# CY 2023 Real World Testing Plan
# for The Echo Group

## Executive Summary

This is the real-world test plan for CY 2023 for The Echo Group certified EHR solution, Visual Health Record. We have two versions of our certified solution available, vs 11 and vs 12, and this RWT test plan covers both versions. We will focus our evaluation testing on the most current version 12 as we are looking to retire version 11. However, we will do some engagement with users of version 11 to have them self-report on RWT measures so that we can continue improve the features of version 12.

It provides the real-world test measurements and metrics that meet the intent and objectives of ONC's Condition of Certification and Maintenance of Certification requirement for real world testing (§ 170.405 Real world testing) to evaluate compliance with the certification criteria and interoperability of exchanging electronic health information (EHI) within the care and practice setting which it is targeted for use.

As ONC has stated in its rule, "The objective of real-world testing is to verify the extent to which certified health IT deployed in operational production settings is demonstrating continued compliance to certification criteria and functioning with the intended use cases as part of the overall maintenance of a health IT's certification." We have worked toward this objective in designing our test plan and its subsequent real world testing measurements and metrics.

This document builds toward the final testing measurements and metrics we will use to evaluate our product interoperability within production settings. Within each use case, we document our testing methodology for the measure/metric we plan to employ. We also include the associated ONC criteria, our justification for measurement selection, our expected outcomes from the testing, the care settings applied for this measure, and if applicable the number of clients to use in our real world testing.

We have included our timeline and milestones for completing the real world testing in CY 2023, and information about compliance with the Standards Version Advancement Process updates.

A table of contents is provided later in the plan quick access to any document section, including the testing measurements and metrics found at the end of this document. Our signed attestation of compliance with the real world testing requirements is on the following page.

# Developer Attestation

This Real World Testing plan is complete with all required elements, including measures that address all certification criteria and care settings. All information in this plan is up to date and fully addresses the health IT developer's Real World Testing requirements.

Authorized Representative Name: Tracy E. Orlando

Authorized Representative Email: tracy.orlando@echobh.com

Authorized Representative Phone: 603-447-8600

Authorized Representative Signature:

*Tracy E. Orlando*

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# General Information

Plan Report ID Number: Echo-RWT-2023

Developer Name: The Echo Group

Product Name(s): Visual Health Record

Version Numbers: Vs 12

    Certified Health IT Criteria: 315(b)(1), (b)(6), (g)(7)-(9), (h)(1)

    Product List (CHPL) ID(s) and Link(s):

- 15.04.04.2425.Visu.12.01.1.200204
- https://chpl.healthit.gov/#/listing/10289

Version Numbers: Vs 11

    Certified Health IT Criteria: 315(b)(1)-(2), (b)(6), (c)(1)-(3), (e)(1), (f)(1), (g)(7)-(9), (h)(1)

    Product List (CHPL) ID(s) and Link(s):

- 15.04.04.2425.Visu.11.00.1.171220
- https://chpl.healthit.gov/#/listing/9330

Developer Real World Testing Page URL:
https://www.echobh.com/2014/06/05/meaningful-use-certification/

# Timeline and Milestones for Real World Testing CY 2023

- 1Q-2023: Begin communication with clients to ask for their support and participation in real world testing. The goal is to have a sufficient number of clients committed for real world testing by the end of 1Q-2023.
- 2Q-3Q 2023. During the 2nd and 3rd quarter of CY 2023, the real world testing with clients will be scheduled and performed. It is expected that a preparatory call will be done with clients to prepare them for testing activities. Results will be documented in the test results section of the test methods and ultimately used to build the test report. If any non-compliances are observed, we will notify the ONC-ACB of the findings and make the necessary changes required.
- 4Q-2023. During the last quarter of the year, the CY 2024 real world test plan will be completed according to ONC and ONC-ACB requirements and expectations. Test plan will be prepared for submission before the end of the year.
- 1Q-2024. Submit RWT Test Report to ONC-ACB.

