SOCIAL SECURITY ADMINISTRATION
EHEALTH EXCHANGE
INTEROPERABILITY GUIDE

VERSION 4.0

OCTOBER 2, 2017

TABLE OF CONTENTS

TABLE OF CONTENTS

1.0 Overview

1.1 PURPOSE

The purpose of this guide is to provide an overview of the eHealth Exchange (formerly known as the Nationwide Health Information Network Exchange) interoperability messaging that will occur between the Social Security Administration (SSA) and a Health Information Technology (HIT) partner. This document is intended to provide an understanding of the flow of web services transactions that are to be used and the information contained within those transactions.

1.2 INTENDED AUDIENCE

The primary audiences for this guide are the individuals responsible for implementing the software solution that will integrate with the Social Security Administration via the eHealth Exchange (eHex).

1.3 SPECIFICATIONS

In January 2010, the Office of the National Coordinator for Health Information Technology (ONC) released the Patient Discovery Web Service Interface Specifications v1.0 for the (formerly known as) NHIN. This specification can be found at the http://sequoiaproject.org/ site under the Initiatives/eHealth Exchange/Testing Program/Exchange Specifications section.

In July 2011, ONC released the Patient Discovery Web Service Interface Specifications v2.0 for the (formerly known as) NHIN, which includes Deferred Patient Discovery (DPD) requirements. This specification can be found at the http://sequoiaproject.org/ site under the Initiatives/eHealth Exchange/Testing Program/Exchange Specifications section.

The information contained within this document is based on both specifications.

1.3.1 Referenced eHex Specifications

- Access Consent Policies Production Specification v1.0, dated 01/29/2010
- Authorization Framework Production Specification v2.0, dated 01/29/2010
- Query for Documents Production Specification v2.0, dated 01/29/2010
- Retrieve Documents Production Specification v2.0, dated 01/29/2010
- Messaging Platform Production Specification v2.0, dated 01/29/2010
- Patient Discovery Production Specification v1.0, dated 01/29/2010
- Authorization Framework v3.0, dated 07/25/2011

- Query for Documents v3.0, dated 07/25/2011
- Retrieve Documents v3.0, dated 07/25/2011
- Messaging Platform v3.0, dated 07/25/2011
- Patient Discovery v2.0, dated 07/25/2011

1.4 DOCUMENT CONVENTIONS

The key words "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "MAY", and "NEED NOT" in this document are to be interpreted as described in the HL7 Version 3 Publishing Facilitator's Guide (http://www.hl7.org/v3ballot/html/help/pfg/pfg.htm).

1.5 TABLE OF FIGURES

2.0 Web Service Interfaces

The integration with the SSA via the eHex is comprised of the following four web service interfaces:

- Patient Discovery,
- Deferred Patient Discovery
- Query for Documents, and
- Retrieve Documents

2.1 PATIENT DISCOVERY

The Patient Discovery Web Service Interface adopted by the eHex is based on the Integrating the Healthcare Enterprise (IHE) Cross Community Patient Discovery (XCPD) profile, and, as the name implies, is used to discover if a patient is known within a HIE. HIT partners integrating with the SSA via the eHex **SHALL** implement this interface. The SSA eHex gateway will act as the requesting client with the HIT partner's gateway acting as the responding service. Details of the requirements related to this web service can be found in the Patient Discovery Production Specification v1.0.[1]

2.2 DEFERRED PATIENT DISCOVERY

The Deferred Patient Discovery Web Service Interface adopted by the eHex is also based on the IHE XCPD profile. HIT partners integrating with the SSA via the eHex **MAY** implement this interface. The SSA eHex gateway will act as the requesting client with the HIT partner's gateway acting as the responding service. Details of the requirements related to this web service can be found in the Patient Discovery Production Specification v2.0.[2]

2.3 QUERY FOR DOCUMENTS AND RETRIEVE DOCUMENTS

The Query for Documents and Retrieve Document Web Services Interfaces adopted by the eHex are based on the IHE Cross Community Access (XCA) and the Cross Enterprise Document Sharing (XDS.b) profiles. These interfaces are used to enumerate and retrieve patient-related documents. HIT partners integrating with the SSA via the eHex **SHALL** implement these interfaces. For these web services, the SSA eHex gateway will act as the requesting client with the HIT partner's gateway acting as the responding gateway. These services will be used to retrieve the patient's medical information after a patient is discovered to be known at the HIE.

[1] (Witting, Kernan, Heflin, Mallia, & Key, Nationwide Health Information Network Patient Discovery Web Service Interface Specification v1.0, 2010)

[2] (Witting, et al., Nationwide Health Information Network Patient Discovery Web Service Interface Specification v2.0, 2011)

The HIT partner's gateway will also act as a client of the Query for Documents and Retrieve Document web service interfaces that are hosted by the SSA eHex gateway. The SSA hosted services will be used by the HIT partner to retrieve the access consent policy that has been signed by the patient, or the patient's legal representative, which authorizes the SSA to retrieve the patient's medical records. In this scenario, the HIT partner gateway serves as the requesting gateway, with the SSA eHex gateway acting as the responder.

More information about these web services may be found in the Query for Documents[3][4] and Retrieve Documents[5][6] Production Specifications. For more information regarding the access consent policy document, please refer to the Access Consent section (7.0) in this document.

[3] (Schadow, et al., 2010)
[4] (Schadow, et al., Nationwide Health Information Network Query for Documents Web Service Interface Specification v3.0, 2011)
[5] (Schadow, et al., Nationwide Health Information Network Retrieve Documents Web Service Interface Specification v2.0, 2010)
[6] (Schadow, et al., Nationwide Health Information Network Retrieve Documents Web Service Interface Specification v3.0, 2011)

3.0 Messaging Requirements

3.1 BASE MESSAGING REQUIREMENTS

All messages sent between the SSA and HIT partner will be Simple Object Access Protocol (SOAP) 1.2 specification compliant and transmitted over HTTP/S using 2-way SSL authentication.
ONC has established a certificate authority and as part of the on-boarding process will provide the appropriate security certificates to the eHex participants. Please refer to the Messaging Platform Production Specification[78] for additional information regarding the base messaging requirements of the eHex.

3.2 WS-ADDRESSING AND ASYNCHRONOUS SUPPORT

All four web service interfaces, Patient Discovery, Deferred Patient Discovery, Query for Documents, and Retrieve Documents, require that service implementers (responding gateways) support both synchronous and asynchronous invocations of these web services, where the responding gateways behavior is determined by the SOAP Header <ReplyTo> element from the requesting gateways SOAP message.

[7] (Phadke, et al., 2010)
[8] (Phadke, et al., 2011)

4.0 Patient Discovery Message Sequencing

This section describes the sequencing of the Patient Discovery, Query for Documents, and Retrieve Document messages that comprise the integration with the SSA. The following diagram depicts the message sequence.

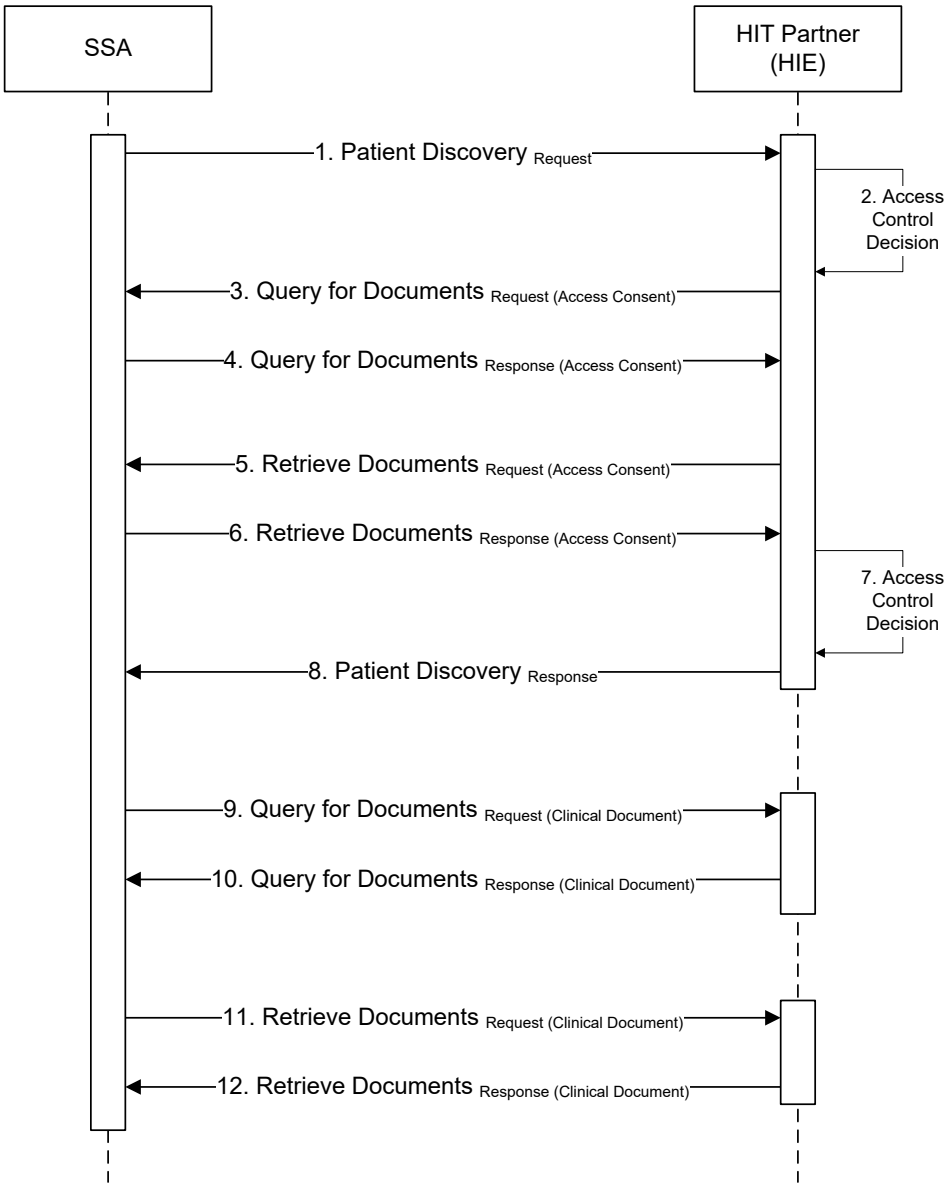

Figure 1: Patient Discovery messaging between the SSA and HIT partner

4.1 PATIENT DISCOVERY REQUEST

Figure 2 depicts Step 1 in the messaging sequence where the SSA sends the **Patient Discovery Request** message to the HIT partner.

