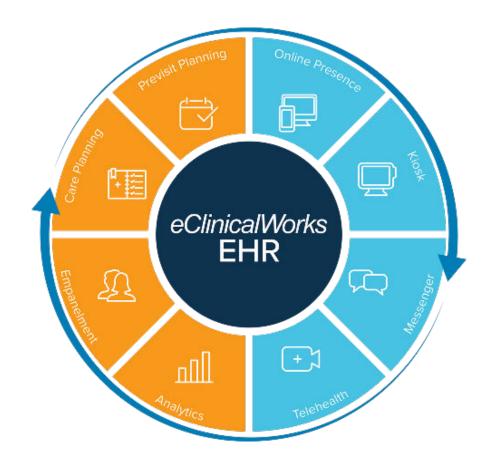
# eClinicalWorks

# REAL WORLD TESTING - 2023 RESULTS REPORT

Version 1.0 - January 2024



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## REAL WORLD TESTING - 2023 RESULTS REPORT

This document describes the results from eClinicalWorks<sup>®</sup> (eCW) *Real World Testing - 2023 Test Plan*.

## 1. Introduction

The 21<sup>st</sup> Century Cures Act Final Rule mandates that health IT developers of certified health IT test the real-world use of health IT for interoperability, as defined by the 2015 Edition Certification Criteria. The functionality and use cases included in this testing effort include all certification criteria under 45 C.F.R. § 170.315(b)(1)-(3), (b)(6), (c)(1)-(3), (e)(1), (f)(1)-(2), (f)(7), (g)(7)-(9), and (h)(1) to which eClinicalWorks is certified as of August 31, 2022, specifically:

(b)(1) Transitions of Care

(b)(2) Clinical Information Reconciliation and Incorporation

(b)(3) Electronic Prescribing

(b)(6) Data Export

(c)(1) Clinical Quality Measures (CQMs) - Record and Export

(c)(2) Clinical Quality Measures (CQMs) - Import and Calculate

(c)(3) Clinical Quality Measures (CQMs) - Report

(e)(1) View, Download, and Transmit to Third-Party

(f)(1) Transmission to Immunization Registries

(f)(2) Transmission to Public Health Agencies - Syndromic Surveillance

(f)(7) Transmission to Public Health Agencies - Health Care Surveys

(g)(7) Application Access - Patient Selection

(g)(8) Application Access - Data Category Request

(g)(9) Application Access - All Data Request

(g)(10) Standardized API for Patient and Population Services

(h)(1) Direct Project

This report describes the results of measuring the real-world usage of these criteria as outlined in the *Real World Testing - 2023 Test Plan.* 

The following list describes each component of the results report for each respective certification criterion:

- **Testing Methodology/Method** describes the approach (e.g., steps, conditions, etc.) a tester used to evaluate the functionality of the certification criteria.
- Metric Definition describes the measurement used to determine the usage of the criteria in a real world setting.
- Care/Practice Settings describes the type of settings in which the certification criteria were tested. eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of primary care and specialty care settings. For the purposes of real world testing, eClinicalWorks measured data from all settings in which the EHR was used.
- Milestones describes the timeline that eClinicalWorks used to evaluate the progress of its test plan.
- Expected Outcome describes the result of successfully completing the test case.
- Summary of Testing Methods and Key Findings provides a summary of the real world testing methods deployed to demonstrate real-world interoperability across eClinicalWorks.
- **Relied Upon Software** describes additional software that is independent of the core EHR, but is required to fulfill the functionality described in the certification criteria.

Developer Name	eClinicalWorks, LLC			
Product Name and Version	eClinicalWorks V11.52 and V12			
Number				
Product List (CHPL) IDs	V11.52.305C	15.04.04.2883.eCli.11.05.1.221212		
	V12.0.1	15.04.04.2883.eCli.12.06.1.221116		
	V12.0.2 15.04.04.2883.eCli.12.07.1.230613			
Real World Testing Plans	https://www.eclinicalworks.com/	/resources/certified-ehr-technology		
and Results				

## 3. Milestones

The following table describes the eClinicalWorks 2023 Real World Testing Milestones:

Date/Timeline	Milestone				
October 2022	2023 Plan Submission:				
	Submit the 2023 Real World Testing Plan.				
February 2023 - January	Monthly Data Collection				
2024	Conduct data collection on a monthly basis for calendar year 2023.				
October 2023	2024 Plan Submission				
	Submit the 2024 Real World Testing Plan with updates to the milestones timeline, certification criteria, or standards for calendar year 2024.				
January 2024 - March 2024	Analysis and Results Reporting				
	Review data collected and compile report for 2023 Test Plan.				