# Standards Version Advancement Process (SVAP) Updates

We plan on implementing USCDI v1 in our C-CDAs and API support before the end of CY 2022, but we have not yet completed the ONC certification. However, we are not planning on doing any SVAP updates in CY 2023.

| | |
|---|---|
| Standard (and version) | N/A |
| Updated certification criteria and associated product | N/A |
| Health IT Module CHPL ID | N/A |
| Method used for standard update | N/A |
| Date of ONC-ACB notification | N/A |
| Date of customer notification (SVAP only) | N/A |
| Conformance measure | N/A |
| USCDI-updated certification criteria (and USCDI version) | N/A |

# Real World Testing Measurements

The measurements for our real-world testing plan are described below. Each measurement contains:

- Associated ONC criteria
- Testing Methodology used
- Description of the measurement/metric
- Justification for the measurement/metric
- Expected outcomes in testing for the measurement/metric
- Number of client sites to use in testing (if applicable)
- Care settings which are targeted with the measurement/metric

In each measurement evaluate, we elaborate specifically on our justification for choosing this measure and the expected outcomes. All measurements were chosen to best evaluate compliance with the certification criteria and interoperability of exchanging electronic health information (EHI) within the certified EHR.

## Testing Methodologies

For each measurement, a testing methodology is used. For our test plan, we use the following methodologies.

Compliance and/or Tool: This methodology uses inspection to evaluate if EHR is compliant to the ONC criteria requirements. It can be done through 1-v-1 inspection testing or utilize various tools to measure or evaluate compliance and interoperability. If an EHR Module capabilities is not widely used in production by current users, compliance inspection can provide assurance criteria is working as previously certified.

User Reported/Survey: This methodology evaluates interoperability and compliance of EHR Module capabilities through feedback from users. ONC has recognized that user reporting or self-testing can be a viable method for evaluation and compliance, and this methodology can provide insight into how clinicians employ and use a feature which reveals actual value and impact of interoperability of the EHR Module.

## Number of Clients Sites

Within each measure, we note the minimum number of clients or client sites we plan to use for this measure evaluation. The numbers vary depending on the methodology as well as overall use of the associated EHR Module criteria by our users. For criteria that are not widely used by our customer base, we may test the respective measure in our own production-sandbox environment given lack of customer experience with the criteria functionality.

## Care and Practice Settings Targeted

Our EHR is primarily targeted to behavioral health care, and our measures were design for this setting in mind.

# Compliance of C-CDA Creation and C-CDA Scorecard Average

Associated Criteria: 315(b)(1) and 315(h)(1)
Testing Methodology: Compliance and Tool

## Measurement Description

This measure is tracking compliance the EHR Module criteria functionality of creating a C-CDA and measuring its C-CDA Scorecard average. Measure will also test ability to exchange messages via Direct messaging.

## Measurement Justification

This measure will provide assurance of compliance to the EHR Module criteria, specifically ability to create a C-CDA and evaluate it against the ONC C-CDA Scorecard tool. The C-CDA scorecard is designed for production use and measures how artifacts created by health IT compare against the HL7 C-CDA implementation guide and HL7 best practices. This measurement shows support for Direct Edge protocol in connecting to our 3rd party HISP, phiMail Server, for successful transmission.

The Scorecard will both indicate any C-CDA errors as well provide a numeric scoring result to indicate how well our C-CDA complies with certification requirements and supports interoperability within production setting.

To avoid disclosing PHI, we will only work with test patients from the actual production environment or an appropriately production-mirrored environments to best evaluate production capabilities available to end users.

## Measurement Expected Outcome

The user will have the EHR create C-CDA from a patient record containing clinical data elements required in the criteria. We will run C-CDA through the Scorecard tool to obtain a result. We will also confirm the process and steps done by the user meet the criteria requirements of the EHR Module and works as expected in production as in a controlled test environment.

A high score from the Scorecard indicates strong support for interoperability, and a lower score indicates opportunity for improvement. We will use this measure to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

We will use our 3rd party HISP, phiMail Server, to connect to the C-CDA Scorecard, and successfully connection will reveal a working and interoperable connection with our HISP.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 12 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Compliance of Data Export C-CDA Export and C-CDA Scorecard Average Score

Associated Criteria: 315(b)(6)

Testing Methodology: Compliance and Tool

## Measurement Description
This measure is tracking compliance of the EHR Module criteria functionality of creating a batch export of C-CDAs and measuring its C-CDA Scorecard average.

