

Community Care Information Management (CCIM)
Integrated Assessment Record (IAR) Project

Integrated Assessment Record (IAR)

O CAN 2 Supplement to the Data Submission and Technical Specifications

Document Version 1.0

May 2011

Table Of Contents

Purpose of this document.....	3
1.0 The OCAN within and IAR Submission.....	3
1.1 IAR Submission Envelope	4
1.2 Common element values and attributes for all assessment submission types	4
“iar” Namespace	4
1.3 Transmission Header Element	5
SubmissionId:.....	5
Organization:.....	6
assessmentType:	6
Application ID:.....	6
2.0 Encapsulating the OCAN assessment data within the IAR Submission	6
2.1 OCAN 2 Submission structure	8
2.2 OCAN SubmissionFile	8
File ID – identifies the submission content	8
Date Time of Submission	8
2.3 SubmissionRecord Section	8
OCANType	8
OCANType	9
AssessmentID –	9
AssessmentRevision.....	9
startDate –	9
completeDate	9
submitOrg	9
clientRecord.....	9
clientID	9
clientName.....	9
clientPhone.....	10
2.5 Assessment Record Content Elements.....	10

Purpose of this document

The Integrated Assessment Record (IAR) is implementing the first phase of the Provincial Solution. Numerous Local Health Integration Networks (LHINs) and related health service providers (HSPs) are being introduced to the system for the first time. As part of the process, assessment collection tools used by health service providers will have the ability to submit assessments to the Integrated Assessment Record (IAR) system, and to ensure it can function as a multi-sector clinical viewer.

This document is intended to be a RAI-CHA specific supplement to the existing “Data Submission and Technical Specifications” manual. HSP(s) and their vendor(s) should read the supplement for a better understanding of the technical requirements for successful integration of their system to the IAR.

If there are further questions/concerns regarding this document, contact the Integrated Assessment Record (IAR) Project team at: iar@ccim.on.ca

Intended Audience

This document is intended for health service providers that are completing or intend to complete the OCAN 2 assessment and their vendor of choice that will be implementing the IAR solution.

Vendors will use this supplement along with all of the supporting documents to develop data feeds for submitting assessment data to the IAR Provincial solution. The project team is available throughout the implementation phase via teleconferences for clarifications and questions about these requirements as needed. Any additional questions can be sent to the project team through the Support Centre.

Organizations should read and understand this supplement and all the supporting documents that make up the data submission requirements. Organizations are responsible

Overview of IAR

The IAR is an application that allows assessment information to move with the client as they go from one health service provider (HSP) so HSPs can access common assessment data in a secure and accurate manner. It provides a single source of community-based assessment data that enables information management and planning for providers, LHINs and the MOH. The IAR simplifies integration of assessment data into the electronic health record (EHR). The IAR also facilitates collaborative client/patient care planning by allowing information to be viewed electronically within a client’s circle of care. This helps coordinate community-based care planning to eliminate service gaps and overlaps.

This OCAN 2 supplement will provide samples, definitions and a simple explanation of data submissions to the IAR.