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Date/Timeline	Milestone
March 2024	Results Report Submission for Calendar Year 2023

## 4. Acronyms and Terms

The following table lists the acronyms and terms used in this document:

Acronym/Term	Definition
АСК	HL7 <sup>®</sup> message type used in message acknowledgement between health IT systems
ADT	Admit-Discharge-Transfer; HL7 message type used to communicate patient demographics, visit information, and events (e.g., patient admit, patient discharge, patient transfer, etc.)
API	Application Programming Interface
APU	Auto-Practice Upgrade
C-CDA	Consolidated Clinical Document Architecture
CCDS	Common Clinical Data Set
CQM	Clinical Quality Measure
eClinicalWorks P2P <sup>®</sup>	eClinicalWorks Provider-to-Provider network
eCW	eClinicalWorks
EHR	Electronic Health Record
ePHI	Electronic Protected Health Information
FHIR®	Fast Healthcare Interoperability Resources
HIPAA	Health Insurance Portability and Accountability Act
NHCS	National Hospital Care Survey

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Acronym/Term	Definition
ONC	Office of the National Coordinator for Health Information Technology
QBP	Query-Based Parameter; HL7 message type used for immunization queries
RSP	Segment Pattern Response: HL7 message type used for immunization responses between health IT systems and immunization information systems used by state registries
SQL	Structured Query Language
SVAP	Standards Version Advancement Process
USCDI	United States Core Data for Interoperability
VXU	HL7 message type used to transmit patient immunization information

## 5. Standards Updates

The Standards Version Advancement Process was not utilized for 2023. All criteria listed in the test plan and results report adhere to the standards referenced in the 2015 Edition. In 2022, eClinicalWorks updated its certified health IT to USCDI v1, C-CDA R2.1, and US Core 3.1.1, as required by the 2015 Edition Cures Update.

## 6. Summary of Testing Methods and Key Findings

Refer to section 7. Test Results for the summary of testing methods and key findings for each criterion tested in 2023.

## 7. Test Results

The following sections outline the results reporting for the certification criteria identified in section 1. Introduction.

## (b)(1) Transitions of Care

The following table outlines the test plan and findings for the (b)(1) Transitions of Care criterion:

Criterion Description	Enables a user to send and receive transition of care documents via edge protocol, validate and display C-CDAs, and create transition of care/referral summaries.
Testing Methodology/Method	<ul> <li>The tester identifies customers who have sent a transition of care/referral summary to a different provider through the eClinicalWorks P2P network.</li> <li>The tester runs a query to determine the number of times the user performed the (b)(1) workflow (transition of care/referral summary using eClinicalWorks P2P).</li> </ul>
Metric Definition	<ul> <li>All customers using eClinicalWorks P2P are able to create and send transition of care/referral summary documents (which includes referrals and patient records) through the eCW P2P workflow for:</li> <li>Number of transition of care documents sent</li> <li>Number of transition of care documents received</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks measures data from all settings in which the EHR was used.
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	Evidence of a transition of care/referral summary sent and received with all document sections visible to the user in a human readable format.

Summary of Testing<br/>Methods and Key<br/>FindingsDuring the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from<br/>production unique APU IDs and gathered the transactions for the total number of transition of care<br/>documents sent and received, which includes referrals and patient records. The following transaction<br/>data are the evidence of a transition of care/referral summary that has been sent and received.

