

Community Support Services Common Assessment Project

**interRAI Preliminary Screener for
Primary Care and Community Care Settings**

Software Requirements Specifications

Document Release 1.0

July 18, 2012

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Revision History

Version	Date	Change	Change by
1.0	2012-07-18	Initial Release	CSS CAP Project Team

1. Documentation Overview

The following documents represent the software requirements specifications for the automation of the interRAI Preliminary Screener for Primary Care and Community Care Settings, Canadian Version (also known as the interRAI Preliminary Screener):

- Software Requirements Specification (PDF, this document)
- Data Standards Worksheet in MS Excel Format (includes Administrative Facesheet and System submission requirements)
- XML Schema zip file (zip, containing 6 .xsd files, 1 .wsld file, 1 readme .txt file, and 2 .xml sample files)
- Preliminary Screener Technical Specifications (Assessment Urgency Algorithm (AUA) provided by interRAI)
- 1 read me .txt file for the AUA (provided by interRAI)
- interRAI Preliminary Screener for Primary Care and Community Care Specification tool (provided by interRAI)
- Data Submission Requirements from the Integrated Assessment Record (IAR) project. These requirements and specifications can be found on CCIM website at:
<https://www.ccim.on.ca/Vendor/CSSCAP/default.aspx>

Note: The relevant documents to the development of the IAR application are located under the date of the latest release of requirements

- READ ME – Release Notes document
 - Data Submission and Technical Specifications
 - IAR Submission Schema
 - IAR PHI Submission Schema
 - IAR Web Service Definition
- Implementation Validation Guide (PDF document)
There is an Implementation Validation Guide for Vendors and another for Local Health Integration Networks (LHINs) and health service providers (HSPs).

The approach taken in documenting the software requirements for the automation of the Preliminary Screener tool details core automation requirements, business processes and business rules for the Community Support Services (CSS) sector without imposing a specific implementation approach.

If there are any further questions regarding the requirements for the implementation of the automated tool, please contact the Community Support Services Common Assessment Project (CSS CAP) team at:

CSS CAP Support Centre
Tel: 1.866.909.5600, Option 9
Fax: 416.314.1585
Email: csscap@ccim.on.ca

To obtain specifications to develop the solution:

1. Go to Organization/Licensing on the interRAI website (<http://www.interrai.org>)
Brant E. Fries, Ph.D.
Institute of Gerontology
University of Michigan
300 North Ingalls
Ann Arbor, Michigan USA 48109
Email: bfries@umich.edu
2. Ensure that interRAI is aware that you require the Canadian license
3. interRAI will provide you with a log-in to the interRAI website. You will be directed to where you can download the materials as well as which materials you will need to develop the Canadian interRAI Preliminary Screener for Primary Care and Community Care Settings

2. Introduction

As one of its strategic priorities, Community Care Information Management (CCIM) established the development of common assessment capability across the community care sector. Common assessment is widely recognized as a key enabler of quality care through the standardized collection of assessment information.

The CSS sector provides a wide range of services to the community, supporting individuals with a variety of needs. Seniors are among the many individuals benefiting from community support services. Support ranges from meal delivery through organizations such as Meals on Wheels to comprehensive support and activities of daily living through assisted living programs.

2.1 Purpose

The purpose of this document is to provide the minimum set of requirements for the automation (i.e., implementation of software) of the interRAI Preliminary Screener tool. The implemented software must support all features, specifications and business rules as well as all outlined supporting requirements documents.

LHINs and/or HSPs have the option of working with their vendors to enhance and customize their software to meet the HSPs specific needs without changing the content of the tool itself or the business and system rules that pertain to it.

2.2 *interRAI Preliminary Screener for Primary and Community Care Settings*

The interRAI Preliminary Screener will support the intake process to:

- Enable decision making related to identifying persons who would likely benefit from a comprehensive interRAI Community Health Assessment (CHA) assessment
- Record basic information about persons who would not be receiving a comprehensive interRAI CHA assessment at a later stage

2.3 *General Guiding Principles*

Vendor software must support compliance with all privacy and security requirements indicated in the Personal Health Information Protection Act, 2004 (PHIPA) and associated Regulations, including those described in Ont. Reg 329/04 under PHIPA for a Health Information Network Provider (HINP).