1.0 The OCAN within and IAR Submission

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<iar:IARSubmission xmlns:iar="http://iar.on.ca/types" xmlns:xsi="http://www.w3.org/2001
  <iar:TransmissionHeader>
    <submissionId>OCAN201009301103763IA.001.xml</submissionId>
    <organization id="123" name="Organization Full Name" />
    <exportTimestamp>2010-09-30T11:03:11Z</exportTimestamp>
    <assessmentType>OCAN</assessmentType>
    <application id="Application ID" name="Application Name" vendor="Vendor Name" />
  </iar:TransmissionHeader>
  <iar:SubmissionContent>
    <Record mimeType="text/xml" recordType="Assessment" version="2.0.6">
      <text><![CDATA[<OCANv2SubmissionFile tool_revision="2.0.5" schema_version="2.0.6"
    </Record>
  </iar:SubmissionContent>
</iar:IARSubmission>
```

Figure 1 - Sample IAR/OCAN Submission Envelope

1.1 IAR Submission Envelope

The IAR Submission Envelope is a common xml message wrapper that is used to transport a set of assessments to the IAR (Integrated Assessment Record). This message structure is a container that allows for the inclusion of data generated by various assessment schemas. The use of a common message structure allows a vendor to create a single submission solution that can be re-used to submit data across multiple health service provider sectors.

Each submission envelope can contain only a single type of assessment – such as OCAN 2, however the same IAR schema can and is used to submit OCAN 1.02, RAI-CHA, RAI-MH and RAI-MDS 2.0. The parameter values within the envelope change to reflect the type of assessment information contained. When the submission is received, the IAR reads the values to determine the type of assessments contained in the submission content so it can perform the appropriate validations and correctly import the assessment information.

The schema that defines the IAR Submission Envelope is called IARSubmissionDefinitions_v1.1.xsd and is available through the Vendor portion of the CCIM Web site (www.ccim.on.ca). For the full overall IAR Submission specifications refer to the “Data Submission and Technical Specifications”.

1.2 Common element values and attributes for all assessment submission types

“**iar**” **Namespace** - the top level *IARSubmission* element requires the use of a namespace which is to be defined as an *xmlns* attribute. There are several other attributes that need to be included, their names and values should appear within the xml as follows:

```
<iar:IARSubmission
xmlns:iar="http://iar.on.ca/types"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
version="1.1"
xsi:schemaLocation="http://iar.on.ca/types IARSubmissionDefinitions_v1.1.xsd">
```

1.3 Transmission Header Element

This portion of the IARSubmission contains values that identify the sending organization (HSP), the type of assessment data contained and the source system.

```
<iar:IARSubmission .....
<iar:TransmissionHeader>
  <submissionId>OCAN2011022309459999IA.001</submissionId>
  <organization id="9999" name="Top Level Organization (HSP) name" />
  <exportTimestamp>2011-02-23T09:45:23Z</exportTimestamp>
  <assessmentType> OCAN</assessmentType>
  <application id="1234 name="Product Name" vendor="Vendor name" version="1.x"/>
</iar:TransmissionHeader>
```

SubmissionId: This value is a source system generated value to identify a single submission. This value has a **40 character limit** although it is not currently noted within the schema. The purpose of this value is to uniquely identify a single submission and to report back the success or failure of the submission to the sender. It is also used to detect duplicate submissions. The value can be a filename, a sequential number or any other type of identifying information. Each submission ID must be unique per submission from a particular instance of the source system.

IAR provides a sample of the following format in the "Data Submission and Technical Specifications Guide":

```
[Assessment Type]<YYYYYMMDD><HHMM><OOOO><ZZ>.<999>.xml
```

Where:

[Assessment Type], possible values are 'OCAN', 'RAI-CHA', 'RAI-MH', 'ADAT' - for addictions;

YYYYYMMDD – The date when the export process started;

HHMM - Time when the export process started (note 24 hour clock is used);

OOOO – Organization ID, or parent organization ID used in assessment application in multi-site environments (in case of OCAN);

ZZ - Target system suffix, 'IA' for Integrated Assessment;

999 - File sequence number, a sequence number of extracted file if export is broken into multiple parts, default value 001.

For example, if Organization 1234 is submitting a single part OCAN assessment file on the 1st of July 2009, at 5:05 PM the file name will look like this:

OCAN2009070117051234IA.001.xml

For example, if organization 5067 is submitting a single part OCAN assessment file on the 21st of July 2009, at 6:15 PM the file names will look like this:

OCAN2009072118155067IA.001.xml

Organization: This element defines the sending health service provider (HSP) and contains a Master Number for the organization issued by the Ministry of Health. Do not confuse this with the use of a Facility Number. The combination of the *SubmissionId* and the *Organization ID* values are used to identify a unique submission from a single overall organization. The submission will only be accepted from organization IDs that are known to the IAR and should not contain leading zeros. "123" is valid, "0123" will be invalid. The *name* attribute is used for display purposes to the clinicians using the system and should be populated with the HSP's full name.

Note: The organization ID and the Org number MUST be the same this number appears in the IAR wrapper and the submission record.