#### Transaction Counts for (b)(1):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of transition of care messages sent	135,915	131,979	154,497	133,527	150,359	199,045	120,743	134,813	120,292	129,185	112,289	95,637
Total number of transition of care messages received	444,761	376,767	445,950	368,489	409,674	386,526	450,965	448,489	494,298	625,430	528,566	468,054

## (b)(2) Clinical Information Reconciliation and Incorporation

The following table outlines the test plan and findings for the (b)(2) Clinical Information Reconciliation and Incorporation criterion:

Testing Methodology/Method	The tester will identify customers that have received and incorporated a transition of care/referral summary document into the patient's record.
	eClinicalWorks recognizes that not all customers use the full functionality of the certification criteria. If eClinicalWorks is unable to identify customers that use the (b)(2) criterion (or any criterion throughout this test plan) as defined in the regulation, then that will be reflected in the results report.

Metric Definition	All customers using eClinicalWorks P2P are able to reconcile and incorporate transition of care/referral summary documents (which includes referrals and patient records) through the eClinicalWorks P2P workflow for:
	<ul> <li>Total number of C-CDA documents matched to a correct patient</li> </ul>
	<ul> <li>Total number of medications added/reconciled to the patient's record</li> </ul>
	<ul> <li>Total number of allergies added/reconciled to the patient's record</li> </ul>
	<ul> <li>Total number of problems added/reconciled to the patient's record</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	A transition of care/referral summary document can be received and incorporated into the customer's EHR and the reconciliation of data into the correct patient's record was verified.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the transactions for the total number of C-CDA documents matched to a correct patient, the total number of medications added/reconciled to the patient's record, the total number of allergies added/reconciled to the patient's record and the total number of problems added/reconciled to the patient's record.

#### Transaction Counts for (b)(2):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
Total number of incoming requests matched to a correct patient	655,961	567,036	671,016	588,339	588,572	574,643
Total number of medications added/reconciled to the patient's record	1,530	1,290	1,389	1,205	1,075	973

Total number of allergies added/reconciled to the patient's record	6,243	5,987	6,912	5,643	5,157	4,417
Total number of problems added/reconciled to the patient's record	1,387	1,223	1,048	791	880	924

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of incoming requests matched to a correct patient	609,405	616,907	654,835	729,413	780,044	670,431
Total number of medications added/reconciled to the patient's record	1,002	1,109	1,298	1,332	1,252	918
Total number of allergies added/reconciled to the patient's record	4,276	4,918	5,846	6,010	5,867	4,583
Total number of problems added/reconciled to the patient's record	903	1,054	1,092	1,045	1,004	644

## (b)(3) Electronic Prescribing

The following table outlines the test plan and findings for the (b)(3) Electronic Prescribing criterion:

Testing Methodology/Method	eClinicalWorks partners with Surescripts <sup>®</sup> to validate and transmit electronic prescription orders to pharmacies. For the (b)(3) criterion, the tester will identify the number of transactions for the following transaction types:
	<ul> <li>NewRx - New prescriptions</li> </ul>
	<ul> <li>RxChangeRequest and RxChangeResponse - Requests and responses to change prescriptions</li> </ul>
	<ul> <li>CancelRx and CancelRxResponse - Requests and responses to cancel prescriptions</li> </ul>
	<ul> <li>RxRenewalRequest and RxRenewalResponse - Requests and responses to renew prescriptions</li> </ul>
	<ul> <li><b>RxFill</b> - Responses with fill status notifications</li> </ul>
	<ul> <li>RxHistoryRequest and RxHistoryResponse - Requests and responses to medication histories</li> </ul>
Metric Definition	For all customers using e-prescription, the number of transactions sent for each transaction type listed above.
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	All transactions performed by the customer's EHR are accepted and validated by the Surescripts network.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the total number of transactions each month for the NewRx ,RxRenewalResponse (Refills), CancelRx, RxChangeResponse, RxHistoryRequest, RxRenewalRequest, (Refills), CancelRxResponse, RxChangeRequest, RxHistoryResponse and RxFill transaction types from the eClinicalWorks eRx.

