

# **MADiE User Group**

*March User Group*

*Hosted by ICF/SemanticBits*

*March 20<sup>th</sup>, 2025*



*MADiE is owned and operated under contract with CMS*

*Contracting Officer Representative (COR): Emmanuel Kalluri*

# Disclaimer

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

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

# Agenda and Objectives

## Agenda

1. MADiE Updates
2. Community Questions & Discussions
3. Review of Resources

## Objectives

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

# 60 Day Account Deactivation

## Keeping your MADiE Account Active:

- In accordance with CMS and HHS security requirements, MADiE has implemented an account deactivation policy for all users who have not logged in 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 a deactivated MADiE account again, users will need to request the MADiE role in HARP.
  - **Do NOT respond to the deactivation email.**

\*Keep your MADiE account active to continue to receive important email communications!

# MADiE

MADiE 2.1.4

# MADiE: Current State

## MADiE – 2.1.4 2/19/2025

- **QI-Core Measures:** Users are now able to specify a Scoring precision at a population criteria level. This field has also been added to measure exports.
- **QI-Core Measures:** Users are now able to specify an Intended Venue of either Eligible Clinician (EC) or Eligible Hospital (EH). This field has also been added to measure exports.
- Users are now able to copy test cases from a measure to another measure within the same model and model version to which they have edit access.
- Users are now able to view the human readable file for any measure that does not contain errors within MADiE without having to export the measure and view it outside of MADiE.
- Users were able to create multiple drafts of a measure when they click on the “Continue” button more than once while MADiE is processing the request. ([MADiE-2120](#))

# MADiE – Known Issues (1 of 4)

The Known Issues List is posted and maintained on the [Training and Resources](#) tab on the public website and the Summary page of the [MADiE ONC Jira Issue Tracker](#).

## **CQL-ELM Translator Known Issues as of 3/20/25:**

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 tickets for more information on this issue:

- [https://github.com/cqframework/clinical\\_quality\\_language/issues/1153](https://github.com/cqframework/clinical_quality_language/issues/1153)
- [MADIE-1420](#)

# MADiE – Known Issues (2 of 4)

## MADiE Known Issues as of 3/20/25:

- Users will automatically be logged out of MADiE after 30 minutes of inactivity. If the user has more than one active session of MADiE 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 again.
  - **Workaround:** 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. [MADIE-1554](#) [MADIE-1623](#)
- 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.
  - **Workaround:** Edit the MADiE test case description to less than 250 characters. [MADIE-1825](#)



# MADiE – Known Issues (3 of 4)

## MADiE Known Issues as of 3/20/25:

- Users may experience toggling back and forth between their current tab and a new tab or flickering and, in some cases, discontinuation of their MADiE session.
  - **Workaround:** Refresh the page or log out of all MADiE instances and begin a new MADiE session. [MADIE-1922](#)
- When importing QI-Core test cases from MADiE into a measure with Stratifications, the test cases will appear as if the measure does not have stratifications. This occurs even if the measure the test cases were exported from had stratifications.
  - **Workaround:** Navigate to the population criteria tab, modify any stratification, click save. Then navigate back to the test cases and stratification should now be present.
- **QDM Measures:** QRDA export will fail if a measure includes one or more test cases that have the Payer data element added, but no code selected for the data element.
  - **Workaround:** Update the impacted test cases to either add a code to the Payer data element or remove the Payer data element. [MADIE-2043](#)

# MADiE – Known Issues (4 of 4)

## MADiE Known Issues as of 3/20/25:

- **QDM Measures:** Unexpected results are received for test cases that included a quantity prior to the update released with MADiE 2.0.7 on 10/13/2024.
  - **Workaround:** Users will need to update impacted test cases to edit the quantity and save the test case again. This will apply the update released with MADiE 2.0.7 to be applied to that test case. [MADIE-2056](#)
- **QDM Measures:** For Ratio and Continuous Variable measures, in test cases imported from Bonnie with observations, users may receive an error message and be prevented from editing the impacted test cases.
  - **Workaround:** Remove the observation expected value by zeroing out the relevant population (Numerator, Denominator or Measure Population), and then re-enter the expected values. If a test case has multiple observations, each will need to be updated accordingly. [MADIE-2090](#)

