking the transfer button will initiate the measure to be packaged and then transferred.
 - Once a measure is transferred, it cannot be transferred again.
 - The CMS ID can only be created in the MAT. If a CMS ID is needed, it will need to be assigned in the MAT before being transferred to MADiE.
 - Once measures are moved from MAT to MADiE, there is no longer an association between the applications. Changes in MAT will not be reflected in MADiE and vice versa.
- Release Notes are available on the MAT web site under Training and Resources - contains additional information about what information will be transferred based upon measure type.
- QDM measures continue to use version 1.5.3 of the CQL-ELM translator.
- FHIR measures continue to use version 1.5.4 of the CQL-ELM translator.

Measure Authoring Tool

Maintenance:

- Maintenance is usually zero down time.
- Any known downtime for maintenance will be communicated to all users via email.

Known Issues:

1. For FHIR measures, when the same CQL definition is used in Supplemental Data Elements (SDE) and as a Risk Adjustment Variable (RAV), the measure is not able to be packaged. Users will receive an error for 'duplicate id value'. The workaround is to create different definition(s) when they are needed in both SDE and RAV. ([BonnieMAT-1212](#))
2. For FHIR measures, if the CQL Editor is used to enter value sets, the value sets are validated each time the CQL is saved. If the value set name and OID are not a match to the VSAC a CQL error will display and users may update the value set directly in the editor. When using the CQL Editor the 'Update from VSAC' button should not be used as this will display an 'Unable to Process' error message. This message does not prevent users from completing or saving work. They should continue to save their CQL to validate value sets in VSAC. ([BonnieMAT-1235](#)).

Bonnie

Bonnie 4.3.1 QDM (Prior)

Bonnie 5.1.2 QDM

Bonnie 6.2.5 FHIR

Bonnie Prior: Current State

Bonnie 4.3.1 Prior

- Supports QDM 5.5
- Requested patient conversion defaults implemented
- Users use HARP IDs for authentication
- Group Account functionality is available
- Users will receive a warning after 10 minute of inactivity and logged out after 15 minutes
- Bonnie 4.3.1 Prior maintenance release on 7/19/22
 - Privacy Policy button linking to the [CMS Privacy Policy](#) added on the landing page

Bonnie QDM: Current State

Bonnie 5.1.2 QDM

- Bonnie 5.1.2 QDM maintenance release on 7/19/22
 - Privacy Policy button linking to the [CMS Privacy Policy](#) added on the landing page
- Supports QDM 5.6
- Supports QDM/CQL and CQL 1.5
- Patient conversion functionality will remain disabled

Bonnie FHIR: Current State

Bonnie 6.2.5 FHIR

- Bonnie 6.2.5 FHIR released on 12/13/22
 - JSON export files for test cases exported following the release include the following updates:
 - The MeasureReport resource has been removed from JSON export files
 - The QI-Core Patient Profile URL has been added to all patients
 - The Medical Record Identifier has been added to all patients
 - Please note - test cases will still need to be updated to reflect QI-Core

Bonnie FHIR File Size

- A configuration change was made to increase the file size for measure uploads into Bonnie FHIR. Please contact the help desk if you receive an error when uploading a measure.

Bonnie FHIR Attributes

- Attributes supported by Bonnie FHIR are linked on the Bonnie and MAT issue tracker on the summary page
- Updates have been made to reflect the current state of attribute support, naming conventions and to add clarifying footnotes
- <https://oncprojecttracking.healthit.gov/support/projects/BONNIEMAT/summary>

Bonnie FHIR: Future State

Bonnie 6.2.5 FHIR – Release date TBD

- Bonnie 6.2.5 FHIR will provide updates to the test case JSON export
 - The MeasureReport resource will be removed from JSON export files exported after the Bonnie FHIR 6.2.5 release.
 - The QI-Core Patient Profile URL will be added to all patients. This will prevent users from having to add the URL to test cases exported after the Bonnie FHIR 6.2.5 release.
 - The Medical Record Identifier will be added to all patients. This will prevent users from having to add the identifier to test cases exported after the Bonnie FHIR 6.2.5 release.

