O C A N - Ontario Common Assessment of Need

System Requirements Specification

Community Care Information Management

CCIM — Community Care Information Management — ACCESS TO INFORMATION

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1 Overview

1.1 Documentation

This document (Software Requirements Specification), together with the Data Elements spreadsheet and other supporting documentation, represent the requirements for the intended automation of the Ontario Common Assessment of Need (OCAN). These requirements serve as the detailed specifications for building the automated assessment.

The approach taken in documenting the system requirements has been one of detailing specifications that encompass core automation rules without dictating a specific type of implementation. Therefore, the lack of prescription and specifics in some areas of this document is meant to empower the software developer/vendor with design and automation flexibilities in order to best satisfy the needs of the organization for which the software is being developed. This flexibility should also facilitate fitting the software to the context of other client service applications that the organization may already be using.

Informal documentation methods (Use Case Model, informal/customized Use Cases) have been used to capture the functional requirements for a system, which has minimal User-System interaction and system flows.

If there are further questions/concerns regarding the requirements for the implementation of the automated system, contact the Community Mental Health Common Assessment Project (CMH CAP) team at: **CMHCAP@ontario.ca**

1.2 Business Background

There are more than 300 Community Mental Health (CMH) organizations across Ontario using about as many different assessment tools, with little or no provincial standards to guide them. The sector has identified the opportunity to enhance the initial assessment process to make it more effective for both consumers and their CMH service providers.

The CMH CAP is addressing the sector's challenges by building an assessment tool to better respond to the needs of consumers and providers at the sector's organizations of differing sizes, programs and approaches. An extensive consumer-led approach was taken in selecting and enhancing OCAN. This approach increases engagement by consumers of mental health services which research has shown leads to reduced hospital admissions.

Province-wide consultations were held in each of the 14 LHINs to gather feedback on the considerations for the implementation of an automated CMH common assessment. Nearly 500 individuals provided comments and submitted questions to project team for review. A panel of expert Canadian researchers participated as part of the selection team. Of the 50 organizations who stepped up to pilot OCAN, 16 volunteer organizations were selected as pilots based on size, location, program mix, independent and partnership groupings. A NE LHIN pilot launched in February 2009 involves 38 organizations.

1.3   What is OCAN?

OCAN is a standardized, consumer-led decision-making tool that allows key information to be electronically gathered in a secure and efficient manner. The largest, internationally recognized, researched and accepted assessment tool known as the Camberwell Assessment of Need (CAN-C) is at OCAN's core. Additional mental health elements incorporated into the tool specifically focus on an Ontario-based approach to recovery. These include risk, legal, gambling, and hopes and dreams indicators.

For each of the domains (i.e. Accommodation, Self-care, Daytime activities, etc.), the current situation of the consumer is assessed along with the level of informal (family and friends) and formal (service providers) supports they currently receive and need. By identifying needs and measuring strengths, OCAN helps lead consumers to recovery.

This tool is unique in seeking the increased engagement of consumers of mental health services in determining their level of need. The two-part process includes a Consumer Self-Assessment which formally gives consumers a role in their assessment process. The health worker completes the Staff Assessment part through discussions with the consumer. The responses are jointly discussed, variances explored, preferences expressed and next steps agreed upon.

1.4   Benefits

OCAN has been proven to assist consumer-led decision making at an individual level. It identifies individual needs and can help match these to existing services and identify service gaps. Aggregate data derived from OCAN has the potential to inform organizational, regional and provincial level planning and decision-making that is consistent with a recovery approach. In time, OCAN will further facilitate inter-agency communication through common data.

Expected benefits from the province-wide implementation of OCAN include:

For the consumer:
- ❖ Gives consumers an effective way to voice their needs and preferences
- ❖ Focuses on client needs rather than symptoms
- ❖ Provides for a more inclusive approach to care
- ❖ Allows the consumer to provide the relevant level of information, reducing repetition at each stage in their service

For the sector:
- ❖ Reduces repetitive information gathering
- ❖ Assists recovery-oriented service planning at an individual level
- ❖ Identifies individual needs and helps match these to existing services and identifies service gaps
- ❖ Gives organizations the ability to focus their services based on needs
- ❖ Provides a common language that allows cross-sector partnering and planning
- ❖ Acknowledges the important role that informal support plays in helping with client needs

For the system:
- ❖ Promotes equitable access to services where available

❖ Ensures that standardized information is collected
❖ Highlights need and service in each area
❖ Captures aggregate data that will inform planning and decision-making

1.5   Scope

An automated implementation of OCAN must at a high-level meet the following scope requirements:

1. The System must capture all of the Business Rules outlined in this document.

2. The System must provide all of the Functional Requirements as outlined by this document via the Use Case Model and Use Case Specifications and any additional notes that may be considered as functional requirements.