## Measurement Justification
This measure will provide assurance of compliance to the EHR Module criteria, specifically ability to create a batch export of C-CDA patient records and evaluate it against the ONC C-CDA Scorecard tool. The C-CDA scorecard is designed for production use and measures how artifacts created by health IT compare against the HL7 C-CDA implementation guide and HL7 best practices.

The Scorecard will both indicate any C-CDA errors as well provide a numeric scoring result to indicate how well our C-CDA complies with certification requirements and supports interoperability within production setting.

To avoid disclosing PHI, we will only work with test patients from the actual production environment or an appropriately production-mirrored environments to best evaluate production capabilities available to end users.

## Measurement Expected Outcome
The user with special access rights, like an admin, selects batch patient option to export all selected record as CCD C-CDA. The user must be able to do this without any developer assistance. The user selects a timeframe period to export patient summaries and a location for the export file to be saved. The EHR will create the batch export of C-CDA files. We will run some C-CDAs through the Scorecard tool to obtain a result. We will also confirm the process and steps done by the user meet the criteria requirements of the EHR Module and works as expected in production as in a controlled test environment.

A high score from the Scorecard indicates strong support for interoperability, and a lower score indicates opportunity for improvement. We will use this measure to establish a historic baseline of expected interoperability use so it can be used in subsequent real world testing efforts.

## Care Settings and Number of Clients Site to Test
We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 12 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Error Rate in Problem/Medication/Allergy Incorporation from C-CDA

Associated Criteria: 315(b)(2)

Testing Methodology: Reporting/Logging

## Measurement Description

This measure metric is the error rate of the EHR Module incorporating problem/medication/allergy from C-CDAs into the respective patient records.

## Measurement Justification

This measure will evaluate the ability of EHR to incorporate the problems, medications, and allergies values into the patient record from an external C-CDA. We will obtain an error rate of failures to properly reconcile any problems, medications, or allergies and report on this result to show level of interoperability of this criterion.

Incorporating external clinical data into the patient record is critical for patient care, and a high measurement will give assurance of this functionality.

To avoid disclosing PHI, we will only work with test patients from the actual production environment or an appropriately production-mirrored environments to best evaluate production capabilities available to end users.

## Measurement Expected Outcome

Upon receipt of the C-CDA document, the EHR should allow the user to identify the correct patient and then incorporate the problems, medications, and medication allergies of this document into the patient record, and merge and reconcile the problems, medications, and medication allergies into their respective lists. We will also confirm the process and steps done by the user meet the criteria requirements of the EHR Module and works as expected in production as in a controlled test environment.

We will use many different patient C-CDAs to test this capability and report on its success or errors. A success means all identified and selected problems, medications, and allergies could be reconciled into the patient's record while an error means at least one of the items failed to be fully reconciled into the EHR.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Controlled Substances Electronically Sent

Associated Criteria: 315(b)(3)

Testing Methodology: Reporting/Logging and User Reported

## Measurement Description

This is a measure to determine how often you are electronically prescribing controlled medications from the EHR.

## Measurement Justification

This measure will have users report on how often they submit electronically prescribed controlled substance medications from their EHR and if they encounter any errors. We will contrast that compared to non-controlled substances that are electronically sent to verify the controlled substances are supported in real world interoperability.

Controlled substances are not an explicit requirement of ONC certification, but the electronic prescribing features should support controlled substances if the provider and support health IT system have the necessarily capabilities enabled for electronic prescribing of controlled substances.

## Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, or user reported metrics to determine our measurement count.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# CQM Calculation and Submission

Associated Criteria: 315(c)(1)-(c)(3)
Testing Methodology: User Reported/Survey

## Measurement Description

This is a measure to determine if users were able to successfully submit CQMs to CMS using EHR CEHRT functionality.