Bonnie

Known Issues:

1. The QRDA export is not correctly reflecting relevant date time. There is no workaround. We don't have plans to address this in Bonnie at this time.
2. For Bonnie FHIR, measures that include stratification are not displaying properly for users to test. There is no workaround at this time. We don't have plans to address this in Bonnie at this time.
3. For Bonnie QDM, if the result of any CQL aggregate functions, such as Count, Min, Max, Average, etc, is 0, then Bonnie currently displays 'No Result Calculated'. The Execution Engine is producing the correct results. This is a display issue only. We don't have a planned release to address this in Bonnie at this time. ([BONNIEMAT-1096](#))
4. For Bonnie QDM, when measure observations are used in ratio measures, the measure observation logic is being executed against test cases, even if that test case did not first meet the numerator or denominator criteria. When measure logic cannot be modified, there is no workaround. This will affect the pass rate of the measure. There are not plans to address this in a future release. ([BONNIEMAT-1106](#))
5. For Bonnie QDM, the CQM Model used in Bonnie does not currently support the 'is' operator when it is referencing any 'entity', which can include practitioner, patient, organization care partner or location. Logic may be able to be altered as a workaround. ([BONNIEMAT-1158](#))
6. For Bonnie Prior, test cases that include certain QDM attributes are preventing test case conversion from QDM to FHIR. The QDM attributes are PatientEntity, CarePartner, Practitioner and Organization. A workaround of removing these QDM attributes will allow the conversion to process. ([BONNIEMAT-1177](#))
7. Bonnie currently uses version 4.0.2 of the Execution Engine. In this version, there are issues with appropriate handling of timezone offsets. This has been corrected in current versions of the Execution Engine and we are working with CMS and stakeholders to understand the priority of updating Bonnie QDM. ([BONNIEMAT-1252](#)) and ([BONNIEMAT-1259](#))

MADiE & Bonnie 60 Day Account Deactivation

Keeping your MADiE and Bonnie Accounts Active:

- In accordance with CMS and HHS security requirements, these tools have implemented an account deactivation policy for all users who have not logged in within the previous 60 days or more.
 - Activity in at least one of the three Bonnie environments (every 60 days) is needed to keep accounts active.
- Users will receive warning messages after 30 days of inactivity.
- After 60 days of inactivity, accounts will be deactivated.
- To access deactivated Bonnie accounts again, users will need to request reactivation of their account by contacting the Help Desk.
- To access a deactivated MADiE account again, users will need to request the MADiE role in HARP.

Bonnie and MAT: Future State

Bonnie and MAT Support:

- Bonnie and MAT will continue to be available following the release of MADiE.
- While it is the intention to sunset these tools in the future, no date has been set at this time.

All future MAT and Bonnie enhancements or updates will be evaluated for:

- Priority – Is it needed to support CMS contracted measure development work? Does it correct an issue?
- Level of Effort – Does this impact the delivery of future releases of MADiE?
- Benefit – Can users complete their work with or without the enhancement?
- Future MAT or Bonnie releases will be communicated to users during User Group, community and stakeholder meetings and via email communication.

*Keep your Bonnie, MAT and MADiE accounts active to continue to receive these important email communications!

MADiE

MVP 1.0.2

MADiE Release Timelines

✓ December 2022 Release – 1.0.1 - 12/7/22

- Bug fixes (see known issues document for list of bugs that will be addressed)
- Measure Coverage for multiple Population Criteria
- Deleting Test Cases
- Allowing users to execute CQL if only warnings are present
- Tool beautification

✓ December 2022 Release – 1.0.2 – 12/14/22

- Updated measure type mapping
- Library searching

January 2023 Release - 1.0.3 – 1/11/23

- Code coverage highlighting for multiple measure groups
- Support for Ratio measures with two Initial Populations
- Measure Observation parameter validation
- Support for Experimental value in Measures
- FQM Execution Engine updates (v 1.0.2)
- CQL Execution Engine updates (v 3.0.0 - beta.2)
- Translator updates (v2.4.0)

Updated MADiE Release Schedule:

- MADiE releases will occur approximately every two weeks.
- Goal: Provide users with frequent delivery of high-quality features and correction of defects.
- Users will be notified via email and Release Notes will be made available on the [MADiE MVP tab](#) of the MAT public web site.

MADiE Release Timelines (continued)

February 2023 Releases – 1.1.0

- Export support
 - JSON
 - XML
 - Human Readable
 - Zip file
- Measure Versioning
- Supplemental Data Element (SDE) Support
- Risk Adjustment Variable (RAV) Support
- Bug fixes

July 2023 Release

- Support for STU5
- QDM Measure, library and test case support
- Test Case Export

MADiE MVP Known Issues

Known Issues as of 12/15/22:

- Known Issues List will be posted and maintained on the [MADiE MVP tab](#) of the MAT public web site and the Summary page of the Bonnie MAT MADiE ONC Jira Issue Tracker here: <https://oncprojecttracking.healthit.gov/support/projects/BONNIEMAT/summary>
- CQL Validation issues occur when a definition name is resolvable to a quoted identifier, but the definition name is not in quotations. Users may not receive CQL validation errors, however the Population Criteria section won't render, and a blank screen will display
 - Work around: Quotes should be added to all define statement names, even when resolvable to a quoted identifier.

