

# Publicly Accessible Release Schedule

You can find Release Notes here: <https://www.emasuretool.cms.gov/training-resources>

## 2022 MAT

Date	Version	CQL to ELM Translator	Features
7/18/22	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>• Newly created FHIR measures and libraries now reference the updated versions of the following libraries:               <ul style="list-style-type: none"> <li>○ FHIR Helpers, called FHIRHelpers, version 4.1.000</li> <li>○ Supplemental Data Elements, called SupplementalDataElementsFHIR4, version 3.0.000</li> <li>○ MAT Global, version 7.0.000</li> </ul> </li> <li>• Any existing FHIR measure or library will need to be updated by a user with edit access, to incorporate these newer versions of the FHIR Helpers, Supplemental Data Elements and MAT Global libraries.</li> <li>• When incorporating these updated versions of libraries, users may need to update existing measure logic to resolve error messages.</li> <li>• QDM measures converted to FHIR measures after the release will reference the updated version of the libraries.</li> <li>• For QDM/CQL measure packages, file names for the primary measure CQL, XML, JSON and HQMF files have been updated to include the revision number of '.xxx' at the end of the file name. This update corrects a known issue of the file names in the package not including the revision number by aligning with the naming convention used in the HQMF file.</li> </ul>
4/27/22	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>• Corrects an issue with users accessing the Value Set Authority Center (VSAC) through authentication with the Unified Medical Language System (UMLS) using their UMLS API Key.</li> </ul>
1/25/22	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>• Security update, removal of log4j.</li> </ul>

## 2022 Bonnie

### Bonnie Prior

Date	Version	CQL to ELM Translator	Features
7.19/22	4.3.1		<ul style="list-style-type: none"> <li>Updated Bonnie Privacy Policy link</li> </ul>

### Bonnie QDM

Date	Version	CQL to ELM Translator	Features
7.19/22	5.1.2		<ul style="list-style-type: none"> <li>Updated Bonnie Privacy Policy link</li> </ul>

### Bonnie FHIR

Date	Version	CQL to ELM Translator	Features
7.19/22	6.2.3		<ul style="list-style-type: none"> <li>Updated Bonnie Privacy Policy link</li> </ul>

## 2021 MAT

Date	Version	CQL to ELM Translator	Features
11/23/21	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>Corrects a production issue for QDM/CQL measures. The HQMF file will be updated to reflect the correct file name formats when referencing CQL, JSON and XML files included in the Measure Export zip file.</li> </ul>
11/10/21	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>Corrects a production issue, causing Human Readable to include the Measure Observation metadata field in proportion and cohort measures.</li> <li>Corrects a production issue, causing nested CQL Libraries to be excluded from the Measure Export's FHIR Bundle.</li> </ul>

Date	Version	CQL to ELM Translator	Features
09/29/21	6.10	QDM 1.5.3 FHIR 1.5.4	<ul style="list-style-type: none"> <li>• The Timeout in the MAT has increased from 15 to 30 minutes               <ul style="list-style-type: none"> <li>◦ The Inactivity Warning has increased from 10 to 25 minutes</li> </ul> </li> <li>• For FHIR Measures and Libraries, the CQL to ELM Translator has been upgraded to version 1.5.4               <ul style="list-style-type: none"> <li>◦ QDM Measures and Libraries still use version 1.5.3</li> </ul> </li> <li>• To address potential security vulnerabilities:               <ul style="list-style-type: none"> <li>◦ MAT was upgraded to Tomcat 10</li> <li>◦ MAT microservices were upgraded to Java 15</li> </ul> </li> </ul>
09/07/21	6.10	QDM 1.5.3 FHIR 1.5.2	<ul style="list-style-type: none"> <li>• FHIRHelpers includes being removed by unused filtering but is required by Translator</li> <li>• FHIR - The 1st Error returned from the CQL-to-ELM Translator is not displayed in the MAT</li> <li>• Repair CQL Libraries with null Finalized Date</li> <li>• Update URI for CDCREC</li> <li>• CQL Workspace, General Information data is not displayed with syntax error in the CQL</li> </ul>
08/09/21	6.10	QDM 1.5.3 FHIR 1.5.2	<ul style="list-style-type: none"> <li>• Implement Bonnie QDM 5.6 Prod Login from MAT (or Hide it)</li> <li>• FHIR: Add Referenced Libraries to HR Export</li> <li>• MAT Deployment support</li> <li>• MAT logout requires multiple attempts</li> <li>• Update MAT Public Facing Site with Release Notes for Q3 Rel1 Release</li> </ul>
07/22/21	6.10	QDM 1.5.3 FHIR 1.5.2	<ul style="list-style-type: none"> <li>• Validate Codes containing "/". Display a clearer error message when VSAC cannot retrieve a code</li> <li>• Correction for CQL Errors Failing to Display on QDM Measure Load in CQL Editor</li> <li>• Now able to add CQL Library in includes section (helper UI) when search is not specific to Library name</li> <li>• FHIR Measures: Do not require that all functions have a parameter • Allow user to create new measure when the CQL library name provided already exists, after they've corrected the library name</li> <li>• Timezone Display on History UI should be UTC</li> <li>• FHIR - Function/Define Return Type no longer disappears on Save for one measure</li> <li>• FHIR - Includes UI: Adding FHIRHelpers no longer adds nonexistent version</li> <li>• Harp support page should display for a revoked user</li> <li>• With FHIR toggle Off, New CQL Libraries create FHIR model</li> </ul>