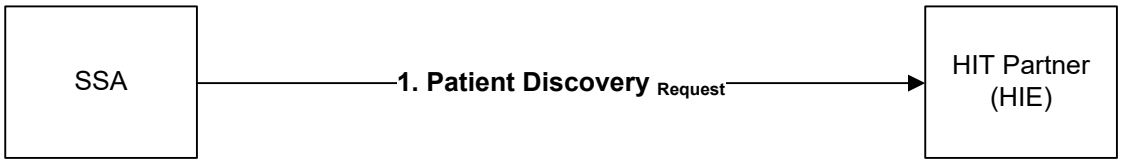

Figure 2: Patient Discovery Request

The Patient Discovery Request will include the following patient data:

- Name (first, middle, last)
- Gender
- Date of Birth
- Social Security Number
- Address
- Phone Number
- Email Address

The SSA uses the "Demographic Query only mode"[9] of the Patient Discovery transaction (only the demographics of the patient are included in the request and does not include a patient identifier in the body of the request). While the SAML assertion included in the Patient Discovery Request from the SSA will include a Patient Identifier (see Section 6.7), this identifier is only intended for supporting the privacy policy retrieval and **SHALL** not be used for creating a patient correlation.

The MinimumDegreeMatch element in the request will be set to 100, the highest value defined, to indicate that the responder should have the highest confidence in their patient match response.

Additional information about the SAML assertion can be found in the SSA Security Assertion section 6.0 of this document.

[9] (Witting, Kernan, Heflin, Mallia, & Key, Nationwide Health Information Network Patient Discovery Web Service Interface Specification v1.0, 2010)

4.2 INITIAL ACCESS CONTROL DECISION

Figure 3 depicts the Step 2 in the sequence where the HIT partner performs the **initial security evaluation**.

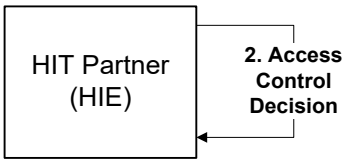

Figure 3: Initial Access Control Decision

The HIT partner evaluates the SAML assertion information, source organization, purpose of use, role, and asserted privacy policies and takes a decision whether to act upon the SSA Patient Discovery request.

If the HIT partner does not accept the SAML assertion statements, the HIT partner **SHOULD** return an HTTP Error 403 Forbidden error code and include a reason for the refusal.

4.3 QUERY FOR DOCUMENTS REQUEST (FOR ACCESS CONSENT)

Figure 4 depicts Step 3 in the messaging sequence where the HIT partner sends a **Query for Documents Request** message to the SSA.

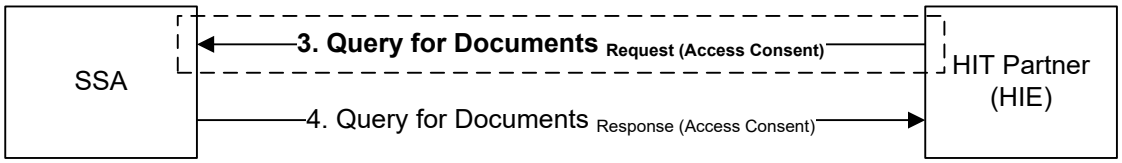

Figure 4: Query for Documents Request

When issuing the Query for Documents Request message to the SSA, the HIT partner **SHALL** set the value of the patient identifier in the Query for Documents Request message to the Patient Identifier value (see Section 6.7) that was included in the SAML assertion of the Patient Discovery Request (Section 4.1) from the SSA.

$XDSDocumentEntryPatientId **SHALL** be populated with the Patient Identifier value that was included in the SAML assertion of the Patient Discovery Request from the SSA.

$XDSDocumentEntryStatus **SHALL** be populated with 'urn:oasis:names:tc:ebxml-regrep:StatusType:Approved'

$XDSDocumentEntryClassCode **MAY** be populated with the LOINC code of 57016-8

$XDSDocumentEntryEventCodeList **SHALL** be populated with the InstanceAccessPolicy value (see Section 6.8) that is included in the SAML assertion authorization decision statement of the Patient Discovery request from SSA.

4.4 QUERY FOR DOCUMENTS RESPONSE (FOR ACCESS CONSENT)

Figure 5 depicts Step 4 in the messaging sequence where the SSA sends a **Query for Documents Response** message to the HIT partner.

Figure 5: Query for Documents Response

The Query for Documents Response will contain the list of access consent policies that can be retrieved for the patient. Since the SSA is not a supplier of health data, this list will only include access consent policy documents that can be retrieved by the HIT partner. Please note that an access consent policy may be available in multiple formats and the HIT partner should ensure that they retrieve the document format that is most compatible with their system.

The following table contains a sample of the XDS metadata values that the HIT partner can expect to receive from the SSA.

XDS Metadata	Value
availabilityStatus	urn:oasis:names:tc:ebxml-regrep:StatusType:Approved
classCode	57016-8 (LOINC)
classCode DisplayName	Privacy Policy Acknowledgement
confidentialityCode	N (Normal)
formatCode	urn:ihe:iti:bppc-sd:2007
formatCode codeSystem	1.3.6.1.4.1.19376.1.2.3

healthcareFacilityTypeCode	385432009 (SNOMED CT code for Not Applicable)
mimeType	text/xml
practiceSettingCode	385432009 (SNOMED CT code for Not Applicable)
serviceStartTime	Effective start date of privacy policy (authorization)
serviceStopTime	Effective end date of privacy policy (authorization)
Title	AUTHORIZATION TO DISCLOSE INFORMATION TO THE SOCIAL SECURITY ADMINISTRATION

Table 1: Access Consent Policy XDS Metadata

4.5 RETRIEVE DOCUMENTS REQUEST (FOR ACCESS CONSENT)

Figure 6 depicts Step 5 in the messaging sequence where the HIT partner sends a **Retrieve Document Request** message to the SSA to retrieve access consent policy documents.

Figure 6: Retrieve Document Request

The request message will use the information that was returned in the previous step, Query for Documents Response for Access Consent Policy (Section 4.4). The ability to retrieve the access consent policy document will be valid throughout the complete transaction sequence between the SSA and HIT partner. Once the SSA has received the last Retrieve Documents Response message, the ability to retrieve to the access consent policy will no longer be allowed.

4.6 RETRIEVE DOCUMENTS RESPONSE (FOR ACCESS CONSENT)

Figure 6 depicts Step 5 in the messaging sequence where the SSA sends a **Retrieve Document Response** message to the HIT partner.

Figure 7: Retrieve Document Response

The SSA will respond with the access consent policy document (Authorization to Release Information) identified in the Retrieve Documents Request message. Please refer to the Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Basic Patient Privacy Consents (BPPC) Integration Profile Trial Implementation for additional information regarding the document structure.[10]

4.7 FINAL ACCESS CONTROL DECISION

Figure 8 depicts Step 7 in the messaging sequence where the HIT partner makes the final **access control decision**.

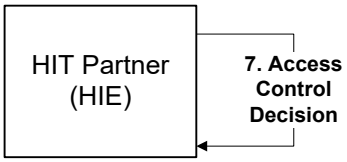

Figure 8: Final Access Control Decision

During this step, the HIT partner reviews the access consent policy (authorization to release information) obtained in the previous step, Retrieve Document Request for Access Consent Policy (Section 4.6), and based on the HIT partner's state and local policies, takes a decision regarding whether they will accept the policy and allow for the release of medical information. If the HIT partner accepts the policy, the HIT partner should establish the necessary security permissions to enable the SSA to retrieve the patient medical information. The HIT partner **SHOULD** use the access consent policy identifier as a reference mechanism when establishing the permissions for the SSA. This will prevent the HIT partner from having to retrieve the access consent policy document on each request message from the SSA.

[10] (IHE International, Inc., 2013)

4.8 PATIENT DISCOVERY RESPONSE

Figure 9 depicts Step 8 in the messaging sequence where the HIT partner sends a **Patient Discovery Response** message to the SSA.

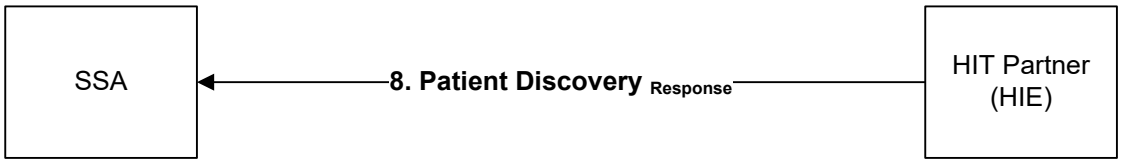

Figure 9: Patient Discovery Response

If the patient discovery query results in no matches, the HIT partner should return an empty result set per the specification.

