CDX v3.0 – Release Notes

Contents

Vendor Team and CDX Team Requirements – Testing Cycle

EMR Vendor

1. Review each section of this document so you have a clear understanding of the changes and impacts. This document should also be reviewed by a programmer or technical resource on the EMR vendor team.
2. Download the new technical specifications from www.bccdx.ca if you are leveraging Provider Groups functionality.
3. Submit a request to the CDX Team for the timeframe you expect to be testing.
4. Complete testing by downloading the test messages provided by the CDX Team, and validate the expected results.
5. EMR vendor testing should be complete by August 10, 2016 (*proposed*).

CDX Team

1. Set up regular weekly meetings with the EMR vendor to work through the tasks related to this release.
2. Review this document with the EMR vendor so there is a clear understanding of the changes and impacts.
3. Generate sample test messages for the vendor, along with direction on what the expected test case results should be from a generic perspective – not from a specific EMR vendor perspective.
4. Assist the EMR vendor through the testing cycle(s), and address any issues that may arise.

CDX Environments

For clarity, an overview of our environments and the applied workflows are provided below.

Although the external test environment is able to be used concurrently by multiple EMR vendor systems, do not assume the CDX External Test environment is always available. To ensure that there are no conflicts in the environment with other EMR conformance or team testing schedules, it is important for EMR vendors and external teams to notify our team when use of the CDX External Test environment is required. This will ensure we are able to most effectively support you in your testing efforts.

CDX Environments

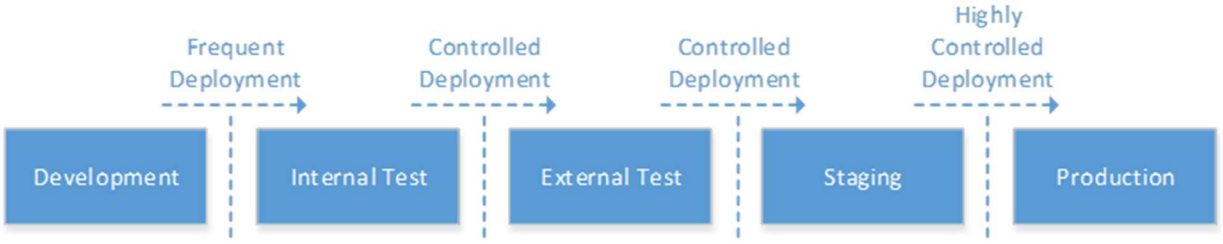
Environment	Description	Vendor Accessible
Development	This is a working environment for individual developers where they can work in isolation without having to worry about affecting the rest of the project team.	No
Test Internal (New)	This is a common environment where code can be combined and validated to ensure it meets an acceptable quality. Internal testing will take place in this environment before it is promoted to the external test environment.	No
Test External	This is a common environment where code can be combined and validated to ensure it meets an acceptable quality. External partner testing will take place in this environment before it is promoted to the staging environment.	Yes
Staging	This environment is nearly identical to the production environment and is used to simulate the production environment.	No
Production	Self-explanatory	Yes

External Test

A deployment to the External Test environment will include the following:

- Sign-off by the Development and HIE team that testing in the Internal Test environment is complete.
- A review of the external partner testing schedule and further coordination to minimize any impact to existing testing efforts.
- A notification to all external partners with release notes and known impacts to EMR systems

CDX Deployment Workflow



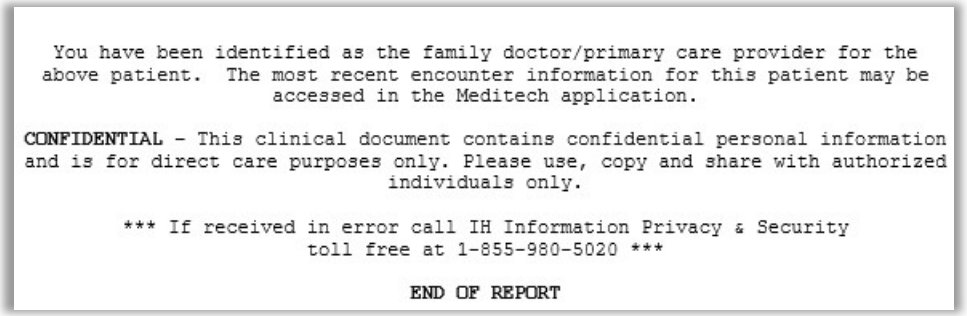
Implementation Timeline – August 18, 2016 (*proposed*)

Our planned implementation date is ***Thursday August 18, 2016*** at 5:00 p.m. (*proposed*) This implementation will require a brief disruption to the CDX service, which will result in message delivery being delayed for a short time period while the update occurs.

