



MADiE User Group



May User Group

Hosted by:

ICF/SemanticBits

May 16, 2024

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 6.11 QDM & FHIR

Measure Authoring Tool: Current State

MAT 6.11

- Maintenance Release occurred on 4/15/24
 - Banner on login screen notifying users of decommissioning June 28.
- Release Notes are available on the MAT web site under Training and Resources
- QDM measures use version 1.5.12 of the CQL-ELM translator.
- FHIR measures use version 1.5.4 of the CQL-ELM translator.

Measure Authoring Tool – Known Issues

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 4.3.2 QDM (Prior)

Bonnie 5.1.6 QDM

Bonnie 6.2.6 FHIR

Bonnie Prior: Current State

Bonnie 4.3.2 Prior

- Bonnie 4.3.2 Prior maintenance release occurred on 4/15/24
 - Banner on login screen notifying users of decommissioning June 28.
- Supports QDM 5.5
- Users will receive a warning after 10 minute of inactivity and logged out after 15 minutes

Bonnie QDM: Current State

Bonnie 5.1.6 QDM

- Bonnie 5.1.6 QDM maintenance release occurred on 4/15/24
 - Banner on login screen notifying users of decommissioning June 28.
- Supports QDM 5.6
- Supports QDM/CQL and CQL 1.5
- Patient conversion functionality will remain disabled

Bonnie FHIR: Current State

Bonnie 6.2.6 FHIR

- Bonnie 6.2.6 FHIR maintenance release occurred on 4/15/24
 - Banner on login screen notifying users of decommissioning June 28.

Bonnie FHIR Attributes

- Attributes supported by Bonnie FHIR are linked on the Bonnie and MAT issue tracker on the summary page
- <https://oncprojecttracking.healthit.gov/support/projects/BONNIEMAT/summary>

Bonnie

Known Issues:

- For Bonnie QDM, the test case 'Save' function will freeze when users attempt to delete the Class attribute from a Data Element. [BONNIEMAT-1726](#)
Work around: Delete the DataElement that includes the Class attribute and then re-add the DataElement without the Class attribute.
- 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.
- 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.
- 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](#))
- For Bonnie FHIR, the defaulted element/code combination for Malignant Intracranial Neoplasm (SNOMEDCT Code 109911004) prevents the user from saving the test case. If the code is updated to another SNOMEDCT code for this element, the test case can be saved and can, if desired, revert back to the defaulted SNOMEDCT Code 109911004 and not be prevented from saving the Test Case. ([BONNIEMAT-1485](#))

60 Day Account Deactivation

Keeping your MADiE, MAT 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 MAT accounts again, users will need to request reactivation of their account by contacting the Help Desk.
 - Do **NOT** respond to the deactivation email. Send a new email to semanticbits-mat-help@icf.com to request reactivation of your MAT account.
- To access deactivated Bonnie accounts again, users will need to request reactivation of their account by contacting the Help Desk.
 - Do **NOT** respond to the deactivation email. Send a new email to semanticbits-bonnie-help@icf.com to request reactivation of your Bonnie account.
 - ****Do not request a new account - to retain access to your measures and test cases you will need to request reactivation of your existing account.****
- To access a deactivated MADiE account again, users will need to request the MADiE role in HARP.
 - Do **NOT** respond to the deactivation email.

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

Bonnie and MAT: Future State

Bonnie and MAT Support:

- No Bonnie or MAT enhancements are planned at this time.
- Bonnie and MAT will continue to be available until the tools are decommissioned June 28th, 2024.
- Future MAT or Bonnie releases will be communicated to users during User Group, community and stakeholder meetings and via email communication.

MADiE

Version 1.3.3

MADiE: Current State



MADiE – 1.3.3 5/13/2024 Maintenance Release

- **QDM Measures:** The contents of the measure export Human Readable are not displaying as expected:
 - Several fields are missing from the Header
 - Data entered for the Initial Population and Measure Scoring fields are not being displayed in the Header
 - The Population Criteria section is not displaying the included logic
- [BONNIEMAT-1870](#) [BONNIEMAT-1871](#) [BONNIEMAT-1872](#) [BONNIEMAT-1873](#)



MADiE – 1.3.3 5/8/2024 Release

- The Test Cases tab displays the total number of test cases in the measure in parentheses.
- **QDM Measures:** The button for importing test cases from Bonnie is renamed to 'Import from Bonnie'.
- **QI-Core Measures:** The button for importing test cases that were previously exported from MADiE is renamed to 'Import from MADiE'.
- **QI-Core Measures:** When there are two definitions with the same definition name in the library or included libraries, the coverage results are not as expected. For example, if there is a definition with the name "Initial Population" present in the main library and in the included library, the coverage result is not as expected. [BONNIEMAT-1812](#)
- **QDM Measures:** 4/16/2024 QDM Measures: For some test cases, measure logic is not highlighted on the test case list coverage page while the Test Cases Coverage Indicator percentage correctly reflects the logic has been evaluated by the test cases. [BONNIEMAT-1817](#)