## Transaction Counts for (b)(3) Sent:

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
NewRx	23,531,351	21,816,159	24,696,540	21,522,840	23,666,935	22,324,669
RxRenewalResponse (Refills)	6,485,345	5,708,574	6,480,020	5,953,989	658,415	6,391,921
CancelRx	266,638	260,888	307,999	270,377	299,863	300,049
RxChangeResponse	208,588	195,673	219,863	196,600	205,853	192,109
RxHistoryRequest	7,983,681	7,512,475	8,577,437	7,818,496	7,900,855	8,330,693

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
NewRx	20,307,035	24,014,951	22,031,036	23,411,080	23,155,602	22,480,505
RxRenewalResponse (Refills)	6,241,403	6,419,193	5,875,529	6,276,589	5,916,483	5,836,357
CancelRx	269,079	307,190	291,019	323,838	319,089	312,875
RxChangeResponse	176,854	190,468	163,846	243,294	222,678	217,786
RxHistoryRequest	6,856,200	9,734,184	9,242,599	10,732,014	18,704,170	18,595,189

## Transaction Counts for (b)(3) Received:

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
RxRenewalResponse (Refills)	7,672,841	6,903,290	7,843,712	7,400,090	7,793,221	7,781,743
CancelRxResponse	228,856	227,297	266,490	232,653	256,633	264,552
RxChangeRequest	409,160	396,012	454,663	423,133	446,394	424,005
RxHistoryResponse	7,978,077	7,507,083	8,572,491	7,813,919	7,893,485	8,325,464
RxFill	71,682	65,403	77,447	74,494	81,551	84,753

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
RxRenewalResponse (Refills)	7,680,071	7,841,919	7,366,947	7,161,609	6,405,815	6,491,411
CancelRxResponse	232,639	264,147	252,015	279,376	277,400	272,646
RxChangeRequest	398,272	432,345	387,253	581,130	542,905	536,355
RxHistoryResponse	6,849,909	9,728,462	9,237,229	10,726,451	18,689,678	18,585,841
RxFill	99,370	160,778	150,825	160,301	159,537	159,268

## (b)(6) Data Export

The following table outlines the test plan and findings for the (b)(6) Data Export criterion:

Testing Methodology/Method	The tester will identify customers who have utilized the Data Export functionality within the EHR. The tester will run a query to determine the number of times the user generated a C-CDA file using Data Export. eClinicalWorks recognizes that not all customers use the full functionality of the certification criteria made available in the EHR. If eClinicalWorks is unable to identify customers that use the (b)(6) criterion as defined in the regulation, then that will be reflected in the results report.
Metric Definition	<ul> <li>Number of C-CDA documents in all exports generated</li> <li>Number of export requests across all customers</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	The data export file (C-CDA) was successfully generated for each of the scenarios listed in the testing method (real-time/on-demand and specific date range defined by the user).
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the transactions based on the total number of successful C-CDA documents in all exports generated, along with the total number of export requests across all customers of eClinicalWorks either on-demand or in real time.

## Transaction Counts for (b)(6):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
Number of C-CDA documents in all exports generated	4,157,118	3,234,147	3,382,933	3,822,001	2,505,412	2,638,092
Number of export requests across all customers	359	342	361	357	370	359

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Number of C-CDA documents in all exports generated	1,259,966	1,925,891	687,479	294,218	331,023	211,427
Number of export requests across all customers	296	193	111	29	27	19

# (c)(1) Clinical Quality Measures (CQMs) - Record and Export, (c)(2) Clinical Quality Measures (CQMs) - Import and Calculate, and (c)(3) Clinical Quality Measures (CQMs) - Report

The following table outlines the test plan and findings for the (c)(1) Clinical Quality Measures (CQMs) - Record and Export, (c)(2) Clinical Quality Measures (CQMs) - Import and Calculate, and (c)(3) Clinical Quality Measures (CQMs) - Report criteria:

Testing Methodology/Method	The tester identifies customers who have enabled the CQM functionality within the EHR and run a query to determine the number of files generated across all measures supported by the EHR. eClinicalWorks recognizes that not all customers use the full functionality of the certification criteria made available in the EHR. If eClinicalWorks is unable to identify customers that use the (c)(1)-(3) criteria as defined in the regulation, then that will be reflected in the results report.
Metric Definition	(c)(1) Clinical Quality Measures (CQMs) - Record and Export:
	<ul> <li>Number of customers that enabled this functionality</li> </ul>
	<ul> <li>Number of customers who made requests for a QRDA I export</li> </ul>
	(c)(2) Clinical Quality Measures (CQMs) - Import and Calculate:
	<ul> <li>Number of customers that enabled this functionality</li> </ul>
	<ul> <li>Number of customers who made requests for a QRDA I import</li> </ul>
	(c)(3) Clinical Quality Measures (CQMs) - Report:
	<ul> <li>Number of customers that enabled this functionality</li> </ul>
	<ul> <li>Number of customers who made requests for a QRDA III export</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	Users are able to generate an export/import file for each clinical quality measure used by the customer.

