**InterQual Saved Assessment Retrieval API**

This API uses a publish/subscribe protocol based on standard HTTP REST semantics and uses SAML-based token retrieval to enable REST API invocation security. All requests require a secure session (HTTPS). The API supports the following features:

* **Authentication and Token Retrieval**: For all API interactions, an authorization bearer token is required. To retrieve a token, the user needs to be authenticated via SAML-based token retrieval protocol.
* **Saved Assessment Summary**: Summary data for an individual saved assessment and care plan can be retrieved in XML format by invoking an HTTP GET to the Saved Assessment URL.

**Authentication**

The InterQual® Saved Assessment Retrieval API uses SAML 2.0 for authentication. Upon successful verification, an OAuth2 authorization bearer token is issued to access the API. Before using the API:

* The customer must be provisioned in the InterQual platform by the Optum Implementation team.
* A customer-specific integration SSO user account must be provisioned in the InterQual platform by the Optum Implementation team.
* The partner solution must configure the SAML based token retrieval infrastructure to access the API.

After establishing a secure connection, the authentication process creates a session and returns an authorization bearer token, which is also included in the HTTP header. All subsequent requests must include the HTTP request header with the valid authorization token. A session times out after a period of five minutes, in which case a 401 response is made, and the submitter should automatically re-authenticate and retry the call. Standard HTTP errors return authentication and system failures. Application errors return in the response as an attribute.

**SAML OAuth2 Token Retrieval**

The same SAML assertion specifications are used as documented in the SAML SSO Implementation chapter of the InterQual Coordinated Care Integration Guide. The following steps describe how to receive an OAuth2 token in the “access\_token” property of the JSON object response instead of a browser redirect to the InterQual Coordinated Care UI. The URL is:

https://<hostname>/service/secured/securityToken

**Header**

Content-Type: application/samlmetadata+xml

**Body SAML Assertion (Partial Example)**

<?xml version="1.0" encoding="UTF-8"?>

<saml2p:Response xmlns:saml2p="urn:oasis:names:tc:SAML:2.0:protocol" Version="2.0">

<saml2:Assertion xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion" ID="c3a8c7d4-70c1-405c-abcc-000fbcf78aac" Version="2.0" xmlns:xs="http://www.w3.org/2001/XMLSchema">

...

</saml2:AttributeStatement>

</saml2:Assertion>

</saml2p:Response>

**OAuth2 token response**

**Response Headers:**

Status Code: 200 OK

Connection: Keep-Alive

Content-Length: 2147

Content-Type: application/vnd.mck.dm.security.token-v1+json;charset=UTF-8

Date: Mon, 20 Mar 2017 01:00:37 GMT

Keep-Alive: timeout=5, max=100

X-Content-Type-Options: nosniff

strict-transport-security: max-age=31536000 ; includeSubDomains

x-xss-protection: 1; mode=block

**Response Body** (“access\_token” value contains OAuth2 bearer token):

{

"scope": null,

"facility": "SAMPLE\_FACILITY",

"access\_token": "V62BaKSbU4ciST-KYgJAzE1qe7iZEH- … VfDSXkCUCtrJjM=",

"token\_type": "Bearer",

"expires\_in": 300,

"refresh\_token": null

}

**Saved Assessment Summary**

Provides saved assessment summary data in either a Condensed Assessment XML format or Full Assessment XML format for the specified review UUID by invoking an HTTP GET to the following URL:

https://<hostname>/caas/assessments/summary/{uuid}

Default is a Condensed Assessment Format that includes only answered questions and responses to those. It does not include all questions and choices for an assessment.

However you can specify an optional fullAssessment=true query API parameter

https://<hostname>/caas/assessments/summary/{uuid}?fullAssessment=true

in which case the API returns a complete Assessment with all Sections/Subsections/Questions/Choices/Responses and Clinical Note indicators.

In both cases the API returns Care Plan items that were raised during the assessment (and not the whole library of Care Plan items).

**Headers**

Accept: accept: application/vnd.mck.dm.care-plan-summary-v1+xml

Authorization: Bearer <access token>

**Note**: The Accept header specifies the version of the summary XML to be returned. This will need to be updated over time as new versions of the XML are published. Refer to the InterQual® Coordinated Care Integration Guide for the latest summary XML version details and revision history.

**Response**

Response Code: 200

Response Body:

**Note**: Refer to Chapter 4 of the InterQual® Coordinated Care Integration Guide for the latest summary xml format and details.

<?xml version="1.0" encoding="UTF-8" standalone="no"?>

<!DOCTYPE CarePlan SYSTEM <https://integ.ds.interqual.com/caas/assets/dtd/entities.dtd>>

<CarePlan xmlns:xsi=<http://www.w3.org/2001/XMLSchema-instance> UUID="f70bbf12-3f00-4ec9-9a56-34c87ac5ee9e"...>

<Assignment DateTime="2024-07-02T17:58:10-05:00" .../>

<Assessments>

<Assessment AssessmentUpdateState="Manual Updates Allowed" SubsetCID="e3bf50c3-692f-4ab0-985b-6a27f9789d2e" ...>

...