MADiE – 1.3.2 4/24/2024 Release

- On the My Measures and All Measures tabs in MADiE, the "View" action has been replaced by an "Edit" action for measures for which a user has edit access (the measure is either owned by or shared with the user). ([BONNIEMAT-1783](#))
- **QDM Measures:** Measure Set Description now displays in MADiE when a measure transferred from the MAT to MADiE contained a Measure Set Description in the MAT. ([BONNIEMAT-1783](#))

MADiE Known Issues (1 of 3)

The 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://oncprojectracking.healthit.gov/support/projects/BONNIEMAT/summary>

CQL-ELM Translator Known Issues as of 5/16/24:

There is an issue in how reasonCode is getting mapped to ELM for the CommunicationNotDone datatype in QI-Core 4.1.1. Refer to the following GitHub ticket for more information on this issue: [CQLIT-371](#)

MADiE Known Issues as of 5/16/24:

- 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.
- When users search for measure names and include special characters in the search criteria, the user may receive a 403 error, or the search results will not be returned.
 - **Work around:** Only include alpha numeric characters when searching for a measure.

MADiE Known Issues (2 of 3)

MADiE Known Issues as of 5/16/24:

- Users will automatically be logged out of MADiE, MAT and Bonnie after 30 minutes of inactivity. If the user has more than one active session of MADiE, MAT or Bonnie in any combination (in different tabs in the same browser or in different browsers) and one of the sessions reaches 30 minutes of inactivity the session will expire, and the user will be logged out of all sessions. If the user is logged out prior to saving changes, any unsaved changes will not be retained when the user logs into MADiE, MAT or Bonnie again.
 - **Work around:** Users can keep all sessions active by clicking on the screen for each session periodically. Clicking on each active session prior to reaching 30 minutes of inactivity will prevent the sessions from expiring and prevent the user from being logged out of all sessions. [BONNIEMAT-1554](#) [BONNIEMAT-1623](#)
- **QDM Measures:** Status' date timing included in QDM test case JSON is not being saved after translation completes.
- **QI-Core Measures:** There is an issue in how some QI-Core profiles are being mapped to their related FHIR resource types for data requirements, resulting in missing data requirements in the measure export. [BONNIEMAT-1720](#)

MADiE Known Issues (3 of 3)

MADiE Known Issues as of 5/16/24:

- Measures transferred from MAT to MADiE need to be reviewed in MADiE and the CQL updated (can just add a space to the CQL) after the transfer and prior to working with the measure (including working with test cases or exporting the measure). Until this step is complete you may see a CQL error notification on the Test Cases screen and/or during Measure Export.
- **QDM Measures:** When editing a MADiE test case that was imported from Bonnie QDM, if the test case description exceeds the allowable 250 characters, the 'Save' button is disabled and updates cannot be made to the test case.
 - **Work around:** Edit the MADiE test case description to less than 250 characters. [BONNIEMAT-1825](#)
- **QI-Core Measures:** When making edits on the Details tab, Name, Version & ID sub-tab, if the Measure CQL Library Name exceeds 64 characters the 'Save' button is disabled and updates cannot be made to the page.
 - Work around: Edit the Measure CQL Library Name to not exceed 64 characters and save. [BONNIEMAT-1857](#)

MADiE Resources

MADiE

- 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
 - MADiE In Depth Training Videos
 - 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 and Library Sharing Request Form v2.0 – to request measures (and the measure’s test cases) or libraries to be shared – submitted by the owner via email
 - MADiE Measure or Library Ownership Transfer Request Form v1.0 – to request transferring ownership of measures (and the measure’s test cases) or libraries - form should be submitted by the owner via email
 - MADiE Independent Testing Supplemental Guide_v1.0

MADiE Resources (continued)

MADiE QI-Core Profile Examples

- The MADiE team has created a measure in MADiE with an included test case JSON bundle which contains entries for many QI-Core (v4.1.1) profiles.
- The purpose of this test case JSON bundle is to provide users the framework for commonly used QI-Core v4.1.1 profiles that can be leveraged with their own test case development.
- The measure (**QI-Corev4.1.1 Test Case Template**) is a blank measure (no CQL and no Population Criteria) with one test case (**QI-Corev4.1.1 Example Bundle version 2**).
- The QI-Core profiles examples in the JSON bundle are for guidance and are not intended to fulfill any measure or testing requirement. Updates to reflect the specific details of your test case will be necessary.
- Measure developers may copy any of the profiles from the QI-Corev4.1.1 Example Bundle version 2 test case directly to your test case(s) or use a source code editor (e.g., Notepad++ and Visual Studio Code) and make any updates needed to meet your testing needs.
- The MADiE Test Case JSON Guide, available on the [MADiE MVP tab](#) of the MAT public website, has been updated with detailed information regarding the **QI-Corev4.1.1 Example Bundle version** test case in MADiE and provides additional guidance for using this resource to aid MADiE users in updating or creating test cases in MADiE.