Summary of Testing Methods and Key Findings	During the validation for (c)(1) criterion, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the number of practices which successfully enabled the QRDA I export for the given year. Out of the customers who enabled the QRDA I export, eClinicalWorks gathered the customers who made a successful QRDA I export each month for at least one export file created, which can consist of more than one measure. For (c)(2) criterion, eClinicalWorks gathered the number of practices which successfully enabled the QRDA I Import for the given year. Out of the customers who enabled the QRDA I import for the given year. Out of the customers who enabled the QRDA I Import, eClinicalWorks gathered the number of practices which successfully enabled the QRDA I Import for the given year. Out of the customers who enabled the QRDA I Import, eClinicalWorks gathered the customers who made a successful QRDA I Import each month for at least one export file created, which can consist of more than one measure. For (c)(3) criterion eClinicalWorks followed a similar approach; eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the QRDA III export for the given year. Out of the customers who enabled the QRDA I line export file created, which can consist of more than one measure. For (c)(3) criterion eClinicalWorks followed a similar approach; eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the number of practices which successfully enabled the QRDA III export for the given year. Out of the customers who enabled the QRDA III export, we gathered the customers who made a successful QRDA III export each month for at least one export file created, which can consist of more than one measure.
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## Transaction Counts for (c)(1):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of customers that enabled the QRDA I export	371	385	385	380	377	383	384	387	391	394	403	405
Total number of requests made for a QRDA I export	38	16	15	10	21	23	23	24	35	30	35	30

#### Transaction Counts for (c)(2):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of customers that enabled the QRDA I import	332	345	345	340	343	349	350	353	359	361	372	374
Total number of requests made for a QRDA l import	1	43	0	0	0	0	0	0	0	1	3	1

## Transaction Counts for (c)(3):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of customers that enabled the QRDA III export	522	541	541	528	526	533	537	537	540	542	546	549
Total number of requests made for a QRDA III export	89	114	23	0	0	1	3	0	4	4	5	3

## (e)(1) View, Download, and Transmit to Third-Party

The following table outlines the test plan and findings for the (e)(1) View, Download, and Transmit to Third-Party criterion:

Testing Methodology/Method	The tester will identify customers who have granted eClinicalWorks Patient Portal <sup>™</sup> access to their patients. The tester will run a query to determine the number of patients who accessed the eClinicalWorks Patient Portal and were able to view, download, or transmit their health information.
Metric Definition	<ul> <li>Total number of patients that have a Patient Portal account</li> <li>Total number of times patients viewed their health information through the Visit Summary</li> <li>Total number of times patients downloaded their health information</li> <li>Total number of times patients transmitted their health information to a third party using the Direct or email method</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	Patients are able to view, download, or transmit their health information using the eClinicalWorks Patient Portal.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the total number of times patients viewed their health information through Visit Summary, the total number of times patients downloaded their health information, and the total number of times patients transmitted their health information to a third party using Direct/email.
Relied Upon Software (if	healow®
applicable)	

## Transaction Counts for (e)(1):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
Total number of patients that have a Patient Portal account	150,428,821	129,588,894	129,750,540	129,750,540	131,540,778	128,017,739
Total number of times patients viewed their health information through the Visit Summary	919,163	711,328	799,823	724,949	740,279	695,120
Total number of times patients downloaded their health information	202,854	144,073	167,982	153,867	155,358	148,460
Total number of times patients transmitted their health information to a third-party using Direct/email	9,186	7,154	7,842	7,022	7,428	7,250

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Total number of patients that have a Patient Portal account	128,923,065	127,274,701	128,480,920	112,250,459	135,384,544	136,570,215
Total number of times patients viewed their health information through the Visit Summary	724,698	773,815	625,183	481,479	553,380	561,654
Total number of times patients downloaded their health information	157,498	173,784	137,752	102,376	128,162	136,374