```
<iar:IARSubmission xmlns:iar="http://iar.on.ca/types" xmlns
  <iar:TransmissionHeader>
    <submissionId>OCANFULL1009301103763IA.001.xml</submis:
    <organization id="123" name="Organization Full Name" />
    <exportTimestamp>2010-09-30T11:03:11Z</exportTimestamp>
    <assessmentType>OCAN</assessmentType>
    <application id="Application ID" name="Application Name
  </iar:TransmissionHeader>
  <iar:SubmissionContent>
    <Record mimeType="text/xml" recordType="Assessment" ver:
      <text><![CDATA[<OCANv2SubmissionFile toolRevision="2
    <OCANv2SubmissionRecord OCANType="FULL" assessmentID="19"
      <submitOrganizationRecord>
        <submitOrg name="OrgName Org" number="123" />
```

assessmentType: This is a key value to tell the IAR what type of assessment data is contained within the submission. For OCAN assessments this value must be "OCAN". This value is for all assessment data submitted that meets OCAN requirements for version 2.0.6 inclusive.

Application ID: This element contains identifying information about the source system. It is vendor related and should contain the business name, product used and version. The "application ID" for OCAN submission is optional; however it is recommended that this value contain a vendor related installation number or client ID value.

e.g. <application id="1" name="Product name" vendor="Vendor name" version="1.x"/>

2.0 Encapsulating the OCAN assessment data within the IAR Submission

The **SubmissionContent** element is used to embed assessment data within the IAR Submission Envelope. The assessment itself is stored in its native format, meaning it is standalone xml document on its own created to its corresponding schema.

There are 3 methods of accomplishing this, one to wrap the xml within a CDATA segment to contain the unaltered OCAN xml; or to encode the OCAN xml using Base64 encoding. The third way is using predefined entities in XML. Each approach has its merits and the use of either of these methods is up to the vendor.

With the CDATA method, the standard XML processing instruction should not be present at the "record" level. This instruction typically appears as follows `<?xml version="1.0" encoding="UTF-8" ?>` and should be suppressed so it does not trigger additional parsing.

Note: The thing to watch for when choosing this method is to ensure that inherent xml *special character* or *predefined entity* function does not interfere with the writing of the xml data to the element. This involves the automatic replacement characters such as "<", ">", "&", quotes etc. This typically affects the CDATA wrapper itself which renders the document unusable. However if you use the predefined "W3C" entities in XML do not include the CDATA instruction at the record level.

Example of CDATA embedded OCAN assessment data with in a text element:

```
<iar:IARSubmission >
  <iar:TransmissionHeader>
    <iar:SubmissionContent>
      <Record mimeType="text/xml" recordType="Assessment" version="2.0.6">
        <text><![CDATA[<OCANv2Submission....
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<iar:IARSubmission xmlns:iar="http://iar.on.ca/types" xmlns:xsi="http://www.w3.org/2001/
  <iar:TransmissionHeader>
    <iar:SubmissionContent>
      <Record mimeType="text/xml" recordType="Assessment" version="2.0.6">
        <text><![CDATA[<OCANv2SubmissionFile tool_revision="2.0.5" schema_version="2.0.6" :
      </Record>
    </iar:SubmissionContent>
  </iar:IARSubmission>
```

OCAN Submission Structure CDATA within a text record

Example of Base64 encoded OCAN assessment data within a binary element:

```
<?xml version="1.0" encoding="utf-8" ?>
<iar:IARSubmission xmlns:iar="http://iar.on.ca/types" xmlns:xsi="http://www.w3.o
  <iar:TransmissionHeader>
    <iar:SubmissionContent>
      <Record mimeType="text/xml" recordType="Assessment" version="2.0.6">
        <binary compressionType="none">PE9DQU52MlNlYm1pc3Npb25GaWx1IHRvb2xfcmlV2aXN
      </Record>
    </iar:SubmissionContent>
  </iar:IARSubmission>
```

Ocan Submission Structure encoded in Base64 within the binary element

Example of OCAN assessment data using predefined entities in XML:

