Cypress v3.2.3

The Cypress 3.2.3 patch was released on 12/14/17. Changelog for the release is below

Cypress Features

- Support for the 2014 Edition Test Method.
- "Slim" test decks for non-automated testing.
- Improved C1 Record Sample code selection.
- C4 "Expected Result" view for test proctors.
- Support for the CMS QRDA III Implementation Guide for the Calendar Year 2018 Performance Period.
- C1 Record Sample errors added to generated report. (CYPRESS-1288)

Cypress Validation Utility (CVU) Bugs Addressed

- The CVU experienced file import failures when importing zip files. (CYPRESS-959, CYPRESS-1250)
- The CVU was not correctly validating partial year submissions when MIPS programs were selected.(CYPRESS-1208, CYPRESS-1239)
- The CVU required hospital encounter times to include timezones. (CYPRESS-1253, CYPRESS-1275)
- The CVU returning error "undefined method '[]=' for nil:NilClass."(CYPRESS-1262)
- File Import fails when file contains multiple "inFullfillmentOf" references to the same entry. (CYPRESS-1282)

Cypress v3.2.2

The Cypress 3.2.2 patch was released on 10/12/17. Changelog for the release is below

Cypress Features

- Bundle Management functionally enhanced to include bundle deprecation to better accommodate the release of bundle updates (including valueset addendums).
- Optional "Record Shifting" allows for Cypress test records to be shifted into measurement periods that align with CMS performance periods.
- Assurance that all C4 Filter tests include at least 1 filtered patient in the Initial Population.

Cypress Bugs Addressed

- File import fails when uploaded patient gender is specified using nullFlavor="UNK. (CYPRESS-1165)
- "Smoking Gun Errors" may be returned when QRDA files use names altered for patient de-duplication. (CYPRESS-1170)
- File import fails when uploaded patient is born on 1970/1/1. (CYPRESS-1180)
- Missing information in test records when 'split' by date. (CYPRESS-1185)
- C1 Record Sample tests cannot verify a negated valueset for Device, Order. (CYPRESS-1195)

Cypress v3.2.1

The Cypress 3.2.1 patch was released on 8/10/17. Changelog for the release is below

Cypress Features

- Alert message when disk space is limited

Cypress Bugs Addressed

- Missing information in duplicate patient record ([CYPRESS-1119](#))
- QRDA files were failing import when xml-stylesheet was specified ([CYPRESS-1117](#))
- Observation results required to be specified using the "value" element, and were not being imported from an "entryRelationship" element. ([CYPRESS-1114](#))
- "In Fulfillment Of" ids were being required to be 24 characters in length. ([CYPRESS-1113](#))

Cypress v3.2.0

Cypress 3.2.0 was released on 7/27/17. Changelog for the release is below

Cypress Features

- Support for the electronic clinical quality measures (eCQM) for eReporting for the 2018 Reporting Period (as of May 2017).
    - 53 Eligible Professional/Eligible Clinician eCQMs.
        - Including new eCQMs CMS347v1 (Statin Therapy for the Prevention and Treatment of Cardiovascular Disease) and CMS645v1 (Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy).
    - 16 Eligible Hospital/Critical Access Hospital eCQMs.
    - Health Level Seven International (HL7) Clinical Document Architecture (CDA®) R2 Implementation Guide: Quality Reporting Document Architecture (QRDA I), Release 1, Standard for Trial Use (STU) Release 4 - US Realm
    - Health Level Seven International (HL7) Clinical Document Architecture (CDA®) R2 Implementation Guide: Quality Reporting Document Architecture (QRDA III), Release 1, STU Release 2.1 - US Realm
    - 2018 CMS QRDA I HQR Implementation Guide, Schematron v1
    - 2017 CMS QRDA III Implementation Guide v1
- Measure logic coverage > 95% for all 2016 and 2017 eCQMs.
- User history that allows users to view a listing of most recent test execution.
- Favorites feature that allows users to pin items of greater importance to the top of lists.
- C1 Record Sample test support multiple negation patterns:
    - Support for negation of an individual code
    - Support for negation of an entire valueset
- C1 Record Sample "edit test" feature allows test proctors to modify selected data criteria.
- C1 Record Sample code/valueset lookup provides the ability to look up acceptable codes for the selected data criteria.
- "Download All" test data includes selected C4 filter criteria.

