

2014 Edition Test Scenarios Development Overview

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Scenario-Based Testing in Review

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Overview

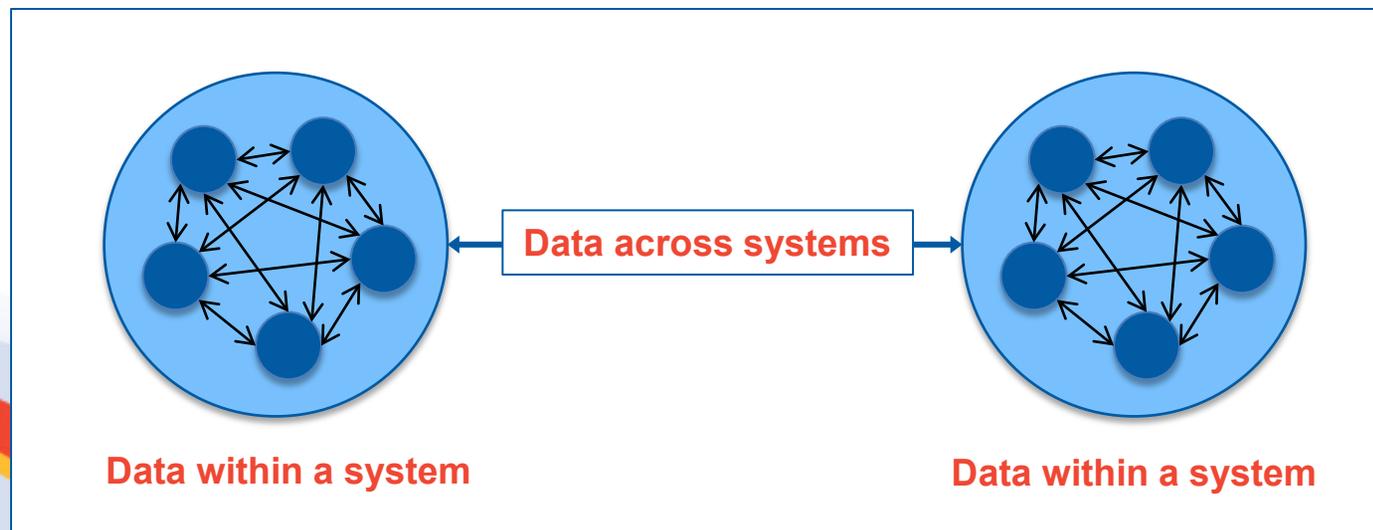
Group 1

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Next Steps

Scenario-based testing is intended to:

- Make testing **clinically plausible** (i.e. align with plausible clinical scenarios)
- Ensure ability to use **data across systems**
- Ensure ability to use **data within a system**
- **Increase value** of testing
- **Improve efficiency** of testing
- **Reduce setup** of testing
- Make testing **consistent** and **replicable**





