Agenda

- Software Updates
  - Cypress 5.3.0 Patch Release
  - Cypress v6 Releases
  - Known Issues Dashboard
- Cypress Versions
- Open Discussion
- Contact Information
Software Updates
Cypress 5.3.0 Release

- A 5.3.0 patch release for Cypress available March 12, 2020
- Cypress Features
  - Unit of measure checks for EH eCQMs
  - Increased contrast for Expected Results
  - C1 Record Sample tests will remain Incomplete until first QRDA upload
  - CVU+ will evaluate QRDA Cat I files with unknown demographic information
  - All users can download reports in Demo mode
  - Installation script for simplified upgrade
- Cypress Bugs Addressed
  - QRDA Cat I R5.1 schematron updated (CYPRESS-1959)
  - CQL Calculation Engine updated to fix CVU+ calculations of Open Boundaries (CYPRESS-1924)
  - Submission errors were not being displayed for C1/C3 tests (CYPRESS-1968)
Software Updates

Unit of measure checks for EH eCQMs

- EH Submission systems perform eCQM calculations using the unit of measures stated in the eCQM specification
- EH Submission system do not perform unit conversion prior to eCQM calculation
- However, Cypress does perform unit conversion prior to eCQM calculation
- Cypress 5.3.0 will return warnings when a reported unit of measure does not match what is stated in the eCQM specification

<table>
<thead>
<tr>
<th>QRDA (0)</th>
<th>Reporting (0)</th>
<th>Submission (0)</th>
<th>CMS Warnings (1)</th>
<th>Other Warnings (0)</th>
</tr>
</thead>
</table>

**Warning message**

Unit 'mg/dLs' for QDM::LaboratoryTestPerformed (LDL-c) does not match expected units (mg/dL). Units must match measure-defined units.
# Software Updates

Increased contrast for Expected Results

## Before

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Template Name</th>
<th>DOB</th>
<th>Gender</th>
<th>IPOP</th>
<th>DENOM</th>
<th>NUMER</th>
<th>DENEX</th>
<th>DENEXCEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constance Johnston</td>
<td>Z32 Heart Adult</td>
<td>February 13, 1950</td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rick Gregory</td>
<td>Z12 GP Adult</td>
<td>February 3, 1972</td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laurie Fleming</td>
<td>Z17 GP Adult</td>
<td>March 20, 1969</td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## After

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Template Name</th>
<th>DOB</th>
<th>Gender</th>
<th>IPOP</th>
<th>DENOM</th>
<th>NUMER</th>
<th>DENEX</th>
<th>DENEXCEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewis Boyd</td>
<td>Z12 GP Adult</td>
<td>February 3, 1972</td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erik Bates</td>
<td>Z13 N GP Adult</td>
<td>February 13, 1972</td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toni Stevenson</td>
<td>B (Independent Risk Factors 4) Cancer Female</td>
<td>September 1, 1965</td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carl Warren</td>
<td>A N BH Adult</td>
<td>January 1, 1978</td>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Software Updates

C1 Record Sample tests will remain Incomplete until first QRDA upload

- **Before**

<table>
<thead>
<tr>
<th>Data Criteria Verification</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS2v9 Preventive Care and Screening: Screening for Depression and Follow-Up Plan</td>
<td>Failing</td>
</tr>
<tr>
<td>CMS2v8 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented</td>
<td>Not Started</td>
</tr>
<tr>
<td>CMS69v8 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan</td>
<td>Not Started</td>
</tr>
</tbody>
</table>

- **After**

<table>
<thead>
<tr>
<th>Data Criteria Verification</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS2v9 Preventive Care and Screening: Screening for Depression and Follow-Up Plan</td>
<td>Incomplete</td>
</tr>
<tr>
<td>CMS2v8 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented</td>
<td>Not Started</td>
</tr>
<tr>
<td>CMS69v8 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan</td>
<td>Not Started</td>
</tr>
</tbody>
</table>
Software Updates

CVU+ will evaluate QRDA Cat I files with unknown demographic information

- Previous Cypress/CVU versions would return an “internal error” for QRDA files with unknown demographic information

```
<patient>
  <name>
    <given>Adam</given>
    <family>Austin</family>
  </name>
  <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender"/>
  <birthTime value="19730826T153000Z"/>
  <raceCode nullFlavor="UNK"/>
  <ethnicGroupCode code="2135-2" codeSystem="2.16.840.1.113883.6.238" codeSystemName="CDCREC"/>
  <languageCommunication>
    <languageCode code="eng"/>
  </languageCommunication>
</patient>
```
Software Updates

All users can download reports in Demo mode

- Previously, only users with Admin or ATL privileges could download a report on a Cypress instance in Demo mode
- Now, any user (with access to the specified Vendor page) can download a report on a Cypress instance in Demo mode
- Downloading a report will still be restricted to ATL and Admin users for Cypress instances used for certification (ATL mode)
Software Updates