Cypress Bugs Addressed

- Median observation calculation for CMS32 ([CYPRESS-903](#))
- Support for import of QRDA Cat I R3.1 Medication, Discharge templates ([CYPRESS-915](#))
- Support for upper and lowercase measure ids when performing valueset negation ([CYPRESS-929](#))
- Include principal diagnosis in diagnoses list ([CYPRESS-946](#))
- Transfer to and transfer from templates should have low and high values for eCQM calculation ([CYPRESS-1047](#))

Cypress v3.1.0

The Cypress and Cypress Validation Utility (CVU) 3.1.0 update was released on 1/10/17. Changelog for the release is below

Cypress and CVU Features

- Cypress and CVU support updated QRDA Category III implementation Guides
  - HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture (QRDA III), Release 1, STU Release 2 - US Realm. ([Released 12/28/2016](#))
  - CMS Implementation Guide for Quality Reporting Document Architecture Category III Eligible Clinicians Programs Version 0.1. Implementation Guide for 2017. ([Released 12/29/2016](#))
- Allow reporting of negated valuesets (in addition to negated codes) ([CYPRESS-799](#), [CYPRESS-894](#))
- Perform validation of template ids in QRDA Category I documents ([CYPRESS-871](#))
- Reclassified debugging log messages to reduce unnecessary logging ([CYPRESS-863](#))
- Single download for all test material ([CYPRESS-872](#))
- [“Device, Order not done” entries exported as “Device, Applied not done” entries for 2016 reporting](#)
- Tests can be created for any combination of certification types (C1, C2, C3, C4)
- Batch Entry tests re-introduced to all C1 tests
- C3 tests will include QRDA Cat I and QRDA Cat III uploads

Cypress and CVU Bugs Addressed

- Update script enhancements ([CYPRESS-816](#))
- Support “wrapped” templates for reporting with QRDA Category I R3.1 ([CYPRESS-848](#), [CYPRESS-879](#))
- CVU incorrectly evaluated attribute valuesets ([CYPRESS-861](#), [CYPRESS-907](#))
- Display test deck calculations for measure subpopulations ([CYPRESS-883](#))
- CVU requires a QRDA Category I document to include at least one encounter or procedure ([CYPRESS-892](#))
- Improved Master Patient List download performance ([CYPRESS-893](#))

Cypress v3.0.3

The Cypress 3.0.3 patch was released on 10/27/16. Changelog for the release is below

Cypress Features

- Updated to use the updated CMS QRDA I schematrons released in October 2016. More information on the schematron changes can be found here
    - 2016 CMS QRDA I Schematrons and Sample Files version 2.3 for Hospital Quality Reporting
    - 2016 CMS QRDA I Schematrons and Sample Files version 2.3 for Eligible Professional Program
- Cypress updated to use IPOP population code for 2016 measures
- Demo server performance improvements
- Admin Debug Dashboard

Cypress Validation Utility Features

- QRDA Cat III R1.1 validation added
- Ability to view measure calculation for "sub-measures"

Cypress Validation Utility Bugs Addressed

- Reporting data outside of measure definitions changed from Error to Warning
- "Value Set Category Validator" was incorrectly asserting that "Attribute" valuesets should not be used for some templates.

Cypress v3.0.2

The Cypress 3.0.2 patch was released on 9/30/16. Changelog for the release is below

Features

- CMS schematron warnings reported in separate tab from other warnings
- Clarified headings for Manual Entry Test statuses
- Clarified text for "Certification Type" selection
- Expected Results added to C4 test pages
- Table headings added to supplemental data errors
- Measurement Period validation turned off for C1 Manual Entry

Bugs Addressed

- Fixed crashing Manual Entry result page
- "Non-Random" Measure Tests were producing random test decks
- ATL mode updated to only create random test decks
- Fixed formatting of errors reported for incorrect stratification values
- Toggling debug features required server restart
- Updated roles allowed to download test reports in ATL mode

Cypress v3.0.1

The Cypress 3.0.1 patch was released on 9/15/16. Changelog for the release is below

Features

- View patients by stratification
- Vendors now sortable (alphabetical by default)
- Data Criteria/Value Sets from outside the test measure will now be a warning instead of an error
- Optimized Vendor and Product deletion
- Expected results now viewable on test execution page (except for vendors in ATL mode)
- Downloadable Master Patient List Zip
- Random # of IPP patients selected for single measure test decks
- Next/Previous links on test execution page

Bugs Addressed

- Ordinality location incorrect for 2015 Measures
- Support for "Device Applied, not done" with 2016 measures
- Manual Entry test patients only need to have one measure
- Discharge Date Time Comparison
- Unable to download test report for non-C1 product
- Incorrect validation of Medication, Ordered template in C1 Manual
- Duplicate Patient/Data IDs randomly assigned by Cypress
- DischargeDisposition name is now correct
- CVU now uses CMS reporting period for instead of default Cypress measurement period

Cypress v3.0

Cypress v3
Cypress v3 is now available to support 2015 certification for electronic clinical quality measures (eCQM). Cypress v3 supports testing for the June 2015 and April 2016 updates to the eCQMs used in CMS quality reporting programs. The new v3 release and release notes are available on the Cypress website https://healthit.gov/cypress/.