Scenario-Based Testing Overview

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Overview

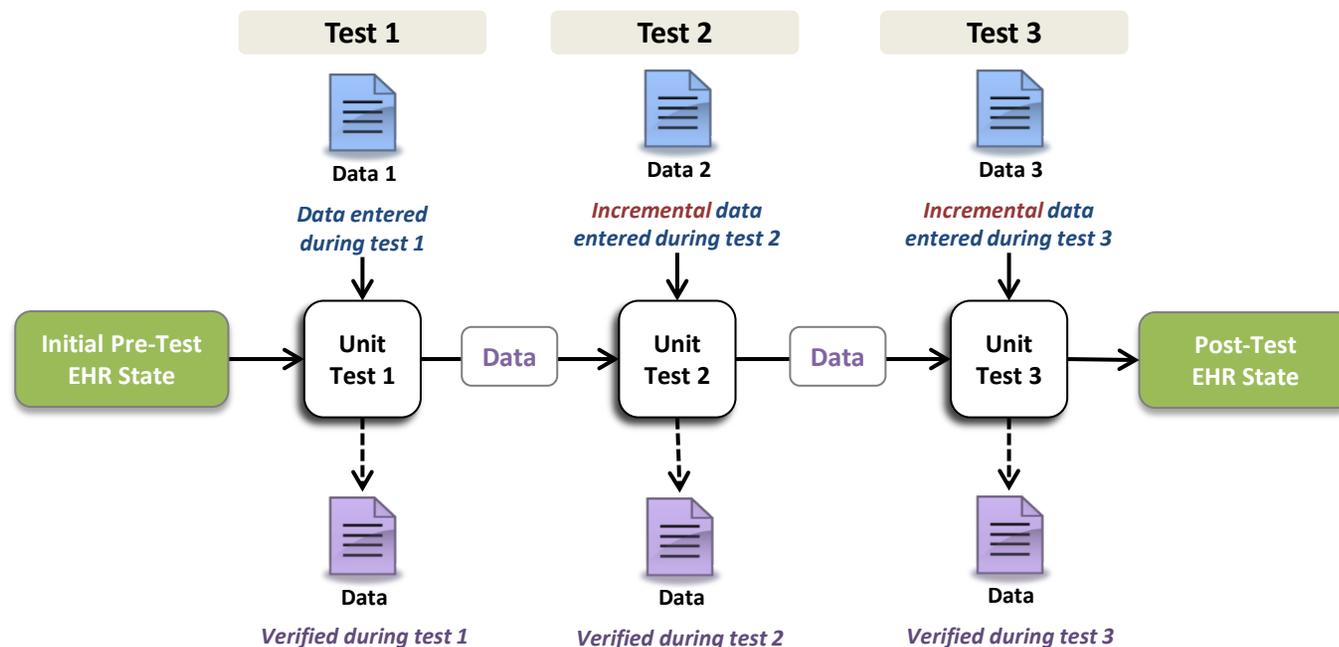
Group 1

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Next Steps

Scenario-based testing:

- Is an alternative (**optional**) **method** for the 2014 Edition Test Method
- Uses **dependent** tests with threaded test data (input) and result(s) (output)





Overview

Review

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Group 1

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Next Steps

Group 1		
#	Scenario Name	Criteria Included
1	Encounter: Intake	a3, a5, a6, a7, f1, a11, a13, a17, f5, a4
2	Encounter: Interoperability Intake	b1, b4
3	Encounter: Care Ordering	a1, a2, b3, a10, a16
4	Encounter: Care Results	a12, b5, a8, a15, a9, e2
5	Encounter: Post-Care	a14, b7, b6, e3, e1, b2
<i>Development: July – December 2013</i>		

Group 2		
#	Scenario Name	Criteria Included
6	Reporting	c1, c2, c3, f2, f3, f4, f6
7	Privacy & Security	d1, d2, d3, d4, d5, d6, d7, d8, d9
8	System	g1, g2, g3, g4
<i>Development: 2014</i>		



Overview: Group 1 Development Timeline

Review

Overview

Group 1

Group 2

Next Steps

ONC plans to develop the 2014 Edition Test Scenarios in **two groups**, the first of which will be developed this year.

Group 1	July	August	September	October	November	December
Development	[Bar]					
Draft Publication			[Star]			
Feedback	[Star]		[Bar]			
Revision				[Bar]		
Publication					[Star]	
Milestones	[Star] IWG Presentation (July 30)	[Star] Group 1 Draft Test Scenarios Posted (September 6)	[Star] Group 1 Feedback Ends (October 4)	[Star] Group 1 Final Test Scenarios Published (November 29)		



Overview: Goals

Review

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Group 1

Group 2

Next Steps

The 2014 Edition Test Scenarios will

- Be comprehensive: include **all** of the 2014 Edition EHR Certification Criteria in the two groups
- Be the first in a **library** of test scenarios

ONC requests feedback on the draft workflow, including scenario descriptions and outlines (criteria)

- Feedback on the criteria assignments by August 19
- Feedback on Group 1 draft test scenarios before October 4



Overview: Workflow Groups

Review

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Group 1

Group 2

Next Steps

ONC has drafted **a clinically-plausible workflow** to guide the development of the 2014 Edition Test Scenarios

- This workflow is intended to represent **one** way that **all** of the 2014 Edition EHR Certification Criteria could be included in a clinically-plausible workflow

The draft workflow includes **8** scenarios

Considerations:

- It does **not** represent the **only** way unit tests could be linked in a clinical workflow
- It does **not** imply anything about how providers should **use** CEHRT