Installation script for simplified upgrade

**Before**

Connect to your machine running cypress and run the following commands:

```
sudo apt-get update
sudo apt-get install cypress
sudo apt-get install cqm-execution-service
sudo systemctl restart cypress
sudo systemctl restart cqm-execution-service
```

**After**

Connect to your machine running cypress and run the following command:

```
curl https://raw.githubusercontent.com/projectcypress/cypress/master/contrib/upgrade_cypress_50.sh | sudo bash
```

[https://github.com/projectcypress/cypress/wiki/Cypress-5.x-Upgrade-Instructions](https://github.com/projectcypress/cypress/wiki/Cypress-5.x-Upgrade-Instructions) show full command:
Software Updates

QRDA Cat I R5.1 schematron updated (CYPRESS-1959)

- Cypress 5.2 was running an outdated schematron for QRDA Cat I R5.1.
- As a result, Cypress would return an error for the following conformance statement.

This code SHALL contain at least one [1..*] translation, which SHOULD be selected from ValueSet Problem Type urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 2014-09-02 (CONF:1198-32848).

- This conformance statement has now been removed and will not be returned as an error message.
**Software Updates**

**CQL Calculation Engine updated to fix CVU+ calculations of Open Boundaries (CYPRESS-1924)**

- A calculation bug in CVU+ impacts the calculation of logic like the following

```
MI.prevalencePeriod ends 3 years or less before day of start of
Encounter.relevantPeriod
```

- The CVU+ calculations were not accounting for the “day of” precision and allowed the “MI” to occur on the same day as the “Encounter”

- This impacts CVU+ calculations for the following eCQMs
  - CMS56v8, CMS90v9, CMS125v8, CMS133v8, CMS136v9, CMS137v8, CMS145v8, CMS154v8, CMS161v8
Software Updates
Submission errors were not being displayed for C1/C3 tests (CYPRESS-1968)

- When C2 was not selected, Cypress would not show Submission errors in the error table.

Before

After
Software Updates

Upcoming Cypress v6 Releases

- Cypress 6 Alpha release anticipated mid-May
  - Initial support for QRDA category 1 R5.2
  - Initial support for 2021 reporting/performance period eCQMs

- Final Cypress 6.0.0 release anticipated late July
  - Full support for R5.2 and 2021 measures
Recent Issue
Cypress Known Issues Dashboard

- [https://oncprojecttracking.healthit.gov/support/secure/Dashboard.jspa?selectPageId=18000](https://oncprojecttracking.healthit.gov/support/secure/Dashboard.jspa?selectPageId=18000)
- The Dashboard collects all labeled known issues in one place, sorted by Cypress version
- Easily navigate to the dashboard from the Cypress summary page
# Cypress Versions

<table>
<thead>
<tr>
<th>Version</th>
<th>Dates</th>
<th>Measures Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4.0.4</td>
<td>October 3, 2019</td>
<td>Latest version supporting eCQMs for the 2019 Reporting/Performance Period and CQL. Fixes QRDA and other 4.0.3 bugs.</td>
</tr>
<tr>
<td>V5.1.0</td>
<td>November 7, 2019</td>
<td>Support for QRDA Category I R5.1 errata</td>
</tr>
<tr>
<td>V5.2.0</td>
<td>December 19, 2019</td>
<td>Latest version supporting eCQMs for the 2020 Reporting/Performance Period and CQL. Contains feature improvements and fixes for bugs found in Cypress v5.1.0</td>
</tr>
<tr>
<td>V5.3.0</td>
<td>March 12, 2020</td>
<td>Unit checking updates and interval boundary calculation updates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bundle Version</th>
<th>Dates</th>
<th>Features</th>
</tr>
</thead>
</table>
| 2018.1.0       | October 11, 2018  | Cypress v4 only  
CQL-based measures released in 2018 for the 2019 reporting year  
eCQM Value Sets as of 9/17/2018.                                      |
| 2019.1.0       | November 7, 2019  | Cypress v5 only  
Precalculated results  
Updates to Z6 VTE, Z13 N VTE, B GP Peds and 1 BH Infant |
| 2019.1.1       | December 19, 2019 | Cypress v5 only  
OPEN DISCUSSION
Next Cypress Tech Talk

- Tuesday, April 7, 2020 at 1pm ET
- To join online, visit: https://global.gotomeeting.com/join/529898157
- To join via phone, dial: 1-646-749-3122
- Meeting Number: 529 898 157
- Meeting link, as well as a calendar event file, available at:
  - https://www.healthit.gov/cypress/techtalks.html
Notes

- Completed Webinars will be posted on the Cypress website on the Tech Talks tab
  - [https://www.healthit.gov/cypress/techtalks.html](https://www.healthit.gov/cypress/techtalks.html)

- Send questions and feedback to the Cypress Talk List at
  - [project-cypress-talk@googlegroups.com](mailto:project-cypress-talk@googlegroups.com)

- Report bugs and issues to the Cypress JIRA at
  - [https://oncprojectracking.healthit.gov/support/browse/CYPRESS](https://oncprojectracking.healthit.gov/support/browse/CYPRESS)