CMS Web Application Firewall Errors

CMS Web Application Firewall (WAF) Issues

- CMS WAF errors are received when an attempted action (i.e. saving or exporting) is rejected by the CMS security policy, blocking further action by the user
- This can happen when working in a measure or test case that previously did not receive a CMS WAF error, or when making a change to the measure or test case

When an action is blocked, please include the following information in your ONC JIRA ticket.

- Measure Name/ID
- Test case Name (if applicable)
- Action that resulted in unexpected error messages or an inability to save changes (include specific verbiage/CQL/JSON that was unable to save)
- Providing the error message assists the team in confirming the cause of the issue
- When error messages include a 'Support ID' include that ID number in your ticket so that can be provided to CMS to unblock the attempted action

Examples of CMS WAF error messages:

- The Measure Authoring Tool was unable to process the request. Please try again. If the problem persists, please contact the Help Desk.
- System error. Unable to process information
- 403 Forbidden The requested URL was rejected by CMS security policy. If you believe this is in error, please contact the HIDS Security Operations Center soc@hcqis.org and reference your Support ID: 2586968644408754759

Versioning Measures in MADiE

Versioning for QDM measures has been temporarily disabled.

QI-Core Measures: When versioning MADiE measures, please double check you have selected the appropriate version (Major, Minor or Patch). A pop up will appear where a user can select Major, Minor, or Patch version. The pop up will also display the current version number, the future version number after versioning is complete, and a text area for the user to confirm the new version number. Users will need to type in the version number, and it will need to match what the tool will be updating the version number to in order to proceed.

Create Version * Indicates required field X

* Version Type Patch Current Version # 0.0.000

New Version # 0.0.001 * Confirm New Version # Confirm New Version Number

To better understand what part of the measure version is updated when versioning a measure, see the values below. X is the value that will be incremented. P is the value that remains the same after versioning. 0 is the value that will be cleared out and set to 0 after versioning.

Major X.0.000

Minor P.X.000

Patch P.P.XXX

If you version your measure using the wrong version type (Major, Minor, or Patch), the MADiE Help Desk Team can help; however, you may lose any updates you made after the previous version.

Help Desk Ticket Submission Process

- The [MAT_Bonnie_MADiE_TicketSubmissionGuidance](#) document provides guidance to measure developers needing assistance with measures or test cases. This document includes the following:
 - Steps to take prior to submitting a Help Desk ticket
 - Review available documentation
 - Consult with SMEs
 - **A list of artifacts to include if a ticket is being created with either tracker for assistance with measure CQL or test case JSON**
 - Measure Export, Full measure CQL in a .txt file, test case export (if applicable) full test case JSON in a .txt file
 - **Do not** send screen prints of partial CQL and/or JSON
 - The types of tickets to submit to the [CQL Issue Tracker](#)
 - Tickets submitted to the CQL Issue Tracker will be evaluated and the standards team may identify the ticket needs to be moved on to the Bonnie MAT MADiE Issue Tracker to evaluate MADiE, MAT and Bonnie functionality
 - The types of tickets to submit to the [Bonnie MAT MADiE Issue Tracker](#)

Reminder when submitting tickets

MAT Tickets

- Indicate the tool version and Measure Model: QDM vs. FHIR R4
- Attach the measure package if appropriate
- Provide Screenshots of error messages

Bonnie Tickets

- Indicate tool version 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

- All measure sharing requests, **measure or library ownership transfer requests, measure or library sharing requests**, or other inquiries with a HARP ID must be submitted via email at semanticbits-madie-help@icf.com
 - **Do not submit these requests until you have confirmed that all users involved in the request have active MADiE accounts**
- Indicate the tool version and Measure Model: QDM vs. QI Core
- Attach the measure package and affected CQL and test case export and JSON, if appropriate, as text files and reference them in the ticket by name

Reference the [Bonnie, MAT, MADiE Help Desk Process Diagram](#)

QI-Core CQL Libraries

Global Shared Libraries in MADiE:

Commonly used QI-Core libraries were entered into MADiE.