2.4 *Intended Audience*

Vendor

Intended for the vendor are this document and all other supporting documents that make up the requirements (as listed in the previous section of this document) to implement an automated solution. The project team is available throughout the implementation phase via regular teleconferences for clarifications and questions about the requirements as needed. Any additional questions can be emailed to the project team through the CSS CAP Support Centre.

Local Health Integrated Networks (LHINs) and Health Service Providers (HSPs)

LHINs and/or HSPs must read and understand this document and all other supporting documents provided as a basis of understanding their software and business needs. This requirement package may not outline all organizational specific business rules to support the automation of the tool. However, it is the responsibility of LHINs and/or HSPs to ensure that the selected vendor delivers an automated solution that meets their needs.

2.5 Benefits and Goals

Benefits for Clients and Assessors

The interRAI Preliminary Screener:

- Can be completed as part of an in-person interview or over the phone
- Records the most essential information needed at time of intake to support decisions related to the need for more comprehensive assessment
- Provides some clinical information needed at the onset of community support service provision
- Short, simple and quick to complete
- Standardizes an intake assessment practice
- Facilitates inter-agency communication through common assessment language
- Is not intended to inform service planning

Benefits for Organizations and the Health Care System

The interRAI Preliminary Screener:

- Through standardized, aggregate data, can inform evidence-based decision making and planning based on client profiles, trends and service provision
- Further facilitates inter-agency communication through a common language based on recognized data standards

3. Scope

3.1 *In-Scope Items*

1. Automation of the interRAI Preliminary Screener for Primary Care and Community Care Settings tool
2. Assessment Management
 - New, in-progress, completed and cancelled assessments
 - Manage assessments (e.g., search, view, error correction, print)
3. Mobility
4. Privacy and Security
5. Consent Management
6. Data Submission to Integrated Assessment Record (IAR)

3.2 *Out of Scope Items*

1. Electronic Management of the Referral Process
2. Data Transfer to and/or from other Health Service Provider (HSP) systems
3. Reporting

3.3 *Assumptions/Constraints/Considerations*

- The interRAI Preliminary Screener is the standard intake assessment tool for the CSS sector
- There are variances in existing business processes within the HSPs based on the type and number of services provided
- LHINs/HSPs will comply with standard guidelines around the interRAI Preliminary Screener assessment completion to ensure data consistency and accuracy across the sector
- LHINs/HSPs will be required to regularly submit the completed interRAI Preliminary Screener assessment data to a central data repository
- Licensed interRAI CHA vendors are automatically authorized to implement the interRAI Preliminary Screener tool
- For vendors not licensed for the interRAI CHA, licensing for the interRAI Preliminary Screener should be obtained from interRAI

4. Business Process Overview

The interRAI Preliminary Screener will serve as the intake assessment tool for various LHINs/HSPs within the CSS sector. The interRAI Preliminary Screener only includes the minimum number of information items needed in order to stratify clients into one of two groups: those persons who are likely to benefit from a more detailed assessment, and those who will not.

4.1 *The interRAI Preliminary Screener Assessment Process*

An assessor completes an interRAI Preliminary Screener assessment on a client where a comprehensive assessment has not been completed, to determine whether further comprehensive assessment is required, based on the Assessment Urgency Algorithm (AUA) score. To obtain this score, the assessor will enter personal information, personal health information and ask a series of questions based on the interRAI Preliminary Screener assessment tool to identify client needs.