If the patient discovery request results in an ambiguous match, the HIT partner should return an empty result set, as the ambiguous match most likely does not meet the MinimumDegreeMatch requirements of the request.[11] When ambiguous matches are close, the HIT Partner may use a response code of 'AnswerNotAvailable'.[12]

If the patient query results in an unambiguous match for the HIT partner, in addition to returning the HIT partner identifier for the patient, the HIT partner **SHOULD** return the patient demographics from their system that the HIT partner matched on. Providing the patient demographics in the response enables the requester (the SSA) to apply their own patient matching algorithms to ensure the quality of the results, and reduce the possibility of a false-positive match.

4.9 QUERY FOR DOCUMENTS REQUEST (FOR CLINICAL DOCUMENT)

Figure 10 depicts Step 9 in the messaging sequence where the SSA sends a **Query for Documents Request** message to the HIT partner.

[11] Refer to section 4.1

[12] (Witting, Kernan, Heflin, Mallia, & Key, Nationwide Health Information Network Patient Discovery Web Service Interface Specification v1.0, 2010)

Figure 10: Query for Documents Request

The SSA will initiate a Query for Documents Request message for each of the patient identifiers that were returned in the Patient Discovery Response message (Section 4.8).

The HIT partner **SHALL** support queries based on the following parameters (slots):

$XDSDocumentEntryFormatCode
$XDSDocumentEntryPatientId
$XDSDocumentEntryServiceStartTimeFrom
$XDSDocumentEntryServiceStartTimeTo
$XDSDocumentEntryServiceStopTimeFrom
$XDSDocumentEntryServiceStopTimeTo
$XDSDocumentEntryStatus

Section 4.9.1 provides guidance on the usage of the above date range parameters.

For HIT partners that support dynamic creation of documents, the partner **SHALL** explicitly look for queries where the $XDSDocumentEntryStatus is set to a value of 'urn:ihe:iti:2010:StatusCode:DeferredCreation'. In this situation, the document data **SHALL** honor the service start and stop time values, if they are specified in the request. Section 4.9.2 provides guidance on the usage of the above parameters during dynamic creation of documents.

For HIT partners that support a repository of static documents, the partner **SHALL** explicitly look for queries where the $XDSDocumentEntryStatus is set to a value of 'urn:ihe:iti:2010:StatusCode:Active'. In this situation, the list of available documents **SHALL** honor the service start and stop time values, if they are specified in the request.

NOTE: Empty strings in a query **SHALL** be treated as being equal to NULL or empty value, which is not the same as an unspecified value.

4.9.1 Query for Documents Request – Date Range Guidance

The IHE XCA/XDS specifications that are used as a basis for the Query for Documents Production Specification provide for the ability to specify various attributes as part of the query that can be used to filter the resulting information to be returned.

While the specification requires support for filtering using any of these attributes, the Social Security Administration eHealth Exchange Interoperability Guide v3.0 explicitly mentions the use of the following:

- $XDSDocumentEntryFormatCode
- $XDSDocumentEntryPatientId
- $XDSDocumentEntryServiceStartTimeFrom
- $XDSDocumentEntryServiceStartTimeTo
- $XDSDocumentEntryServiceStopTimeFrom
- $XDSDocumentEntryServiceStopTimeTo
- $XDSDocumentEntryStatus

For the query attributes enumerated above, the Social Security Administration has received numerous questions regarding the support for the service start and stop time attributes.
Per the IHE Specification, these attributes are not required in the query for documents, however, when values are specified, the evaluation will use an inclusive comparison. The logic for this comparison operation can be expressed as follows:

$XDSDocumentEntryServiceStartTimeFrom <= XDSDocumentEntry.serviceStartTime <= $XDSDocumentEntryServiceStartTimeTo

$XDSDocumentEntryServiceStopTimeFrom <= XDSDocumentEntry.serviceStopTime <= $XDSDocumentEntryServiceStopTimeTo

NOTE: While the above comparison logic uses all four attributes, it is possible to express a Query for Documents transaction criteria using any permutation of these attributes.

Date Attributes Usage Illustrated

Figure 11 (below) depicts six in-patient encounters of varying durations. Each encounter is assumed to have a service start time and a service stop time, where the bisecting lines A and B will be used to demonstrate various scenarios start and stop time query attributes.

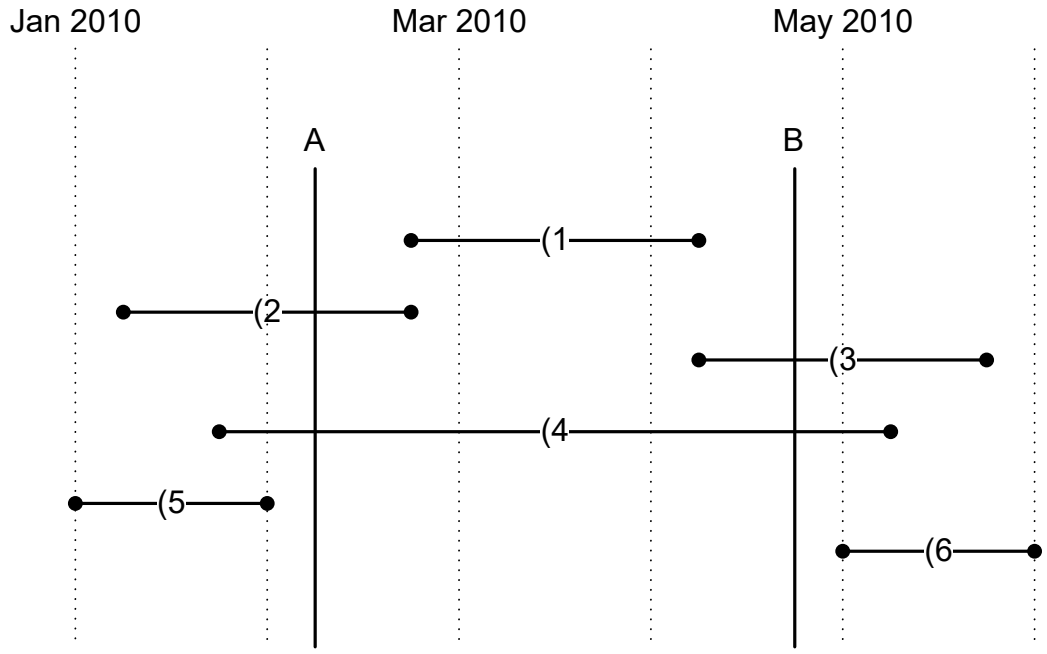

Figure 11: Date Attributes Usage

Given an XCA/XDS-based repository that contains documents for the encounters depicted above, Figure 11 depicts some of the scenarios that are possible regarding how the use of the service start/stop to and from attributes may be applied to affect which XDS Document Entries will be returned. Dates for encounters represented in Figure 11 can be found in Table 2.

Scenario	Service StartTime From	Service StartTime To	Service StopTime From	Service StopTime To	Criteria	Result Set
1	A				A <= serviceStartTime	1, 3, 6
2	A	B			A <= serviceStartTime AND serviceStartTime <= B	1, 3
3	A		B		A <= serviceStartTime AND B <= serviceStopTime	3,6
4	A			B	A <= serviceStartTime AND serviceStopTime <= B	1
5			A		A <= serviceStopTime	1,2,3,4,6

6	B				B <= serviceStartTime	6
7			B		B <= serviceStopTime	3,4,6
8	B		A		A <= serviceStopTime AND serviceStartTime <= B	1,2,3,4

Table 2: Date Attribute Scenarios

To further demonstrate the behavior, Table 3 (below) enumerates the dates for the encounters depicted in Figure 11.

	Service Start Time	Service End Time
Encounter 1	2/21/2010	4/7/2010
Encounter 2	1/7/2010	2/21/2010
Encounter 3	4/7/2010	5/21/2010
Encounter 4	1/21/2010	5/7/2010
Encounter 5	1/1/2010	2/1/2010
Encounter 6	5/1/2010	6/1/2010

Table 3: Encounter Date Scenarios

Using February 7, 2010 for query parameter A, and April 21, 2010 for query parameter B, Table 4 (below) is a translation of Table 2 given the dates in Table 3.

Scenario	Criteria	Description	Result Set
1	2/7/2010 <= serviceStartTime	All records whose service start time is greater than or equal to 2/7/2010	1, 3, 6
2	2/7/2010 <= serviceStartTime AND serviceStartTime <= 4/21/2010	All records whose service start time is greater than or equal to 2/7/2010 AND whose service start time is less than or equal to 4/21/2010	1, 3
3	2/7/2010 <= serviceStartTime AND 4/21/2010 <= serviceStopTime	All records whose service start time is greater than or equal to 2/7/2010 AND whose service stop time is greater than or equal to 4/21/2010	3,6
4	2/7/2010 <= serviceStartTime AND serviceStopTime <= 4/21/2010	All records whose service start time is greater than or equal to 2/7/2010 AND whose service stop time is less than or equal to 4/21/2010	1

5	2/7/2010 <= serviceStopTime	All records whose service stop time is greater than or equal to 2/7/2010	1,2,3,4,6
6	4/21/2010 <= serviceStartTime	All records whose service start time is greater than or equal to 4/21/2010	6
7	4/21/2010 <= serviceStopTime	All records whose service stop time is less than or equal to 4/21/2010	3,4,6
8	2/7/2010 <= serviceStopTime AND serviceStartTime <= 4/21/2010	All records whose service stop time is greater than or equal to 2/7/2010 AND whose service start time is less than or equal to 4/21/2010	1,2,3,4

Table 4

While there are many more permutations that can be expressed using the service start time and service stop time attributes, scenarios 5 and 8 are most pertinent to the SSA use case.