Change 1: Clinical Document Narrative & Confidentiality Statement

Overview of Change & Impact to Vendor

- Interior Health and Northern Health have added the instructional and confidentiality text to the narrative section of their reports. This text used to appear on the footer of the stylesheet (xslt), and has been moved so that EMR end users will see this text in the document whether they view a clinical document through their EMR view or if they view it in the stylesheet rendered view.
- Vendors must implement the new stylesheet (already provided). If a vendor does not implement the new stylesheet, the narrative will be repeated twice; once in the body of the document and once in the footer of the stylesheet.

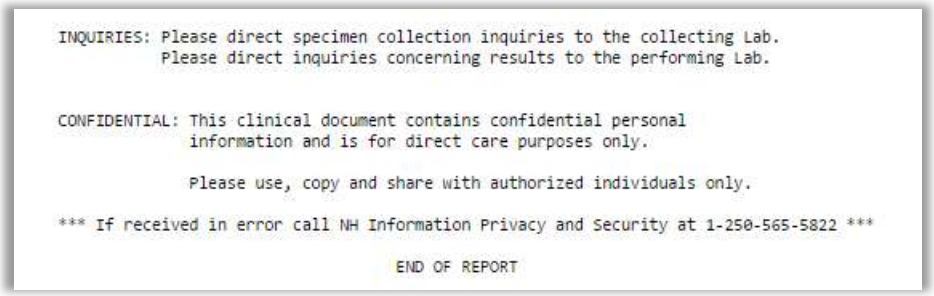


You have been identified as the family doctor/primary care provider for the above patient. The most recent encounter information for this patient may be accessed in the Meditech application.

CONFIDENTIAL – This clinical document contains confidential personal information and is for direct care purposes only. Please use, copy and share with authorized individuals only.

*** If received in error call IH Information Privacy & Security toll free at 1-855-980-5020 ***

END OF REPORT



INQUIRIES: Please direct specimen collection inquiries to the collecting Lab.
Please direct inquiries concerning results to the performing Lab.

CONFIDENTIAL: This clinical document contains confidential personal information and is for direct care purposes only.

Please use, copy and share with authorized individuals only.

*** If received in error call NH Information Privacy and Security at 1-250-565-5822 ***

END OF REPORT

Vendor Testing & Expected Results

1. Test Steps: After implementing the new stylesheet in your EMR system, do the following:
    a. Download the "Narrative/Confidentiality" test messages from Interior Health and Northern Health,
    b. View the documents in the CDX stylesheet view,
    c. View the documents in the EMR normal end-user view.
2. Expected Results:
    - You should NOT see the narrative text and confidentiality disclaimer in the footer of the stylesheet in the CDX stylesheet view.
    - In both the CDX stylesheet view and EMR end-user view, you SHOULD see the narrative text and confidentiality statement as shown in the screen captures above, at the bottom of the document body.

Change 2: Provider Groups

Overview of Change

A "Provider Group" represents a team of inter-disciplinary providers that are jointly responsible for the care of a patient. To support the "Provider Groups" concept, we have made the following changes:

1. We are leveraging the existing Clinic Query-Response Interaction schema (PRPM_IN406011UV), and will now be populating the following:
    a. If assignedEntity/relatedTo/assignedEntity/templateId exists and contains a root attribute value of 2.16.840.1.113883.3.277.100.30, indicates a "Provider Group".
    b. If assignedEntity/relatedTo/assignedEntity/templateId does not exist, indicates a "Provider".

2. We are leveraging the existing Provider Query-Response Interaction schema (PRPM_IN306011UV), and will now be populating the following:
    a. If registrationEvent/subject1/assignedEntity/templateId exists and contains a root attribute value of 2.16.840.1.113883.3.277.100.30, indicates a "Provider Group".
    b. If registrationEvent/subject1/assignedEntity/templateId does not exist, indicates a "Provider".

3. Intended recipients in the CDA document can contain provider groups:
    a. If ClinicalDocument/informationRecipient/intendedRecipient/templateId exists and contains a root attribute value of 2.16.840.1.113883.3.277.100.30, indicates a "Provider Group".
    b. If ClinicalDocument/informationRecipient/intendedRecipient/templateId does not exist, indicates a "Provider".

4. Intended recipients in the CDX Original Document with Content (RCMR_ IN000032UV01) interaction schema will now be populated with the following:
    a. If RCMR_IN000032UV01/controlActProcess/subject/target/informationRecipient/intendedRecipient exists and contains a root attribute value of 2.16.840.1.113883.3.277.100.30, indicates a "Provider Group".
    b. If RCMR_IN000032UV01/controlActProcess/subject/target/informationRecipient/intendedRecipient does not exist, indicates a "Provider".