FHIR Name in MAT	Version in MAT	QI-Core Name in MADiE	Version in MADiE
MATGlobalCommonFunctionsFHIR4	V 7.0.000	CQMCommon	V 2.2.000
FHIRCommon	V 1.1.000	FHIRCommon	V 4.3.000
FHIRHelpers	V 4.1.000	FHIRHelpers	V 4.4.000
QICoreCommon	V 1.0.000	QICoreCommon	V 2.1.000
CumulativeMedicationDurationFHIR4	V 2.0.000	CumulativeMedicationDuration	V 4.1.000
SupplementalDataElementsFHIR4	V 3.1.000	SupplementalDataElements	V 3.5.000

QDM CQL Libraries

Global Shared Libraries in MADiE:

Commonly used QDM libraries have been entered into MADiE.

QDM Name in MAT	Version in MAT	QDM Name in MADiE	Version in MADiE
MATGlobalCommonFunctionsQDM	V 8.0.000	MATGlobalCommonFunctionsQDM	V 8.0.000
CumulativeMedicationDurationQDM	V 3.0.000	CumulativeMedicationDurationQDM	V 3.0.000

CQL Libraries

CQL Libraries owned by MAT users:

- Standalone CQL libraries for both FHIR and QDM will not transfer like measures.
- Library owners will need to create the shell library in MADiE with the correct model 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.

Important!

If you are not the original owner of the standalone CQL library, we request you do not add the library in MADiE. Please give the owner time to create and version the library.

Human Centered Design - HCD

Discussion

HCD – Community Requests

Recap - April User Group we covered

1. List - Representing "Owned Measures" in the All Measures section
2. Details - Progress Checkmarks
3. Details & Population Criteria – Description Field (Clarity)
4. Test Case - Number Cases

HCD – Community Requests

Overview

Initiatives

1. CQL versioning
2. Bulk Actions

Community Requests

1. Auto Increment
2. Export and Re-import
3. Private Measures

HCD – Initiatives

CQL to ELM Translator Version

- Users need to be able to select, at the measure level, what version of the CQL to ELM translator they want to use for their measure.
- Since QI-Core work will continue. Users will likely require updated versions of the translator

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The top navigation bar includes the MADiE logo, the text 'Measure Authoring Development Integrated Environment', and user options for 'Measures', 'Libraries', 'Help', 'Connect to UMLS', and a user profile for 'Michael'. The main content area is titled 'example' and shows the 'Details' tab selected. A 'Delete Measure' button is visible in the top right. Below the title, there are tabs for 'Details', 'CQL Editor', 'Population Criteria', and 'Test Cases'. The 'Details' tab is active, showing a sidebar with navigation links: 'General Information', 'Model & Measurement Period', 'Steward & Developers', 'Measure Overview', 'Description', 'Rationale', 'Guidance (Usage)', 'Clinical Recommendation', 'References', 'Transmission Format', 'Legal', 'Copyright', and 'Disclaimer'. The main form area is titled 'Name, Version & ID' and contains several fields: 'Measure Name' (example), 'Measure ID' (9ea57c87-7bc6-49a6-ae02-d00eac3c56c3), 'eCDM Abbreviated Title' (example-again), 'Endorsing Organization' (CMS Consensus Based Entity), 'Endorsement #' (123), 'Measure CQL Library Name' (Example2), and 'Version ID' (44142e0e-cdeb-4054-ab46-0f1238c8b235). There is also a 'Generate ID' button and an 'Experimental' checkbox. At the bottom right of the form are 'Discard Changes' and 'Save' buttons. The footer contains links for 'Get Help', 'User Guide', 'Freedom of Information Act', 'Accessibility Policy', 'Privacy Policy', 'Rules of Behavior', 'Terms of Use', and 'CMS.gov'. The MADiE logo and 'Version 12.6' are also present in the footer.

Existing Layout



A federal government website managed and paid for by the U.S. Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Baltimore MD 21244

HCD – Initiatives

CQL to ELM Translator Version

The screenshot shows the MADiE 'Measures' interface. A 'Create Measure' modal window is open, allowing a user to define a new measure. The form includes fields for:

- *Measure Name**: A text input field.
- *Measure CQL Library Name**: A text input field.
- *eCQM Abbreviated Title**: A text input field.
- Model**: A dropdown menu with 'Select'.
- *Measure Period - Start Date**: A date picker (yyyy/mm/dd).
- *Measure Period - End Date**: A date picker (yyyy/mm/dd).
- *CQL to ELM Translator Version**: A dropdown menu with '3.3.2 - Current' selected.
- Always Use Latest**: A checkbox.

At the bottom of the modal are 'Cancel' and 'Create' buttons. In the background, a table lists existing measures with columns for Version, Model, and Actions.

