



CHILD AND ADOLESCENT NEEDS AND STRENGTHS (CANS) EOHHS COMPREHENSIVE ASSESSMENT SYSTEM (ECAS)

HL7 2.5.1 Message Specification

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1 Executive Summary

This integration guide provides the full technical specification required for Electronic Medical Record (EMR) vendors to submit Child and Adolescent Needs and Strengths (CANS) and Serious Emotional Disturbance (SED) behavioral health assessments to the Massachusetts Executive Office of Health and Human Services (EOHHS) eCAS system.

The submission uses HL7 v2.5.1 ORU^R01 messages transmitted securely over a RESTful HTTPS API. EMRs must Base64-encode HL7 payloads within a JSON request envelope. The eCAS platform validates, standardizes, and persists assessments for care coordination and reporting needs. A synchronous HL7 ACK is returned to confirm success, application error (AE), or rejection (AR).

Vendor Implementation Highlights - Message Format: HL7 v2.5.1 ORU^R01

Transport: REST over HTTPS using JSON wrapper - **Payload:** Base64-encoded HL7

Response: HL7 ACK in HTTP body

Primary Identifier: PID-3 MMIS ID required

Assessment Types: CANS and SED

This guide ensures statewide alignment with MassHealth behavioral health modernization and supports providers in delivering coordinated, timely services to youth and families.

2 Introduction

This document describes the technical integration requirements for submitting behavioral health assessments from external Electronic Medical Record (EMR) systems to the Massachusetts Executive Office of Health and Human Services (EOHHS) **eCAS** solution using **HL7 v2.5.1 ORU^R01** messages.

The integration supports the transmission of two assessment types:

- **CANS** – Child and Adolescent Needs and Strengths
- **SED** – Serious Emotional Disturbance

EMR systems will construct standards-compliant HL7 v2.5.1 ORU^R01 messages, encode them in Base64, and submit them via a RESTful web service over HTTPS to the eCAS endpoint. eCAS will parse, validate, and persist the assessment content and return a standard HL7 acknowledgment (ACK) message in the HTTP response body.

This guide supersedes and modernizes prior CBHI message specifications while preserving the core semantic model for CANS/SED assessments.

2.1.1 Change Management

- All changes will be reviewed and approved by MassHealth/EOHHS technical leadership.
- Material changes (new mandatory fields, new code tables, or new endpoints) will be announced with sufficient lead time for vendors.
- A version header will be maintained in the document and may also be mirrored as a **Message Profile Identifier** in *MSH-21*, when applicable.

2.2 Intended Audience

This document is intended for:

- EMR vendor technical teams (architects, developers, integration engineers)
- Hospital/clinic IT staff responsible for interfacing with eCAS
- MassHealth/EOHHS integration and testing staff

Familiarity with the following is assumed:

- HL7 Version 2.x messaging concepts (segments, fields, components, data types)
- Web services and RESTful API design
- Base64 encoding
- Behavioral health assessment workflows (CANS/SED)

2.3 Scope and Purpose

2.3.1 In Scope

- Submission of CANS and SED assessments from EMR systems to eCAS
- HL7 v2.5.1 ORU^R01 message structure and required segments
- Mapping of assessment domains to OBR segments and assessment questions to OBX segments
- Use of standard HL7 and local code tables for CANS/SED content
- RESTful submission of Base64-encoded HL7 payloads over HTTPS
- Synchronous HL7 ACK response in the HTTP response body
- Test and production endpoints (with placeholders) and basic testing requirements

2.3.2 Out of Scope

- UI/UX aspects of EMR systems or eCAS front ends
- Non-CANS/SED assessments
- Network/firewall requirements (documented separately, if applicable)
- Non-HL7 data formats (e.g., FHIR, CSV, XML other than HL7)

3 High-Level Architecture and Data Flow

3.1 Logical Components

- EMR System – Captures clinical data and assembles HL7 ORU^R01 assessment messages.
- EMR Vendor Integration Layer – Optional component in the vendor environment that handles HL7 construction, Base64 encoding, retries, and logging.
- eCAS REST API – Public-facing HTTPS endpoint that accepts Base64-encoded HL7 messages and returns HL7 ACKs.
- eCAS HL7 Engine – Internal component that decodes, validates, and routes the ORU^R01 message to the eCAS data store.
- eCAS Data Store – Persists CANS/SED assessment content for downstream reporting, analytics, and care coordination.