# MADiE Resources

The [MADiE public website](#) provides a Login button to access MADiE

The [Training and Resources](#) tab on the public website provides:

- **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. This document has been updated to include QI-Core v6.0.0 information.
- **Known Issues** – updated regularly
- **MADiE Enhancement Request Form for CMS Contractors** – additional details required when submitting an enhancement request
- **MADiE CMS ID Deletion Request Form v1.0** – to request the CMS ID associated with a draft measure with no prior versions be deleted
- **MADiE Add or Remove Measure and Library Sharing Request Form v1.1**
  - Used to request measures (and the measure's test cases) or libraries to be shared, submitted by or on behalf of the owner via email
- OR
  - Used to request measures (and the measure's test cases) or library sharing access be removed – submitted by or on behalf of the owner or by the user the measure or library is shared with via email
- **MADiE Measure or Library Ownership Transfer Request Form v2.0** – to request transferring ownership of measures (and the measure's test cases) or libraries - form should be submitted by the owner via email
- **MADiE Revert Measure Version Request Form v1.0** – to request a measure version number be reverted to a previous version number if the measure was versioned in error
- **MADiE Independent Testing Supplemental Guide v2.0**
- **Release Notes** – posted with each MADiE release
- **MADiE In Depth Training Videos**
- **External JSON Testing Help Guide** – provides instructions for users to externally test their QI-Core v6.0.0 test case JSON until MADiE can begin performing those validations

# MADiE Resources (continued)

## MADiE QI-Core Profile Examples – Updated to Include QI-Core v6.0.0

- The MADiE Test Case JSON Guide v2.0, available on the [Training and Resources](#) tab on the public website, has been updated to also provide guidance to aid MADiE users in updating or creating QI-Core v6.0.0 test cases in MADiE.
- The MADiE team has created a measure in MADiE (**QI-Corev6.0.0 Test Case Template**) with an included test case JSON bundle (**QI-Corev6Example Bundle**) which contains entries for many QI-Core v6.0.0 profiles.
- To continue to support QI-Core v4.1.1 test case creation, the measure (**QI-Corev4.1.1 Test Case Template**) with one test case (**QI-Corev4.1.1 Example Bundle version 2**) is available in MADiE.
- The purpose of these test case JSON bundles is to provide users the framework for commonly used QI-Core v4.1.1 and v6.0.0 profiles that can be leveraged with their own test case development.
- The QI-Core profiles examples in the v4.1.1 and the v6.0.0 JSON bundles 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 either of the test cases to your test case(s) (of the same QI-Core version) or use a source code editor (e.g., Notepad++ and Visual Studio Code) and make any updates needed to meet your testing needs. The test cases may also be exported.

# QI-Core v6.0.0 CQL Libraries

## Global Shared Libraries in MADiE:

Commonly used QI-Core v6.0.0 libraries have been entered into MADiE.

QI-Core v6.0.0 Name in MADiE	Version in MADiE
CQMCommon	3.0.000
FHIRHelpers	4.4.000
QICoreCommon	3.0.000
CumulativeMedicationDuration	5.0.000
SupplementalDataElements	6.0.000

# QI-Core v4.1.1 CQL Libraries

## Global Shared Libraries in MADiE:

Commonly used QI-Core v4.1.1 libraries have been entered into MADiE.

QI-Core v4.1.1 Name in MADiE	Version in MADiE
CQMCommon	2.2.000
FHIRCommon	4.3.000
FHIRHelpers	4.4.000
QICoreCommon	2.1.000
CumulativeMedicationDuration	4.1.000
SupplementalDataElements	3.5.000

# QDM CQL v5.6 Libraries

## Global Shared Libraries in MADiE:

Commonly used QDM libraries have been entered into MADiE.