Features for Cypress v3 Release

- Refreshed design providing a more responsive and accessible user interface
  - Cypress v3 complies with Section 508 and Web Content Accessibility Guidelines (WCAG) 2.0 AA conformance level requirements
- A more flexible v3 Concept of Operations (ConOps) that evaluates certification testing criteria for accuracy of export of patient data (C1), computation of CQMs (C2) and submission requirements (C3), and data filtering (C4) independently of each other
  - Redesign of the Cypress workflow to allow for independent evaluation of electronic clinical quality measure (eCQM) testing criteria
  - User Interface updates to support updated C1, C2, C3, and C4 workflows
  - Testing and Integration
  - New eCQM Test Plan for 2015 Certification Program
- New C4 CQM Filter Certification Criteria testing ability of electronic health records (EHR) systems to filter patients based on patient and provider information
- Pre-Certification testing support
  - Certification Application Programming Interface (API) to automate and expedite pre-certification testing

- o Turn off document duplication and record randomization to use a stable set of test patients
- Support for Health Quality Measure Format (HQMF) R2.1 and Quality Reporting Document Architecture (QRDA) R3.1
- Cypress v3 certifies EHRs for accuracy of export of patient data C1, C2, C3, and C4 using automated import of QRDA Category 1 patient records
  - o The ConOps will provide separate C1 testing without automated import that demonstrates the validation of well-formed QRDA Category 1 patient record required for interoperable exchange across systems
- Support for the 2016 Annual Measure Update
  - o Cypress v3 includes the updated specifications introduced for Eligible Hospital Measures and Eligible Professional Measures in April 2016 by the Centers for Medicare & Medicaid Services (CMS)
  - o Validation of 2017 CMS Implementation Guide (IG) for Eligible Hospitals (informational)

Cypress v2.7.0 (retired)

Released July 23rd, 2015

Cypress v2.7: 2015 Measure Specs, Value Sets for 2015 Measure Specs, HL7 QRDA Category I Release 3, Cypress v2.7 Measure Bundle

Cypress 2.7.0 is no longer supported. Please use Cypress v3.0 to test the 2015 Measures

Features Added

- Additional Validation checks to closer align with submission requirements
  - o Performance Rates – Cypress will validate performance rates if they are provided in QRDA Cat III Files.
  - o Measure Duplication – Cypress will validate that measures and populations are only reported once.
  - o Measure Period – Cypress will validate that the correct measurement period is specified.
- Standards Update
  - o HL7 QRDA Category I Release 3
  - o Health Quality Measures Format (eMeasure), DSTU Release 2.1
- Cypress V2.7 Measure Bundle

- o Measure Bundle v2.7 includes updated patients
  - o Patient Deck reviewed for clinical relevance
- Support for the annual 2015 Eligible Hospital and Eligible Professional Clinical Quality Measure Update
  - o Cypress v2.7 includes the updated specifications introduced for Eligible Hospital Measures and Eligible Professional Measure in May 2015 by the Centers for Medicare and Medicaid Services (CMS).
  - o 2015 measures have been updated to use the HL7 Version 3 Standard: Representation of the Health Quality Measures Format (eMeasure), DSTU Release 2.1.
- Minor User Interface updates
- Updated installation procedure

Defects To Be Addressed

- Jira Issues
  - o Issue #524: CMS179 calculation includes calculation described by supplemental guidance.
  - o Issue #530: Download Results feature fixed.
  - o Issue #531: UI updated.
  - o Issue #538: Extra data errors updated to allow multiple measure reporting.
  - o Issue #541: Improved Supplemental Information validation.
- Test Deck Issues
  - o Issue #553: Measure update fixes calculation issues for CMS122, Diabetes Adult A and B updated to meet new Denominator and Numerator logic.
  - o Issue #899: Heart Adult A updated to include valid INR intervals.

Cypress Patch Release v2.6.1

Released July 23rd, 2015

Cypress v2.6.1: 2014 Measure Specs, Value Sets for 2014 Measure Specs, HL7 QRDA Errata IG for 2014, Cypress v2.6 Measure Bundle

Available for use in certification for the 2014 Measures.