3.2 Integration Scenarios

The following figure depicts the two available integration methods with the eCAS system:

1. Extended Detection and Response (XDR) asynchronous application integration
2. REST API synchronous application integration

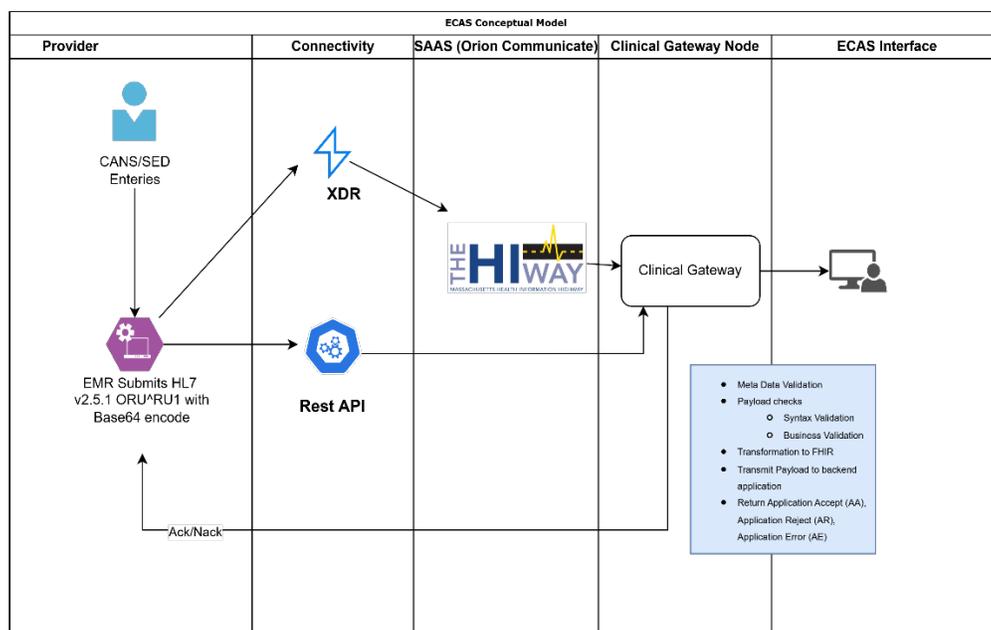


Figure 1 – High-level EMR to eCAS Integration

The end-to-end integration process is as follows:

1. Clinician completes a CANS or SED assessment in the EMR.
2. EMR generates a corresponding HL7 v2.5.1 ORU^R01 message.

3. EMR sends the HL7 ORU message via:
 - a. An HTTPS POST request to the eCAS REST API endpoint, or
 - b. XDR
4. eCAS decodes and validates the HL7 message for ingestion.
5. eCAS returns an HL7 ACK message:
 - a. Synchronously, in case of a REST API request, or
 - b. Asynchronously, in the case of an XDR request.
6. EMR processes and logs the HL7 ACK and determines the outcome.

Please note that although the new eCAS application requires a new HL7 2.5.1 ORU message to transmit the updated CANS assessment, it will continue to support the previous CBHI application integration methods.

4 HL7 Message Structure

The eCAS integration requires a conformant HL7 v2.5.1 ORU^R01 message with the following minimum structure:

```

MSH
PID
ORC
OBR (Assessment Domain 1)
[OBX (Assessment Domain 1 Question 1)]
[OBX (Assessment Domain 1 Question 2)]
[OBX ...]
...
OBR (Assessment Domain 2)
[OBX (Assessment Domain 2 Question 1)]
...
OBR (Assessment Domain N)
[OBX (Assessment Domain N Question 1)]
[OBX ...]
...
    
```

4.1 Required Segments

- **MSH** – Message Header
- **PID** – Patient Identification (PID segment is required but not fully detailed in this guide)
- **ORC** – Common Order
- **OBR** – Observation Request (one per assessment domain/section)
- **OBX** – Observation/Result (one per assessment domain question/answer)

4.2 Assessment Domains and OBRs

Each assessment domain (e.g., Member, Caregiver, Treatment History, Youth Strengths) is represented by an OBR segment, with related OBX segments for the individual questions within that domain. The OBR identifier (OBR-4 or an equivalent domain identifier field) will denote the domain code (e.g., CANS002^Member). MSH Segment Specification

4.3 MSH Segment

The MSH segment defines the message envelope and basic routing metadata.

Seq	Field Name	Data Type	Usage	Cardinality	Example	Notes
1	Field Separator	ST	R	[1..1]		Must be .
2	Encoding Characters	ST	R	[1..1]	^~ &	Must be ^~ &.
3	Sending Application	HD	R	[1..1]	SENDSYS	EMR system identifier.
4	Sending Facility	HD	R	[1..1]	SNDFAC	EMR facility/site identifier.