QDM 5.6 Name in MADiE	Version in MADiE
CQMCommonQDM	9.0.000
CumulativeMedicationDurationQDM	3.0.000

# 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 [QNET\\_soc@cms.hhs.gov](mailto:QNET_soc@cms.hhs.gov) and reference your Support ID: 2586968644408754759



# Versioning Measures in MADiE

**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.

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. Complete the MADiE Revert Measure Version Request Form v1.0 available on the [Training and Resources](#) tab on the public website and submit the form via email to [semanticbits-madie-help@icf.com](mailto:semanticbits-madie-help@icf.com)

**Create Version** \* Indicates required field

\* **Version Type** Current Version #  
Patch 0.0.000

New Version # \* **Confirm New Version #** ⓘ  
0.0.001 Confirm New Version Number

Cancel Continue

# Help Desk Ticket Submission Process (1 of 3)

The **MADiE Ticket Submission Guidance** document on the [Training and Resources](#) tab on the public website 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
- When to submit a ticket to MADiE Issue Tracker (MADiEIT) and when to submit a ticket to CQL Issue Tracker (CQLIT)
- A list of artifacts to include if a ticket is being created with either CQLIT or MADiEIT for assistance with measure CQL or test case JSON

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

# Help Desk Ticket Submission Process (2 of 3)

## Steps to take prior to submitting a ticket:

1. **Search for an Issue:** Have a question or experiencing an issue? Search by keyword or project, see if others have submitted the same question or reported the same issue, and review the responses.
2. **If a ticket needs to be submitted, identify the appropriate Issue Tracker – CQLIT or MADiEIT**
  - Submitting tickets to the incorrect IT will increase the response time as two teams will need to review the ticket. This will delay possible resolution for the submitter.
3. **Identify the Ticket Type to be used**
  - Choices are – **Bug/Issue**, Delete Library, **Enhancement Request**, MADiE Access Question, **Question**, User Group Question/Topic, or User Research Feedback
  - The responses that are auto-generated when a ticket is created is determined by the ticket type and include additional information that may be needed for the ticket to be processed.
  - For example, the auto-response, required information, and format for that information for an Enhancement Request ticket is driven by the “Are you part of a CMS Contract” field. CMS Contractors must attach a completed Enhancement Request Form while other submitters are directed to answer several questions in the description or as a comment.

# Help Desk Ticket Submission Process (3 of 3)

## Steps to take prior to submitting a ticket (continued):

### 5. Include all required information based on the type of ticket you are creating

- Populate all applicable available fields when creating the ticket. These fields can be updated after the ticket is created by selecting “Edit” if additional information needs to be added.
- The required fields are specific to the Issue Tracker the ticket is submitted to. For example, the measure name and URL is required for the MADiEIT but is not available for the CQLIT. When tickets are moved only the data in fields available by the IT the ticket is moved to will be retained, and different data may be needed that wasn't originally entered.

### 6. Attach required artifacts and supporting documentation

- Tickets created with required information and supporting documentation missing will be sent back to the submitter with a comment listing the missing information and supporting documentation. Populating all applicable fields while creating the ticket will assist the MADiE team when processing this ticket.
- **IMPORTANT NOTE:** Until all required information and supporting documentation are included, the ticket cannot be processed. Including this information at the time of ticket creation will expedite the time from ticket creation to when the team may begin processing the ticket. **Specifically: Attach the measure package and test case export, include measure, library and/or test case URLs, and include the Enhancement Request Form when applicable for the ticket you are submitting.**

# Tickets to be Submitted to the CQLIT

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 MADiE Issue Tracker to evaluate MADiE functionality.

## The following types of tickets should be submitted to the [CQL Issue Tracker](#):

- User is experiencing a CQL error in the MADiE CQL Editor that is not resolved after reviewing resources (see list in the Ticket Submission Guidance document) and consulting with SMEs
- User is unable to resolve JSON test case error message(s) after reviewing resources (see list in the Ticket Submission Guidance document) and consulting with SMEs
- MADiE test case results are not as expected, and the following has been confirmed:
  - JSON does not contain validation errors
  - Valid CQL
  - Appropriate utilization of QI-Core Profiles:
    - [hl7.org/fhir/us/qicore/STU4.1.1/profiles.html](http://hl7.org/fhir/us/qicore/STU4.1.1/profiles.html)
    - [hl7.org/fhir/us/qicore/STU6/profiles.html](http://hl7.org/fhir/us/qicore/STU6/profiles.html)