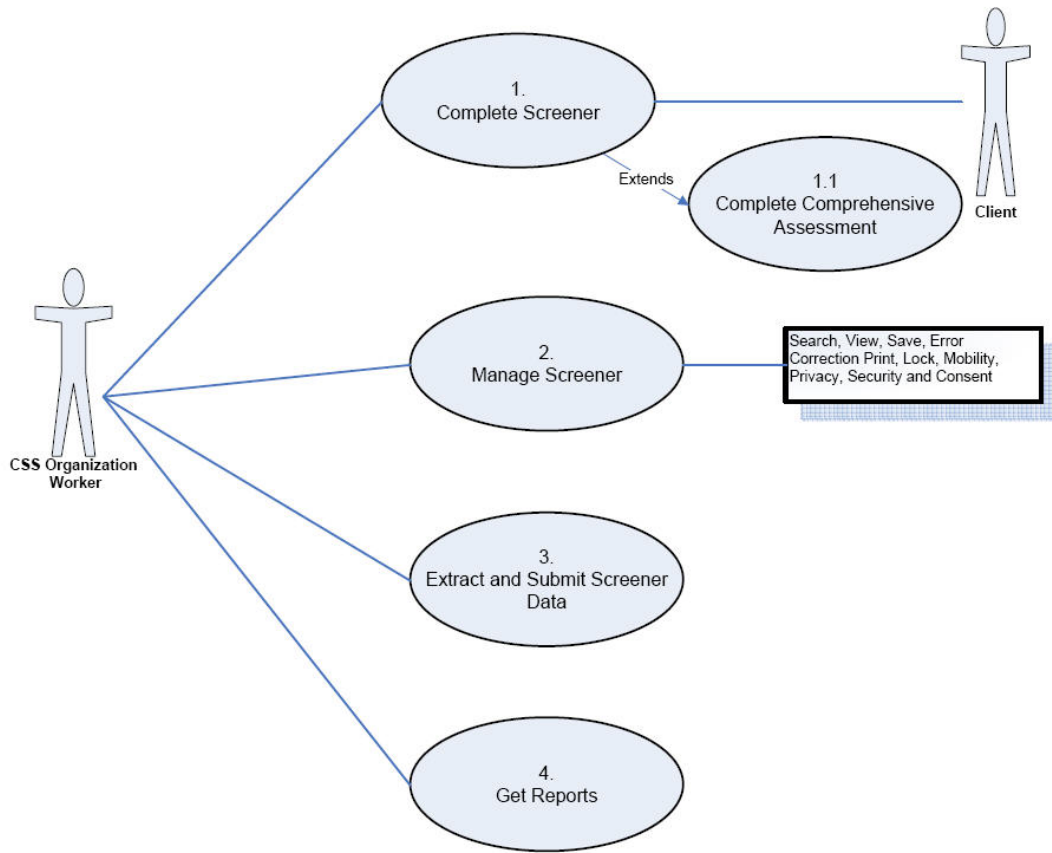
System Model

Actors

CSS Worker/Assessor: The primary actor that uses the system to capture client assessment information in the organizational system. The following roles may exist within an organization