4.9.2 Query for Documents Request – On Demand Parameter Guidance

The IHE specifications, which serve as the basis for the Query for Documents and Retrieve Documents specifications, are based on the concept of a static document repository. The NHIN expanded the IHE specifications to enable support for documents generated at request time. Related to this capability to generate documents on-demand, the Social Security Administration has received questions regarding the requirement to support the optional Query for Documents parameters, and in particular, the parameters that enable a requester, the SSA, to specify the service start and stop time ranges. Examples of the questions are:

- How does the requested date range apply to each section within a CDA/CCDA-based structured document?

- Should a CDA/CCDA-based structured document be returned if there is allergy information for the patient but no healthcare activity during the timeframe?

To answer these questions, it may help to better understand the XDS attributes and their meanings according to the underlying specifications.

Per the IHE Patient Care Coordination and IT Infrastructure Technical Framework specifications:

- The XDS serviceStartTime and serviceStopTime attributes should be populated from the serviceEvent effectiveTime element from the CDA/CCDA-based document header.[13][14]

Per the HL7 Clinical Document Architecture specification:[15]

- The serviceEvent effectiveTime element can be used to indicate the time the actual event (i.e. – the healthcare service/act) took place. Examples of healthcare services/acts include the act of performing a colonoscopy or appendectomy, the act of taking a History and Physical, the act of reporting a lab result, the act of recording a discharge summary, etc.

Per the HL7 Continuity of Care Document specification:[16]

- The serviceEvent effectiveTime is used to indicate the duration over which the care being documented in the CCD was provided, and that it is possible to include additional information in the CCD, from outside this time range if it is relevant to care provided during that time range. The example provided in the specification, is information that was reviewed during the stated CCD time range.

In addition, per the HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1:[17]

- The serviceEvent represents the main act being documented. The duration of the main act being performed SHALL be provided in the effectiveTime element.

Also, per the HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm) Draft Standard for Trial Use Release 2.1:

- A serviceEvent represents the main act being documented, such as a colonoscopy or a cardiac stress study. In a provision of healthcare serviceEvent, the care providers, PCP, or other longitudinal providers, are recorded within the serviceEvent.[18]

With that stated, it should be possible to apply these specification definitions to the problem of generating a CDA/CCDA-based document on-demand, but limiting the content to the timeframe specified in the query for documents service start and stop time parameters.

[13] (IHE International, Inc., 2013)
[14] (IHE International, Inc., 2013)
[15] (Dolin, MD, et al., 2005)
[16] (Dolin, MD, et al., 2007)
[17] (Marquard, et al., 2012)
[18] (Geimer, et al., 2015)

If there were any healthcare activities during the timeframe, then the CDA/CCDA-based document should be generated with those healthcare service/acts, and any clinically relevant information that may have been asserted to, from prior to that time range should also be reported. Examples of sections that might be considered clinically relevant would be allergies, medications, or problems. It should be noted that this list is not exhaustive.

4.10 QUERY FOR DOCUMENTS RESPONSE (FOR CLINICAL DOCUMENT)

Figure 12 depicts Step 10 in the messaging sequence where the HIT partner sends the **Query for Documents Response** message to the SSA.

Figure 12: Query for Documents Response

The response message contains the list of electronic medical record documents that the SSA can retrieve.

4.11 RETRIEVE DOCUMENTS REQUEST (FOR CLINICAL DOCUMENT)

Figure 13 depicts Step 11 in the messaging sequence where the SSA sends **Retrieve Document Request** message to the HIT partner.

Figure 13: Retrieve Document Request

The SSA will send a Retrieve Document Request message for each of the document references that were returned to the SSA in the Query for Documents response message.

4.12 RETRIEVE DOCUMENTS RESPONSE (FOR CLINICAL DOCUMENT)

Figure 14 depicts Step 12 in the messaging sequence where the HIT partner sends **Retrieve Document Response** message to the SSA.

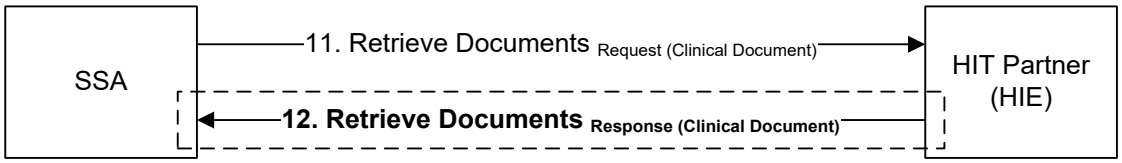

Figure 14: Retrieve Document Response

The response message contains the requested document.

5.0 Deferred Patient Discovery Messaging Sequence

This section describes the sequencing of the Deferred Patient Discovery, Query for Documents, and Retrieve Document messages that comprise the integration with the SSA. The following diagram depicts the message sequence.

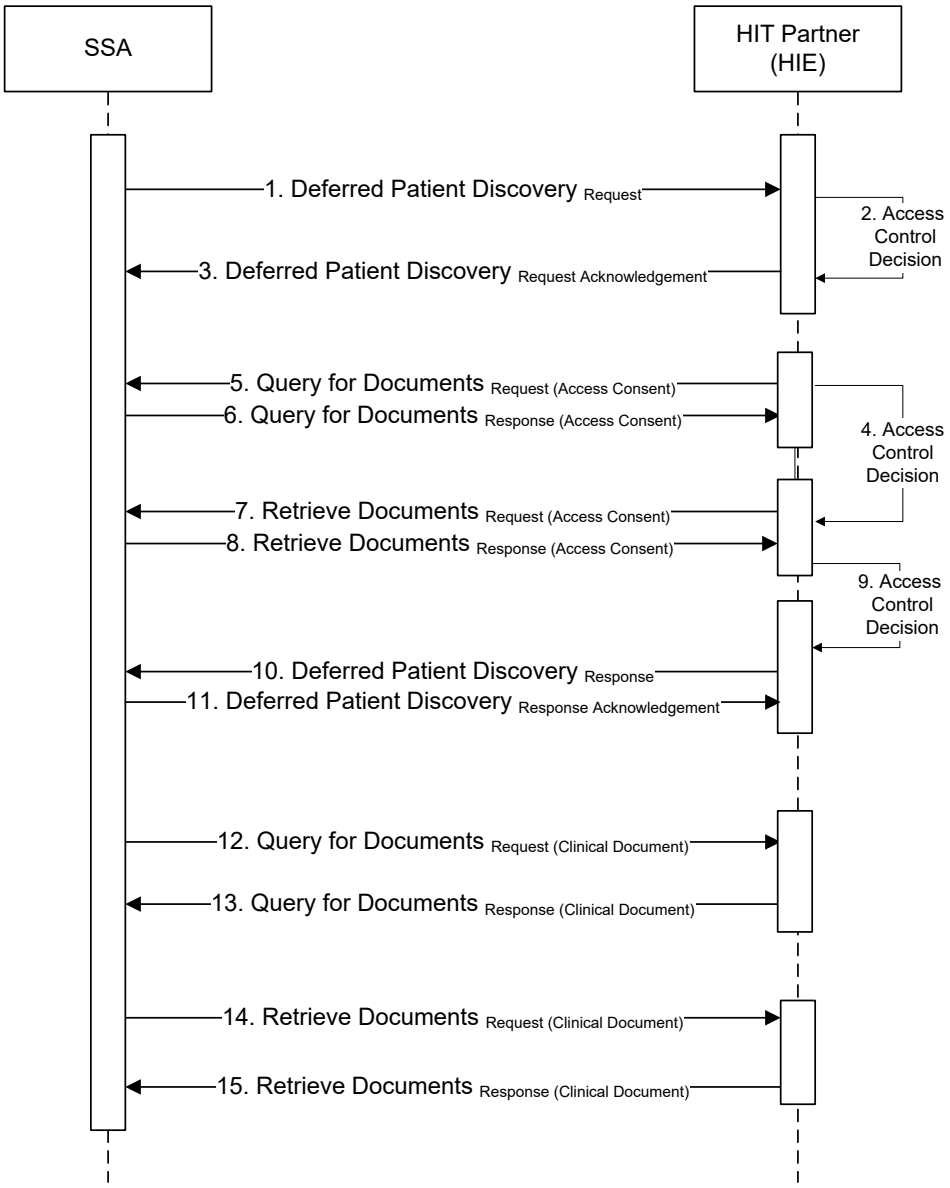

Figure 15: Deferred Patient Discovery messaging between the SSA and HIT partner

5.1 DEFERRED PATIENT DISCOVERY REQUEST

Figure 16 depicts Step 1 in the messaging sequence where the SSA sends the **Deferred Patient Discovery Request** message to the HIT partner (HIE).

Figure 16: Deferred Patient Discovery Request

The Deferred Patient Discovery Request will include the following patient data:

- Name (first, middle, last)
- Gender
- Date of Birth
- Social Security Number
- Address
- Phone Number
- Email Address

The SSA uses the "Demographic Query only mode"[19] of the Deferred Patient Discovery transaction (only the demographics of the patient are included in the request and does not include a patient identifier in the body of the request). While the SAML assertion included in the Deferred Patient Discovery Request from the SSA will include a Patient Identifier (see Section 6.7), this identifier is only intended for supporting the privacy policy retrieval and **SHALL** not be used for creating a patient correlation.