Overview: Workflow Detail

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Group 1

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Next Steps

Group 1

Group 1 scenarios represent activities that are largely towards the clinical end of the spectrum and could be performed by members of the care team and/or patient

Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Encounter: Intake	Encounter: Interoperability Intake	Encounter: Care Ordering	Encounter: Care Results	Encounter: Post-Care

Development: July – December 2013

Group 2

Group 2 scenarios represent activities that are largely towards the administrative end of the spectrum and could be performed by administrative users

Scenario 6	Scenario 7	Scenario 8
Reporting	Privacy & Security	System

Development: 2014



Overview: Workflow Assumptions

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Next Steps

ONC has outlined what criteria could be included in each scenario

- In the outlines on the following slides, ONC assumes that testing will proceed sequentially through each scenario
- ONC will provide additional guidance for what additional criteria may be required if a scenario is not tested in sequence



Group 1: Scenarios

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Next Steps

Group 1 includes **five scenarios**

Group 1				
Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Encounter: Intake	Encounter: Interoperability Intake	Encounter: Care Ordering	Encounter: Care Results	Encounter: Post-Care
Actions which could be performed by any member of the care team or patient before the patient sees a provider.	Actions which could be taken to incorporate a summary of care document received from another provider or hospital before treating the patient.	Actions related to ordering care for the patient (medications, laboratory or imaging) during the care episode.	Actions related to the results of earlier care orders for the patient, provision of resources for the patient and provider, and visit notes.	Actions which could be performed after the encounter with the patient has ended, but are directly related to the provision of care to the specific patient, including the creation of summary of care records.
10 criteria	2 criteria	5 criteria	6 criteria	6 criteria

Group 1: Scenarios by Criteria



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Test Scenarios Overview
(Sorted by Alphanumeric)

#	Scenario	Criteria				
1	Encounter: Intake	(a)(3) Demographics (a)(4) Vital signs, body mass index, and growth charts (a)(5) Problem list (a)(6) Medication list (a)(7) Medication allergy list (a)(14) Smoking status (a)(13) Family health history (a)(17) Advance directives (Inpatient) (f)(1) Immunization information (f)(5) Cancer case information (Ambulatory & Optional)				
		2	Encounter: Interoperability Intake	(b)(1) Transitions of care: receive, display, and incorporate (b)(4) Clinical information reconciliation		
				3	Encounter: Care Ordering	(a)(1) Computerized provider order entry (a)(2) Drug-drug, drug-allergy interaction checks (a)(10) Drug-formulary checks (a)(16) Electronic medication administration record (Inpatient) (b)(3) Electronic prescribing
		4	Encounter: Care Results			(a)(8) Clinical decision support (a)(9) Electronic notes (a)(12) Image results (a)(15) Patient-specific education resources (b)(2) Incorporate laboratory test and value/results (c)(2) Clinical summary (Ambulatory)
						5
6	Reporting	(c)(1) Clinical quality measures – capture and export (c)(2) Clinical quality measures – import and calculate (c)(3) Clinical quality measures – electronic submission (f)(2) Transmission to immunization registries (f)(3) Transmission to public health agencies – syndromic surveillance (f)(4) Transmission of reportable laboratory tests and values/results (Inpatient) (f)(6) Transmission to cancer registries (Ambulatory & Optional)				
		7	Privacy & Security	(d)(1) Authentication, access control, and authorization (d)(2) Auditable events and tamper-resistance (d)(3) Audit reports (d)(4) Amendments (d)(5) Automatic log-off (d)(6) Emergency access (d)(7) End-user device encryption (d)(8) Integrity (e)(9) Accounting of disclosures (Optional)		
				8	System	(e)(1) Automated numerator recording (e)(2) Automated measure calculation (e)(3) Safety-enhanced design (e)(4) Quality management system

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Version 4 (Updated 6/26/2013)

#	Name	Criteria Included
1	Encounter: Intake	(a)(3) Demographics (a)(5) Problem list (a)(6) Medication list (a)(7) Medication allergy list (f)(1) Immunization information (a)(11) Smoking status (a)(13) Family health history (a)(17) Advance directives <i>(Inpatient)</i> (f)(5) Cancer case information <i>(Ambulatory & Optional)</i> (a)(4) Vital signs, body mass index, and growth charts
The criteria included above are sorted by the order in which they will be performed during the scenario		