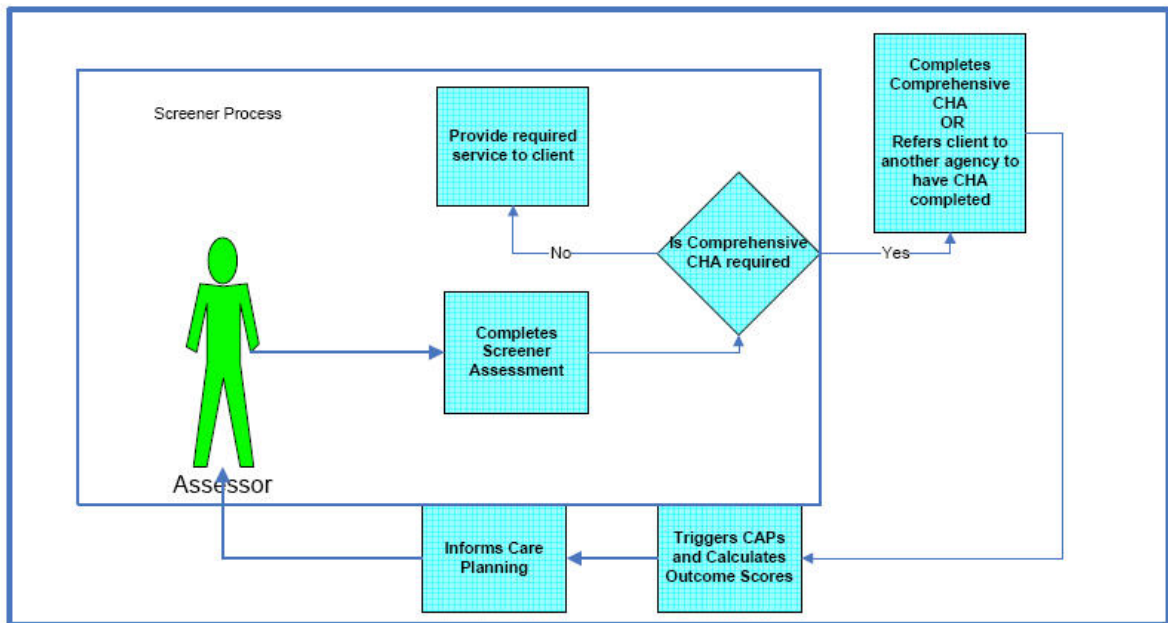
- Case Manager/ Case Worker/ Coordinator (also called Assessor)
- Administrator

Client: The recipient of community support services



5. Functional Requirements

The interRAI Preliminary Screener and Comprehensive Assessment Completion Process



5.1 Overall Assessment Requirements

- 5.1.1 Complete assessment: The automated solution must provide the ability for users to complete an interRAI Preliminary Screener assessment for a client
- 5.1.2 Complete calculations: Assessment Urgency Algorithm (AUA) outcome result will determine if further assessment is required for the client
 - i. Note: The AUA must be automatically calculated within the tool once all mandatory fields have been completed
- 5.1.3 Alert the user: The system must alert the user, through the Assessment Urgency Algorithm (AUA), if a comprehensive assessment is recommended based on the completion of the interRAI Preliminary Screener
- 5.1.4 Integrate with the interRAI CHA: The system should have the ability to allow a user start a comprehensive assessment if required or if the user decides to complete one at their discretion (this may only apply to HSPs who offer both the interRAI Preliminary Screener and interRAI CHA assessments)
- 5.1.5 View and store assessment outcomes: An assessor must be able to view the result outcome once all mandatory fields, and cross validation checks have been completed. It must also provide the ability to store the results once the interRAI Preliminary Screener assessment has a completed status
- 5.1.6 Assign status: The system must automatically assign "In Progress", "Complete" and "Cancelled" status for interRAI Preliminary Screener assessments based on established business rules
- 5.1.7 Free text capture: A Notes entry field must be appended to the interRAI Preliminary Screener assessment to capture additional relevant information
- 5.1.8 Flexibility to accommodate other languages (e.g., French) and accessibility (e.g., for sight and hearing impairments) features
- 5.1.9 Display Facesheet: The system should display the data on the Administrative Facesheet which includes additional reporting information currently not within the tool between section A and B
 - 5.1.9.1 The 'Reason for No Health Card number' needs to be available for input and viewable but it needs to be distinctly marked up as a non-interRAI field

5.1.10 The additional field 'Client Agrees to have an interRAI CHA assessment Complete' should be located in section 'C-Summary' of the interRAI Preliminary Screener tool between section C2 and C3