The MinimumDegreeMatch element in the request will be set to 100, the highest value defined, to indicate that the responder should have the highest confidence in their patient match response.

Additional information about the SAML assertion can be found in the SSA Security Assertion section 6.0 of this document.

[19] (Witting, et al., Nationwide Health Information Network Patient Discovery Web Service Interface Specification v2.0, 2011)

5.2 INITIAL ACCESS CONTROL DECISION

Figure 17 depicts the Step 2 in the sequence where the HIT partner performs the **initial security evaluation**.

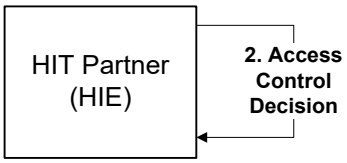

Figure 17: Initial Access Control Decision

The HIT partner evaluates the SAML assertion information, source organization, purpose of use, role, and asserted privacy policies and takes a decision whether to act upon the SSA Deferred Patient Discovery Request.

If the HIT partner does not accept the SAML assertion statements, the HIT partner **SHOULD** return an HTTP Error 403 Forbidden error code and include a reason for the refusal.

5.3 DEFERRED PATIENT DISCOVERY REQUEST ACKNOWLEDGEMENT

Figure 18 depicts Step 3 in the messaging sequence where the HIT partner sends a **Deferred Patient Discovery Request Acknowledgement** message to the SSA.

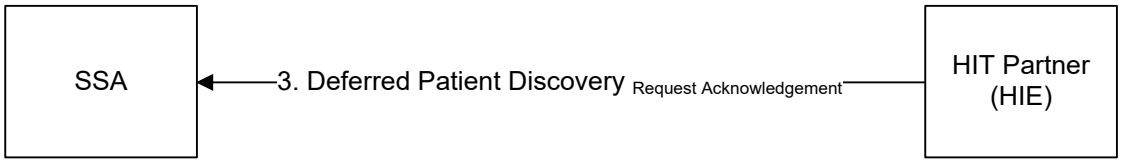

Figure 18: Deferred Patient Discovery Request Acknowledgement

5.4 SECOND ACCESS CONTROL DECISION

Figure 19 depicts the Step 4 in the sequence where the HIT partner performs the **second security evaluation**.

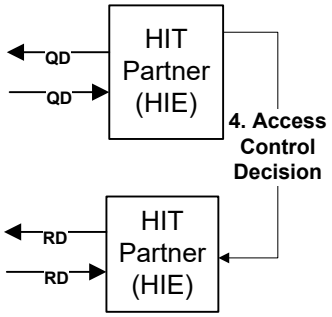

Figure 19: Second Access Control Decision

5.5 QUERY FOR DOCUMENTS REQUEST (FOR ACCESS CONSENT)

Figure 20 depicts Step 5 in the messaging sequence where the HIT partner sends a **Query for Documents Request** message to the SSA.

Figure 20: Query for Documents Request

When issuing the Query for Documents Request message to the SSA, the HIT partner **SHALL** set the value of the patient identifier in the Query for Documents request message to the Patient Identifier value (see Section 6.7) that was included in the SAML assertion of the Deferred Patient Discovery Request (Section 4.1) from the SSA.

$XDSDocumentEntryPatientId **SHALL** be populated with the Patient Identifier value that was included in the SAML assertion of the Patient Discovery request from the SSA.

$XDSDocumentEntryStatus **SHALL** be populated with 'urn:oasis:names:tc:ebxml-regrep:StatusType:Approved'

$XDSDocumentEntryClassCode **MAY** be populated with the LOINC code of 57016-8

$XDSDocumentEntryEventCodeList **SHALL** be populated with the InstanceAccessPolicy value (see Section 6.8) that is included in the SAML assertion authorization decision statement of the Patient Discovery request from SSA.

5.6 QUERY FOR DOCUMENTS RESPONSE (FOR ACCESS CONSENT)

Figure 21 depicts Step 6 in the messaging sequence where the SSA sends a **Query for Documents Response** message to the HIT partner.

Figure 21: Query for Documents Response

The Query for Documents Response will contain the list of access consent policies that can be retrieved for the patient. Since the SSA is not a supplier of health data, this list will only include access consent policy documents that can be retrieved by the HIT partner. Please note that an access consent policy may be available in multiple formats and the HIT partner should ensure that they retrieve the document format that is most compatible with their system.

The following table contains a sample of the XDS metadata values that the HIT partner can expect to receive from the SSA.

XDS Metadata	Value
availabilityStatus	urn:oasis:names:tc:ebxml-regrep:StatusType:Approved
classCode	57016-8 (LOINC)
classCode DisplayName	Privacy Policy Acknowledgement
confidentialityCode	N (Normal)
formatCode	urn:ihe:iti:bppc-sd:2007
formatCode codeSystem	1.3.6.1.4.1.19376.1.2.3

healthcareFacilityTypeCode	385432009 (SNOMED CT code for Not Applicable)
mimeType	text/xml
practiceSettingCode	385432009 (SNOMED CT code for Not Applicable)
serviceStartTime	Effective start date of privacy policy (authorization)
serviceStopTime	Effective end date of privacy policy (authorization)
Title	AUTHORIZATION TO DISCLOSE INFORMATION TO THE SOCIAL SECURITY ADMINISTRATION

Table 5: Access Consent Policy XDS Metadata

5.7 RETRIEVE DOCUMENTS REQUEST (FOR ACCESS CONSENT)

Figure 22 depicts Step 7 in the messaging sequence where the HIT partner sends a **Retrieve Documents Request** message to the SSA to retrieve access consent policy documents.

Figure 22: Retrieve Documents Request

The request message will use the information that was returned in the previous step, Query for Documents Response for Access Consent Policy (Section 5.5). The ability to retrieve the access consent policy document will be valid throughout the complete transaction sequence between the SSA and HIT partner. Once the SSA has received the last Retrieve Documents Response message, the ability to retrieve to the access consent policy will no longer be allowed.

5.8 RETRIEVE DOCUMENTS RESPONSE (FOR ACCESS CONSENT)

Figure 23 depicts Step 8 in the messaging sequence where the SSA sends **Retrieve Documents Response** message to the HIT partner.

Figure 23: Retrieve Document Response

The SSA will respond with the access consent policy document (Authorization to Release Information) identified in the Retrieve Documents Request message. Please refer to the Integrating the Healthcare Enterprise (IHE) IT Infrastructure Technical Framework (ITI-TF) Basic Patient Privacy Consents (BPPC) Integration Profile Trial Implementation for additional information regarding the document structure.[20]

5.9 FINAL ACCESS CONTROL DECISION

Figure 24 depicts the Step 9 in the sequence where the HIT partner performs the **final security evaluation**.

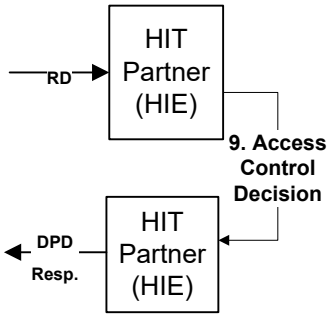

Figure 24: Final Access Control Decision

The HIT partner evaluates the SAML assertion information, source organization, purpose of use, role, and asserted privacy policies and takes a decision whether to act upon the SSA Patient Discovery Request.

If the HIT partner does not accept the SAML assertion statements, the HIT partner **SHOULD** return an HTTP Error 403 Forbidden error code and include a reason for the refusal.

[20] (IHE International, Inc., 2013)

5.10 DEFERRED PATIENT DISCOVERY RESPONSE

Figure 25 depicts Step 10 in the messaging sequence where the HIT partner (HIE) sends the **Deferred Patient Discovery Response** message to the SSA.

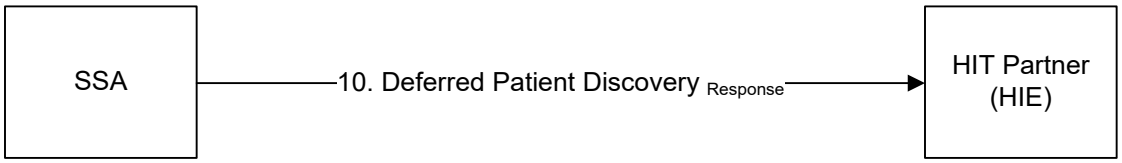

Figure 25: Deferred Patient Discovery Response

5.11 DEFERRED PATIENT DISCOVERY RESPONSE ACKNOWLEDGEMENT

Figure 26 depicts Step 11 in the messaging sequence where the HIT partner (HIE) sends a **Deferred Patient Discovery Request Acknowledgement** message to the SSA.

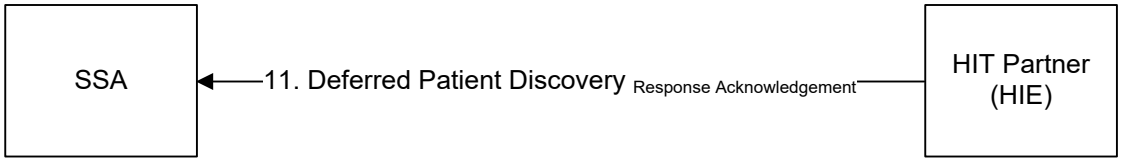

Figure 26: Deferred Patient Discovery Response Acknowledgement

5.12 QUERY FOR DOCUMENTS REQUEST (FOR CLINICAL DOCUMENT)

Figure 27 depicts Step 12 in the messaging sequence where the SSA sends a **Query for Documents Request** message to the HIT partner.