3. The System must meet all of the Non-Functional (Performance, Security, etc.) requirements as outlined in this document.

4. The System must provide the ability to capture ALL of the questions/data elements of the assessment tool as outlined in this document, the Data Elements spreadsheet and the PDF versions of the staff and consumer assessments.

5. The System must have the ability to generate the required output XML that adheres to the XML Schema provided in the requirements package.

6. The System must adhere to the Reporting Requirements outlined in the Reporting Requirements Specification document.

2 System Model

2.1 Actors

Mental Health (MH) Worker: The primary actor that works with the system, the MH Worker, will use the system to capture Assessment information pertaining to the Consumer.

Consumer: In the context of mental health services, the consumer is the recipient of mental health services. This actor is the equivalent of client and patient seen in other healthcare contexts.

MH Organization IT Specialist/Administrator: This is a possible system actor. Not all MH organizations will have this role. Specific system access/permissions depend on the organization. The implemented solution should take into account the possible existence of this role.

MH Organization Manager: This is a possible system actor. Not all MH organizations will have this role. Specific system access/permissions depend on the organization. The implemented solution should take into account the possible existence of this role and allow possible functions such as access to all MH worker workload profiles showing all assessments, access to specific reports, etc.

2.2 System Overview

Community Mental Health organizations in Ontario have a broad range of service delivery models, business workflows, organizational structures and business systems environments. While some may have existing strong IT infrastructures along with client management software, others may not be as advanced in terms of the use of technology.
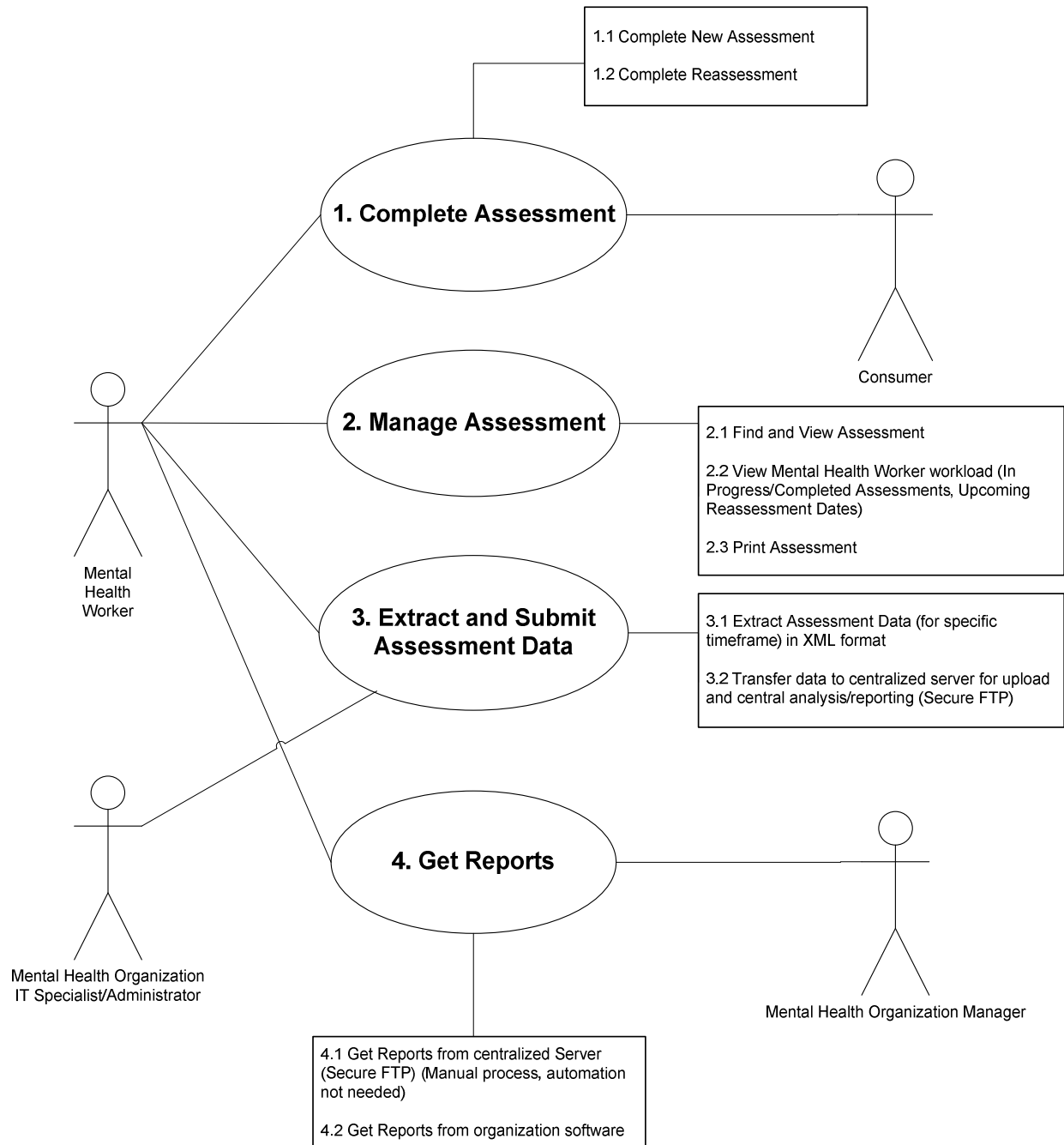
The new assessment tool OCAN is being introduced to the mental health organizations both in paper form and as an automated software tool. The functional/non-functional requirements captured in the following sections of this document are the minimal set of implementation requirements for the automated assessment tool. The organization can work with their vendors to enhance and customize their implementation of the software which automates OCAN, without adding, removing or changing the content of OCAN itself, in any way, nor the business and system rules that pertain to it. Following the development phase, there will be a rigorous data validation phase in which the vendors are required to submit an XML data extract to the project team for validation.