# Tickets to be Submitted to the MADiEIT

The following types of tickets should be submitted to the [MADiE Issue Tracker](#):

- Enhancement requests
- Issues accessing the applications after verifying network or internet connection
- Tool performance issues in which do not subside after verifying network or internet connection
- Error message received which instructs the user to contact the Help Desk
- Clarification needed for functionality after review of resources
- MADiE CQL error that was not resolved after review of available resources, consulting with SMEs and/or [CQL Issue Tracker](#)
- MADiE test case error that was not resolved after review of available resources, consulting with SMEs and/or [CQL Issue Tracker](#)
- MADiE measure export inquiries
- Issues with the measure HTML file (referred to as the 'Human Readable'), in the measure package export
- MADiE test case export (QRDA or Excel) inquiries
- Library deletion requests

# Help Desk Requests Including HARP IDs

- The following requests must be submitted via email at [semanticbits-madie-help@icf.com](mailto:semanticbits-madie-help@icf.com) as they contain HARP IDs
  - Add measure or library sharing requests
  - Remove measure and library sharing access requests
  - Measure or library ownership transfer requests
  - CMS ID deletion requests
  - Revert measure version requests
  - or other inquiries with a HARP ID
- Do not submit these requests until you have confirmed that all users involved in the request have active MADiE accounts

# UXD - Test Case Date Shift (Current)

## Test Case Data Tab

Users can shift all test case dates at one time via the Test Case Data tab

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 "Jonathan". The main header shows the current measure: "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy", with version "1.4.000", model "OI-Core v4.1.1", and an "In-Use" status. The "Test Cases (5)" tab is selected in the navigation menu.

The "Test Case Data" tab is highlighted in the left sidebar. The main content area shows the "Test Case Data" configuration. It includes two input fields: "Test Case Measurement Year - Current" (set to 2012) and "Test Case Measurement Year - New" (set to 2012). Below these fields is a checkbox labeled "Shift dates in patient data", which is currently unchecked. At the bottom right of the configuration area are "Discard Changes" and "Save" buttons.

The footer of the application contains links for "Get Help" and "User Guide", a row of legal policies including "Freedom of Information Act", "Accessibility Policy", "Privacy Policy", "Rules of Behavior", and "Terms of Use", and the "cms.gov" logo. The bottom-most footer includes the "Measure Authoring DEVELOPMENT INTEGRATED ENVIRONMENT" logo, "Version 2.1.3", and a statement: "A federal government website managed and paid for by the U.S. Centers for Medicare & Medicaid Services. 7500 Security Boulevard, Baltimore, MD 21244".



# UXD - Test Case Date Shift (Near Future)

## Action Center

Users will soon be able to shift One/Many/All test cases. Offering more control.

1. Select any test case whose date you want shifted
2. Select the Test Case Date icon from the action center
3. Shift the Test Case Dates in the modal
4. Save

The screenshot displays the MADiE (Measure Authoring Development Integrated Environment) interface. At the top, the MADiE logo and navigation links (Measures, Libraries, Help, Connect to UMLS, Jonathan) are visible. The main header shows the measure title: "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy". Below the header, there are tabs for "Details", "CQL Editor", "Population Criteria", "Test Cases (5)", and "Review Info".

The "Test Cases" tab is active, showing a table of test cases. The table has columns for "Case #", "Status", "Series", "Description", and "Last Saved". A modal dialog titled "Shift Test Case Date(s)" is open, allowing users to shift the dates of selected test cases by a specified number of years. The modal includes a search bar, a "Filter By" dropdown, and a "Shift Test Case Dates" section with a "# of Years" dropdown menu. The modal also contains "Cancel" and "Save" buttons.

Case #	Status	Series	Description	Last Saved
1	Pass	Series 107	Global Malnutrition Composite Score	08/09/2024
3	Pass	Series 107	Global Malnutrition Composite Score	08/09/2024
4	Pass	Series 107	Global Malnutrition Composite Score	08/08/2024
7	Fail	DENEXCEPPass	DEXANotPerformedPtRefusedEdge	08/07/2024
8	Fail	Series 201	Hospital Harm - Severe Hypoglycemia	08/07/2024

# UXD - Overlapping Codes

## Overlapping Codes

Users can view overlapping codes.