Figure 27: Query for Documents Request

The SSA will initiate a Query for Documents Request message for each of the patient identifiers that were returned in the Patient Discovery response message (Section 4.8).

The HIT partner **SHALL** support queries based on the following parameters (slots):

$XDSDocumentEntryFormatCode
$XDSDocumentEntryPatientId
$XDSDocumentEntryServiceStartTimeFrom
$XDSDocumentEntryServiceStartTimeTo
$XDSDocumentEntryServiceStopTimeFrom
$XDSDocumentEntryServiceStopTimeTo
$XDSDocumentEntryStatus

Section 5.12.1 provides guidance on the usage of the above date range parameters.

For HIT partners that support dynamic creation of documents, the partner **SHALL** explicitly look for queries where the $XDSDocumentEntryStatus is set to a value of 'urn:ihe:iti:2010:StatusCode:DeferredCreation'. In this situation, the document data **SHALL** honor the service start and stop time values, if they are specified in the request. Section 5.12.2 provides guidance on the usage of the above parameters during dynamic creation of documents.

For HIT partners that support a repository of static documents, the partner **SHALL** explicitly look for queries where the $XDSDocumentEntryStatus is set to a value of 'urn:ihe:iti:2010:StatusCode:Active'. In this situation, the list of available documents **SHALL** honor the service start and stop time values, if they are specified in the request.

NOTE: Empty strings in a query **SHALL** be treated as being equal to NULL or empty value, which is not the same as an unspecified value.

5.12.1 Query for Documents Request – Date Range Guidance

The IHE XCA/XDS specifications that are used as a basis for the Query for Documents Production Specification provide for the ability to specify various attributes as part of the query that can be used to filter the resulting information to be returned.

While the specification requires support for filtering using any of these attributes, the Social Security Administration eHealth Exchange Interoperability Guide v4.0 explicitly mentions the use of the following:

- $XDSDocumentEntryFormatCode
- $XDSDocumentEntryPatientId
- $XDSDocumentEntryServiceStartTimeFrom
- $XDSDocumentEntryServiceStartTimeTo
- $XDSDocumentEntryServiceStopTimeFrom
- $XDSDocumentEntryServiceStopTimeTo
- $XDSDocumentEntryStatus

For the query attributes enumerated above, the Social Security Administration has received numerous questions regarding the support for the service start and stop time attributes.
Per the IHE Specification, these attributes are not required in the query for documents, however, when values are specified, the evaluation will use an inclusive comparison. The logic for this comparison operation can be expressed as follows:

$XDSDocumentEntryServiceStartTimeFrom <= XDSDocumentEntry.serviceStartTime <= $XDSDocumentEntryServiceStartTimeTo

$XDSDocumentEntryServiceStopTimeFrom <= XDSDocumentEntry.serviceStopTime <= $XDSDocumentEntryServiceStopTimeTo

NOTE: While the above comparison logic uses all four attributes, it is possible to express a Query for Documents transaction criteria using any permutation of these attributes.

Date Attributes Usage Illustrated

Figure 28 (below) depicts six in-patient encounters of varying durations. Each encounter is assumed to have a service start time and a service stop time, where the bisecting lines A and B will be used to demonstrate various scenarios start and stop time query attributes.

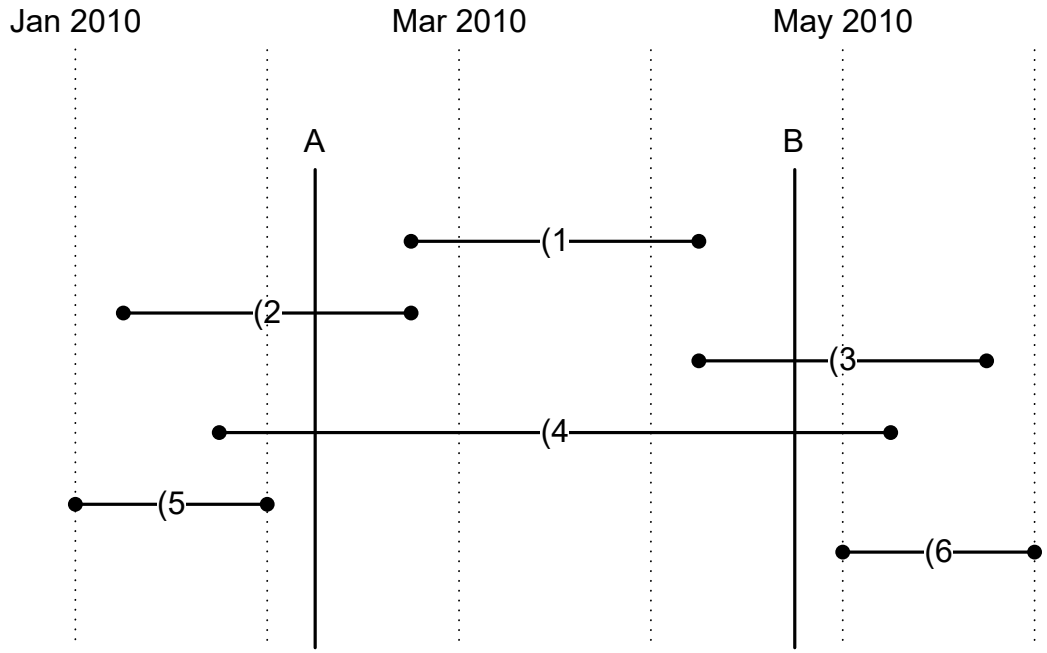

Figure 28: Date Attributes Usage

Given an XCA/XDS-based repository that contains documents for the encounters depicted above, Figure 28 depicts some of the scenarios that are possible regarding how the use of the service start/stop to and from attributes may be applied to affect which XDS Document Entries will be returned. Dates for encounters represented in Figure 28 can be found in Table 6.

Scenario	Service StartTime From	Service StartTime To	Service StopTime From	Service StopTime To	Criteria	Result Set
1	A				A <= serviceStartTime	1, 3, 6
2	A	B			A <= serviceStartTime AND serviceStartTime <= B	1, 3
3	A		B		A <= serviceStartTime AND	3,6

					B <= serviceStopTime	
4	A			B	A <= serviceStartTime AND serviceStopTime <= B	1
5			A		A <= serviceStopTime	1,2,3,4,6
6	B				B <= serviceStartTime	6
7			B		B <= serviceStopTime	3,4,6
8	B		A		A <= serviceStopTime AND serviceStartTime <= B	1,2,3,4

Table 6: Date Attribute Scenarios

To further demonstrate the behavior, Table 7 (below) enumerates the dates for the encounters depicted in Figure 28.

	Service Start Time	Service End Time
Encounter 1	2/21/2010	4/7/2010
Encounter 2	1/7/2010	2/21/2010
Encounter 3	4/7/2010	5/21/2010
Encounter 4	1/21/2010	5/7/2010
Encounter 5	1/1/2010	2/1/2010
Encounter 6	5/1/2010	6/1/2010

Table 7: Encounter Date Scenarios

Using February 7, 2010 for query parameter A, and April 21, 2010 for query parameter B, Table 8 (below) is a translation of Table 6 given the dates in Table 7.

Scenario	Criteria	Description	Result Set
1	2/7/2010 <= serviceStartTime	All records whose service start time is greater than or equal to 2/7/2010	1, 3, 6
2	2/7/2010 <= serviceStartTime AND serviceStartTime <= 4/21/2010	All records whose service start time is greater than or equal to 2/7/2010 AND whose service start time is less than or equal to 4/21/2010	1, 3
3	2/7/2010 <= serviceStartTime AND 4/21/2010 <= serviceStopTime	All records whose service start time is greater than or equal to 2/7/2010	3,6

		AND whose service stop time is greater than or equal to 4/21/2010	
4	2/7/2010 <= serviceStartTime AND serviceStopTime <= 4/21/2010	All records whose service start time is greater than or equal to 2/7/2010 AND whose service stop time is less than or equal to 4/21/2010	1
5	2/7/2010 <= serviceStopTime	All records whose service stop time is greater than or equal to 2/7/2010	1,2,3,4,6
6	4/21/2010 <= serviceStartTime	All records whose service start time is greater than or equal to 4/21/2010	6
7	4/21/2010 <= serviceStopTime	All records whose service stop time is less than or equal to 4/21/2010	3,4,6
8	2/7/2010 <= serviceStopTime AND serviceStartTime <= 4/21/2010	All records whose service stop time is greater than or equal to 2/7/2010 AND whose service start time is less than or equal to 4/21/2010	1,2,3,4

Table 8

While there are many more permutations that can be expressed using the service start time and service stop time attributes, scenarios 5 and 8 are most pertinent to the SSA use case.

5.12.2 Query for Documents Request – On Demand Parameter Guidance

The IHE specifications, which serve as the basis for the Query for Documents and Retrieve Documents specifications, are based on the concept of a static document repository. The NHIN expanded the IHE specifications to enable support for documents generated at request time. Related to this capability to generate documents on-demand, the Social Security Administration has received questions regarding the requirement to support the optional Query for Documents parameters, and in particular, the parameters that enable a requester, the SSA, to specify the service start and stop time ranges. Examples of the questions are:

- How does the requested date range apply to each section within a CDA/CCDA-based structured document?