5.1.10.1 The field should be distinctly marked up as a non-interRAI field

Business Rules

Assessment Completion Business Rule	
Business Rule #	Description
AC BR1.	All clients must have a unique client ID per organization
AC BR2.	The same client ID should applied to the comprehensive assessment if completed at the same HSP
AC BR3.	All interRAI Preliminary Screener assessments must have a unique Assessment ID associated to each record
AC BR4.	The software must include all data fields and valid values, algorithms, and cross validation as defined in the interRAI Preliminary Screener Assessment tool
AC BR5.	System must allow the interRAI Preliminary Screener assessment questions to be completed in any order within the sections of the assessment
AC BR6.	<p>In Progress status:</p> <p>Assessment is "In Progress" if:</p> <ul style="list-style-type: none"> All mandatory fields are not completed while information is being captured and the assessment record can be saved intermittently while in this status
AC BR7.	<p>Complete Assessment status:</p> <p>Assessment is complete only when the following conditions are met:</p> <ol style="list-style-type: none"> All mandatory fields have been completed Conditions for cross-validation checks have been met The values with the interRAI Preliminary Screener must be correct The interRAI Preliminary Screener results have been calculated and displayed The Administrative Face Sheet has been completed The assessment has been signed off <p><i>Note: Once an assessment is marked "Complete" it is locked and no further changes can be made</i></p>
AC BR8.	Cancelled Assessment status:

Assessment Completion Business Rule	
Business Rule #	Description
	<p>If an assessor chooses to discontinue an assessment (“In Progress” status), a “cancellation” status is assigned</p> <ol style="list-style-type: none"> 1. An additional field to capture cancellation reason may be required for the assessment. Data fields completed thus far should be captured and stored alongside the cancellation reason <p>Requesting a cancellation should override enforcing the mandatory field rule</p>
AC BR9.	<p>Vendors can design and automate the interRAI Preliminary Screener tool in a flexible manner that suits the HSPs’ existing software technology, design and user interface</p> <p>However, it is critical that the implementation does not change the order and flow of sections, fields per the official PDF version of the interRAI Preliminary Screener for Primary Care and Community Care Settings</p> <p>The electronic representation of the interRAI Preliminary Screener tool must always have a similar look and feel to the most recent paper version of the interRAI Preliminary Screener for Primary Care and Community Care Settings tool</p>

5.2 Manage Assessment

- 5.2.1 Provide the ability to search and view historical client assessments through defined search criteria (e.g., case record ID, health card number, assessment date, etc)
- 5.2.2 Provide the ability for an assessor to continue a previously saved assessment with “In Progress” status until the assessment is completed or cancelled
- 5.2.3 A business or system process must allow for changes or major error corrections for completed and locked assessment
- 5.2.4 Error corrections made to completed assessment must be tracked with the same assessment ID and update flag identifier and must maintain an audit trail of changes to the assessment record
 - 5.2.4.1.1 Both the original “Completed” and the actual “Corrected” assessment should be saved within the system, with the “Corrected” assessment being the most current version of the assessment (i.e., displayed in client search)
- 5.2.5 Provide administrative privileges to delete duplicate client records/assessment based on HSPs’ business processes
- 5.2.6 Provide retention and archiving capabilities based on provincial and sector policies and standards
- 5.2.7 Provide an online and offline help feature for the assessment tool
- 5.2.8 Provide the ability to print blank assessments with the same look and feel as a paper version of the interRAI Preliminary Screener for Primary Care and Community Care Settings tool
- 5.2.9 Provide the ability to print “In Progress” or “Completed” interRAI Preliminary Screener assessments and the results
- 5.2.10 Printed assessments should display the following header/footer information on every page of the printed document
 - Assessment ID
 - Client ID and Name
 - Assessor Name
 - HSP Name
 - Print Date
 - Page Numbers
 - Assessment Status
 - Assessment Type
 - Printed By User ID