At a minimum, the implemented system should allow the mental health organization to:

- capture client OCAN information in its entirety as per the PDF versions of the OCAN assessment (Staff part with/without examples & Consumer part)
- perform reassessments for clients
- search, list, view assessments completed for each client, by each Mental Health Worker and at the organization level
- Extract and submit assessment data in XML format
- Produce and view reports

2.3 Use Case Model

Ontario Common Assessment of Need Use Case Model

1.1 Complete New Assessment

1.2 Complete Reassessment

1. Complete Assessment

Consumer

2. Manage Assessment

2.1 Find and View Assessment

2.2 View Mental Health Worker workload (In Progress/Completed Assessments, Upcoming Reassessment Dates)

2.3 Print Assessment

Mental Health Worker

3. Extract and Submit Assessment Data

3.1 Extract Assessment Data (for specific timeframe) in XML format

3.2 Transfer data to centralized server for upload and central analysis/reporting (Secure FTP)

4. Get Reports

Mental Health Organization IT Specialist/Administrator

Mental Health Organization Manager

4.1 Get Reports from centralized Server (Secure FTP) (Manual process, automation not needed)

4.2 Get Reports from organization software

2.4   Use Cases

UC1: Complete Assessment

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                                    │ 1.1 Complete New Assessment   │
                                    │                              │
                                    │ 1.2 Complete Reassessment     │
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      Mental                                                    Consumer
      Health
      Worker
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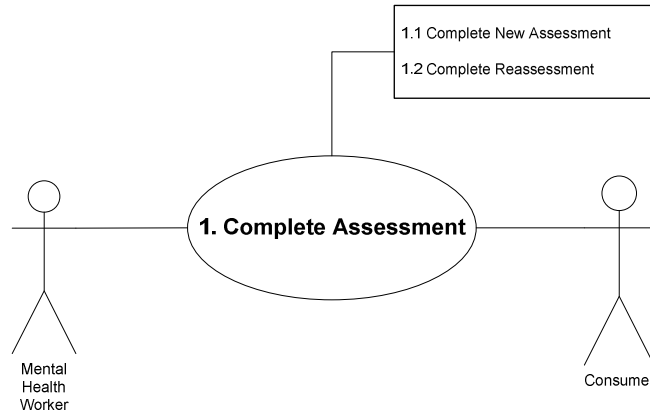
1.1   Complete Assessment

1.1.1   User initiates new Assessment for a Client

Some organizations may want to allow the Client/Consumer to complete the Consumer section of the assessment directly into the software tool; the automated solution should provide a feature to allow the Client to complete the Consumer portion of the assessment.

1.1.2   The System presents a new Assessment associated to the Client, the status of the Assessment is set to "in-progress"

1.1.3   User enters data for the different sections of the assessment in any order and selects to save the information intermittently throughout the data entry/assessment completion process (the process of data entry may happen over many days, the Assessment Start Date and Assessment Completion Date are not system generated, they are manually entered by the User, they can be dates in the past or in the future however the Start Date and Completion Date cannot be more than 30 days apart)

1.1.4   The system must present an option to change the status of the Assessment from "In Progress" to "Completed" once the User is satisfied that all of the information has been entered for a particular assessment.

Important: The System should check that all mandatory fields have been captured in the assessment before allowing the status of the assessment to be changed to "Completed".

Once the assessment status is changed to "Completed", it is locked and there can be no further changes/additions to the assessment (only in the case of major errors, there should be a separate process for fixing errors in a completed assessment)

1.2   Initial Assessment / Re-Assessment / Discharge Timeline

A Client/Consumer may receive mental health services from one or many mental health organizations in Ontario over many years. Each organization's software should keep a history of assessments completed at their organization for the Client.