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Total number of times patients	7,577	9,197	7,473	5,941	6,310	6,284
transmitted their health information to a third-party						
using Direct/email						

## (f)(1) Transmission to Immunization Registries

The following table outlines the test plan and findings for the (f)(1) Transmission to Immunization Registries criterion:

Testing Methodology/Method	The tester will identify customers who have implemented an immunization interface with a state registry. The tester will run a query to determine the number of VXU and QBP messages sent to an immunization registry.
Metric Definition	<ul> <li>Number of practices with a live immunization interface (either unidirectional (VXU) or bidirectional (QBP/RSP) interface)</li> <li>Number of VXU messages sent</li> <li>Number of QBP messages sent</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	Users are able to document immunizations and receive a response from the registry acknowledging that the VXU or QBP message was successfully received.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the multiple practices who are live with the immunization registry interface and in real time utilizes the interface to send the VXU and QBP messages outbound to the registry. During implementation of the interface, eClinicalWorks worked with registries on what value set data needs to be available in the message. Also, eClinicalWorks gathered the total number of monthly transactions of immunizations documented and immunization queries sent.

#### Transaction Counts for (f)(1):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
Number of practices with a live Immunization Interface	5,725	5,749	5,768	5,792	5,790	5,811
Number of VXU messages sent	2,102,830	1,677,577	2,527,073	1,517,546	1,719,192	1,556,486
Number of QBP messages sent	4,432,688	4,142,448	3,457,459	2,608,639	2,703,376	3,059,618

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Number of practices with a live Immunization Interface	5,819	5,823	5,821	5,831	5,834	5,834
Number of VXU messages sent	1,474,547	1,980,745	2,422,862	3,383,714	2,594,833	1,916,524
Number of QBP messages sent	2,129,474	3,550,208	2,365,923	4,679,670	3,588,422	2,639,937

## (f)(2) Transmission to Public Health Agencies - Syndromic Surveillance

The following table outlines the test plan and findings for the (f)(2) Transmission to Public Health Agencies - Syndromic Surveillance criterion:

Testing Methodology/Method	The tester will identify customers who have implemented a syndromic surveillance interface with a public health department. The tester will run a query to determine the number of ADT syndromic surveillance messages sent to a registry.
Metric Definition	<ul> <li>Number of practices with a live syndromic surveillance interface</li> </ul>
	<ul> <li>Number of ADT syndromic surveillance messages sent</li> </ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	As defined by the Metric Definition, syndromic surveillance messages transmitted to a registry are successfully received and acknowledged by a state registry.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs every 30 days. eClinicalWorks gathered the transactions from all practices with an active syndromic surveillance interface.

## Transaction Counts for (f)(2):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023
Number of ADT syndromic surveillance messages sent	246,284	217,469	127,200	100,301	233,096	279,889
Number of practices with a live syndromic surveillance interface	63	63	67	64	53	52

Metric Definition	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Number of ADT syndromic surveillance messages sent	254,160	344,533	343,872	354,411	357,488	349,331
Number of practices with a live syndromic surveillance interface	50	56	51	52	56	50

## (f)(7) Transmission to Public Health Agencies - Health Care Surveys

The following table outlines the test plan and findings for the (f)(7) Transmission to Public Health Agencies - Health Care Surveys criterion:

Testing Methodology/Method	eClinicalWorks does not support a live interface for the submission of health care surveys. eCW users generate the health care survey XML document from the EHR and manually submit it to the CDC's NHCS Secure Data Transfer portal. To test (f)(7), the tester will identify customers who have enabled the health care survey functionality within the EHR. The tester will run a query to determine the number of healthcare surveys generated on a monthly basis.
Metric Definition	Number of health care surveys generated.
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	Users can generate health care surveys that can be successfully submitted to the CDC's NHCS Secure Data Transfer portal.
Summary of Testing Methods and Key Findings	Our initial approach was to validate a single customer on the number of health care surveys generated by the customer, but during the validation, eClinicalWorks gathered from a larger sample of reports by running SQL scripts from production unique APU IDs and gathered the transactions of successful total number of health care surveys generated.