## Measurement Justification

This measure will determine the number of CQMs that users are able to successfully calculate and submit to CMS using their EHR's functionality.

CQM submission is done by the user, so a survey/self-test report is the best way to document this interoperability feature. It will reveal if users are using the CQM certified capabilities of CQM recording, calculation, and submission are working as expected. This measure covers all three of the CQM criteria (315(c)(1)-(c)(3)).

## Measurement Expected Outcome

The user will be asked the survey question and given the survey answer choices below:

- Numeric answer to the question, and if willing, the CQMs submitted.

The answer will provide insight into how clinicians view both the use and value of this interoperability feature. For example, response may show that additional training is needed to better utilize the feature or that it is not currently utilized as currently designed. It will provide a benchmark for evaluate future surveys as well as to share insight into any new development for improvements or enhancements of the health IT system.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Patient Portal Error Rates

Associated Criteria: 315(e)(1)

Testing Methodology: Reporting/Logging and User Reported

## Measurement Description

This is a measure is the number of errors observed with patients accessing portal accounts.

## Measurement Justification

This measure will have users report patient errors are identified compared to the number of patients successfully accessing the portal. This error rate will provide quantifiable means to evaluate real world interoperability of this criteria.

## Measurement Expected Outcome

The measurement will produce numeric results over a given interval. We will utilize various reports and audit logs, including Automated Measure (315.g.2) reports, as well as user reported observations to determine our metric.

A successful measure means the patient is accessing their portal account without any identified failures while errors indicate the user was not able to access their accounts.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Number of IIS/Immunization Registries Engaged

Associated Criteria: 315(f)(1)

Testing Methodology: Reporting/Logging and User Reported/Survey

## Measurement Description

This is a measure to determine the number of immunization public health registries which are successfully connected and exchanging immunization data with the user site.

## Measurement Justification

This measure will determine real world interoperability and usability, specifically many different immunization information systems (IIS) or public health immunization registries are used by the provider.

A survey or self-testing can often provide more information on the impact and value of an interoperability element than a standard software test evaluation. This survey measure will the number and names of immunization public health registries which are integrated with the EHR.

## Measurement Expected Outcome

The user will be asked the survey question and given the survey answer choices below:

- Numeric answer to the question, and if willing, the names of the other systems.

The answer will provide insight into how clinicians view both the use and value of this interoperability feature. For example, response may show that additional training is needed to better utilize the feature or that it is not currently utilized as currently designed. It will provide a benchmark for evaluate future surveys as well as to share insight into any new development for improvements or enhancements of the health IT system.

## Care Settings and Number of Clients Site to Test

We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.

# Number of Different applications/3rd party systems using your API capabilities

Associated Criteria: 315(g)(7)-(g)(9)

Testing Methodology: Reporting/Logging and User Reported/Survey

## Measurement Description
This is a measure will determine how many different systems or applications are connecting to the EHR via the API.

## Measurement Justification
This measure determines real world interoperability and usability, specifically many 3rd party systems or applications are integrated and using the EHR's API interface. This measurement also shows support for integrated 3rd party API service provider, phiQuery.

A survey or self-testing can often provide more information on the impact and value of an interoperability element than a standard software test evaluation. API capabilities are an important component of the modern health IT system, and utilization of API resources will help improve patient care and care coordination.

## Measurement Expected Outcome
The user will be asked the survey question and given the survey answer choices below:

- Numeric answer to the question, and if willing, the names of the other systems.

The answer will provide insight into how clinicians view both the use and value of this interoperability feature. For example, response may show that additional training is needed to better utilize the feature or that it is not currently utilized as currently designed. It will provide a benchmark for evaluate future surveys as well as to share insight into any new development for improvements or enhancements of the health IT system.

This evaluation will also confirm if our 3rd party API service provider, phiQuery, is working properly in production, and if not, how we can address that.

## Care Settings and Number of Clients Site to Test
We designed this measure to test the behavioral health setting that we support and target. We will test a minimum of two (2) client practice(s) using version 11 of our certified EHR. This number covers a sufficient percentage of existing practices to provide a viable sample of users of the certified EHRs.