Note that from a schema perspective, provider groups and providers are specified exactly the same way, with the addition of the templateId element for provider groups, but are otherwise bound to the same rules. *For further details, please download the Technical Implementation Guides from www.bccdx.ca*

Impact to Vendor - Provider Groups

- We are using existing schemas with this change.
- There are no changes to existing metadata elements of the existing schemas.
- Thus, there should be no impacts to your system *even if you DO NOT leverage the Provider Groups functionality*.

CDX REGISTRY SEARCH

- The CDX distribution system Registry Query Results will be configured to indicate whether the query results are a "Provider" or a "Provider Group."
- The changes made to the CDX Clinic-Provider Registry Queries align with the HL7 Version 3 Interaction Schemas.
- PRPM_IN406011UV and PRPM_IN306011UV, RCMR_IN000032UV01, ClinicalDocument - *should be backwards compatible with EMR systems which have developed aligning to that schema*.
- There are no changes to existing meta data elements of that schema, we will simply start populating the templateIDs noted above.

EMR-to-EMR CAPABILITY ENHANCED

1. Sending EMR to EMR - For EMRs that support the "Provider Group" concept this means that your end users will be able to send clinical documents (e.g. referrals, consults) to either a single provider or to a provider group.
2. Receiving EMR to EMR - For EMRs that support the "Provider Group" concept this means that your end users will be able to receive clinical documents (e.g. referrals, consults) to either a single provider or to a provider group.
3. For EMRs that DO NOT currently support sending or receiving EMR to EMR clinical documents, your system can filter the provider group templateID element, and continue to download CDA documents the way you normally would.

Vendor Testing & Expected Results

1. Test Steps: Since your EMR system is NOT leveraging the Provider Group functionality, there should be NO impact to you. However, to ensure there are no unintended issues from the changes, we will send you a single test case for validation. This test case will include a primary intendedRecipient that is a provider subscribed to your test clinic, as well as a secondary "copy to" intendedRecipient that is a Provider Group that is NOT subscribed to your test clinic.
    a. Download the "Provider Group" test message from Northern Health,
    b. View the document in the CDX stylesheet view,
    c. View the document in the EMR normal end-user view.
2. Expected Results:
    - When connecting to the CDX Clinic-Provider Registry, you should be able to download the message successfully without error,
    - You should be able to view the document successfully in the CDX stylesheet view,
    - You should be able to view the document successfully in the EMR normal end-user view.

Change 3: inFulfillmentOf\OrderID

IH & NH inFulfillmentOf\orderID

Overview of Change & Impact to Vendor

- Interior Health has fixed an error with the inFulfillmentOf\orderID on Diagnostic Imaging reports. No changes have been made to Interior Health transcribed documents or lab results.
- Northern Health transcribed reports will align with IH, and the "RPLC" typeCode of a relatedDocument will be removed/no longer sent.
- There should be NO impact to vendors if the BC CDA IG direction is followed. Please see the *inFulfillmentOf and CDA Fragments section* below for reference in handling these different scenarios where documents may be updated; this information is taken from the BC CDA Implementation Guide.

Northern Health Message Example for Reference:

```
<!--  ==== Related Document: Message ID and RPLC Functionality ====  -->
<relatedDocument typeCode="RPLC">
        <parentDocument>
                <id assigningAuthorityName="NHA Cerner Document ID"
                extension="8612801" root="2.16.840.1.113883.3.523.1.74" />
        </parentDocument>
</relatedDocument>

inFulfillmentOf is now to be added. For example:

<!-- ==== Order information ==== -->
<inFulfillmentOf typeCode="FLFS">
        <order classCode="ENC" moodCode="RQO">
                <id assigningAuthorityName="NHA Cerner Encounter Number"
                extension="4003857" root="2.16.840.1.113883.3.523.1.72"/>
                <code code="active" codeSystemName="statusCode"/>
        </order>
</inFulfillmentOf>
```

- "typeCode" is fixed to be "FLFS"
- "classCode" is fixed to be "ENC"
- "moodCode" is fixed to be "RQO"
- "root" is the OID for a NHA Cerner Encounter Number
- "extension" is the unique id of a NH encounter number.

Vendor Testing & Expected Results

1. Test Steps: Your EMR system was already Conformance Tested for relating documents. However, to ensure there are no unintended issues from these message *updates*, we will send you a number of test cases for validation.
    a. Download the "inFulfillmentOf" test messages from Interior Health and Northern Health,
    b. View the document and document updates in the CDX stylesheet view,
    c. View the document and document updates in the EMR normal end-user view.
2. Expected Results:
    - The EMR system should support all functionality to store, view and search for an original document and any subsequent updates to the original.
3. For reference, please see:
    a. Vendor Conformance CDX Conformance Profile – 001 – CDA Level 1 with E-to-E; Conformance Requirements: 36, 37, 57, 58, 59, 60.
    b. Additional NH examples for "NH inFulfillmentOf Addendum" are found in the previous Release Notes sent to all vendors April 12, 2016.

inFulfillmentOf and CDA Fragments

The specifications below are applied to any CDA document flowing through CDX regardless of document template meaning the EMR would use this behavior in all cases. For reports `inFulfillmentOf/order/id` is populated with a unique report/document id, and for results `inFulfillmentOf/order/id` is populated an order id, and possibly also an additional `inFulfillmentOf` element if the result makes up only part of the order.