1. Select Reports Button
2. Look through or search for which codes have overlaps
3. Expand the sub row to see which Value Set/OID/URL have overlaps

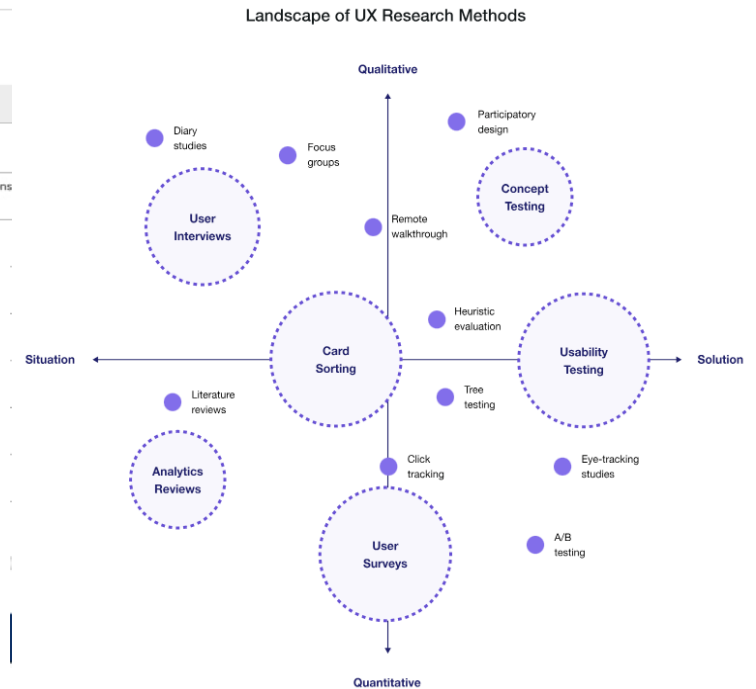
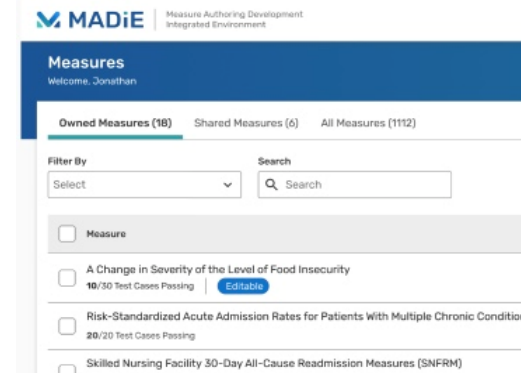
The screenshot shows the MADiE (Measure Authoring Development Integrated Environment) interface. A modal window titled "Overlapping Codes" is open, displaying a table of codes. The table has the following columns: Code, Code System, Description, and Version. The first row is highlighted with a green border, indicating it is selected. This row shows code 1234567890 from the SNOMEDCT system, with the description "American Joint Committee on Cancer stage IIA (qualifier value)" and version 2024-09. Below the description, three value sets are listed, each with a URL: "Value Set: Encounter Patient", "Value Set: ED Visit", and "Value Set: Residential Care Setting". The other rows in the table show codes 2345678901, 3456789012, 4567890123, and 5678901234, all from SNOMEDCT, with descriptions for stages IIB, IIC, 1, and 2 respectively. The modal also includes a "Close" button and an "Export" button. The background interface shows the main measure configuration page for "Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy", with a sidebar on the left containing navigation options like "Population Criteria", "Criteria 1", "Criteria 2", "Criteria 3", "Configuration", "Expansion", "SDE", "Test Case Data", and "Value Sets".