```
<organization id="763" name="Organization Full Name" />
<exportTimestamp>2010-09-30T11:03:11Z</exportTimestamp>
<assessmentType>OCAN</assessmentType>
<application id="Application ID" name="Application Name" vendor="Vendor Name" />
</iar:TransmissionHeader>
<iar:SubmissionContent>
  <Record mimeType="text/xml" recordType="Assessment" version="2.0.6">
    <text>&lt;OCANv2SubmissionFile tool_revision="2.0.5" schema_version="2.0.6" ID=
  </Record>
</iar:SubmissionContent>
</iar:IARSubmission>
```

OCAN Submission Structure using the predefined "W3C" entities in XML within the text (entities include: quot=", amp=&, apos=', lt=<, gt=>)

2.1 OCAN 2 Submission structure

The Submission Content contains information regarding the source, type of assessment in the submission, version, timestamp and the submitOrg.

```
<OCANv2SubmissionFile tool_revision="2.0.5" schema_version="2.0.6" ID="File-2010-09-30 1103 full" timestamp="2010-09-30T00:00:00Z">
  <OCANv2SubmissionRecord OCANType="FULL" assessmentID="19" assessmentRevision="8" startDate="2010-08-01Z" completionDate="2010-06-14Z">
    <submitOrganizationRecord>
      <submitOrg name="OrgName Org" number="763" />
    </submitOrganizationRecord>
    <clientRecord>
      <OCANDomains>
      <additionalElements>
    </OCANv2SubmissionRecord>
```

2.2 OCAN SubmissionFile

The OCAN submission file element must have the following attribute values:

OCAN Tool revision "2.0.5"

Schema Version "2.0.6"

FileID a required attribute

Timestamp "YYYY-MM-DDThh:mi:ssZ –"

File ID – identifies the submission content

Date Time of Submission "2010-09-30T00:00:00Z"- This is required and the date should fall within the Fiscal Year of Submission; e.g. Fiscal Year "2010".

Note: There is a limitation regarding types such as xsd:dateTime refer to the OCAN Schema and adhere to the restrictions:

```
<xsd:attribute name="timestamp" use="required">
  <xsd:simpleType>
    <xsd:restriction base="xsd:dateTime">
      <xsd:minInclusive value="1900-01-01T00:00:00Z"/>
      <xsd:maxInclusive value="2079-06-06T00:00:00Z"/>
      <xsd:pattern value="((000[1-9])|(00[1-9][0-9])|(0[1-9][0-9]{2})|([1-9][0-9]{3}))-(
((0[1-9])|(1[012]))-((0[1-9])|([12][0-9])|(3[01]))T((0[1][0-9])|(2[0-3]))(:[0-5][0-9]){2}(\.[0-9]+)?((\+|-)((0[0-9])|(1[0-2]))(:[0-5][0-9])|(\+13(:[0-5][0-9])|(:[0-5][0-9])|\+14:00Z)"/>
```

2.3 SubmissionRecord Section

The SubmissionRecord element contains individual assessments. Each assessment contained within its own 'SubmissionRecord' element has a unique assessmentID, OCANType, startDate and completionDate. The submitOrg is identified and MUST match the organization ID in the IAR wrapper. The Client element contains details Personal Information (PI) and Personal Health Information (PHI) regarding the client that the assessment belongs to. The submission content is used to provide access by a clinician to all assessments stored within the IAR for a particular individual. A minimum of the First and Last name values are required in order to successfully find an individual within the system.