#### Transaction Counts for (f)(7):

Metric	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Definition	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Total number of APUs that generated a health care survey	3	1	16	11	11	5	2	3	3	4	5	9

## (g)(7) Application Access - Patient Selection

The following table outlines the test plan and findings for the (g)(7) Application Access - Patient Selection criterion:

Testing Methodology/Method	The tester will identify customers who have activated third-party API access for their EHR. The tester will run a query to determine the number of API calls that requested a patient ID according to the (g)(7) criterion.
Metric Definition	Number of API requests for a patient ID
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	Retrieval of patient IDs, which will be used in subsequent testing for (g)(8) and (g)(9).
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the number of practices who have activated third-party API access for their EHR and requested a patient ID through an API.
Relied Upon Software (if	healow
applicable)	

#### Transaction Counts for (g)(7):

Metric	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Definition	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Total number of API requests for all patient IDs	850	964	799	1,166	1,082	1,325	1,522	1,279	2,141	2,554	2,118	4,766

## (g)(8) Application Access - Data Category Request

The following table outlines the test plan and findings for the (g)(8) Application Access - Data Category Request criterion:

Testing Methodology/Method	The tester will identify customers who have activated third-party API access for their EHR. The tester will run a query to determine the number of API calls that requested a data category from the Common Clinical Data Set (CCDS).
Metric Definition	<ul> <li>Number of times a request was made for the following data categories in the CCDS:</li> <li>Demographics</li> <li>Smoking status</li> <li>Problems</li> <li>Medications</li> <li>Medication allergies</li> <li>Laboratory tests</li> <li>Laboratory values/results</li> <li>Vital signs</li> <li>Procedures</li> <li>Care team members</li> <li>Immunizations</li> <li>Unique device identifiers for a patient's implantable device</li> <li>Assessment and treatment plan</li> <li>Goals</li> </ul>
Care/Practice Settings	<ul> <li>Health concerns</li> <li>eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.</li> </ul>
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.
Expected Outcome	Retrieval of patient data from each data category request for each customer queried.

Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the number of API calls that requested a data category from the Common Clinical Data Set (CCDS).
Relied Upon Software (if applicable)	healow

## Transaction Counts for (g)(8):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Demographics	850	964	799	1,166	1,082	1,325	1,522	1,279	2,141	2,554	2,118	4,766
Smoking status	503	522	596	880	893	1,029	1,304	1,588	2,047	2,395	1,976	4,667
Problems	491	505	551	856	868	972	1,290	1,569	2,020	2,381	1,967	4,678
Medications	2,059	2,642	2,157	3,581	3,438	4,545	5,356	6,743	7,724	9,176	7,462	15,413
Medication allergies	521	544	620	890	908	1,052	1,321	1,601	2,038	2,408	2,005	4,683
Laboratory tests	14	22	10	24	14	16	16	12	7	9	29	3,029
Laboratory values/results	1,564	2,542	599	1,383	996	4,258	2,074	2,647	3,427	2,564	3,180	5,394
Vitals signs	519	537	599	885	901	1,063	1,325	1,600	2,039	2,404	2,005	4,674
Procedures	517	538	601	887	896	1,043	1,320	1,601	2,036	2,405	2,004	4,674
Care team members	16	20	43	42	36	60	21	26	13	14	35	3,030
Immunizations	519	539	607	903	918	1,049	1,322	1,601	2,038	2,406	2,007	4,679
Unique device identifiers for a patient's implantable devices	506	519	596	873	892	1,023	1,305	1,588	2,027	2,395	1,976	4,670

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Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023
Assessment and treatment plan	2	4	3	2	1	1	2	0	0	0	0	3,021
Goals	493	501	582	843	874	1,006	1,291	1,581	2,022	2,382	1,973	1,649
Health concerns	489	503	545	818	858	967	1,285	1,568	2,018	2,379	1,967	7,690

## (g)(9) Application Access - All Data Request

The following table outlines the test plan and findings for the (g)(9) Application Access - All Data Request criterion:

Testing Methodology/Method	The tester will identify customers who have activated third-party API access for their EHR. The tester will run a query to determine the number of API calls that requested all data categories from the Common Clinical Data Set (CCDS).
Metric Definition	Number of API requests for a patient's full set of CCDS data.
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	Retrieval of patient data from all data categories of the CCDS.
Summary of Testing Methods and Key Findings	During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the number of API requests for a patient's full set of CCDS data.
Relied Upon Software (if applicable)	healow