Code	Code System	Description	Version
1234567890	SNOMEDCT	American Joint Committee on Cancer stage IIA (qualifier value)	2024-09
Value Set: Encounter Patient URL: http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1029.369			
Value Set: ED Visit URL: http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1029.369			
Value Set: Residential Care Setting URL: http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1029.369			
2345678901	SNOMEDCT	American Joint Committee on Cancer stage IIB (qualifier value)	2024-09
3456789012	SNOMEDCT	American Joint Committee on Cancer stage IIC (qualifier value)	2024-09
4567890123	SNOMEDCT	Stage 1 (qualifier value)	2024-09
5678901234	SNOMEDCT	Stage 2 (qualifier value)	2024-09

# UXR - Your new UX Researcher

## Benjamin Gonzalez – Senior UX Researcher from ICF

- White Plains, NY, USA
- About 4 years at ICF
- Other projects I've worked at:
  - ISP
  - AMS
- Over 15 years of experience in UX strategy and research
- Proficiency in:
  - Diary Studies
  - Usability Studies
  - Surveys
  - Interviews
  - User Flows
  - Affinity Diagrams
  - Personas
  - Contextual Inquiries
  - Tree Sorting
  - Card Sorting



# UXR - MADiE Usability Test

## A usability test involving measure development in MADiE

July 2024

1. UX Researcher – Abhishek Edla Ashok
2. Interviewed 7 participants on the use of MADiE
3. Participants build measures using QDM and QI Core and CQL
4. Covered issues that impacted the use of MADiE for participants while engaged in their workflow.
5. Some of the know issues have been adjusted and others we are still working on to improve our system.

The screenshot displays the MADiE Measures interface. The header includes the MADiE logo, navigation links for Measures, Libraries, and Help, and a user profile for Jonathan. The main content area shows a list of measures under the 'Owned Measures (18)' tab. The table columns are Measure, Version, Updated, Status, Model, Shared, and CMS ID. Each row includes a checkbox, the measure name, test cases passing, a status button (Draft, Editable, or In-Use), the model name, a shared status icon, the CMS ID, and an Edit button. 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, along with the Measure Authoring logo and version information.

Measure	Version	Updated	Status	Model	Shared	CMS ID
<input type="checkbox"/> A Change in Severity of the Level of Food Insecurity 16/30 Test Cases Passing <span>Editable</span>	0.1.002	12/30/2024	Draft	QI-Core 4.1.1	✓	1234
<input type="checkbox"/> Risk-Standardized Acute Admission Rates for Patients With Multiple Chronic Conditions 20/20 Test Cases Passing	1.1.010	12/30/2024	Draft	ODM v5.6	✓	4321
<input type="checkbox"/> Skilled Nursing Facility 30-Day All-Cause Readmission Measures (SNFRM) 120/300 Test Cases Passing	2.0.017	12/28/2024		QI-Core 4.1.1	✓	-
<input type="checkbox"/> Documentation of Clinical Response to Allergen Immunotherapy within One Year 4/5 Test Cases Passing <span>In-Use</span>	1.5.001	12/20/2024	Draft	QI-Core 4.1.1		2134
<input type="checkbox"/> Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) 67/76 Test Cases Passing	1.0.005	11/01/2024		QI-Core 4.1.1	✓	-
<input type="checkbox"/> Hospital Harm - Falls with Major Injury FHIR... 7/7 Test Cases Passing	0.0.024	10/31/2024		QI-Core 4.1.1		5678
<input type="checkbox"/> ColorectalCancerMeasureFHIR4... 2/4 Test Cases Passing	0.0.001	09/09/2024		QI-Core 4.1.1	✓	8765
<input type="checkbox"/> Addressing Social Needs (ASN) in the Outpatient Setting... 7/11 Test Cases Passing	1.0.005	07/11/2024		ODM v5.6	✓	6758

# UXR - Identifying Measures by CMS ID

During the interview process we identified that developers often referred and searched for measures using their CMS ID. Though not implemented on the site yet, a CMS ID column was added to the measures table to assist in this part of their workflow. We are currently in the process of testing for implementation.