MADiE MVP Known Issues (continued)

Execution Known Issues

Note, for these issues the MADiE Team is working hand in hand with the FQM-Execution Team to address these updates. We are targeting updates in a January Release.

- Ratio Measures with single Initial Population and Measure Observations will not calculate properly.
- Ratio Measures with two Initial Populations will not calculate properly.

MADiE Resources

MADiE MVP

- The [MADiE MVP tab](#) on the MAT public web site provides:
 - Login button to MADiE
 - User Access Guide – how to get your MADiE account
 - User Guide – provides details regarding tool functionality
 - JSON Test Case Guide – steps for using the JSON test case editor
 - Known Issues – updated regularly
 - Release Notes – posted with each MADiE release
 - MADiE Measure Sharing Request Form v1.1 – to request measures and test cases be shared – submitted by the owner

CQL Libraries

Global Shared Libraries in MADiE:

Commonly used libraries were entered into MADiE following the MVP release.

Name in MAT	Name in MADiE	Version in MADiE
MATGlobalCommonFunctionsQICore4	CQMCommon	V 1.0.000
FHIRCommon	FHIRCommon	V 4.1.000
FHIRHelpers	FHIRHelpers	V 4.1.000
QICoreCommon	QICoreCommon	V 1.2.000
CumulativeMedicationDurationQICore4	CumulativeMedicationDuration	V 3.0.000
SupplementalDataElementsQICore4	SupplementalDataElements	V 3.0.000

CQL Libraries (continued)

CQL Libraries owned by MAT users:

- Standalone CQL libraries will not transfer like measures.
- Library owners will need to create the shell library in MADiE and then copy and paste the contents of the library from MAT into the library in MADiE.
- To ensure your library version number matches what was in MAT and used by your measure, users will need to major/minor version their library until the desired version number is reached.
- Reminder, versioned libraries cannot be deleted so version carefully.

Community Questions & Discussion

User Group Discussion

- Topic suggestions and questions for the User Group can also be submitted through the Bonnie MAT Issue Tracker located here: <https://oncprojecttracking.healthit.gov/support/projects/BONNIEMAT/summary>
- Additional questions or comments can be submitted by using the chat feature or unmuting your own line.

PHI/ PII

- PHI and PII are prohibited in MAT, Bonnie or MADiE.
- Measure testing should only represent synthetic patient test data.
- Report any questions or concerns to the Help Desk.



Reminder when submitting tickets...

MAT Tickets

- Indicate the tool type and Measure Model: QDM vs. FHIR
- Attach the measure package if appropriate
- Provide Screenshots of error messages

Bonnie Tickets

- Be sure to indicate tool type: Prior, QDM, FHIR
- Attach the affected test cases and reference them in the ticket by name if possible
- Attach the measure package used with the test cases
- Provide which account was used to test the measure(s)

MADiE Tickets

- ONC Jira is now updated to reflect MADiE
- All measure sharing requests or inquiries with a HARP ID must be submitted via email at semanticbits-madie-help@icf.com

Resources

Resources for Users

Bonnie and MAT Troubleshooting Guides

- Located on the ONC Jira Bonnie MAT Issue Tracker – Summary page
 - [Bonnie Troubleshooting Guide](#)
 - [MAT Troubleshooting Guide](#)

Tool Release Table

- Located on the MAT public website under Training and Resources/MAT Helpful Links
 - [Bonnie and MAT Release Schedule](#)

Negation Rationale in Bonnie FHIR

- Located on the MAT public website under Training and Resources/Bonnie Helpful Links
 - [Bonnie FHIR: How to use Negation Rationale](#)

Resources

MAT Public Website:

<https://www.emasuretool.cms.gov/>

MAT 6.10:

<https://www.emasuretool.cms.gov/MeasureAuthoringTool/Login.html>

Bonnie 4.3.1 QDM (Prior) (QDM version 5.5):

<https://bonnie-prior.healthit.gov/>

Bonnie 5.1.2 QDM (QDM version 5.6):

<https://bonnie.healthit.gov/>

Bonnie 6.2.5 FHIR:

<https://bonnie-fhir.healthit.gov/>

MADiE MVP – 1.0.2

<https://madie.cms.gov>

Bonnie MAT MADiE Issue Tracker:

<https://oncprojecttracking.healthit.gov/support/projects/BONNIEMAT/summary>

eCQI Resource Center:

<https://ecqi.healthit.gov/>