Features Added

- Additional Validation checks to closer align with submission requirements
    - Performance Rates – Cypress will validate performance rates if they are provided in QRDA Cat III Files.
    - Measure Duplication – Cypress will validate that measures and populations are only reported once.
    - Measure Period – Cypress will validate that the correct measurement period is specified.
- Minor User Interface updates
- Updated installation procedure

Defects To Be Addressed

- Jira Issues
    - Issue #530: Download Results feature fixed.
    - Issue #531: UI updated.
    - Issue #538: Extra data errors updated to allow multiple measure reporting.
    - Issue #541: Improved Supplemental Information validation.

Optional Cypress Validation Utility

Validates to CMS Program specific Implementation Guides for Reporting Years 2015 and 2016

Released July 23rd, 2015

The Cypress Validation Utility with support for the 2016 CMS QRDA Combined Implementation Guide is now available for use. This new utility is intended as a development tool for health IT vendors and others who are testing synthetic QRDA Category I and Category III documents for

conformance to CMS submission requirements for the 2016 reporting period. While it is not required for certification and does not constitute a certification test, it is designed to help vendors reduce file submission errors when they submit reports to CMS. Note that files submitted for validation testing must not contain Protected Health Information (PHI) or Personally Identifiable Information (PII).

This new utility is a standalone capability and currently separate from the Cypress eCQM certification tool. You can access the Cypress QRDA utility from ONC's SITE, the Standards Implementation and Testing Environment. QRDA Validators are found in the QRDA Sandbox at this link. Please send any questions or feedback about the validation utility to talk@projectcypress.org.

Features Added

- Additional Validation checks to closer align with submission requirements
    - Performance Rates – Cypress will validate performance rates if they are provided in QRDA Cat III Files.
    - Measure Duplication – Cypress will validate that measures and populations are only reported once.
    - Measure Period – Cypress will validate that the correct measurement period is specified.
- Support for the 2016 CMS Combined Implementation Guide and Schematron validations.
- Cypress Validation Utility performs validations steps beyond the ones specified in the schematron. Cypress Validation Utility checks:
    - That provided Codes/ValueSets are included in the measures being reported
    - That encounter dates are valid for the measurement period being reported
    - That the measure ids are valid (version specific Ids and version neutral Ids)

Cypress Validation Utility for

Reporting year 2015

Released April 30th, 2015

The Cypress Validation Utility with support for the 2015 CMS QRDA Combined Implementation Guide is now available for use. This new utility is intended as a development tool for health IT vendors and others who are testing synthetic QRDA Category I and Category III documents for conformance to CMS submission requirements for the 2015 reporting period. While it is not required for certification and does not constitute a certification test, it is designed to help vendors reduce file submission errors when they submit reports to CMS. Note that files submitted for validation testing must not contain Protected Health Information (PHI) or Personally Identifiable Information (PII).

This new utility is a standalone capability and currently separate from the Cypress eCQM certification tool. You can access the Cypress QRDA utility from ONC's SITE, the Standards Implementation and Testing Environment. QRDA Validators are found in the QRDA Sandbox at this link. Please send any questions or feedback about the validation utility to talk@projectcypress.org.

Cypress v2.6.0 (retired)

Released January 22th, 2015

Cypress v2.6: 2014 Measure Specs, Value Sets for 2014 Measure Specs, HL7 QRDA Errata IG for 2014, Cypress v2.6 Measure Bundle

Features Added

- HL7 QRDA Errata IG for 2014
  - Support for the 2014 Errata Update to the HL7 Implementation Guide for CDA Release2: Quality Reporting Document Architecture - Category I and Category III.
- Cypress V2.6 Measure Bundle

- o Measure Bundle v2.6 includes updated patients. Measure Bundle v2.6 will be the only option available to the Cypress user for testing

Defects To Be Addressed

- Jira Issues
  - o Issue #465: All patient IDs in Cypress 2.5.1 were the same
  - o Issue #484: Stroke patient missing negation information
  - o Issue #513: Randomize Ids
  - o Issue #492: Removed trailing spaces after measurements
- Test Deck Issues
  - o Issue #487: Results added to Functional Status Assessments
  - o Issue #231: Time precision caused calculation variation
  - o Issue #196: Added necessary Cumulative Medication Duration information
  - o Additional coverage added to CMS179

Cypress Enhancements

- Increased level of detail in "Download Results" package
- Fixed caching on Master Patient List
- Descriptive error messages added to assist with file upload
- Updated Ruby version 2.1.5 and Rails version 4.1.8
- Added capability to regenerate cat I tests
- Increased level of validation of supplemental information

Clean Install Recommended

- Cypress 2.6 will require a fresh install of Cypress due to breaking changes in the QRDA Errata release. As a result of these QRDA changes, test results developed using Cypress 2.5.1 will no longer be valid in Cypress 2.6. Cypress 2.5.1 will be supported, and available for testing, for 90 days following the release of Cypress 2.6 to give vendors ample time to upgrade to the 2014 QRDA Errata IG and the v2.6 release of Cypress.