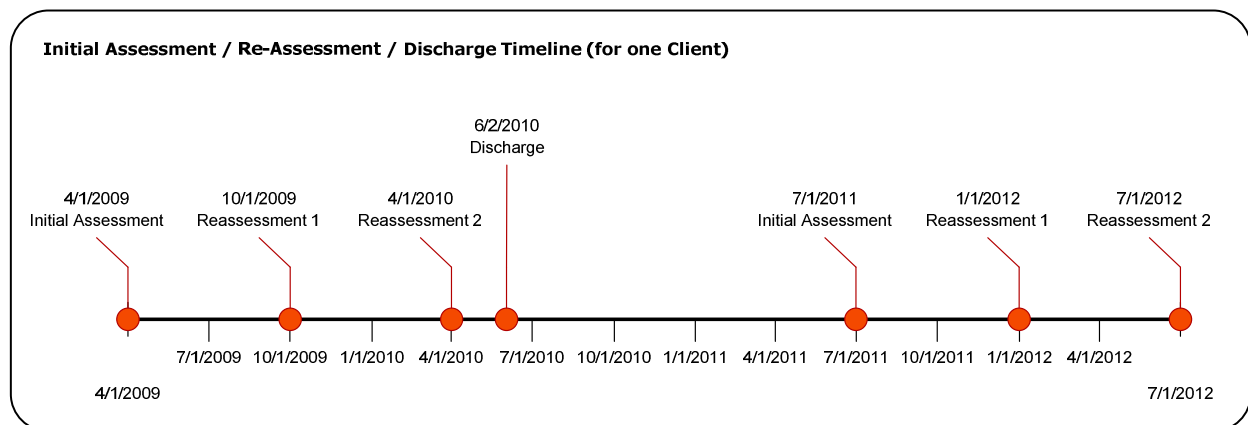Initial Assessment: An Initial Assessment happens when:

1. The Client is new to the organization
2. The Client is not new to the organization, but was discharged from the organization for a period of more than 3 months.

Re-Assessments happen every 6 months following the Initial Assessment until Discharge, within 3 months, if the Client returns for more services the Reassessment cycle can continue as usual and there is no need for a new Initial Assessment, however, if the Client has been discharged (i.e. An assessment with the Reason for Assessment of (Prior to) discharge has been completed, and the completion date of this assessment is more than 3 months then the new assessment is considered an initial assessment.

Reassessment at 6 months:

Reassessment at 6 months is a business process required to be followed by the Mental Health Worker, the system does not do any specific validations for when the reassessments actually happen.

The example below shows an assessment timeline for one example client who has an Initial Assessment followed by 2 Reassessments at 6 months, followed by a Discharge Assessment. The client does not return for further services for a period of more than 6 months following the discharge assessment. When the client returns for more services, an Initial Assessment is completed with ongoing reassessments at 6 months.

UC1 – Complete Assessment Business Rules	
Business Rule	**Description**
UC1-BR1	The OCAN consist of 2 parts: ▪ OCAN Part I: Consumer Self-Assessment ▪ OCAN Part II: Staff Assessment The automated solution must have the ability to capture assessment information for both parts of the OCAN separately for the Mental Health Worker and the Consumer. The 2 parts must be logically linked at the system level for reference and retrieval. The Consumer should be able to answer their questions in the automated solution, with the appropriate security settings that prevent the Consumer from seeing other client's information and accessing other sections of the software.
UC1-BR2	Each Client should have a unique client ID in the system. All assessments in the system should have a unique Assessment ID.
UC1-BR3	The assessment start date and assessment completion date on the OCAN are NOT system generated dates; they are manually entered into the system by the worker. The system should not allow the entry of a completion date greater than 30 days following the start date. E.g. If the start date for an assessment is entered as March 1, 2009, then the latest completion date accepted by the system should be March 30th, 2009.
UC1-BR4	A client is discharged from an organization when (an assessment with the Reason for Assessment of (Prior to discharge) has been completed) When a new assessment is initiated for a client, the system should check whether the last assessment completed was a discharge assessment and if so, the system should check the completion date of the discharge assessment. If this date is less than 3 months then the new assessment cannot be considered an initial assessment. If the date is more than 3 months then the new assessment is an initial assessment.
UC1-BR5	Assessment questions can be completed in any order and the information entered can be saved intermittently throughout the data entry/assessment completion process which may happen over many days. The mandatory fields check should only be done when the User attempts

	to change the status of the assessment from "In Progress" to "Completed"
UC1-BR6	All assessments must be associated to a particular client. If the Client is a new client or it has been more than 3 months since the Client was discharged from services then the first new assessment for this client is considered an "Initial Assessment"
UC1-BR7	The OCAN must include all questions and data elements defined by the OCAN (Ontario Common Assessment of Need) as captured in the PDF version of the assessment and as captured by the OCAN Data Elements spreadsheet.
UC1-BR8	Responses to the OCAN questions need to be entered/captured according to the "Response Type" column in the Data Elements spreadsheet. (i.e. select list (select one) vs. select list (select many))