- Should a CDA/CCDA-based structured document be returned if there is allergy information for the patient but no healthcare activity during the timeframe?

To answer these questions, it may help to better understand the XDS attributes and their meanings according to the underlying specifications.

Per the IHE Patient Care Coordination and IT Infrastructure Technical Framework specifications:

- The XDS serviceStartTime and serviceStopTime attributes should be populated from the serviceEvent effectiveTime element from the CDA/CCDA-based document header.[2122]

Per the HL7 Clinical Document Architecture specification:[23]

- The serviceEvent effectiveTime element can be used to indicate the time the actual event (i.e. – the healthcare service/act) took place. Examples of healthcare services/acts include the act of performing a colonoscopy or appendectomy, the act of taking a History and Physical, the act of reporting a lab result, the act of recording a discharge summary, etc.

Per the HL7 Continuity of Care Document specification:[24]

- The serviceEvent effectiveTime is used to indicate the duration over which the care being documented in the CCD was provided, and that it is possible to include additional information in the CCD, from outside this time range if it is relevant to care provided during that time range. The example provided in the specification, is information that was reviewed during the stated CCD time range.

In addition, per the HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1:[25]

- The serviceEvent represents the main act being documented. The duration of the main act being performed SHALL be provided in the effectiveTime element.

Also, per the HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm) Draft Standard for Trial Use Release 2.1:

- A serviceEvent represents the main act being documented, such as a colonoscopy or a cardiac stress study. In a provision of healthcare serviceEvent, the care providers, PCP, or other longitudinal providers, are recorded within the serviceEvent.[26]

[21] (IHE International, Inc., 2013)

[22] (IHE International, Inc., 2013)

[23] (Dolin, MD, et al., 2005)

[24] (Dolin, MD, et al., 2007)

[25] (Marquard, et al., 2012)

[26] (Geimer, et al., 2015)

With that stated, it should be possible to apply these specification definitions to the problem of generating a CDA/CCDA-based document on-demand, but limiting the content to the timeframe specified in the query for documents service start and stop time parameters.

If there were any healthcare activities during the timeframe, then the CDA/CCDA-based document should be generated with those healthcare service/acts, and any clinically relevant information that may have been asserted to, from prior to that time range should also be reported. Examples of sections that might be considered clinically relevant would be allergies, medications, or problems. It should be noted that this list is not exhaustive.

5.13 QUERY FOR DOCUMENTS RESPONSE (FOR CLINICAL DOCUMENT)

Figure 29 depicts Step 13 in the messaging sequence where the HIT partner sends a **Query for Documents Response** message to the SSA.

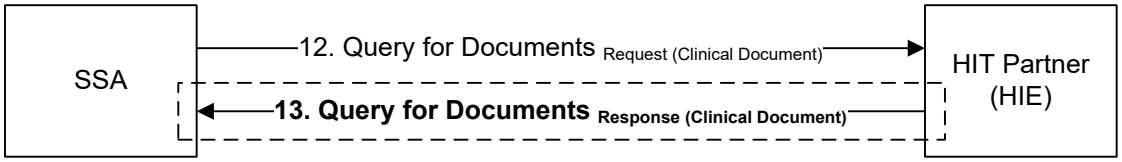

Figure 29: Query for Documents Response

The response message contains the list of electronic medical record documents that the SSA can retrieve.

5.14 RETRIEVE DOCUMENTS REQUEST (FOR CLINICAL DOCUMENT)

Figure 30 depicts Step 14 in the messaging sequence where the SSA sends a **Retrieve Documents Request** message to the HIT partner.

Figure 30: Retrieve Documents Request

The SSA will send a Retrieve Documents Request message for each of the document references that were returned to the SSA in the Query for Documents Response message.

5.15 RETRIEVE DOCUMENTS RESPONSE (FOR CLINICAL DOCUMENT)

Figure 31 depicts Step 15 in the messaging sequence where the HIT partner sends a **Retrieve Documents Response** message to the SSA.

Figure 31: Retrieve Documents Response

The response message contains the requested document.

6.0 SSA Security Assertion

In accordance with the Authorization Framework Production Specification all requests initiated by the Social Security Administration will include the following security assertion information.

6.1 SUBJECT ID

The subject ID of the assertion will be the Medical Evidence Gathering and Analysis through Health Information Technology (MEGAHIT) application, which is responsible for examining the list of medical sources associated with a disability case and automatically triggering the request for medical records via the eHex.

The following is a SAML assertion code snippet for this attribute.

```
<saml:Attribute Name="urn:oasis:names:tc:xspa:1.0:subject:subject-id">
  <saml:AttributeValue>MEGAHIT</saml:AttributeValue>
</saml:Attribute>
```

6.2 SUBJECT ORGANIZATION

The subject organization assertion attribute will contain the following value:
Social Security Administration

The following is a SAML assertion code snippet for this attribute.

```
<saml:Attribute Name="urn:oasis:names:tc:xspa:1.0:subject:organization">
  <saml:AttributeValue>Social Security Administration</saml:AttributeValue>
</saml:Attribute>
```

6.3 SUBJECT ORGANIZATION ID

The subject organization ID assertion attribute will contain the following value:
2.16.840.1.113883.3.184

When defining or evaluating security access policies, HIT partners **SHOULD** use this Object Identifier (OID) value, and NOT the OID contained in the Home Community ID assertion attribute

The following is a SAML assertion code snippet for this attribute.

```
<saml:Attribute Name="urn:oasis:names:tc:xspa:1.0:subject:organization-id">
  <saml:AttributeValue>2.16.840.1.113883.3.184</saml:AttributeValue>
</saml:Attribute>
```

6.4 HOME COMMUNITY ID

The value contained within the home community ID assertion attribute will be dependent upon the software development lifecycle (SDLC) environment that the request originates. The value will be a sub-arc of the primary Social Security Administration OID, however, the production home community OID will be different from the home community OID that is assigned to a testing environment. Additionally, the SSA maintains multiple testing environments, each with its own set of web services endpoints. The value contained within this element can be used to identify the endpoints in the NHIN Universal Description Discovery and Integration (UDDI) registry. This value **SHOULD NOT** be used in defining or evaluating security access policies.

The following is a SAML assertion code snippet for this attribute. The Home Community OID in the example is non-normative, and the actual values for 'xxx' and 'yyy' will be dependent upon the requesting SSA SDLC environment.

```
<saml:Attribute Name="urn:nhin:names:saml:homeCommunityId">
  <saml:AttributeValue>urn:oid: 2.16.840.1.113883.3.184.xxx.yyy</saml:AttributeValue>
</saml:Attribute>
```

6.5 SUBJECT ROLE

The SSA requests will use a SNOMED CT concept code. Please refer to the HITSP C80 - Clinical Document and Message Terminology Component[27] specification for a current list of values.

The following is a SAML assertion code snippet example for this attribute, which is using the Social Worker concept for the subject's role.

```
<saml:Attribute Name="urn:oasis:names:tc:xacml:2.0:subject:role">
  <saml:AttributeValue>
    <Role xmlns="urn:hl7-org:v3" xsi:type="CE" code="106328005"
          codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED_CT"
          displayName="Social worker"/>
  </saml:AttributeValue>
</saml:Attribute>
```

[27] (Healthcare Information Technology Standards Panel: Care Management and Health Records Domain Technical Committee, 2010)

6.6 PURPOSE OF USE

The SSA requests will use the COVERAGE concept code from the Purpose of Use table in the eHex Authorization Framework Specification.[28][29]

The following is a SAML assertion code snippet for this attribute.

```
<saml:Attribute Name="urn:oasis:names:tc:xspa:1.0:subject:purposeofuse">
  <saml:AttributeValue>
    <PurposeForUse xmlns="urn:hl7-org:v3" xsi:type="CE" code="COVERAGE"
          codeSystem="2.16.840.1.113883.3.18.7.1" codeSystemName="nhin-purpose"
          displayName="Disclosures for insurance or disability coverage determination" />
  </saml:AttributeValue>
</saml:Attribute>
```

6.7 PATIENT IDENTIFIER

The value provided as the patient identifier will be encoded per the eHex Authorization Framework specification,[30][31] and will be unique to the HIT partner. This value will only be valid for the duration of the transaction sequence between the SSA and HIT partner as defined in this document.

The Patient Identifier includes in the SAML Assertion **SHOULD NOT** be used as a correlation identifier. This identifier may only be used to support the health IT partner's ability to retrieve the Access Consent Policy Document.

The following is a SAML assertion code snippet for this attribute.

```
<saml:Attribute Name="urn:oasis:names:tc:xacml:2.0:resource:resource-id">
 <saml:AttributeValue>54379^^^&amp;2.16.840.1.113883.3.184&amp;ISO</saml:AttributeValue>
</saml:Attribute>
```

6.8 AUTHORIZATION DECISION STATEMENT

In addition to the security assertion attributes listed above (in sections 6.1 - 6.7), the SAML Assertion that accompanies the SSA requests will also include an **Authorization Decision Statement**.

[28] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v2.0, 2010)
[29] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v3.0, 2011)
[30] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v2.0, 2010)
[31] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v3.0, 2011)

Per the SAML 2.0 Core specification,[32] the Authorization Decision Statement element is a mechanism that authority asserting that a request for access by the statement's subject to the specified resource has resulted in the specified authorization decision on the basis of some optionally specified evidence.

In this instance, the eHex is using the Authorization Decision Statement to enable an entity to assert the requester should be permitted to execute the transaction based on a specific security policy.