Cypress v2.5.1 (retired)

Patch applied October 15th, 2014 to Build v2.5.0
Original Build v2.5.0 created 25th, 2014

Cypress v2.5.1: 2014 Measure Specs, Value Sets for 2014 Measure Specs, HL7 QRDA Errata IG for 2012, Cypress v2.5 Measure Bundle

Features Added

- Support for the annual 2014 Eligible Hospital and Eligible Professional Clinical Quality Measure Update
  - Cypress v2.5 includes the updated specifications introduced for Eligible Hospital Measures in April 2014 and Eligible Professional Measures in July 2014 by the Centers for Medicare & Medicaid Services (CMS).
- Cypress V2.5 Measure Bundle
  - Cypress v2.5 will provide support for the 2014 Annual Measure Updates only. Measure Bundle v2.5 includes the updated measures for both the Eligible Hospital CQMs and the Eligible Professional CQMs, along with an updated set of synthetic test patient records to test the updated measure set. Measure Bundle v2.5 will be the only option available to the Cypress user for testing.

Defects To Be Addressed

Jira Issues

- Issue #331: Median Value Calculation

Test Deck Issues

- Issue #196: Additional information needed to perform cumulative medical duration calculation
- Issue #231: Diagnosis of depression should be on a different date than depression screening
- Issue #243: Change encounter in test deck from 1/1/12 to 1/2/12
- Issue #248: Ensure units of measure are identical (mm3 vs. /mm3)
- Issue #275: Change CMS146v1/NQF0002 from a patient based measure to an episode based measure

- Issue #303: ICD10, ICD9 and SNOMED codes for pregnancy should be allowed
- Issue #340: Fix use of inactive RxNorm code

Continued Support and Development

- Support for Cypress V2.4.1 Continues for Certifying 2013 CQMs -
  - Vendors will continue to use Cypress v2.4.1, in order to provide them ample time to complete product certification for 2013 measures. Additional information will be provided in the future regarding the extension of that timeline. Authorized Testing Labs (ATLs) will continue to schedule certification testing for 2013 measures using Cypress v2.4.1 during this time. The MITRE Cypress team will continue to provide answers to questions about the operation and use of Cypress 2.4.1 through the Cypress Talk List and Cypress Jira Tracker. At this time, there are no plans to make bug fixes or enhancements to Cypress v2.4.1.

Cypress v2.4.1 (retired)

Build created December 12th, 2013

Cypress v2.4.1: 2013 Measure Specs, Value Sets for 2013 Measure Specs, HL7 QRDA Errata IG for 2012, Cypress v2.4 Measure Bundle
Note: Demo Server for v2.4.1 will be retired on January 22, 2014.

Features Added

- None identified at this time

Defects To Be Addressed

Jira Issues

- Issue #178: Cypress reports error for family member value set OID in Diagnosis Family History Template
- Issue #201: Risk Category Assessment Depression Screening Result

Codes in QRDA Category 1
- Issue #218: Cypress expects more data than we should provide
- Issue #228: Cypress v2.4.0 is using outdated root IDs NQF 0338 CMS26 in QRDA Category 3 XML file
- Issue #244: Problem status OID causes error in Cypress
- Issue #259: Median calculation algorithm producing incorrect results
- Issue #265: Cypress expects unnecessary ED encounter
- Issue #272: Patient B, Eye_Adult missing attribute required to meet numerator for CMS167

Cypress v2.4.0 (retired)

Build created September 5th, 2013

Features Added

- Improved randomization of all Cypress patient records -
  - Cypress v2.4 will introduce the shifting of dates on patients added to the set of test data to improve randomization and further prevent gaming of the system.

Defects To Be Addressed

Jira Issues

- Issue #168: Cypress v2.3.1 QRDA Cat 1 Smoking Gun Tests Need to be Relaxed
- Cypress Jira Issue #130: Result attribute is missing from QRDA file
- Issue #131/Issue #132: How to determine the presence of an attribute if the values set is missing
- Issue #173: Scoop and filter patch

Test Deck Issues

- Diabetes_Peds B: Added new encounter to aid in code cross walk issue with NQF #0041 and if vendor is only using SNOMED codes (Cypress Jira Issue #143)
- GP_Peds, A: Edited to reflect "Medication, Order" prior to "Medication, Active" (Talk List)