Version	Model	Actions
1.3.214	QI-Core 4.1.11	View
0.1.010	QI-Core 4.1.11	View
2.0.017	QI-Core 4.1.11	View
1.5.001	QI-Core 4.1.11	View
1.0.005	QI-Core 4.1.11	View

Upon Measure Creation

The screenshot shows the MADiE 'Details' view for a specific measure: 'Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy'. The interface includes tabs for 'CQL Editor', 'Population Criteria', 'Test Cases (5)', and 'Review Info'. The 'General Information' section is expanded, showing the following details:

- Name, Version & ID**: *Measure Name, *Measure CQL Library Name, Version ID, and *CQL to ELM Translator Version (3.3.2 - Current).
- Model & Measurement Period**: Model and Measurement Period.
- Contributors**: Contributors.
- Measurement Overview**: Measure ID, Description, Rationale, Clinical Recommendation, References, Definition, Guidance (Usage), Use Context & Tags, and Measure Set.
- Legal**: Copyright and Disclaimer.

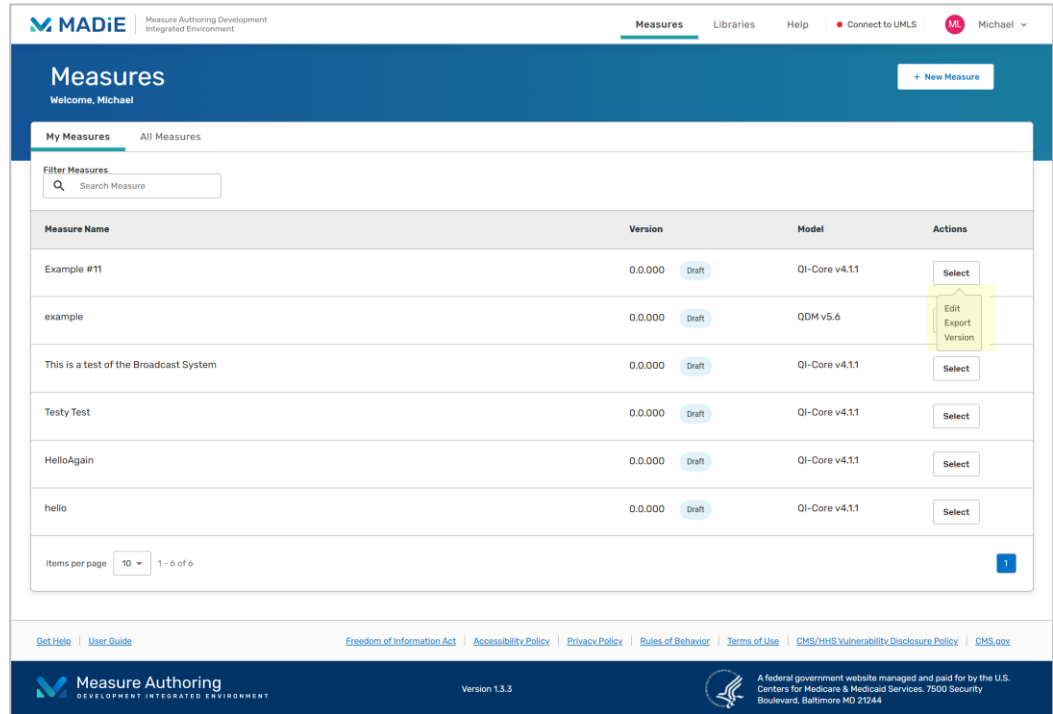
Buttons for 'Discard Changes' and 'Save' are located at the bottom right of the details view.

Can Edit in Details view

HCD – Initiatives

Bulk Actions

- Allow users to apply an action to more than one measure at a time
 - Exporting
 - Deleting
 - Sharing
- Would this be beneficial for:
 - Versioning
 - Cloning
 - Generating Human Readables



The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The top navigation bar includes the MADiE logo, the text 'Measure Authoring Development Integrated Environment', and links for 'Measures', 'Libraries', 'Help', 'Connect to UMLS', and a user profile for 'Michael'. The main header area shows 'Measures' and a '+ New Measure' button. Below this, there are tabs for 'My Measures' and 'All Measures', and a search bar labeled 'Filter Measures' with the placeholder 'Search Measure'.