The screenshot shows the MADiE Measures interface. At the top, there is a navigation bar with 'Measures', 'Libraries', and 'Help' tabs, along with a 'Connect to UMLS' button and a user profile for 'Jonathan'. Below this is a header for 'Measures' with a 'Welcome, Jonathan' message and a '+ New Measure' button. The main content area displays a table of measures, categorized into 'Owned Measures (18)', 'Shared Measures (6)', and 'All Measures (1112)'. A 'Filter By' dropdown and a search box are located above the table. The table has columns for 'Measure', 'Version', 'Updated', 'Status', 'Model', 'Shared', 'CMS ID', and an 'Edit' button with a right arrow. A green box highlights the 'CMS ID' column. 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 bottom of the page features the 'Measure Authoring' logo, 'Version 2.1.3', and a disclaimer: 'A federal government website managed and paid for by the U.S. Centers for Medicare & Medicaid Services. 7500 Security Boulevard, Baltimore, MD 21244'.

Measure	Version	Updated	Status	Model	Shared	CMS ID	
<input type="checkbox"/> A Change in Severity of the Level of Food Insecurity 10/30 Test Cases Passing <span>Editable</span>	0.1.002	12/30/2024	Draft	QI-Core 4.1.1	✓	1234	<span>Edit</span> >
<input type="checkbox"/> Risk-Standardized Acute Admission Rates for Patients With Multiple Chronic Conditions 20/20 Test Cases Passing	1.1.010	12/30/2024	Draft	QDM v5.6	✓	4321	<span>Edit</span> >
<input type="checkbox"/> Skilled Nursing Facility 30-Day All-Cause Readmission Measures (SNFRM) 120/300 Test Cases Passing	2.0.017	12/28/2024		QI-Core 4.1.1	✓	-	<span>Edit</span> >
<input type="checkbox"/> Documentation of Clinical Response to Allergen Immunotherapy within One Year 4/5 Test Cases Passing <span>In-Use</span>	1.5.001	12/20/2024	Draft	QI-Core 4.1.1		2134	<span>Edit</span> >
<input type="checkbox"/> Ambulatory Sensitive Conditions Admissions: Heart Failure (HF) 67/76 Test Cases Passing	1.0.005	11/01/2024		QI-Core 4.1.1	✓	-	<span>Edit</span> >
<input type="checkbox"/> Hospital Harm - Falls with Major InjuryFHIR...	0.0.024	10/31/2024		QI-Core 4.1.1		5678	<span>Edit</span> >
<input type="checkbox"/> ColorectalCancerMeasureFHIR4...	0.0.001	09/09/2024		QI-Core 4.1.1	✓	8765	<span>Edit</span> >
<input type="checkbox"/> Addressing Social Needs (ASN) in the Outpatient Setting...	1.0.005	07/11/2024		QDM v5.6	✓	6758	<span>Edit</span> >

# UXR - Filtering Measures

Though not implemented yet we are looking to improve the ability to filter measures to improve the search process.

Some filters include:

- Measure
- Version
- Status
- Model
- CMS ID

The screenshot displays the MADiE Measures interface. At the top, there is a navigation bar with the MADiE logo, the text "Measure Authoring Development Integrated Environment", and tabs for "Measures", "Libraries", and "Help". A user profile for "Jonathan" is visible in the top right corner. Below the navigation bar, the "Measures" section is active, showing a welcome message and a "+ New Measure" button. The main content area is divided into three tabs: "Owned Measures (18)", "Shared Measures (6)", and "All Measures (1112)". A "Filter By" dropdown menu is highlighted with a green box, currently set to "Select". A search bar is located to the right of the filter dropdown. Below the search bar, there is a table of measures with columns for "Measure", "Version", "Updated", "Status", "Model", "Shared", and "CMS ID". The table lists several measures, including "A Change in Severity of the Level of Food Insecurity", "Risk-Standardized Acute Admission Rates for Patients With Multiple Chronic Conditions", "Skilled Nursing Facility 30-Day All-Cause Readmission Measures (SNFRM)", "Documentation of Clinical Response to Allergen Immunotherapy within One Year", "Ambulatory Sensitive Conditions Admissions: Heart Failure (HF)", "Hospital Harm - Falls with Major InjuryFHIR...", "ColorectalCancerMeasureFHIR4...", and "Addressing Social Needs (ASN) in the Outpatient Setting...". Each measure row includes a checkbox, a status indicator (Draft, In-Use, or a checkmark), and an "Edit" button. At the bottom of the table, there is a pagination control showing "Items per page" set to 10 and "1 - 10 of 18". The footer of the interface includes 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 "Measure Authoring DEVELOPMENT INTEGRATED ENVIRONMENT" are also present in the footer, along with the version number "Version 2.1.3". A small logo and text in the bottom right corner state: "A federal government website managed and paid for by the U.S. Centers for Medicare & Medicaid Services. 7500 Security Boulevard, Baltimore, MD 21244".