- Stroke_Adult, B: "Decision to admit" concept moved to before end of ED visit (Cypress Jira Issue #187)
- Cancer_Adult, B: PSA test units changed from ng/dL to ng/mL (Talk List and Cypress Jira Issue #192)
- HIV_Peds A and HIV_Peds B: Added "mm3" units to lab result (Cypress Jira Issue #203)
- CAP_Adult A and CAP_Adult B: Changed facility location from "ICU location" to "Non-ICU location" (Talk List)

Cypress v2.3.1 (retired)

Build created July 19th, 2013

Features Added

- Support the annual Eligible Professional clinical quality measure update -
  - Limiting HTML test files to clinical quality measure certifying data (aka "HTML Scoop and Filter") with the Cypress VM and Cypress AMI -
    - When testing with Cypress v2.3, the HTML view of the patient data will include data only for the clinical quality measures that are being tested and certified. No extraneous data will be present. There was an issue with the Cypress v2.3.0 release which included this feature in the software source code available from GitHub, but not in the Cypress virtual machine and the Amazon Machine Instance. This v2.3.1 release includes this feature in all distribution mechanisms for setting up Cypress (source code, VM, AMI).
    - 07-17-2013 Update: This feature was only incorporated in the software source code distribution of Cypress v2.3.0. The Cypress v2.3.0 VM and AMI did not include the integration of this feature. The Cypress v2.3.1 release is planned on July 19th to address this feature in both the Cypress VM and the Cypress AMI

Defects to be Addressed

- None identified at this time

Cypress v2.3.0 (retired)

Build created on July 11th, 2013

Features Added

- Support the annual Eligible Professional clinical quality measure update -
    - Cypress v2.3 will include the updated specifications introduced in June by the Centers for Medicare & Medicaid Services. In addition, the Cypress test data was adjusted accordingly to meet basic testing and certification standards.
    - QRDA category I XML automated analysis -Cypress v2.3 will automate the content validation of the QRDA category I test (automatic structural validation will continue as normal in the Cypress software).
    - Additional clinical code validation -Cypress v2.3 will introduce the validation of code selection choices against clinical quality measure value sets.
    - Limiting HTML test files to clinical quality measure certifying data (aka "HTML Scoop and Filter") -
        - When testing with Cypress v2.3, the HTML view of the patient data will include data only for the clinical quality measures that are being tested and certified. No extraneous data will be present.
        - 07-17-2013 Update: This feature was only incorporated in the software source code distribution of Cypress v2.3.0. The Cypress v2.3.0 VM and AMI did not include the integration of this feature. A Cypress v2.3.1 release is planned on July 19th to address this feature in both the Cypress VM and the Cypress AMI
    - With the release of Cypress v2.3, users will be able to select

the version of the measure that you want to use when you create tests in Cypress. You can do this if you install an older Cypress "bundle" for v2.1.1. You do not need to maintain older versions of the Cypress software to test January EP and EH measures. With the release of Cypress v2.3, the options to the Cypress user for testing, the January measures, the April EH updates, and the June EP updates is supported via:

- Bundle v2.1.1 with the original versions of the EP and EH CQMs as of January 2013
- Bundle v2.3.0 with the updated versions of BOTH the EH CQMs updates in April and EP CQM updates in July 2013

  o As highlighted above, ATLs who need to testing EHR systems against older versions of the measures should download bundle v2.1.1 after setting up Cypress v2.3. Additionally, if users levering the Cypress virtual machine are testing both Cypress bundle v2.1.1 and Cypress bundle v2.3.0, we recommend increasing the memory allocated to your virtual machine, from the default of 1GB to 2GB.With the release of Cypress v2.3, the visual/manual checklist has been eliminated and has been replaced with automated software to fully grade the QRDA Category 1 XML to detect "false positives".

Defects Addressed

- Update the Medicare HIC id entry with a unique value -
  o Cypress Jira Issue #73 -
  o Cypress Jira Issue #78 -
  o Cypress Jira Issue #96 -
  o Cypress Jira Issue #92 -
- Mismatch of HTML and QRDA files for OB_A and OB_B test patients -
  o Cypress Jira Issue #97 -
  o Cypress Jira Issue #98 -
- Incorrect warning in QRDA Cat I validation -
  o CQM Jira Issue #72 -
- Clinical Quality Measure Test Procedure update -
  o CQM Jira Issue #71 -