The central part of the interface is a table with the following columns: 'Measure Name', 'Version', 'Model', and 'Actions'. The table contains several rows of measure data:

Measure Name	Version	Model	Actions
Example #11	0.0.000 draft	QI-Core v4.1.1	Select
example	0.0.000 draft	QDM v5.6	Edit Export Version
This is a test of the Broadcast System	0.0.000 draft	QI-Core v4.1.1	Select
Testy Test	0.0.000 draft	QI-Core v4.1.1	Select
HelloAgain	0.0.000 draft	QI-Core v4.1.1	Select
hello	0.0.000 draft	QI-Core v4.1.1	Select

At the bottom of the table, there is a pagination control showing 'Items per page' set to '10' and '1 - 6 of 6'. The footer of the page includes links for 'Get Help', 'User Guide', 'Freedom of Information Act', 'Accessibility Policy', 'Privacy Policy', 'Rules of Behavior', 'Terms of Use', 'CMS/HHS Vulnerability Disclosure Policy', and 'CMS.gov'. The footer also contains the MADiE logo, the text 'Measure Authoring DEVELOPMENT INTEGRATED ENVIRONMENT', the version number 'Version 1.3.3', and the U.S. Centers for Medicare & Medicaid Services logo with the address '7500 Security Boulevard, Baltimore MD 21244'.

HCD – Initiatives

Bulk Actions

The screenshot shows the MADiE Measures interface. The top navigation bar includes 'Measures', 'Libraries', 'Manifests', and 'Help'. A user profile for 'Jonathan' is visible. The main content area displays a list of measures under the 'All Measures' tab. A green box highlights the 'Model' and 'Actions' columns of the table. The first measure, 'A Change in Severity of the Level of Food Insecurity', is selected with a checkbox. The 'Model' column shows 'QI-Core 4.1.1.1' and the 'Actions' column shows a 'View' button and a right-pointing chevron. A green arrow points from this area to a detailed view of the actions menu.

Measure	Version	Model	Actions
<input checked="" type="checkbox"/> A Change in Severity of the Level of Food Insecurity 10/30 Test Cases Passing	1.3.214	QI-Core 4.1.1.1	View >
<input type="checkbox"/> Risk-Standardized Acute Admission Rates for Patients With Multiple Chronic Conditions 20/20 Test Cases Passing	0.1.010 Draft	QI-Core 4.1.1.1	View >
<input type="checkbox"/> Skilled Nursing Facility 30-Day All-Cause Readmission Measures (SNFRM) 128/100 Test Cases Passing	2.0.017	QI-Core 4.1.1.1	View >
<input type="checkbox"/> Documentation of Clinical Response to Allergen Immunotherapy within One Year 4/5 Test Cases Passing In-Use	1.5.001 Draft	QI-Core 4.1.1.1	View >
<input type="checkbox"/> Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) 67/76 Test Cases Passing	1.0.005	QI-Core 4.1.1.1	View >

This detailed view shows the actions menu for a selected measure. It features a row of icons: a red trash can (delete), a blue upload arrow (share), a blue share icon, a blue link icon, a blue document icon, a blue plus icon, and a blue document icon. Below the icons is a table with two columns: 'Model' and 'Actions'. The 'Model' column contains 'QI-Core 4.1.1.1' and the 'Actions' column contains a 'View' button and a right-pointing chevron.

Model	Actions
QI-Core 4.1.1.1	View >

- User selects a checkbox from each desired measure on the grid
- Once a Measure is selected the allowed actions are enabled

Measures

Welcome, Jonathan

+ New Measure

My Measures (12)

All Measures

Search



<input type="checkbox"/>	Measure	Version	Model	Actions
<input type="checkbox"/>	A Change in Severity of the Level of Food Insecurity 10/30 Test Cases Passing	1.3.214	QI-Core 4.1.1.1	View >
<input type="checkbox"/>	Risk-Standardized Acute Admission Rates for Patients With Multiple Chronic Conditions 20/20 Test Cases Passing	0.1.010 Draft	QI-Core 4.1.1.1	View >
<input type="checkbox"/>	Skilled Nursing Facility 30-Day All-Cause Readmission Measures (SNFRM) 120/300 Test Cases Passing	2.0.017	QI-Core 4.1.1.1	View >
<input type="checkbox"/>	Documentation of Clinical Response to Allergen Immunotherapy within One Year 4/5 Test Cases Passing In-Use	1.5.001 Draft	QI-Core 4.1.1.1	View >
<input type="checkbox"/>	Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) 67/76 Test Cases Passing	1.0.005	QI-Core 4.1.1.1	View >

Items per page 1 - 10 of 12[1](#) [2](#) Next >

HCD – Community Requests

Auto Increment

- Each year users need to advance their measure and test cases by one year
 - This is a feature currently available in Bonnie
 - Users need an easy way to advance their test case dates by 1 year

BONNIE

Measures CMS190V11

CMS190V11

MEASURE DETAILS

INTENSIVE CARE UNIT VENOUS THROMBOEMBOLISM (VTE)

This measure assesses the number of patients who have documentation why no VTE prophylaxis was given during the Intensive Care Unit (ICU) or surgery encounter (or transfer).