Mental health worker and consumer responses are recorded where necessary for all questions contained within the Common Assessment All questions or comment sections defined in the Common Assessment must have appropriate input fields in the software for capturing the information. Refer to the Data Elements spreadsheet. |
| UC1-BR9 | There are 2 statuses for assessments:

 • In Progress
 • Completed |
| UC1-BR10 | Once an assessment has been marked as "Completed" the System should restrict any further additions/changes to the assessment information.

A system feature should be in place that allows errors to be corrected/noted for "Completed" assessments. |
| UC1-BR11 | The ability to print out a blank Common Assessment form in the standard, pre-defined paper format. i.e. refer to the PDF version of the OCAN assessment.

The Common Assessment will have a specific paper format and layout that should be reproduced when printing a copy from the assessment software. The desire is to have one common paper format across all vendor solutions implementing the Common Assessment.

Potentially this can just be access to the PDF files:

 • OCAN Consumer part
 • OCAN Staff part with examples |

	• OCAN Staff part without examples
UC1-BR12	The System must provide the ability to create a new, blank copy of the Common Assessment ready for completion by a Mental Health Worker and associated with the consumer being assessed by the organization.
UC1-BR13	The Mental Health Worker and the Consumer parts of the OCAN may/may not be completed concurrently by the Mental Health Worker and the Consumer; there are no dependencies in terms of timing (i.e. one could be completed before the other and vice versa) The Consumer part of the assessment is optional from the Consumer perspective. An incomplete Consumer part (i.e. Consumer opted out or did not finish) can be included as part of a complete OCAN record.
UC1-BR14	Any OCAN sections/questions/fields can be completed in any order and do not need to be completed sequentially.
UC1-BR15	Examples from the "OCAN with examples" for the Mental Health Worker should be made available as an aid in answering the OCAN questions.
UC1-BR16	All Assessments, initial, reassessments and assessment at discharge should be linked with the Client record. Based on the start date of each assessment this will create a series of assessments for the Client.
UC1-BR17	A reassessment version can be created that populates or is linked to the demographic data for the same consumer (to avoid re-keying) It should be possible that for a reassessment all of the questions have no responses populated from prior assessments forcing the completion of the entire assessment from scratch. Only the client record / demographic data should be pre-populated or linked in this case. Different organizations may want different levels of pre-population ranging from no pre-population, to demographic info pre-population, to all domain answers pre-populated from previous assessments.

UC2: Manage Assessment
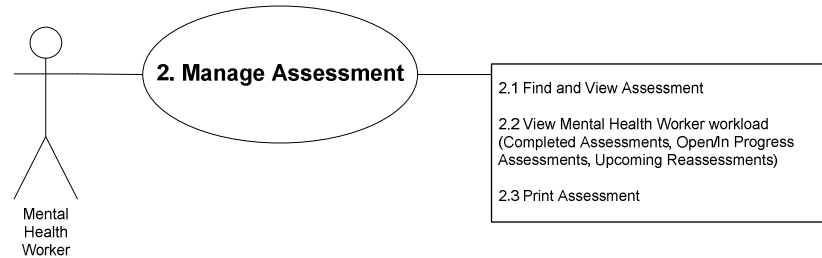
2.1   Find and View Assessment

The Manage Assessment feature of the system encompasses the functions of finding all assessments pertaining to a particular consumer, the ability to view assessment details and print the assessment information (questions/answers). The System should also present the ability to print a new/blank assessment form.

The system should provide a feature for searching for Clients and their associated Assessments using either Client ID or Assessment ID.

2.2   View Mental Health Worker Workload

Note: This can be produced as a view or a report the details of this view/report can be found in the Reports Specification document.