- Test issue with patient A.CAP_ADULT and B.CAP_ADULT -
  - CQM Jira Issue #139 -
- If encounters for patient 'Diabetes Ped B' are coded using SNOMED codes, the patient does not qualify for the IPP for CMS 147 as expected -
  - CQM Jira Issue #143 -
- QRDA Category I option button not visible in Step 1 of 'Add Test' process -
  - CQM Jira Issue #147 -
- Medication, Order in QRDA CAT 1 test files does not have Route Code -
  - CQM Jira Issue #121 -
- Display enhancement for NQF to CMS number translation in the Cypress UI -
  - CQM Jira Issue #70 -
- Issue with encounter tags in BH_Adult_B -
  - CQM Jira Issue #126 -
- EP, GP patient test records; procedure dates do not align with encounter dates -
  - CQM Jira Issue #93 -
- QRDA Category I Schematron test for CONF:10419 erroneously warns when country is US -
  - CQM Jira Issue #108 -
- QRDA Category I Schematron rules to conform with US Realm Address do not correctly handle assumed "US" country -
  - CQM Jira Issue #110 -
- QRDA Category I Schematron test for CONF:10565 erroneously warns when adddress is not present -
  - CQM Jira Issue #109 -

Cypress v2.2.0 (retired)

Build created on April 26th, 2013

Features Added

- Updated the Quality Measure Engine to support calculation of

supplemental data elements
- Updated the patient test data - see below
- Updated the QRDA Category I language code
    - Cypress Jira Issue 53 -
- Updated the measure bundle with the annual release of Eligible Hospital measures on April 1, 2013
    - Cypress Jira Issue 39 -
- Updated the Value Sets based on requirements from latest measures
    - Cypress Jira Issue 20 -
    - Cypress Jira Issue 21 -
    - Cypress Jira Issue 23 -
- Updated the measure logic to latest implementation guidance for Denominator Exclusions, (are now left in the DENOM)
    - Cypress Jira Issue 48 -
- Removed the QRDA Cat I test patient generation and the ability to create QRDA Category I tests from the Add Test Wizard
    - Cypress Jira Issue 66 -
    - Cypress Jira Issue 47 -
- Added the ability to Generate QRDA Category I tests from EP/EH calculations tests
- Updated the generation of Category I tests based on individual measures
- Updated QRDA Category I tests to accept a zip file of QRDA Cat I documents for testing
- Added Multi File reporting views for QRDA Category I tests
- Updated QRDA Cat I tests to test for patient names
- Added initial check for too much data in Cat I tests
- Removed QRDA Cat I measure specific schematron rules
- Updated QRDA Category I schematron Rules to latest available from HL7 DSTU
    - Cypress Jira Issue 15 -
    - Cypress Jira Issue 49 -
    - Cypress Jira Issue 58 –
    -

Defects Addressed
- Fixed issue related to start and end date processing of reporting

period for exported Cat I documents
- Updated Length of Stay calculations to fix bug related to LOS ≤ 24 hours
- Fixed issue related to dates not being properly formatted in some portions of templates
  - 2.16.840.1.113883.10.20.24.3.40
  - 2.16.840.1.113883.10.20.24.3.46
  - 2.16.840.1.113883.10.20.24.3.62
  - Cypress Jira Issue 22 -
- Fixed issue related to nullFlavored value elements not having an xsi:type, nullFlaovored values are now xsi:type="CD" in generic value template
- Fixed issue with value element for values of string type being reported as xsi:type="INT", are now xsi:type="ST" in generic value template
- Fixed issue related to stdc:dischargeCode being in the wrong location of template 2.16.840.1.113883.10.20.24.3.23
- Fixed issue with routeCode having an invalid empty codeSystem attribute in generic _medication_details template
- Fixed issue with targetSiteCode having an invalid empty codeSystem attribute for template 2.16.840.1.113883.10.20.24.3.7
- Fixed issues related to effectiveTime being in the wrong location in template 2.16.840.1.113883.10.20.24.3.31
- Removed extra text element from template 2.16.840.1.113883.10.20.24.3.46 Removed duplicated data entries from patient records
  - Cypress Jira Issue 26 -
  - Cypress Jira Issue 31 -
  - Cypress Jira Issue 43 -
- Fixed Episode of Care logic that incorrectly handled measures that had multiple potential episodes of care joined by a disjunction (effected measures 1365 and 0140)
- Fixed alignment of the date/times in "Fields" column with "Time" column
  - Cypress Jira Issue 29 -
  - Cypress Jira Issue 37 –
  -