</CarePlan>

**Possible response codes**

| **Response code** | **Message** |
| --- | --- |
| Code = 200 | Successful retrieval of a summary in XML format |
| Code = 400 | Bad Request |
| Code = 401 | Invalid Token |
| Code = 403 | Access Forbidden |
| Code = 404 | Saved assessment with given id does not exist |

**Full Assessment XML Structure**

When a fullAssessment=true query parameter is specified for the Assessment Summary REST API, the response contains a full assessment. That includes Sections/SubSections/Questions/Choices and Notes indicators for notes associated with SubSections, Questions, or Choices

<FullAssessment>

<Section UUID="A1813301-4BF5-4DDF-ACAB-CF343A327DDB" Desc="Initial Questions" Enabled="true">

<SubSection UUID="274743D7-0DF3-49F8-B619-ED6B1DA7EF93" Desc="Initial Questions" Enabled="true">

<Questions>

<Question UUID="52387305-3E0C-4CDA-9F7D-BB1102ADE77F" Desc="Sex assigned at birth?" Required="true" Type="RADIO" Enabled="true">

<Choices>

<ChoiceEle Desc="Female" UUID="AAA13301-4BF5-4DDF-ACAB-CF343A327CCC" Enabled="true" Response="0"/>

<ChoiceEle Desc="Male" UUID="BBB13301-4BF5-4DDF-ACAB-CF343A327DDD" Enabled="true" Response="1"/>

<ChoiceEle Desc="Not Answered" UUID="EEE13301-4BF5-4DDF-ACAB-CF343A327FFF" Enabled="true" Response="0"/>

</Choices>

</Question>

<Question UUID="C13DACC7-1B06-4AA2-AE35-CCA038ABF956" Desc="Age?" Required="true" Type="LTXT" Enabled="true" Response="55" MaxValue="200.0" MinValue="0.0" ValueType="NUMERIC" Units="years"/>

<Question UUID="AAAAF1E5-921B-4D28-B50A-985D2621AAAA" Desc="Share Sensitive Info:" Required="false" Type="MULT" Enabled="true">

<Choices>

<ChoiceEle Desc="Never share Behavioral Health" UUID="AAABF1E5-921B-4D28-B50A-985D2621AAAB" Enabled="true" Response="1"/>

<ChoiceEle Desc="Always share Behavioral Health" UUID="AAACF1E5-921B-4D28-B50A-985D2621AAAC" Enabled="true" Response="0"/>

<ChoiceEle Desc="Share with written permission Behavioral Health" UUID="AAADF1E5-921B-4D28-B50A-985D2621AAAD" Enabled="true" Response="0"/>

<ChoiceEle Desc="Share with verbal permission Behavioral Health" UUID="AAAEF1E5-921B-4D28-B50A-985D2621AAAE" Enabled="true" Response="0"/>

<ChoiceEle Desc="Never share Substance Abuse" UUID="AAABF1E5-AA1B-4D28-B50A-B85D2621AAAB" Enabled="true" Response="0"/>

<ChoiceEle Desc="Always share Substance Abuse" UUID="AAACF1E5-AA1B-4D28-B50A-B85D2621AAAC" Enabled="true" Response="1"/>

<ChoiceEle Desc="Share with written permission Substance Abuse" UUID="AAADF1E5-AA1B-4D28-B50A-B85D2621AAAD" Enabled="true" Response="1"/>

<ChoiceEle Desc="Share with verbal permission Substance Abuse" UUID="AAAEF1E5-AA1B-4D28-B50A-B85D2621AAAE" Enabled="true" Response="0"/>

<ChoiceEle Desc="Never share HIV/AIDS" UUID="AAABF1E5-BB1B-4D28-B50A-C85D2621AAAB" Enabled="true" Response="0"/>

<ChoiceEle Desc="Always share HIV/AIDS" UUID="AAACF1E5-BB1B-4D28-B50A-C85D2621AAAC" Enabled="true" Response="0"/>

<ChoiceEle Desc="Share with written permission HIV/AIDS" UUID="AAADF1E5-BB1B-4D28-B50A-C85D2621AAAD" Enabled="true" Response="0"/>

<ChoiceEle Desc="Share with verbal permission HIV/AIDS" UUID="AAAEF1E5-BB1B-4D28-B50A-C85D2621AAAE" Enabled="true" Response="0"/>

</Choices>

</Question>

…

</Questions>

</SubSection>

</Section>

…

**Section**/**SubSection** **Question**/**ChoiceEle** Elements have the following common attributes:

**Enabled** – Boolean that indicates if this element is enabled for a given assessment

**UUID** – unique identifier of the element (id)

**Desc** – UI label of the element (label)

#### Questions/Choices

Question elements have a **Required** Boolean attribute that indicates if this is a required question.

Question **Type** attribute is either LTXT for text questions, RADIO for single select, or MULT for multi-choice select questions.