Assessment ID	Client ID	Last Name	First Name	Status	Start Date	Completion Date	Reassessment Time Frame	Consumer Assessment Start Date	Consumer Assessment Completion Date	Worker
18	6587	Doe	Jane	In Progress	24/01/2009		07/24/2009 - 08/24/2009	20/01/2009	23/01/2009	davidsmith
15	8679	Moore	James	In Progress	29/01/2009		07/29/2009 - 08/29/2009	27/01/2009	28/01/2009	davidsmith
8	7698	Adam	Kim	In Progress	15/12/2008		06/15/2009 - 07/15/2009	06/12/2008	14/12/2008	davidsmith
9	3457	Jones	Michael	In Progress	05/01/2009		07/05/2009 - 08/05/2009	01/01/2009	20/01/2009	davidsmith
11	8678	Miller	Jeffrey	In Progress	07/01/2009		07/14/2009 - 08/15/2009	10/01/2009	13/01/2009	davidsmith
12	2454	Taylor	Thomas	In Progress	30/01/2009		07/30/2009 - 08/30/2009	27/01/2009	29/01/2009	davidsmith
1	1234	Smith	John	Completed	11/12/2008	10/01/2009	06/11/2009 - 07/11/2009	01/12/2008	10/12/2008	davidsmith
3	4563	Robbins	Timothy	Completed	12/12/2008	01/01/2009	06/12/2009 - 07/12/2009	01/12/2008	10/12/2008	davidsmith
5	4576	Smith	Kate	Completed	14/12/2008	05/01/2009	06/14/2009 - 07/14/2009	05/12/2008	12/12/2008	davidsmith
7	3456	Michael	Sally	Completed	23/12/2008	15/01/2009	06/23/2009 - 07/23/2009	15/12/2008	22/12/2008	davidsmith

2.3   Edit Complete Assessment with Error

Once an assessment has a status of "Completed" there can be no further updates/changes to the assessment.
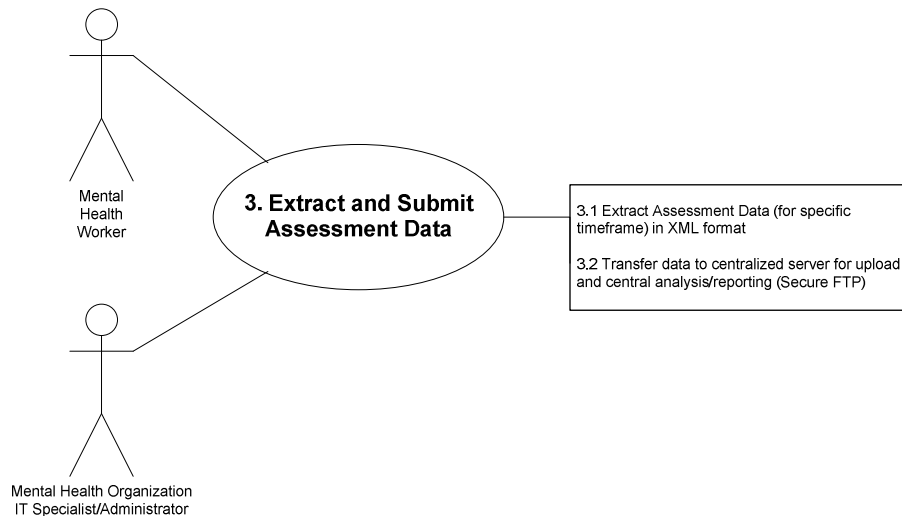
However only in the case of a major error in the assessment information there should be the ability to correct information with the appropriate logs/audit trail of the changes, who made them, date, reason, approval, etc. based on organization protocols.

This process should not change the assessment ID.

UC2 – Manage Assessment Business Rules	
Business Rule	**Description**
UC2-BR1	Complete or in progress assessments (both the staff version and the Consumer version) are available for viewing and/or printing, together and/or separately. (Based on organization protocols the Consumer may receive printed copies of the Staff and/or Consumer portions of their own assessment(s)) There should be a user friendly mechanism for locating and viewing completed or in progress assessments.
UC2-BR2	The Consumer and the Mental Health Worker response sets can be viewed separately or together. The user should be able to display on the screen the Consumer response set for a given assessment separately from the worker response set.
UC2-BR3	The 2 parts of the OCAN (Staff and Consumer parts) can be printed together or separately. The print format should closely resemble the standard OCAN format as per the PDF parts of the OCAN (i.e. Consumer, Staff with Examples, Staff without examples)
UC2-BR4	Once an assessment has a status of "Completed" there can be no further updates/changes to the assessment. However only in the case of a major error in the assessment information there should be the ability to correct information with the appropriate logs/audit trail of the changes, who made them, date, reason, approval, etc. based on organization protocols. This process should not change the assessment ID.

UC3: Extract and Submit Assessment Data


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      Mental
      Health        ⬭ 3. Extract and Submit      ┌─────────────────────────────────────┐
      Worker          Assessment Data             │ 3.1 Extract Assessment Data (for specific │
       |                                          │ timeframe) in XML format                 │
        ○                                         │                                           │
       /|\                                        │ 3.2 Transfer data to centralized server for upload │
                                                  │ and central analysis/reporting (Secure FTP) │
                                                  └─────────────────────────────────────┘
   Mental Health Organization
   IT Specialist/Administrator
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3.1   Extract Assessment Data in XML format

The automated solution should provide the ability to extract "Completed" assessment data in XML format. The XSD file and sample XML files are included in the requirements package and the specifications for each data element and whether or not they are included in the data submission are in the Data Elements spreadsheet file (Note: Not all data elements are submitted in the data extract, check the included in submission column in the Data Elements file)

The system should have the ability to produce an XML data submission file conisisting of all "Completed" assessments that started in a given month. If the organization wants to submit more than one month's assessment records then these assessment should come in different files, 1 file per month.