1. When a CDA is generated from a source message, as in the case of a health authority generating a CDA from a source HL7 v2 message, there will be a `relatedDocument` element indicating that the CDA is a transformation of a source message. There will be an `relatedDocument/parentDocument/id` element identifying the original message. This isn't necessarily something that client software (EMR) would use, but provides traceability.

```
<!-- ==== Parent Document: HL7 v2 message from Meditech ==== -->
<relatedDocument typeCode="XFRM">
  <parentDocument moodCode="EVN" classCode="DOCCLIN">
    <id assigningAuthorityName="IHA Message Number" extension="255560"
root="2.16.840.1.113883.3.277.1.81"/>
  </parentDocument>
</relatedDocument>
```

2. When a CDA document replaces a specific existing document, there may be a `relatedDocument` element indicating the document being replaced. The `relatedDocument/parentDocument/id` element will contain the same extension and root values of the `ClinicalDocument/id` in the document being replaced.

```
<!-- ==== Parent Document: HL7 v2 message from Meditech ==== -->
```

```
<relatedDocument typeCode="RPLC">
  <parentDocument moodCode="EVN" classCode="DOCCLIN">
    <id assigningAuthorityName="IHA Message Number" extension="255560"
root="2.16.840.1.113883.3.277.1.81"/>
  </parentDocument>
</relatedDocument>
```

3. A CDA document containing results will have 1 `inFulfillmentOf` element uniquely identifying the order or report. In a case where a CDA document replaces another, where CDA documents are built from source messages in real-time, it is difficult to leverage `relatedDocument/parentDocument/id` to indicate the specific document being replaced. In this use case, we decided that we would allow client software (EMR) to use `inFulfillmentOf/order/id` elements, where a document would replace preceding documents if the preceding documents had the same value in the `inFulfillmentOf/order/id` element.

```
<inFulfillmentOf typeCode="FLFS">
  <order moodCode="RQO" classCode="ENC">
    <id assigningAuthorityName="IHA Order Number (Requisition Number)"
extension="IHRIH-20151209-00012603" root="2.16.840.1.113883.3.277.1.22"/>
    <code code="RE:CM:N" codeSystemName="Order Status (Order Control[:Order
Status][:Response Flag])"/>
  </order>
</inFulfillmentOf>
```

4. In some cases, multiple documents may be produced for the same order. Once example would be because there could be multiple specimens involved, and the HCIS produces separate messages on a per specimen basis, not on a per order basis. So if there was an order, with 2 specimens involved, 2 documents would be generated. In this case, each document would have the same order ID but represents different results for the same order.

   In this case there would be 1 “main” `inFulfillmentOf` element identifying the order.

```
<inFulfillmentOf typeCode="FLFS">
  <order moodCode="RQO" classCode="ENC">
    <id assigningAuthorityName="IHA Order Number (Requisition Number)"
extension="IHRIH-20151209-00012603" root="2.16.840.1.113883.3.277.1.22"/>
    <code code="RE:CM:N" codeSystemName="Order Status (Order Control[:Order
Status][:Response Flag])"/>
  </order>
</inFulfillmentOf>
```

   There would also be an additional `inFulfillmentOf` element indicating that the document represents a component or part of an order. This “component/part” `inFulfillmentOf` element includes a specific templateId with a root of `2.16.840.1.113883.3.277.100.6`. This allows client software to replace specific documents within larger set that make up the results of an order.

```
<inFulfillmentOf typeCode="FLFS">
```

```
  <templateId assigningAuthorityName="Order Component Template"
root="2.16.840.1.113883.3.277.100.6"/>
  <order moodCode="RQO" classCode="ENC">
    <!-- ==== Unique Order Component Number (Requisition# + Specimen#) -
Because there may be multiple documents that each represent the fulfillment
of part of an order/requisition. Any infulfillmentOf elements with this
templateId mean that the identifier uniquely identifies the part, not the
whole. Lab requisitions may contain tests for multiple specimens and each
specimen will come across as a part of the whole Requisition. ==== -->
    <id assigningAuthorityName="IHA Order Component Number"
extension="IHRIH-20151209-00012603__PT15:MR0000143R"
root="2.16.840.1.113883.3.277.1.22.1"/>
  </order>
</inFulfillmentOf>
```