



Bonnie, MAT and MADiE User Group



November User Group

Hosted by:

ICF

November 17th, 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 MVP Release
 - Demo
 - Questions
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 6.2.4 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 6.2.4 FHIR

- Bonnie 6.2.4 FHIR maintenance released on 10/17/22
 - An export zip file now contains a JSON file with all test cases and JSON files for each individual test case
 - Users can export files and save them to desired location
 - Following the release of MADiE in November, users can copy and paste the contents of the JSON files into the test case editor in MADiE. Bonnie FHIR 6.2.4 can also be used for UAT 5 testing.
 - Please note - test cases will 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

Maintenance: No planned maintenance currently.

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](#))

Bonnie 60 Day Account Deactivation

Keeping your Bonnie Accounts Active:

- In accordance with CMS and HHS security requirements, the Bonnie team has implemented an account deactivation policy for all users who have not logged into at least one of the Bonnie environments within the previous 60 days or more.
- 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.
- Activity in at least one of the three Bonnie environments (every 60 days) is needed to keep accounts active.

*MADiE will also have a similar policy implemented following the release of MVP

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 1.0.0

MADiE Release Timelines

MVP 1.0.0

- MADiE MVP was released yesterday on November 16, 2022.

December 2022 Release - 1.0.1

- Bug fixes (see known issues document for list of bugs that will be addressed)
- Measure Coverage for multiple Population Criteria
- Library Searching
- Deleting Test Cases
- Allowing users to execute CQL if only warnings are present
- Tool Beautification
- FQM Execution Engine updates
- Translator Updates

February 2023 Release - 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

MADiE MVP Demo



Login from the MAT Public web site > MADiE MVP tab OR directly navigating to <https://madie.cms.gov>
[MADiE Demonstration](#)

MADiE Access

How Will Users Access MADiE?

- All individuals will need to request access, even if you have participated in UAT
- All MADiE users are required to have a valid HCQIS Access Roles and Profiles (HARP) ID.
- If you have a MAT or Bonnie account, you already have HARP ID.
- If you do not have a MAT or Bonnie account you can sign up by navigating to <https://harp.cms.gov> and completing the registration form to create a HARP account
- Once you have a HARP ID, in order to access MADiE, you will need to request the MADiE-User role in HARP
- The MADiE Access Guide details the steps needed to request this role - this is posted on the MAT public website under the MADiE MVP tab

Moving from MAT to MADiE

Transferring Measures:

- Only Measure Owners will be able to transfer measures from MAT to MADiE
- Measures can only be transferred once.
- The CMS ID will only be issued in MAT. If a CMS ID is needed for a measure, please assign it one in MAT before transferring.
- Once measures are moved from MAT to MADiE there is no longer an association between the applications, meaning changes in MAT are not automatically reflected in MADiE and vice versa.
- Measures will need to be updated from base FHIR (MAT) to use QI-Core profiles once they are in MADiE
- For Cohort and Proportion measures with stratifications, the measure group(s) will be created, but no stratification data will be transferred
- For Continuous Variable measures, no measure group(s) will be created. This is because for CV measures, the observation is required.
- For Ratio measure, the measure group(s) will be created but no measure observation data will be transferred

Moving from MAT to MADiE (continued)

Global Shared Libraries:

- Global Common Library, FHIR Common, FHIR Helpers, QI-Core Common and Supplemental Data Element (SDE) will be moved to MADiE in the days following the MADiE release. Targeting November 16th - 18th.
- Users should be aware that these libraries may not be available for reference immediately following the release.

CQL Libraries owned by MAT users:

- Stand alone 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

Moving from Bonnie FHIR to MADiE

Test Cases:

- Bonnie FHIR 6.2.4 will allow users to export a zip file containing a single JSON file of all test cases and JSON files for each individual test cases
- Release notes can be found on the MAT Public Website, under Training and Resources > Bonnie Release Notes
- Contents of these files can be copied and pasted into the MADiE test case editor
- MADiE users will need to update test cases for QI-Core profiles
- The MADiE JSON Test Case Guide is on the MADiE MVP tab of the MAT public web site

Group Accounts:

- Group Accounts are not in MADiE MVP
- To access tests cases for a measure, users will need to have the measure owner submit a sharing request. This will allow users to have access to the measure and all associated test cases.

Measure and Test Case Sharing

Measure and Test Case Sharing:

- When a measure is shared, by default all test cases will also be shared.
- In MADiE MVP, if a measure and its test cases are shared with others, those individuals can edit the measure and any test case
- MADiE MVP will not lock a measure or test cases when a user is accessing a measure or test case
- When sharing with others, you will need to coordinate who is working on what part of the measure or test case to prevent overwriting other's work
- Requests to share a measure and its test cases will need to be submitted to the Help Desk
- The measure owner must submit the request. As this request will contain user HARP IDs it must be submitted by emailing Semanticbits-madie-help@icf.com
- At this time, MADiE does not support the ability to 'unshare' a measure with a user

Measure and Test Case Sharing (continued)

Preparing for Sharing:

- Measure owners should review who they have shared the measure with by clicking on the Share button in the Measure Library in MAT
- Review Bonnie Group Account forms to identify who has access to a measure's test cases in Bonnie FHIR
- Measure owners will need to collect the HARP IDs for any user they want to share the measure and all test cases with
- Upon release of MADiE, measure owners will need to transfer the measure to MADiE
- Measure owners can complete the Measure Sharing Form located on the MADiE MVP tab of the MAT public web site.
- **IMPORTANT: The form should not be submitted until the measure is in MADiE and all users on the form have the MADiE HARP role**

MADiE MVP Known Issues

Known Issues

Targeted to be addressed in the December Release

- Discard Changes Button is not clearing changes in the JSON editor for brand new test cases
- Non CQL Library owners will see Draft and Version options in the Actions Drop down. The user can click the button but the tool will prevent the action from executing
- Switching the number of results returned for a page after searching will clear the measure search results.
 - **Work around:** Switch the number of results prior to executing a measure search
- Users that have a measure search that returns more than one page of paginated measure results will not be able to access more than the first page of results
 - **Work around:** Refine Search criteria, or select more results per page to be returned
- When viewing the measure group page in a measure for which the user does not have edit privileges, some fields are not displaying and some fields display as if they can be edited. Non-owners cannot actually save any of the data.
- Occasionally the Test Case JSON editor does not load fully but becomes editable. If the user edits the JSON during this time the save button will never become available for the user to save.
 - **Work around:** reload the page and complete changes again
- When on the Edit measure page the back button does not take users back to the Measure List page
 - **Work around:** Click the MADiE logo to return to the Measure List Page
- After correcting Test Case Errors the errors do not always clear from the validation Errors list.
 - **Work around:** Save Changes, navigate to the test case list page, return back to edit the test case.

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 hope to include updates in the December Release.

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

Known Issues List will be posted and maintained on the Summary page of the Bonnie MAT MADiE ONC Jira Issue Tracker here: <https://oncprojectracking.healthit.gov/support/projects/BONNIEMAT/summary>

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 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 web site under Training and Resources/MAT Helpful Links
- [Bonnie and MAT Release Schedule](#)

Negation Rationale in Bonnie FHIR

- Located on the MAT Public web site 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 6.2.4 FHIR:

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

MADiE MVP

<https://madie.cms.gov>

Bonnie MAT MADiE Issue Tracker:

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

eCQI Resource Center:

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