Depending on the question type:

#### Text Questions (Type=”LTXT”):

**Response** attribute on a LTXT question contains user response text (if any)

Text Questions also can include any of the following attributes:

**MaxLen** – maximum length of the text in the field

**ValueType** – one of the TEXT, NUMERIC, INTEGER, DATE, SUM which specifies what type of a text question this is

**MinValue** – a floating-point number indicating minimum value allowed in the field (only applies to NUMERIC and INTEGER fields)

**MaxValue** – a floating-point number indicating maximum value allowed in the field (only applies to NUMERIC and INTEGER fields)

**Units** – units text that indicates what units are used for this value

Example:

<Question UUID="C13DACC7-1B06-4AA2-AE35-CCA038ABF956" Desc="Age?" Required="true" Type="LTXT" Enabled="true" Response="55" MaxValue="200.0" MinValue="0.0" ValueType="NUMERIC" Units="years"/>

#### Single or Multiple Selection Questions (Type=”RADIO” or Type=”MULT”):

Those are questions with Choices (that are included in a Choices collection as a ChoiceEle elements)

**Response** attributed for questions with choices is not on the question itself but on all **ChoiceEle** and it is is either 1 (selected) or 0 (not selected)

**Note Indicators**

**SubSections**, **Questions**, or **ChoiceEle** can have one or more Clinical Notes associated with it. Full Assessment XML provides a <Notes> element which lists all Clinical Notes associated with the parent object. For each Clinical Note <NoteEle> includes note’s UUID and NoteType.

Currently 3 Note Types are supported:

URAC – URAC Notes

NCQA – NCQA (National Committee for Quality Assurance) Notes

G – General Informational Notes

**Examples:**

Subsection and Question with Notes:

<SubSection UUID="2D9CB46C-DE74-40E1-B028-754B48EE1AED" Desc="ADL Index" Enabled="false">

<Notes>

<NoteEle UUID="ca4c2cbd-626b-4ec5-a0ce-af4034b7b7bb" NoteType="G"/>

</Notes>

<Questions>

<Question UUID="F3958A87-DB1F-CC5D-3271-23DA9AE88BAE" Desc="Bathing: either sponge bath, tub bath, or shower" Required="true" Type="RADIO" Enabled="false">

<Choices>

<ChoiceEle Desc="Receives no assistance (gets in and out of tub by self if tub is usual means of bathing)" UUID="43222752-A22F-6BBD-87D8-23DB3C71DE73" Enabled="false" Response="0"/>

<ChoiceEle Desc="Receives assistance in bathing only one part of the body (such as back or a leg)" UUID="BCA5628F-85C9-A0A4-62A6-23DBCC458F7D" Enabled="false" Response="0"/>

<ChoiceEle Desc="Receives assistance in bathing more than one part of the body (or not bathed)" UUID="4A326345-5CE2-7BE4-F1C2-23DC792A11DD" Enabled="false" Response="0"/>

</Choices>

<Notes>

<NoteEle UUID="EBF6A5B9-C70A-A394-1BD1-2E88C0734FA7" NoteType="URAC"/>

<NoteEle UUID="8413BC44-3E82-5348-222F-1A0B41209FAC" NoteType="NCQA"/>

</Notes>

</Question>

…

Text Question with a General Note:

<Question UUID="9D438B4B-CBD4-C937-C35E-9EAF164261D1" Desc="Asthma Assessment Score (Age less than 6 yrs old)" Required="false" Type="LTXT" Enabled="false" Response="">

<Notes>

<NoteEle UUID="1138E439-E61D-3077-9C05-070292227950" NoteType="G"/>

</Notes>

</Question>

Question with Notes and a Choice in Question with Notes:

<Question UUID="DAB2CF50-22FE-4E63-5BAD-4418110BCD35" Desc="Have your thoughts included an INTENT to hurt yourself, commit suicide or harm others in the next month?" Required="true" Type="RADIO" Enabled="false">

<Choices>

<ChoiceEle Desc="Yes" UUID="6941D9A1-26D6-DCB9-6371-4418BAF0AE52" Enabled="false" Response="0">

<Notes>

<NoteEle UUID="493b7e4b-bd59-4a5b-91ec-54e322f6bdcf" NoteType="G"/>

</Notes>

</ChoiceEle>

<ChoiceEle Desc="No" UUID="98C16789-C7FA-1456-6B90-4419DD3FEDF2" Enabled="false" Response="0">

<Notes>

<NoteEle UUID="493b7e4b-bd59-4a5b-91ec-54e322f6bdcf" NoteType="G"/>

</Notes>

</ChoiceEle>

</Choices>

<Notes>

<NoteEle UUID="EBF6A5B9-C70A-A394-1BD1-2E88C0734FA7" NoteType="URAC"/>

<NoteEle UUID="3DF526F6-3E4E-8333-2AB9-108793479768" NoteType="NCQA"/>

<NoteEle UUID="5658c330-db6e-4988-a0af-f826009d9938" NoteType="G"/>

</Notes>

</Question>