The information conveyed within the Authorization Decision Statement may be used by the responding Health Information Organization (HIO) to retrieve the asserted Access Consent Policy. The format of the Access Consent Policy is defined in the Access Consent Policy Production Specification.[33]

The Authorization Decision Statement enables the SSA to convey to a HIT partner (responding HIE) that an access consent privacy policy exists that the SSA believes should be considered. The access consent privacy policy will be referenced by value in the InstanceAccessConsentPolicy attribute.

The following is a SAML Authorization Decision statement code snippet.

```
<saml2:AuthzDecisionStatement xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
                              Decision="Permit"
                              Resource="">
  <saml2:Action Namespace="urn:oasis:names:tc:SAML:1.0:action:rwedc">Execute</saml2:Action>
  <saml2:Evidence>
    <saml2:Assertion ID="da20c267-0f95-4cf4-8bc1-6daa5d84201e"
                     IssueInstant="2008-10-20T19:59:10.843Z" Version="2.0">
      <saml2:Issuer Format="urn:oasis:names:tc:SAML:1.1:nameid-format:X509SubjectName">
        O=Social Security Administration,L=Baltimore,ST=Maryland,C=US
      </saml2:Issuer>
      <saml2:Conditions NotBefore="2008-10-20T19:59:10.843Z
                       NotOnOrAfter="2008-12-25T00:00:00.000Z"/>
      <saml2:AttributeStatement>
        <saml2:Attribute Name="InstanceAccessConsentPolicy"
                         NameFormat="http://www.hhs.gov/healthit/nhin">
          <saml2:AttributeValue xmlns:ns6="http://www.w3.org/2001/XMLSchema-instance"
                                xmlns:ns7="http://www.w3.org/2001/XMLSchema"
                                ns6:type="ns7:string">
            urn:oid:2.16.840.1.113883.3.184.500.123456789
          </saml2:AttributeValue>
        </saml2:Attribute>
      </saml2:AttributeStatement>
    </saml2:Assertion>
```

[32] (Cahill, et al., 2005)

[33] (Franck, Kernan, Key, Davidson, & Moehrke, 2010)

```
  </saml2:Evidence>
</saml2:AuthzDecisionStatement>
```

For more information regarding these attributes, please refer to the Authorization Framework Production Specification.[34][35]

[34] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v2.0, 2010)
[35] (Franck, et al., Nationwide Health Information Network Authorization Framework Specification v3.0, 2011)

7.0 Access Consent

Under the Health Insurance Portability and Accountability Act (HIPAA), the SSA is not considered to be a covered entity, in that, releasing information to the SSA is not considered to be related to treatment, payment, or operations. Under HIPAA, the SSA must collect a signed authorization from the patient or the patients' representative in order to gather the patient's medical information. Within the SSA, the authorization document is known as Form SSA-827: Authorization to Disclose Information to Social Security Administration. A PDF version of the form may be downloaded from the following web site: http://www.ssa.gov/online/ssa-827.pdf. When this document is retrieved from the SSA, it will be embedded within an HL7 Clinical Document Architecture (CDA) document. The format of the document will be based on the Integrating the Healthcare Enterprise (IHE) Basic Patient Privacy Consents (BPPC) Profile. The XDS metadata for the document will indicate that it is a Privacy Policy Acknowledgement with a LOINC value of 57016-8, and format code of 'urn:ihe:iti:bppc-sd:2007'.

For more information regarding Access Consent, please refer to the Access Consent Policies Production Specification.[36] Additional information regarding the IHE BPPC profile may be found in the IHE ITI Technical Framework specifications.[37]

[36] (Franck, Kernan, Key, Davidson, & Moehrke, 2010)

[37] (IHE International, Inc., 2013)

8.0 Works Cited

Cahill, C. P., Hughes, J., Lockhart, H., Beach, M., Metz, R., Randall, R., . . . Whitehead, G. (2005, March 15). *Assertions and Protocols for the OASIS Security Assertion Markup Language (SAML) v2.0.* Retrieved May 29, 2014, from OASIS: http://docs.oasis-open.org/security/saml/v2.0/saml-core-2.0-os.pdf

Dolin, MD, R. H., Alschuler, L., Beebe, C., Behlen, PhD, F. M., Boone, K. W., Gabriel, RN, D., . . . Zuckerman, MD, A. (2007, April 1). *HL7 Implementation Guide: CDA Release 2 - Continuity of Care Document (CCD).* Retrieved May 29, 2014, from HL7: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=6

Dolin, MD, R. H., Alschuler, L., Boyer, BSP, S., Beebe, C., Behlen, PhD, F. M., Biron, P. V., & Shabo, PhD, A. (2005, April 21). *HL7 Clinical Document Architecture, Release 2.0.* Retrieved May 29, 2014, from HL7: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=362

Franck, R., Kernan, R., Key, J., Davidson, T., & Moehrke, J. (2010, January 29). *Nationwide Health Information Network Access Consent Policies Specification v1.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-access-consent-policies-production-specification-v1.0.pdf

Franck, R., Mallia, T., Vickers, V., Lafky, D., Riley, D., Davidson, T., . . . Mirza, S. (2011, July 27). *Nationwide Health Information Network Authorization Framework Specification v3.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2011/nhin-authorization-framework-production-specification-v3.0.pdf

Franck, R., Mallia, T., Vickers, V., Lafky, D., Riley, D., Davidson, T., . . . Moehrke, J. (2010, January 29). *Nationwide Health Information Network Authorization Framework Specification v2.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-authorization-framework-production-specification-v2.0.pdf

Geimer, R., Marquard, B., Dolin, G., Gaunt, S., Gonzaga, Z., Flessner, B., . . . Kwok Deloitte, V. (2015, August). *HL7 CDA R2 Implementation Guide: Consolidated CDA Templates for Clinical Notes (US Realm) Draft Standard for Trial Use Release 2.1.* Retrieved from HL7: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=408

Healthcare Information Technology Standards Panel: Care Management and Health Records Domain Technical Committee. (2010, January 25). *HITSP Clinical Document and Message Terminology Component HITSP/C80.* Retrieved May 29, 2014, from HITSP: http://hitsp.org/ConstructSet_Details.aspx?&PrefixAlpha=4&PrefixNumeric=80

IHE International, Inc. (2013, October 4). *IHE Patient Care Coordination (PCC) Technical Framework Volume 2 PCC TF-2 Transactions and Content Modules.* Retrieved May 29, 2014, from IHE: http://www.ihe.net/uploadedFiles/Documents/PCC/IHE_PCC_TF_Vol2.pdf

IHE International, Inc. (2013, September 27). *Integrating the Healthcare Enterprise IT Infrastructure Technical Framework Volume 3 (ITI TF-3) Cross-Transaction Specifications and Content Specifications.* Retrieved May 29, 2014, from IHE: http://www.ihe.net/uploadedFiles/Documents/ITI/IHE_ITI_TF_Vol3.pdf

Marquard, B., Beebe, C., Kreisler, A., Dolin, MD, R. H., Grieve, G., Alschuler, L., . . . Wright, D. (2012, July). *HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1 (US Realm) Draft Standard for Trial Use.* Retrieved May 29, 2014, from HL7: http://www.hl7.org/implement/standards/product_brief.cfm?product_id=258

Phadke, N., Muralidhar, V., Abdul-Basser, T., Shah, A., Miller, C., Rolf, E., . . . Davidson, T. (2011, July 27). *Nationwide Health Information Network Messaging Platform Specification v3.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2011/nhin-messaging-platform-production-specification-v3.0.pdf

Phadke, N., Muralidhar, V., Adbul-Basser, T., Shah, A., Miller, C., Rolf, E., . . . Key, J. (2010, January 29). *Nationwide Health Information Network Messaging Platform Specification v2.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-messaging-platform-production-specification-v2.0.pdf

Schadow, G., Adamalian, B., Khan, A., Voigt, C., Shah, A., Franck, R., . . . Mallia, T. (2010, January 29). *Nationwide Health Information Network Query for Documents Web Service Interface Specification v2.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-query-for-documents-production-specification-v2.0.pdf

Schadow, G., Agamalian, B., Khan, A., Voigt, C., Shah, A., Franck, R., . . . Key, J. (2011, July 27). *Nationwide Health Information Network Retrieve Documents Web Service Interface Specification v3.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2011/nhin-retrieve-documents-production-specification-v3.0.pdf

Schadow, G., Agamalian, B., Khan, A., Voigt, C., Shah, A., Franck, R., . . . Mallia, T. (2010, January 29). *Nationwide Health Information Network Retrieve Documents Web Service Interface Specification v2.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-retrieve-documents-production-specification-v2.0.pdf

Schadow, G., Agamalian, B., Khan, A., Voigt, C., Shah, A., Franck, R., . . . Mirza, S. (2011, July 27). *Nationwide Health Information Network Query for Documents Web Service Interface Specification v3.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2011/nhin-query-for-documents-production-specification-v3.0.pdf

Witting, K., Kernan, R., Heflin, E., Mallia, T., & Key, J. (2010, January 29). *Nationwide Health Information Network Patient Discovery Web Service Interface Specification v1.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2010/nhin-patient-discovery-production-specification-v1.0.pdf

Witting, K., Kernan, R., Heflin, E., Mallia, T., Key, J., Davidson, T., & Mirza, S. (2011, July 27). *Nationwide Health Information Network Patient Discovery Web Service Interface Specification v2.0.* Retrieved May 29, 2014, from Health eWay: http://healthewayinc.org/images/Content/Documents/specs/2011/nhin-patient-discovery-production-specification-v2.0.pdf