Date	Version	CQL to ELM Translator	Features
06/23/21	6.10	QDM 1.5.3 FHIR 1.5.2	<ul style="list-style-type: none"> <li>• Support for QDM 5.6</li> <li>• Move to QDM CQL update</li> <li>• QDM Ratio Measure Enhancements</li> <li>• QDM CV Measure Enhancements</li> </ul>
04/01/21	6.04	QDM 1.4.8 FHIR 1.5.2	<ul style="list-style-type: none"> <li>• Clarifications were added to some warnings and messages</li> <li>• Addressed a FHIR issue of unprintable and other Unicode characters included in FHIR Measures that were preventing packaging.</li> <li>• Changed mySQL8 DB Configuration to allow a larger Unicode character set</li> <li>• MAT uses UTF-8 encoding</li> <li>• FHIR CQL to ELM translator updated to 1.5.2</li> <li>• QDM CQL to ELM translator updated to 1.4.8</li> <li>• QDM CQL to ELM translator updated to 1.4.8</li> <li>• Still CQL 1.4; No QDM changes; No export artifact changes.</li> <li>• All retrieves are now included in the data requirements when FHIR Measures contain multiple Direct Reference Codes using the same Resource.</li> <li>• Correction to URL used for measure type in JSON and XML FHIR export files</li> <li>• Logging and Configuration changes to improve MAT performance</li> <li>• eCQM ID Generation enhancement</li> </ul>

Date	Version	CQL to ELM Translator	Features
3/25/21	6.04	QDM 1.4.8 FHIR snapshot	<p>Emergency MAT 6.04 Performance Release No release notes were needed. An email was sent to all users.</p> <p>Dear Measure Authoring Tool (MAT) Users,</p> <p>Over the last week, there have been several reports of performance issues or slowness when accessing measures in the MAT. To improve performance, a maintenance release of the Measure Authoring Tool will occur at 8AM ET, Friday, March 26<sup>th</sup>, 2021.</p> <p>The MAT will continue to be available to users during this time. However, we encourage you to save your recent work. The version of the MAT will not change as this is a maintenance release.</p> <p>The MAT can be accessed from the MAT public web site <a href="#">here</a>. The MAT support team will be available to answer questions and to provide user support following the release. Please continue to contact MAT Support through the Bonnie and MAT Issue Tracker here: <a href="https://oncprojectracking.healthit.gov/support/projects/BONNIE/MAT/summary">https://oncprojectracking.healthit.gov/support/projects/BONNIE/MAT/summary</a>.</p> <p>Thank you,</p> <p>The MAT Support Team</p>
2/29/21	6.04	QDM 1.4.8 FHIR snapshot	<ul style="list-style-type: none"> <li>• FHIR Naming Standards</li> <li>• FHIR Export Artifacts Naming Standards</li> <li>• Included Retrieves in FHIR Human Readable export data requirements</li> <li>• Removed a tooltip from the CQL Editor that obscured error message displays</li> </ul>

