Agenda

- Software Updates
  - Cypress v5.3.0 Patch Release
  - Cypress v6 Releases
- Recent Issue
  - Cypress Known Issues Dashboard
  - eCQM Known Issues Dashboard
- Cypress Versions
- Open Discussion
- Contact Information
Software Updates
Cypress v5.3.0 Release

- A Cypress v5.3.0 patch release was issued on March 12, 2020
- Cypress Features
  - Unit of measure checks for Eligible Hospital (EH) electronic clinical quality measures (eCQM)
  - Increased contrast for Expected Results
  - C1 Record Sample tests will remain Incomplete until first Quality Reporting Document Architecture (QRDA) upload
  - Cypress Validation Utility Plus Calculation Check (CVU+) will evaluate QRDA Category I files with unknown demographic information
  - All users can download reports in Demo mode
  - Installation script for simplified upgrade
- Cypress Bugs Addressed
  - QRDA Category I R5.1 schematron updated (CYPRESS-1959)
  - Clinical Quality Language (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.

Go To in XML
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

#### View Results

<table>
<thead>
<tr>
<th>Upload Results</th>
<th>C1 Upload Results</th>
<th>C3 Upload Results</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Not Started</td>
<td>○ Not Started</td>
<td>○ Not Started</td>
<td>○ Not Started</td>
</tr>
</tbody>
</table>

**Data Criteria Verification**

- **CMS2v9 Preventive Care and Screening: Screening for Depression and Follow-Up Plan**
  - Status: **Failing**

- **CMS2v8 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented**
  - Status: **Not Started**

- **CMS6v8 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan**
  - Status: **Not Started**

### After

#### View Results

<table>
<thead>
<tr>
<th>Upload Results</th>
<th>C1 Upload Results</th>
<th>C3 Upload Results</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Not Started</td>
<td>○ Not Started</td>
<td>○ Not Started</td>
<td>○ Not Started</td>
</tr>
</tbody>
</table>

**Data Criteria Verification**

- **CMS2v9 Preventive Care and Screening: Screening for Depression and Follow-Up Plan**
  - Status: **Incomplete**

- **CMS2v8 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented**
  - Status: **Not Started**

- **CMS6v8 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan**
  - Status: **Not Started**
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

```xml
<patient>
  <name>
    <given>Adam</given>
    <family>Austin</family>
  </name>
  <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />
  <birthTime value="19730826153000" />
  <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 Authorized Testing Laboratory (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_5.0.sh | sudo bash
  ```
Software Updates

QRDA Cat I R5.1 schematron updated (CY PRESS-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 v6 Alpha release anticipated mid-May 2020
  - Initial support for QRDA category 1 R5.2
  - Initial support for 2021 reporting/performance period eCQMs

- Final Cypress v6 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
Recent Issue

eCQM Known Issues Dashboard

- CMS has released the eCQM Known Issues Dashboard to provide implementation information for eCQMs with known technical issues for which a solution is under development but not yet available in a published eCQM specification.

- Issues on the eCQM Known Issues dashboard include discrepancies between eCQM narrative and logic, value sets, and/or technical, standard, or logic-related issues for EH/critical access hospital (CAH) and eligible provider/eligible clinician (EP/EC) eCQM.

- Visit the eCQM Known Issues dashboard at https://oncprojecttracking.healthit.gov/support/secure/Dashboard.jspa?selectPagId=10000 to learn more.

- Note: The implementation information does not (and should not be perceived to) replace regulatory guidance. For questions related to eCQM implementation specifications, logic, data elements, standards, or tools, please use the eCQM Tracker in the ONC Project Tracking System (Jira): https://oncprojecttracking.healthit.gov.
## Recent Issue

### eCQM Known Issues Dashboard

#### Filter Results: EP/EC Known Issues

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Description</th>
<th>Year</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>EKI-3</td>
<td>Patients in CMS22v7 Numerator without proper hypertensive followup for EP/EC 2019 Reporting</td>
<td>eCQMs Impacted- CMS22v7. Issue- For the 2019 Reporting/Performance period, there is a bug in the &quot;Has Prehypertensive Reading With Interventions&quot; rule definition giving Numerator credit for patients without a “Followup within one year.”</td>
<td>2019</td>
<td></td>
</tr>
</tbody>
</table>

1–1 of 1

#### Filter Results: EH/CAH Known Issues

<table>
<thead>
<tr>
<th>Key</th>
<th>Summary</th>
<th>Description</th>
<th>Year</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>EKI-2</td>
<td>VTE measures and missing set of parentheses for EH/CAH 2019 Reporting</td>
<td>eCQMs Impacted- CMS108v7, CMS190v7. Issue- For the 2019 Reporting/Performance period, there is a missing set of parentheses in the &quot;Is In Low Risk for VTE or On Anticoagulant&quot; rule definition for VTE measures VTE-1 (CMS108) and VTE-2 (CMS190).</td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>EKI-1</td>
<td>Known Issue with 'singleton' operator in eCQMs for EH/CAH 2019 Reporting</td>
<td>eCQMs Impacted- CMS53v7, CMS55v7, CMS71v8, CMS72v7, CMS102v7, CMS104v7, CMS105v7, CMS107v7, CMS108v7, CMS190v7. Issue- A run-time error is thrown if multiple emergency department visits occur within the hour prior to an inpatient encounter.</td>
<td>2019</td>
<td></td>
</tr>
</tbody>
</table>

1–2 of 2
**Recent Issue**

**eCQM Known Issues Dashboard**

**Cypress Known Issues Dashboard**
- Covers Cypress-specific issues
- Managed by the Cypress Team in Jira
- Contains issues from Cypress Jira project

**eCQM Known Issues Dashboard**
- Covers technical issues that impact one or more eCQMs
- Managed by the EH and EP eCQM Teams in Jira
- Contains issues meeting “eCQM known issues” criteria from the CQM Jira project
## 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>

### Bundle Versions

<table>
<thead>
<tr>
<th>Bundle Version</th>
<th>Dates</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018.1.0</td>
<td>October 11, 2018</td>
<td><strong>Cypress v4 only</strong>&lt;br&gt;CQL-based measures released in 2018 for the 2019 reporting year&lt;br&gt;eCQM Value Sets as of 9/17/2018.</td>
</tr>
<tr>
<td>2019.1.0</td>
<td>November 7, 2019</td>
<td><strong>Cypress v5 only</strong>&lt;br&gt;Precalculated results&lt;br&gt;Updates to Z6 VTE, Z13 N VTE, B GP Peds and 1 BH Infant</td>
</tr>
<tr>
<td>2019.1.1</td>
<td>December 19, 2019</td>
<td><strong>Cypress v5 only</strong>&lt;br&gt;CQL-based measures released in 2019 for the 2020 reporting year. Removed retired measures as announced on November 19, 2019.</td>
</tr>
</tbody>
</table>
OPEN DISCUSSION
Next Cypress Tech Talk

- Tuesday, April 21, 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

- Send questions and feedback to the Cypress Talk List at
  - project-cypress-talk@googlegroups.com

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