PATIENTS 2012 → 2012

Shift dates in patient data.
This option shifts all dates on all patients in this measure by the number of years being changed. Feb 29th in leap years will be changed to Feb 28th in non-leap years.

CANCEL **CHANGE PERIOD**

SHOW ALL RESULTS

Initial Population:

define "Initial Population":
VTE."Encounter with Age Range and without VTE Diagnosis or Obstetrical Conditions"

SHOW RESULT

Denominator:

define "Denominator":
"Encounter with ICU Location"

SHOW RESULT

Denominator Exclusion:

define "Denominator Exclusions":
"Encounter with ICU Location And Encounter Less Than 2 Days"
union "Encounter with First ICU Stay with Principal Procedure of SCIP VTE Selected Surgery"
union "Encounter with Intervention Comfort Measures From Day Of Start of Hospitalization To Day After First ICU Stay"
union "Encounter with Intervention Comfort Measures on Day of or Day After Procedure"

HCD – Community Requests

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The main header shows the MADiE logo and navigation links for Measures, Libraries, Manifests, and Help. The user is logged in as Jonathan. The current measure is 'Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy', with version 0.0.007 and model QI-Core v4.1.1. The 'Test Cases (5)' tab is selected, and the 'Patient Data' section is expanded. This section includes a 'Shift dates in patient data' checkbox (checked) and a dropdown menu for '# of Years'. The 'Test Case Measurement Year - Current' is set to 2012, and the 'Test Case Measurement Year - New' is also set to 2012. There are 'Discard Changes' and 'Save' buttons at the bottom of the section. The footer contains links for Get Help, User Guide, Freedom of Information Act, Accessibility Policy, Privacy Policy, Rules of Behavior, Terms of Use, and cms.gov. The Measure Authoring logo and version 1.0.1 are also visible.

Auto Increment

- New subtab is added to the Test Case Configuration section
- Tab contains a section for Patient Data
- Option within patient data allows users to shift dates

HCD – Community Requests

Export & Re-import

- QI-Core has export and re-import feature.
- Not having a standardized JSON format QDM cannot perform the same.
- One solution is to Clone test cases feature. This feature will allow user to clone all the test cases from one measure to another measure.
- Any use cases that you can think of that we might be missing going this route?

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. The main header shows the MADiE logo and navigation links for Measures, Libraries, Manifests, and Help. The user is logged in as Jonathan. The current measure is "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy" (Version: 0.0.007, MP: 1/1/2023 - 12/31/2023). The interface is divided into several sections:

- Navigation:** Details, CQL Editor, Population Criteria, Test Cases (5), Review Info.
- Summary:** 40% Passing (2/5) and 80% Coverage. Buttons for "New Case" and "Run Test(s)".
- Filter:** A search box with "Select" and buttons for "Delete All", "Import", and "Export".
- Table:** A table with columns for Status, Group, Title, Description, and Actions. It lists five test cases with their respective statuses and descriptions.
- Footer:** "Items per page" set to 10, showing "1 - 10 of 12" items, and navigation buttons for "1", "2", and "Next".

Status	Group	Title	Description	Actions
Pass	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive anti-coagulant due to medical reason, but start date is after end of encounter.	View
Fail	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	View
Pass	Series 107	Global Malnutrition Composite Score	Meets IPP, DENOM - Current Age. Encounter PCSEOV During MP. Diagnosis of Hypertension takes place <=6mos. R2D2 MP. An adult outpatient visit value set overlaps the diagnosis. It's code is not allowed in the IP).	View
Fail	DENEXCEPPass	DEXANotPerformedPRRefusedEdge	Systolic blood pressure labs not in encounter timing interval	View
Fail	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP:	View

HCD – Community Requests

Private Measures

- In MAT measures can be made to private.
- MADiE is not able to support this feature currently.
- Solution - We want to go the route where we will default the measure to be public and give you the ability to make it private?
- Should it be private by default and you can make it public?

The screenshot displays the MADiE web application interface. The header includes the MADiE logo, version information (0.0.007), and navigation links for Measures, Libraries, Manifests, Help, and Connect to UMLS. The user is identified as Jonathan.

The main content area shows the configuration for a measure titled "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy". The measure is currently in "In-Use" status. The interface includes tabs for Details, CQL Editor, Population Criteria, Test Cases (5), and Review Info.

Under the Population Criteria tab, the configuration is set to "Criteria 1". The summary shows 40% Passing (2/5) and 80% Coverage. There are buttons for "New Case" and "Run Test(s)".

A filter section is present with a search box and buttons for "Delete All", "Import", and "Export".