5.2.11 Provide options to print assessments with or without notes

5.2.12 Provide the ability to export one or more assessment data to CSV, Excel formats

Manage Assessment Business Rule	
Business Rule #	Description
MA.BR 1.	The system must maintain a complete history of assessment records for a client
MA.BR 2.	A client's search result must display "Completed" and "In progress" assessments in a logical order. For example, the most recent assessment record is displayed first on the list
MA.BR 3.	The system must have the ability to print partial or completed assessments in a standard format. For example: <ol style="list-style-type: none"> 1. The online view of the assessment and the printed version should have the same "look and feel" 2. Font and size should be consistent on printed documents from the system 3. All assessments destined for printing must be precluded by a cover sheet containing privacy messaging (privacy message will be provided in the detailed specifications)
MA.BR 4.	<ol style="list-style-type: none"> 1. Client ID, assessment id, assessment type and HSP name and assessor name should always be printed at top of the page to aid manual business process and information sharing 2. Headings and sections should be prominent 3. interRAI Preliminary Screener for Primary Care and Community Care Settings header and footer information of the paper version must be included in the printed version
MA.BR 5.	<p>interRAI Preliminary Screener Error Correction:</p> <p>Once the interRAI Preliminary Screener has a "Completed" status, no further changes can be made to the assessment record</p> <p>If a user identifies an error to a "Completed" assessment, an error correction function within the system should allow the user to make corrections to a full copy of the original completed assessment (i.e., same assessment ID). The user should be allowed to make the necessary corrections, re-sign and submit</p> <p>The actual correction event, including which fields were corrected, the assessment ID, time of correction and the individual who made the correction, should all be logged within the system and accessible for auditing purposes</p>

5.3 Mobility Requirements

- 5.3.1 Provide an online and offline mobile solution (e.g. laptops, tablets) supporting the assessment completion process
- 5.3.2 Vendors must ensure that the offline version of the assessment tool is consistent and matches the online version of the interRAI Preliminary Screener and its algorithms
- 5.3.3 Provide a user-friendly process for assessment data synchronization
- 5.3.4 Provide the ability for organizations to view synchronization history to ensure assessments are updated or synchronized on a frequent basis, based on a defined timeline, as specified by the organizations

6. Privacy Security and Consent Management

6.1 Security Requirements

As the health care industry moves toward the electronic storage, sharing and transferring of sensitive information, privacy and security issues must be identified and addressed to ensure the confidentiality, integrity and availability of information.

While the requirements mentioned do not completely list all privacy and security controls, they should be provided in their entirety and included in the proposed solution, each vendor must be fully compliant with the typical controls recommended by industry best practices and standards (e.g., ISO27799) and expected by provincial legislation (e.g., robust access controls, logging and auditing capabilities, etc.). Such controls must be provided as fully integrated components of the product offering.

It is highly recommended that the vendors include a description of their understanding, experience and practice in such subject areas as Personal Health Information Protection Act (PHIPA), ISO27799, and the CSA Model Code, and map the Privacy and Security controls included with their product to a standard such as ISO27799 in order to facilitate the evaluation of their product by the customer/user HSPs.

It is the responsibility of the vendor to provide a product that will enable user HSPs to comply with their obligations under PHIPA.

It is the responsibility of each user HSP to be aware of its role as defined within PHIPA and to fulfill the requirements of that role by completing due diligence when selecting and implementing a product. That due diligence may include conducting a Privacy Impact Assessment and a Security Threat Risk Assessment on the proposed solution.

.Lastly, HSP users should ensure appropriate security is in place for collection and storage of personal health information data in accordance with PHIPA. They should also establish with vendor support (if necessary) unique user login identification and passwords to promote individual accountability to protect against unauthorized system and information access

6.2 Consent Management

Currently, HSPs have specific processes in place to manage client consent. As part of the Integrated Assessment Record (IAR) implementation in Ontario, those current processes have been leveraged to arrive at a common consent framework.

At a minimum, the software will be required to capture consent to share at the assessment level.

It is CSS CAP's intent to align with the consent framework formulated to capture consent directives within the data feeds to IAR. Please refer to the following documents for details of consent specification for IAR:

https://www.ccm.on.ca/Vendor/IAR/Documents/IAR_Release_3.0_Submission_Requirements/IAR_Consent_Management_for_Vendors_v02_20111019.pdf

https://www.ccm.on.ca/Vendor/IAR/Documents/IAR_Release_3.0_Submission_Requirements/IAR_R3.0_Suppliment_SubmissionAndConsentSpecifications_20111001.v1.pdf

7. Other Requirements

7.1 Audit Requirements

- 7.1.1 Audit requirements are not described in detail in this document; however, the responsibilities lie with the organizations and vendors to establish industry standard best practices to ensure the software is robust and is able to provide a minimum set of audit capabilities as part of its software implementation.
- 7.1.2 Real-time alerts should be displayed to manage errors, missing data, etc. with the ability to navigate the user to specific errors and/or missing fields.