#### Transaction Counts for (g)(9):

Metric	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Definition	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
Total number of API requests for a patient's full set of CCDS data	19	50	127	47	17	435	73	122	119	148	35	3,061

## (g)(10) Standardized API for Patient and Population Services

The following table outlines the test plan and findings for the (g)(10) Standardized API for Patient and Population Services:

Testing Methodology/Method	The tester will identify customers who have activated third-party API access for their EHR. The tester will run a query to determine the number of API calls that requested the US Core profiles (IG 3.1.1).
Metric Definition	<ul> <li>Number of APUs that have activated the FHIR API module:         <ul> <li>Number of APUs that activated patient-centric APIs</li> <li>Number of APUs that activated provider-centric APIs</li> <li>Number of APUs that activated bulk/backend services APIs</li> </ul> </li> <li>Number of APUs that have configured third-party apps:         <ul> <li>Number of APUs that have configured apps for patients</li> <li>Number of APUs that have configured apps for providers</li> <li>Number of APUs that have configured apps for providers</li> <li>Number of APUs that have configured apps for bulk/backend services</li> </ul> </li></ul>
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.
Milestones	For a milestone timeline, refer to section 3. Milestones.
Expected Outcome	Retrieval of requested resources from all US Core 3.1.1. profiles as well as number of token requests for patient-facing and provider-facing apps.

	Summary of Testing Methods	During the validation, eClinicalWorks gathered monthly sample reports by running SQL
aı	and Key Findings	scripts from production unique APU IDs and gathered the number of API calls that requested
		a FHIR resource from the US Core IG (3.1.1).

#### Transaction Counts for (g)(10):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023
Number of APUs that activated patient-centric APIs	10	16	262	384	801	458	326	474	296	150	109	79
Number of APUs that activated provider-centric APIs	4	15	261	379	780	443	350	464	280	141	98	72
Number of APUs that activated bulk/backend services APIs	4	15	261	379	779	443	350	464	279	141	98	72
Number of APUs that have configured apps for patients	10	16	262	384	801	458	326	474	296	150	109	79
Number of APUs that have configured apps for providers	0	2	18	11	11	10	8	15	21	35	19	10
Number of APUs that have configured apps for bulk/backend services	0	2	18	11	11	10	8	15	20	35	19	10

## (h)(1) Direct Project

The following table outlines the test plan and findings for the (h)(1) Direct Project criterion:

Testing Methodology/Method	The tester will identify customers who have activated Direct Messaging within the EHR. The tester will run a query to determine the number of direct messages sent and received.							
Metric Definition	<ul><li>Number of messages sent</li><li>Number of messages received</li></ul>							
Care/Practice Settings	eClinicalWorks is an ONC-certified product designed to be used in a variety of ambulatory care settings. eClinicalWorks customers serve patients in a variety of ambulatory care settings. For the purposes of real world testing, eClinicalWorks will measure data from all settings in which the EHR is used.							
Milestones	For a detailed milestone timeline, refer to section 3. Milestones.							
Expected Outcome	Message successfully received with evidence of a successful round trip of a Direct message.							
Summary of Testing Methods and Key Findings	To successfully process an inbound or outbound message, the vendor HISP trust anchor must be bound to the domains supported by eClinicalWorks HISP. For outbound messages, a valid clinical summary document conforming to C-CDA format must be attached to the message. During the validation, eClinicalWorks gathered monthly sample reports by running SQL scripts from production unique APU IDs and gathered the transactions of the total number of messages sent and the total number of messages received.							

#### Transaction Counts for (h)(1):

Metric Definition	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023
Demilion	2025	2025	2025	2025	2025	2025	2025	2025	2025		2025	2025
Number of messages sent	105,502	106,243	Data not available	90,994	116,799	175,073	94,603	108,172	91,090	100,423	85,262	68,670
Number of messages received	817,957	724,962	Data not available	551,186	703,631	816,760	843,065	859,765	896,341	1,092,144	85,302	645,309

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