```
CANv2SubmissionRecord OCANType="FULL" assessmentID="19" assessmentRevision="8" startDate="2010-08-01Z" completionDate="2010-06-14Z"
<submitOrganizationRecord>
  <submitOrg name="OrgName Org" number="123" />
</submitOrganizationRecord>
```


OCANType – Identifies the assessment type in the submission content (only the same type of assessments can be contained in the SubmissionRecord so if it is “Full” only OCAN Full assessments can be contained in that particular submission.

AssessmentID – This is part of the primary key value used by the IAR. No two assessments can have the same assessment ID. Any assessment that is modified slightly or deleted and re-submitted must use the same assessment ID. The IAR will only display the latest copy to the user.

AssessmentRevision – For future use, if vendor software does not track it, then default it to 1.

startDate – The start date refers to the start of the assessment and is required

completeDate – The completion date has business rules that should be observed and is required as well.

Note: As mentioned above with the Date/Time Stamp there are restrictions on the pattern - please refer to the schema and follow this format "YYYY-MM-DDZ" for all the following fields startDate, completionDate, clientDOB, requestForServiceDate, serviceDecisionDate, serviceInitiationDate, exitDate, reviewDate.

submitOrg number – MUST be the same as in the IAR wrapper

clientRecord – Contains identifying information (PHI) for the assessment contained. Present for all assessment records.

Note: Ensure that the source system and the submission contains only the intended elements; e.g. Proper Name, Phone number (do not include notes, abbreviations, preferences, or special characters).

```
</submitOrganizationRecord>
```

```
<clientRecord>
```

```
<clientID orgClientID="040523096" />
<completedByOCANLead>TRUE</completedByOCANLead>
<reasonForOCAN value="OTHR" other="Consumer Request" />
<consumerSelfAxCompleted>FALSE</consumerSelfAxCompleted>
<reasonConsumerSelfAxNotCompletedList otherReason="">
  <value>LIT</value>
</reasonConsumerSelfAxNotCompletedList>
<clientName first="Barney" middle="" last="Rubble" preferred="Barney" />
<clientAddress line1="123 Fake St." line2="" city="Kingston" province="O." />
<clientPhone number="(613) 555-4545" extension="" />
<clientEmailAddress>pRubble@gmail.com</clientEmailAddress>
<clientDOB value="1982-06-14" type="" />
<clientHealthCardInfo number="" version="" issuingTerritory="" />
<serviceRecipientLocation>010-03</serviceRecipientLocation>
<serviceRecipientLHIN>10</serviceRecipientLHIN>
<gender>F</gender>
```

clientID - This is a unique identifying number for an individual client in the source system.

clientName - <clientName first="Barney" middle="" last="Rubble" preferred="Barney" />

Note: For reference when training HSPs on source software, do not add nick names or preferred names to the last or first name as this will have negative implications on searching for the client in IAR.

clientPhone - Identifies the client phone number, ensure that only the number and extension is entered do not add the time a client is available, notes, or special characters “#” as this will then cause issues in searching for the client in IAR. Limit the characters to 20.

2.5 Assessment Record Content Elements

All assessment types have their own unique record structure. Below is a sample OCAN Full. All OCAN assessment records have common elements: Each assessment record includes “Identification” of the source software, the HSP submitting, the unique assessment and the client the assessment pertains to (including the assessment attributes).

For details regarding this and all elements contained within a particular OCAN assessment record refer to the OCAN documentation on the CCIM portal (www.ccim.on.ca).

```
<OCANv2SubmissionFile tool_revision="2.0.5" schema_version="2.0.6"
  <OCANv2SubmissionRecord OCANType="FULL" assessmentID="19" assessmentType="Full"
    <submitOrganizationRecord
      <clientRecord
        <OCANDomains>
          <domain name="01-accommodation">
            <domain name="02-food">
              <needRating client="-1" staff="1" />
              <informalHelpRecvd staff="0" />
              <formalHelpRecvd staff="0" />
              <formalHelpNeed staff="2" />
              <domainComments client="" staff="Client needs to be referred to local food bank" />
              <domainActions actionText="Help client to find local food bank" />
            </domain>
          <domain name="03-looking after the home">
            <domain name="04-self-care">
              <domain name="05-daytime activities">
```

Sample OCAN Full Assessment record