7.2 Usability Requirements

There are no specific requirements mentioned around usability. This empowers software vendors' flexibility to design and best satisfy the needs of the users of the application. Usability should include a user-friendly and intuitive interface that aligns with industry best practices.

8. Data Submission to Integrated Assessment Record (IAR)

The Integrated Assessment Record (IAR) is an initiative within Community Care Information Management (CCIM) to allow assessment information to be viewed by authorized health service providers across care settings. The IAR application is currently being implemented in LHINs across Ontario.

As part of the IAR initiative, a central repository for assessments will be maintained. Client assessment information collected by standardized assessments, such as the interRAI CHA, Ontario Common Assessment of Need, and interRAI Preliminary Screener assessments, is uploaded regularly to the repository.

A central repository offers the opportunity for assessment information to flow with the client across care settings and to facilitate a common understanding of their needs, thus improving the continuity of care. Assessment information will be available to view by such authorized health service providers as community support services HSPs, community mental health HSPs, hospital in-patient services, crisis centers in emergency departments, Community Care Access Centres, addictions organizations and community health centers. Having an electronic tool to assist HSPs in linking all of the various assessments together will increase efficiency in directing community support services to clients and patients across the LHINs.

The IAR application will provide a platform to view assessment records and supports collaborative care planning and service delivery. Real-time access to standardized clinical data will enable benchmarking, identification of best practices, and informed planning for HSPs across sectors. Integrated assessment data will assist LHINs, the Ministry of Health and Long-Term Care and the CSS sector in evaluating outcomes for specific clinical assessments, identifying trends and determining the effects of community care on acute and primary care events. It enables health service provision to transcend care settings.

Completed assessment records will be extracted in XML file format and submitted via web services (HTTPS) over an internet based environment. Please access the link below for specification details:

<https://www.ccim.on.ca/Vendor/IAR/default.aspx>

Appendix A: Cross-Validation Checks

<p style="text-align: center;">Cross-Validation Checks</p> <p style="text-align: center;">The following cross validation checks outlined currently exist within sections of the interRAI Preliminary Screener tool</p>			
Section Data Element	Description	Validation Rule	Apply To
A3: Birth Date	Client's date of birth	<p>Cannot be greater than Assessment Reference Date</p> <p>If otherwise, the system should display an error message to alert the user:</p> <p>'Client Date of Birth is invalid'</p>	interRAI Preliminary Screener
A10: Assessment Reference Date & C3: Date Screener signed as Complete	Date of the assessment & Date Screener signed as Complete	<p>An assessment reference Date must be less than or equal to Date Screener signed as complete</p> <p>If otherwise, the system should display an error message to alert the user:</p> <p>Date Screener signed as Complete must be greater than or equal to the Assessment Reference Date'</p>	interRAI Preliminary Screener

<p>Section A (Identification information) & Reason for No Health Card number (Administrative Face Sheet (AFS))**</p>	<p>Health Card Number (A4a) and 'Reason for No Health Card Number' (AFS- 4)</p>	<p>One of these fields has to be filled and neither can be left empty at the same time</p> <p>That is: 'If the health card number is not provided, a "Reason for No Health Card Number" must be provided, or If the health card number is provided, a "Reason for No Health Card Number" must not be provided</p> <p><u>If</u> otherwise, system should display alert message within interRAI Preliminary Screener to alert the user: 'Either specify a Health Card number in section (4a) or select a 'Reason for no Health Card number' within the interRAI Preliminary Screener</p>	<p>interRAI Preliminary Screener & Screener Administrative Face Sheet</p>
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**The Reason for No HCN needs to be available for input and viewable but it needs to be distinctly marked up as a non-interRAI field