## 2021 Bonnie

### Bonnie Prior

Date	Version	CQL to ELM Translator	Features
7/19/21	v4.2.1		<ul style="list-style-type: none"> <li>Updating Bonnie Prior to be QDM 5.5</li> </ul>
8/11/21	v4.3.0		<ul style="list-style-type: none"> <li>Authenticate with HARP Account</li> <li>Private Accounts               <ul style="list-style-type: none"> <li>Can only be accessed by one individual</li> </ul> </li> <li>Group Accounts               <ul style="list-style-type: none"> <li>Can be accessed by many individuals</li> </ul> </li> <li>Switching between group accounts and private account</li> <li>Uploading measures to group accounts and private account</li> <li>Add/edit patients to groups account and private account</li> <li>Adding session management to Bonnie               <ul style="list-style-type: none"> <li>Bonnie will time out after 15 min of inactivity</li> <li>A warning message will appear after 10 min of inactivity</li> </ul> </li> </ul>
8/13/21	v4.3.0		<ul style="list-style-type: none"> <li>Transitioned Bonnie Prior to be Hosted on HCQIS environment</li> </ul>
9/8/21	v4.3.0		<ul style="list-style-type: none"> <li>Fixes for Patient conversion</li> <li>Updates to Precision for converted patients</li> <li>Carrying over Patient description on conversion</li> </ul>

### Bonnie QDM

Date	Version	CQL to ELM Translator	Features
1/28/21	v4.2.1		<ul style="list-style-type: none"> <li>Ability to export patients in FHIR patient format</li> <li>Resolves how attributes of type Ratio display in the user interface</li> <li>Allows import of measures using the data element 'physical exam, recommended'</li> <li>Resolves an issue preventing uploading of measures that use HQMF subtemplates</li> </ul>
4/1/21	v4.2.1		<ul style="list-style-type: none"> <li>Updates to character encoding so that it matches UTF8</li> <li>Connecting to virus scanning service</li> </ul>

Date	Version	CQL to ELM Translator	Features
7/19/21	v5.0		<ul style="list-style-type: none"> <li>• Authenticate with HARP Account</li> <li>• Private Accounts: Can only be accessed by one individual</li> <li>• Group Accounts: Can be accessed by many individuals</li> <li>• Switching between group accounts and private account</li> <li>• Uploading measures to group accounts and private account</li> <li>• Add/edit patients to groups account and private account</li> <li>• Adding session management to Bonnie <ul style="list-style-type: none"> <li>○ Bonnie will time out after 15 min of inactivity</li> <li>○ A warning message will appear after 10 min of inactivity</li> </ul> </li> <li>• Updated to QDM 5.6</li> <li>• Updated to CQL 1.5</li> <li>• Deleting of Deprecated QDM 5.5 elements and attributes</li> </ul>
8/13/21	v5.0		<ul style="list-style-type: none"> <li>• Transitioned to be hosted on HCQIS Environment</li> </ul>
10/27/21	v5.1.0		<ul style="list-style-type: none"> <li>• Extend the application timeout from 15 to 30 minutes.</li> <li>• Ability to export all test patients from a measure into a zip file.</li> <li>• Ability to import the zip file of test patients into another Bonnie measure.</li> <li>• Ability to delete all test patients for a measure.</li> </ul>
12/3/21	v5.1.1		<ul style="list-style-type: none"> <li>• Update the CQL-Execution Engine to 2.3.3</li> <li>• Support for the “is” operator</li> <li>• Updated Bonnie to properly handle and parse ELM files that contain comments</li> </ul>

## Bonnie FHIR

Date	Version	CQL to ELM Translator	Features
1/12/21	v6.0.1		<ul style="list-style-type: none"> <li>• Added support for more reference attributes</li> <li>• Added support for modifierExtension attribute</li> <li>• Updated UI design for Extension attribute</li> <li>• Ability to share specific/all test patients across measures</li> </ul>
1/28/21	v6.1.0		<ul style="list-style-type: none"> <li>• Ability to import FHIR Patient zip exported from Bonnie QDM</li> </ul>
2/11/21	v6.1.1		<ul style="list-style-type: none"> <li>• Add support for updated FHIR naming standards</li> <li>• Perform calculations to use the end of day when 12/31 is utilized</li> <li>• Alphabetically order dropdown menus</li> </ul>