There is a structured validation process which validates the XML for:

- Correct XML structure validated against the XSD
- All mandatory fields/values must be present
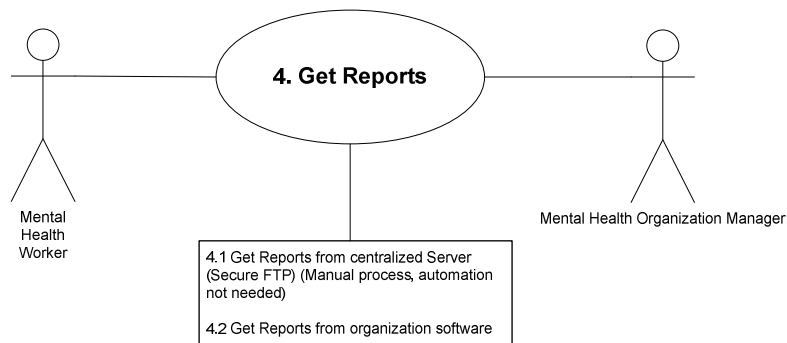- All expected values are validated against expected value lists

If the data submission file has any errors the entire file is rejected and the organization is expected to fix the error(s) and submit a correct data submission file.

3.2   Transfer Data to centralized server for upload and central analysis/reporting (Manual Process/no automation required)

At this time the transfer of the data submission file is a manual process, which involves using an SFTP client to upload the data submission file to a central server.

UC3 – Extract and Submit Assessment Data Business Rules	
Business Rule	**Description**
UC3-BR1	Assessment Data Extracts in XML format should following file naming convention: • The file name should start with the word "OCAN" • The file name should contain the year and month of the assessment data in the file "200903" for March 2009 • The file name should have the unique Organization ID belonging to the organization who is submitting the data "1234" for Org 1234, the org id should be 4 digits long and padded with zeros where necessary i.e. Org 233 would be captured as "0233" • The file name should have an incremental file id for each month in case there is more than one submission in a month due to fixing of errors etc. "01", "02" and so on. The id should be 2 digits long and padded with a zero where necessary. Example file names: Org 1234 submitting for March 2009, 1st data submission this month OCAN200903123401.xml Org 995 submitting for September 2008, 3rdst data submission this month OCAN200809099503.xml **Note:** Using the above file naming convention means that there should never be 2 files submitted with the same file name. The assessments contained in each file should only be the assessments with the start date in the month specified by the file name. If there is a need to submit more than one month's worth of data there should be multiple files generated. The assessments in the data submissions should only be completed assessments.
UC3-BR2	The data extract must comply with the technical specifications based on the XSD.

UC4: Get Reports

4. Get Reports

Mental
Health
Worker

Mental Health Organization Manager

4.1 Get Reports from centralized Server
(Secure FTP) (Manual process, automation
not needed)

4.2 Get Reports from organization software

4.1 Get Reports from Centralized server (Manual Process, automation not needed)

A few weeks after successfully submitting assessment data using the SFTP, a number of aggregate reports will be generated at the organization and provincial levels. These reports will be in PDF format, the organizations can pick up their reports in the outgoing folder of the SFTP.

4.2 Get Reports from organization software

The project team has worked closely with the Reports working group with representatives from different organizations to document the requirements for a set of Direct Line Worker Reports to be built in the organizations software environment by the vendors. The Reports Specification document details these reporting requirements.

UC4 – Get Reports Business Rules	
Business Rule	**Description**
UC4-BR1	The solution needs to support data submission to a common reporting database. All assessment data will be submitted to a central reporting database so that aggregate reports can be generated looking at organization, LHIN, regional and provincial level statistics and demographics.
UC4-BR2	Submitted data contains all required Client Record fields. In addition to the Common Assessment question responses the client record fields must also be submitted to the common reporting database.
UC4-BR3	The Direct Line Worker reports defined in the Reports Specification are mandatory reports as required by the organizations and must be made available as part of the automated solution.
UC4-BR4	Mental Health Organizations should have access to their own data to in order to analyze and generate reports. The data collected by the assessment software for a specific organization should be available to that organization for reporting purposes. This does not assume any report writing capability within the solution itself, but access to the assessment data so other tools may be used to create reports with it.
UC4-BR5	Reports should be available in 2 ways: • reported on-screen • in paper printable format

3 Data Elements:

A major component of the OCAN system requirements is the OCAN Data Elements spreadsheet which outlines:

- Data Element (name/identifier)

- Mandatory – Whether a data element must be captured in order for the assessment to be complete.