The main table displays test cases with the following data:

Status	Group	Title	Description	Actions
Pass	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive anti-coagulant due to medical reason, but start date is after end of encounter.	View
Fail	Series 005	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP.	View
Pass	Series 107	Global Malnutrition Composite Score	Meets IPP. DENOM - Current Age. Encounter PCSEOV During MP. Diagnosis of Hypertension takes place <=6mos. R2D2 MP. An adult outpatient visit value set overlaps the diagnosis. It's code is not allowed in the IP).	View
Fail	DENEXCEPPass	DEXANotPerformedPRRefusedEdge	Systolic blood pressure labs not in encounter timing interval	View
Fail	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP.	View

At the bottom, there is a pagination control showing "Items per page" set to 10 and "1 - 10 of 12".

HCD – Community Requests

Private Measures

- Can you tell us more when do you want measure to be public or private?
- Is there a use case where we have to switch back between private and public modes?

The screenshot shows the MADiE web application interface. The main header includes the MADiE logo and navigation links for Measures, Libraries, Manifests, and Help. The user is logged in as Jonathan. The current page is titled 'Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy' and shows version 0.0.007, MP: 1/1/2023 - 12/31/2023, and a URL. The page is divided into tabs: Details, CQL Editor, Population Criteria, Test Cases (5), and Review Info. The Population Criteria tab is active, showing a 40% passing rate (2/5) and 80% coverage. A table of test cases is displayed below, with columns for Status, Group, Title, Description, and Actions. The table contains five rows of test cases, each with a status icon (Pass or Fail) and a 'View' button. The bottom of the page shows pagination controls for 10 items per page, 1-10 of 12 items, and a 'Next' button.

Status	Group	Title	Description	Actions
Pass	Series 001	Intensive Care Unit Venous Thromboembolism Prophylaxis	Patient did not receive anti-coagulant due to medical reason, but start date is after end of encounter.	View
Fail	Series 005	Adult Major Depressive Disorder (MDD); Suicide Risk Assessment	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP.	View
Pass	Series 107	Global Malnutrition Composite Score	Meets IPP. DENOM - Current Age. Encounter PCSEOV During MP. Diagnosis of Hypertension takes place <=6mos. R2D2 MP. An adult outpatient visit value set overlaps the diagnosis. It's code is not allowed in the IP).	View
Fail	DENEXCEPPass	DEXANotPerformedPRRefusedEdge	Systolic blood pressure labs not in encounter timing interval	View
Fail	Series 201	Hospital Harm - Severe Hypoglycemia	Patient with Diagnosis during Encounter Performed: Psych Visit - Diagnostic Evaluation. Intervention Performed. Suicide risk Assessment before MP.	View

Community Questions & Discussion

Important Announcement

The legacy tools (MAT and all Bonnie environments) will no longer be available for use after June 28, 2024.

For security reasons, after June 28th all measure development and testing will be performed using MADiE.

As MAT and Bonnie will no longer be accessible, the measures and test cases currently contained within those tools will not be accessible to users if they are not exported prior to June 28th, 2024.

The MADiE team will continue making enhancements to MADiE and providing updates as progress is made.

Important Announcement (cont'd)

Key dates in the migration timeline:

May 2024:

- MADiE continues to release key features to support QDM measure development, as well as enhancements based on prioritization discussions.
- Measure developers need to begin the process of migrating measures, libraries and test cases to MADiE if that process has not begun already.

June 28, 2024: MAT, Bonnie FHIR, Bonnie QDM and Bonnie Prior shutdown. These tools will no longer be accessible by any measure developers.

If you have any questions or concerns, please contact your CMS representative. If you do not have a CMS representative, please contact the MADiE help desk at semanticbits-madie-help@icf.com with your questions or submit questions to the ONC Jira Bonnie MAT MADiE Issue Tracker [here](#).

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.

Resources

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.



Resources for Users

MADiE In Depth Training Videos

- Located on the [MADiE MVP tab](#)
 - [Log In and Measures](#)
 - [QI-Core Test Cases](#)

JIRA Status and Resolution Use Cases

- Located on the [Bonnie MAT Issue Tracker](#) Summary page

Bonnie and MAT Troubleshooting Guides

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

Bonnie, MAT and MADiE Release Schedule

- Located on the MAT public website [Training and Resources](#) tab

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 6.11:

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

Bonnie 4.3.2 QDM (Prior) (QDM version 5.5):

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

Bonnie 5.1.6 QDM (QDM version 5.6):

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

Bonnie 6.2.6 FHIR:

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

MADiE 1.3.3:

<https://madie.cms.gov>

Bonnie MAT MADiE Issue Tracker:

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

eCQI Resource Center:

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