Date	Version	CQL to ELM Translator	Features
4/1/21	v6.1.2		<ul style="list-style-type: none"> <li>• Add support for parsing and calculating Supplemental Data Elements               <ul style="list-style-type: none"> <li>◦ Note, you must select ‘Include Supplemental Data Element Calculation’ on measure upload</li> </ul> </li> <li>• Additional QI-Core Attribute support</li> <li>• Expanded Character set support</li> <li>• Security updates</li> </ul>
8/11/21	v6.2.0		<ul style="list-style-type: none"> <li>• Authenticate with HARP Account</li> <li>• Private Accounts               <ul style="list-style-type: none"> <li>◦ Can only be accessed by one individual</li> </ul> </li> <li>• Group Accounts               <ul style="list-style-type: none"> <li>◦ Can be accessed by many individuals</li> </ul> </li> <li>• Switching between group accounts and private account</li> <li>• Uploading measures to group accounts and private account</li> <li>• Add/edit patients to groups account and private account</li> <li>• Adding session management to Bonnie               <ul style="list-style-type: none"> <li>◦ Bonnie will time out after 15 min of inactivity A warning message will appear after 10 min of inactivity</li> <li>◦ Update to FHIR patient upload to allow users experiencing the “File must be a zip file.” Error to upload FHIR patients. (example ticket BonnieMAT-809)</li> </ul> </li> <li>• Add support for additional QI Core attributes</li> </ul>
8/13/21	v6.2.0		<ul style="list-style-type: none"> <li>• Transitioned to be hosted on HCQIS Environment</li> </ul>
9/27/21	v6.2.1		<ul style="list-style-type: none"> <li>• Link Reference without spawning a card</li> <li>• Allow Encounter.Diagnosis to be a cardinality of 0..*</li> <li>• Allow Observation.component to be a cardinality of 0..*</li> <li>• Allow Encounter.location to be a cardinality of 0..*</li> <li>• Support CodeableConcept in Extension</li> <li>• Support Negation Rationale for communication, MedicationRequested, and ServiceRequested</li> <li>• Added support for additional QI Core attributes</li> </ul>
12/21/21	v6.2.2		<ul style="list-style-type: none"> <li>• Update the CQL-Execution Engine to 2.3.3</li> <li>• Support for the is operator</li> <li>• Updated Bonnie to properly handle and parse ELM files that contain comments</li> <li>• Extend the application timeout from 15 to 30 minutes.</li> </ul>

## Prior 2020 MAT Releases

Date	Version	Notes
3/20/20	v5.8.2	
5/6/20	v5.9.0	
6/16/20	v5.9.1	
9/24/20	v6.0 (QDM)	<ul style="list-style-type: none"> <li>• Various changes to MAT UI. Please refer to the release notes.</li> <li>• MAT 5.9.1 goes away</li> </ul>
10/07/20	6.0 FHIR (Beta)	<ul style="list-style-type: none"> <li>• FHIR (Beta) Only certain users will have access to these features.</li> </ul>
10/20/20	v6.01	<ul style="list-style-type: none"> <li>• HARP URL Updates</li> <li>• VSAC Authentication API Updates</li> <li>• QDM Defect Corrections</li> </ul>
10/26/20	v6.02	<ul style="list-style-type: none"> <li>• HARP URL Updates</li> </ul>
12/15/20	V6.03	<ul style="list-style-type: none"> <li>• 503 Updates</li> </ul>

## Prior 2020 Bonnie Releases

Date	Version	CQL to ELM Translator	Features
8/4/20	Bonnie	v4.1	
9/15/20	Bonnie	4.1.1	<ul style="list-style-type: none"> <li>• Security fixes</li> <li>• Rails upgrade</li> <li>• Misc bug fixes</li> </ul>
Mid-October 2020	Bonnie Prod and Bonnie Prior	4.1.2	<ul style="list-style-type: none"> <li>• VSAC Authentication API Updates</li> </ul>
Mid-October 2020	Bonnie FHIR	UAT	<ul style="list-style-type: none"> <li>• Create Patients</li> <li>• Execution (subject to MITRE conversation 7/8)</li> </ul>
Early November, 2020	Bonnie FHIR	5.0	<ul style="list-style-type: none"> <li>• Upload/Update measure</li> <li>• Create Patients</li> <li>• Execution</li> </ul>
Q4	Bonnie Patient Conversation	5.1	<ul style="list-style-type: none"> <li>• Ability to convert patient from QDM to FHIR</li> </ul>
12/21/20	Bonnie FHIR	v6.0	