- Specific rules for each data element, captured in the "Additional Notes" column.

Summary of Actions

At the end of each domain section of the OCAN there is a Action(s) field, which is an optional text field. If this field is populated for a domain then the domains which have associated actions will automatically be listed in the Summary of Actions table and the Action(s) field will also be populated based on the Action(s) field for that domain.

Since the Action(s) field is an optional field, there can be zero up to 24 domains listed in the Summary of Actions table. The User will then optionally prioritize the Domains and their associated Action(s) by assigning a numerical value from 1-24 (The system should not allow the User to skip priority levels, i.e. the User cannot select priority value 2 before selecting priority value of 1.) The priority levels start at 1 and descend down to 24. The System will save/retain the priority levels selected by the User if they are entered by the User.

Summary of Referrals

All of the information in this table is optional.

If the assessment is an initial assessment, then there is no pre-population of this table. The User will simply fill out the table based on selections from the appropriate lists and enter text fields where necessary.

If the assessment is a reassessment, assessment prior to discharge, etc. (i.e. not an initial assessment) then this table is pre-populated by the System based on the information captured in the previous assessment for this Consumer. The User should have the ability to make changes to all of the fields pre-populated from the previous assessment as well as to add new rows of information about referrals.

3.1 CCIM Privacy Category

1 – Personal Information / Personal Health Information

2 - Information which together with other information can be personally identifiable

3 – Information which alone or in combination cannot be personally identifiable

3.2 Text fields

Text fields throughout the assessment such as "Comments" or "Actions" and anywhere else where text is captured should be handled with sensitivity from the perspective of not capturing Personal Information. This should be communicated through education and if possible handled via edit checks in the software. For example, if the client name is John Doe, the clients name should not be entered into any of the Comments, Actions or any other text fields in the assessment except where the client name is supposed to be captured, an automation suggestion is to run an edit check at the point of entry and not allow it.

4 Implementation Testing/Validation

Once the vendors have completed the implementation of the automated OCAN as well as all of the requirements outlined in this document and accompanying documents in the requirements release package, there will be a testing phase conducted by the project team.

Testing will be based primarily on data submission files to make sure that the proper XML structure is in place with the proper data types and values. The central ETL process will test the file for correctness and verify that it can upload the assessment information into the central database.

Some possible errors are:

1. Wrong XML structure that doesn't adhere to the specified XSD
2. Missing mandatory/required fields
3. Wrong format of submitted data fields

Implementation testing/validation process will be conducted in 2 phases:

1. Once the automated solution is completed by the vendor, the vendors will generate and submit the XML file(s) to be validated by the project team.

2. Once the automated solution is implemented in the production environment a User Acceptance Testing (UAT) phase will be conducted by the organizations, to make sure that business requirements are met. The last test in the process is when the project team verifies the data submission files sent by the organization for data validity, format, accuracy and correctness.

5 Future Requirements

Although not a firm requirement, functionality that allows workers to electronically complete an assessment while in the field has been identified as a highly desirable feature. It will be considered in the future and may be a current request by some organizations.

6 Non-Functional Requirements

As the health care industry moves towards electronic storage and transfer of data, security and privacy issues must be addressed in order to ensure confidentiality, integrity, availability and human safety. The OCAN automated solution needs to address all of these principles. The privacy and security team is engaged on the project and guidance from this team has been incorporated into the requirements package. The safety and integrity of information stored with the automation of the OCAN is of critical importance.

Security, Privacy and Consent	
Requirement	**Description**
NFR1	Secure logins (username/password) are required for all users to access OCAN assessment information. An administration role should also be available in order to perform user management tasks such as account creation, password recovery and account disabling.
NFR2	There may be a need for the system users to change their passwords on a periodic basis. A standard security practice with user accounts is having the user change their password on a periodic basis. The software environment that the OCAN is housed within should provide this ability.
NFR3	Where possible, some level of information change tracking in terms of changes made to an assessment with the user id, date and the nature of the change made may prove beneficial for audit purposes.
NFR4	Access to assessments can be granted or restricted by user account in order to enforce consent agreements and client wishes. Business processes and rules around consent and access to data can vary greatly across organizations and profession. Therefore, the basic privacy requirement is that the Common Assessment software should help facilitate any local rules by providing the ability to restrict or allow access to personal health information and assessment data by user account. How privacy and consent are enforced will then become a part of the business process for each organization implementing the OCAN.

Data Backup & Recovery	
Requirement	**Description**
NFR5	The ability for the assessment data to be backed up and recovered/accessed after a system crash/error. The backup/recover feature can utilize any existing I.T. disaster recovery strategies. (e.g. disk/tape backup)