Test Deck Updates

- In Cypress 2.1 a bug was introduced in the processing order of Denominators and Exclusions, which has been resolved in this release. As a result of this modification the following changes have been observed in the measure population calculations.
- NQF 0371:
  - A, CAP_ADULT - drops from the numerator and goes to the Exclusions
- NQF 0372:
  - A, AMI_ADULT - drops from denominator and exclusions
  - B, AMI_ADULT - drops from denominator and exclusions
  - B, SCIP_ADULT - drops from denominator and exclusions
  - B, STROKE_ADULT - drops from denominator and exclusions
  - C, AMI_ADULT - drops from denominator and exclusions
  - C, VTE_ADULT - drops from denominator and exclusions
  - D, AMI_ADULT - drops from denominator and exclusions
- Cholesterol Screening Risk (all populations):
  - B, Pregnancy_Adult - drops from denominator and exclusions
- Fasting LDL Test (high risk and moderate risk):
  - B, Pregnancy_Adult - drops from denominator and exclusions
- The following data element changes have been made to the EH patient test deck records:
  - AMI_ADULT A
    - Diagnostic Study, Result: Hospital Measures Ecg becomes Diagnostic Study, Result: Hospital Measures Ecg impression
    - Test result goes from "Hospital Measures-ST-segment elevation" to "Hospital Measures-Acute or Evolving Mi"
  - AMI_ADULT B
    - Diagnostic Study, Result: Hospital Measures Ecg becomes Diagnostic Study, Result: Hospital Measures Ecg impression
  - test result goes from "Hospital Measures-ST-segment elevation" to "Hospital Measures-Acute or Evolving Mi"
  - AMI_ADULT C
    - Diagnostic Study, Result: Hospital Measures Ecg becomes Diagnostic Study, Result: Hospital Measures

Ecg impression
- test result goes from "Hospital Measures-ST-segment elevation" to "Hospital Measures-Acute or Evolving Mi"
  - AMI_ADULT D
    - Diagnostic Study, Result: Hospital Measures Ecg becomes Diagnostic Study, Result: Hospital Measures Ecg impression
    - test result goes from "Hospital Measures-ST-segment elevation" to "Hospital Measures-Acute or Evolving Mi"
  - OB A
    - Diagnostic Study, Performed: Vte Diagnostic Test becomes Diagnostic Study, Result
  - OB B
    - Diagnostic Study, Performed: Vte Diagnostic Test becomes Diagnostic Study, Result
    - Diagnosis, Active: Normal Delivery And Other Indications For Care (Dropped from measure)
  - CAP_ADULT A
    - Encounter, Performed: ICU Admission or Transfer - end date shifted by 1 day to make length of stay > 1 day

Cypress Bundle 2017.0.4

The Cypress 2017.0.4 Bundle was released on 9/25/18. Changelog for the release is below

Bundle Features

- No features were added in this bundle version

Bundle Bugs Addressed

- Fixes a bug that causes the 'Download All Patients' and 'Download Criteria List' features not to work in a Cypress 3.2.3 instance with a Deprecated 2017.0.2 and a 2017.0.3 bundle installed

Cypress Bundle 2017.0.3

The Cypress 2017.0.3 Bundle was released on 4/24/18. Changelog for the release is below

Bundle Features

- No features were added in this bundle version

Bundle Bugs Addressed

- Cypress test patient "Z1 BH Adult" produces ambiguous Cumulative Medication Duration calculation (CMD) for CMS128v6 ([CYPRESS-1265](#))

Cypress Bundle 2017.0.2

The Cypress 2017.0.2 Bundle was released on 10/24/17. Changelog for the release is below

Bundle Features

- Addendum updates the eCQM value sets ([posted September 29, 2017](#))

Bundle Bugs Addressed

- No bugs were addressed in this bundle version

2017.0.1.1 Bundle Patch

The 2017.0.1.1 Bundle Patch was released on 8/29/17. Instructions for applying the patch can be found [here](#). Changelog for the release is below

Bundle Bugs Addressed

- The Cypress Bundle for the 2017 Annual Update contains incorrect GUIDs for CMS9v6. ([CYPRESS-1146](#))

Cypress Bundle 2017.0.1

The Cypress 2017.0.1 Bundle was released on 7/27/17. The Cypress 2017.0.1 was the initial bundle published with Cypress v3.2.0. Changelog for the release is below

Bundle Features

- Support for the electronic clinical quality measures (eCQM) for eReporting for the 2018 Reporting Period (as of May 2017).
  - 53 Eligible Professional/Eligible Clinician eCQMs.
    - Including new eCQMs CMS347v1 (Statin Therapy for the Prevention and Treatment of Cardiovascular Disease) and CMS645v1 (Bone density evaluation for patients with prostate cancer and receiving androgen deprivation therapy).
  - 16 Eligible Hospital/Critical Access Hospital eCQMs.
- Support for eCQM Value Sets as of 5/5/2017.
- Measure logic coverage > 95% for all 2016 and 2017 eCQMs.