Group 2: Scenarios

Review

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Group 1

Group 2

Next Steps

Group 2 includes **three scenarios**

Group 2		
Scenario 6	Scenario 7	Scenario 8
Reporting	Privacy & Security	System
Actions which relate to reporting to CMS and other bodies, and which could be performed by administrative users of the EHR.	Privacy and security requirements to be fulfilled by EHR systems.	Automated actions to be performed by EHR systems and actions related to system design.
7 criteria	9 criteria	4 criteria



Group 2: Scenarios by Criteria

Review

Overview

Group 1

Group 2

Next Steps

Group 2 will be developed in 2014, but ONC has already outlined what criteria could be included in each scenario

Test Scenarios Overview
(Sorted by Alphanumeric)

#	Scenario	Criteria
Clinical (Care Team and/or Patient)	1 Encounter: Intake	(a)(3) Demographics (a)(4) Vital signs, body mass index, and growth charts (a)(5) Problem list (a)(6) Medication list (a)(7) Medication allergy list (a)(11) Smoking status (a)(13) Family health history (a)(17) Advance directives (Inpatient) (f)(1) Immunization information (f)(3) Cancer case information (Ambulatory & Optional)
	2 Encounter: Interoperability Intake	(b)(1) Transitions of care: receive, display, and incorporate (b)(4) Clinical information reconciliation
	3 Encounter: Care Ordering	(a)(1) Computerized provider order entry (a)(2) Drug-drug, drug-allergy interaction checks (a)(4) Drug-formulary checks (a)(16) Electronic medication administration record (Inpatient) (b)(3) Electronic prescribing
	4 Encounter: Care Results	(a)(8) Clinical decision support (a)(9) Electronic notes (a)(12) Image results (a)(13) Patient-specific education resources (b)(5) Incorporate laboratory test and value/results (c)(2) Clinical summary (Ambulatory)
	5 Encounter: Post-Care	(a)(14) Patient list creation (b)(2) Transitions of care: create and transmit (b)(6) Transmission of electronic laboratory tests and values/results to ambulatory providers (Inpatient) (b)(7) Data portability (c)(1) View, download, and transmit to 3 rd party (c)(3) Secure messaging (Ambulatory)
Administrative (Administration)	6 Reporting	(c)(1) Clinical quality measures – capture and export (c)(2) Clinical quality measures – import and calculate (c)(3) Clinical quality measures – electronic submission (f)(2) Transmission to immunization registries (f)(3) Transmission to public health agencies – syndromic surveillance (f)(4) Transmission of reportable laboratory tests and values/results (Inpatient) (f)(6) Transmission to cancer registries (Ambulatory & Optional)
	7 Privacy & Security	(d)(1) Authentication, access control, and authorization (d)(2) Auditable events and tamper-resistance (d)(3) Audit report(s) (d)(4) Amendments (d)(5) Automatic log-off (d)(6) Emergency access (d)(7) End-user device encryption (d)(8) Integrity (d)(9) Accounting of disclosures (Optional)
	8 System	(g)(1) Automated numerator recording (g)(2) Automated measure calculation (g)(3) Safety-enhanced design (g)(4) Quality management system

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Version 4 (Updated 6/26/2013)

#	Name	Criteria Included
6	Reporting	(c)(1) Clinical quality measures – capture and export
		(c)(2) Clinical quality measures – import and calculate
		(c)(3) Clinical quality measures – electronic submission
		(f)(2) Transmission to immunization registries
		(f)(3) Transmission to public health agencies – syndromic surveillance
		(f)(4) Transmission of reportable laboratory tests and values/results (Inpatient)
		(f)(6) Transmission to cancer registries (Ambulatory & Optional)

The criteria included above are sorted by the order in which they will be performed during the scenario

Next Steps



Review

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Group 1

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Next Steps

August

- Feedback on scenario descriptions and outlines (criteria) to committee chairs before August 19 meeting
- Present the development overview to HITSC on August 22

September

- Draft test scenarios posted September 4
- Feedback on draft test scenarios to committee chairs before October 4
- Individual feedback may be submitted to ONC.Certification@hhs.gov; please include “2014 Edition Test Scenarios” in the subject line

October

- Feedback on draft test scenarios ends October 4