# UXR - Clarification of error messages

Our interview participants revealed that they had some issues in understanding error messages. Steps were taken to discover and prioritize the most obtuse error messages, and we are working to clarify them further, so they are easier to understand.

The screenshot shows the MADiE Measure Authoring Development Integrated Environment. The main header includes the MADiE logo and navigation links for Measures, Libraries, Help, UMLS Active, and a user profile for Nicole. The current view is 'Measures / Details' for 'PI 17 Demo Measure - QI-Core', version 1.0.000, with tabs for Details, CQL Editor, Population Criteria, and Test Cases (35). A red-bordered box highlights an error message: 'Following issues were found within the CQL (1) Error: Row: 8, Col:29: Parse: 29:36 | code statement requires a codesystem reference. Please add a 'from' clause to your statement.' Below this is a code editor with the following CQL code:

```
1 library PI16DemoMeasureQIcore version '1.0.000'
2
3 using QICore version '6.0.0'
4
5 include FHIRHelpers version '4.4.000' called FHIRHelpers
6
7 codesystem "ActCode": 'http://terminology.hl7.org/CodeSystem/v3-ActCode'
8 code "Assessed Patient": '2' display 'Assessed Patient'
9 parameter "Measurement Period" Interval-DateTime
10 parameter "Period2" Interval-DateTime
11
12 context Patient
13
14 define "Assessed Patient":
15   true
16
17 define "numen":
18   true
```

A blue arrow points from the error message in the screenshot to a larger, clearer version of the same error message in a separate box below:

**Following issues were found within the CQL**  
**(1) Error:**

- Row: 8, Col:29: Parse: 29:36 | code statement requires a codesystem reference. Please add a 'from' clause to your statement.

# UXR - Your input matters

Your feedback is essential in building a quality, user-friendly MADiE application that enhances your workflow for creating or editing measures. We truly appreciate your participation in our research and discussions.

As the new UX Researcher, I'm excited to include you in future research. Your participation in our discussions and surveys will help us learn more about your workflows and improve MADiE.

We are looking to send out a survey at a future date relating to your use of MADiE. We hope you can participate and encourage your colleagues as well. Thank you.

**Together, we can create a better experience!**

## System Usability Scale Questionnaire

1. I think that I would like to use this product frequently.
2. I found the product unnecessarily complex.
3. I thought the product was easy to use.
4. I think that I would need the support of a technical person to be able to use this product.
5. I found the various functions in the product were well integrated.
6. I thought there was too much inconsistency in this product.
7. I imagine that most people would learn to use this product very quickly.
8. I found the product very awkward to use.
9. I felt very confident using the product.
10. I needed to learn a lot of things before I could get going with this product.

Strongly Disagree

Strongly Agree

1	2	3	4	5
---	---	---	---	---

1	2	3	4	5
---	---	---	---	---

1	2	3	4	5
---	---	---	---	---

1	2	3
---	---	---

1	2	3
---	---	---

1	2	3
---	---	---

1	2	3
---	---	---

1	2	3
---	---	---

1	2	3
---	---	---

1	2	3
---	---	---





# User Group Discussion



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

# PII / PHI

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



# Resources

# Resources for Users

## MADiE In Depth Training Videos

- Located on the public website [Training and Resources](#) tab
  - [Log In and Measures](#)
  - [QI-Core Test Cases](#)

## MADiE Process Workflows:

- [MADiE Help Desk Process](#)
- [MADiE Enhancement Request Process](#)

## JIRA Status and Resolution Use Cases

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

# Resources for Users (continued)

## **MADiE 2.1.4**

<https://madie.cms.gov>

## **MADiE Release Schedule**

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

## **MADiE Issue Tracker:**

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

## **eCQI Resource Center:**

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