5	Receiving Application	HD	R	[1..1]	<i>ECAS-CANS</i> or <i>ECAS-SED</i>	Logical eCAS application target.
6	Receiving Facility	HD	R	[1..1]	<i>MA-EHS</i>	MassHealth/EOHHS identifier.
7	Date/Time of Message	TS	R	[1..1]	<i>20251104164100</i>	YYYYMMDDHHMMSS in local or UTC.
8	Security	ST	O	[0..1]		Not typically used.
9	Message Type	MSG	R	[1..1]	<i>ORU^R01</i>	Must be ORU^R01.
10	Message Control ID	ST	R	[1..1]	<i>MSGID12345</i>	Unique per message; echoed in ACK.
11	Processing ID	PT	R	[1..1]	<i>P</i> (Production) or <i>T</i> (Test)	Should align with environment.
12	Version ID	VID	R	[1..1]	<i>2.5.1</i>	Must be 2.5.1.
13	Sequence Number	NM	O	[0..1]		Optional.
14	Continuation Pointer	ST	O	[0..1]		Not used.
15	Accept Acknowledgment Type	ID	O	[0..1]	<i>AL</i>	Default <i>AL</i> (always).
16	Application Acknowledgment Type	ID	O	[0..1]	<i>AL</i>	Default <i>AL</i> .
17	Country Code	ID	O	[0..1]	<i>USA</i>	Optional.
18	Character Set	ID	O	[0..*]	<i>ASCII</i>	Optional; UTF-8 allowed if agreed.
19	Principal Language of Message	CE	O	[0..1]		Optional.
20	Alt Character Set Handling	ID	O	[0..1]		Not used.
21	Message Profile Identifier	El/String	R	[1..1]	<i>CANS/SED</i>	May reference eCAS profile ID.

4.3.1 MSH Rules

- The combination of *MSH-10* (Message Control ID) and sending system identity must uniquely identify messages over time.
- *MSH-11* and any test indicators in the REST JSON envelope must be consistent.
- *MSH-12* must always be *2.5.1* to ensure compatibility with this specification.

4.4 PID Segment

The PID segment includes the patient/member identity with **MMIS ID as the primary identifier**.

Seq	Field Name	Data Type	Usage	Cardinality	Example	Notes
1	Set ID – PID	SI	R	[1..1]	<i>1</i>	First PID occurrence

3	Patient Identifier List	CX	R	[1..1]	123456789012^^^MMIS	MMIS ID – Primary Key for member lookup. Assigning authority is MMIS .
5	Patient Name	XPN	R	[1..1]	SMITH^JOHN^A	Legal name of member. Format: FN^GN^LN^Suffix^Prefix
7	Date/Time of Birth	TS	R	[1..1]	19700101	Patient DOB.YYYYMMDD format
8	Administrative Sex	IS	R	[1..1]	M / F / U	HL7 standard table values
10	Race	CE	O	[0..1]	Code from HL7005	Multi-race selection may appear in OBX instead
11	Patient Address	XAD	O	[0..1]	—	Optional – may be included in OBX domains instead
13	Phone Number	XT	O	[0..*]	—	Optional contact numbers
18	Patient Account Number	CX	O	[0..1]	—	Not required by eCAS
19	SSN Number	ST	O	[0..1]	—	Not required – avoid unless required operationally

4.4.1 PID Rules

- **Minimum Required Fields:** PID-1, PID-3, PID-5, PID-7, PID-8
- **Important Rule:** > PID-3 must contain a valid MMIS ID or the message will be rejected (AR).

4.5 ORC Segment

The ORC segment conveys order control information for the assessment.

Seq	Field Name	Data Type	Usage	Cardinality	Example	Notes
1	Order Control	ID	R	[1..1]	NW	-NW (new order/assessment). -RO (Replacement order) to update the existing assessment for complete or incomplete status
2	Placer Order Number	EI	R	[1..1]	Assessment ID	Unique ID assigned by EMR for this assessment
3	Filler Order Number	EI	O	[0..1]		May be populated by eCAS (not required)
4	Placer Group Number	EI	O	[0..1]		Not typically used
5	Order Status	ID	R	[1..1]	CM	Must be CM (Complete).

6	Response Flag	ID	O	[0..1]		Not used
7	Quantity/Timing	TQ	O	[0..1]		Not used
8	Parent	EIP	O	[0..1]		Not used
9	Date/Time of Transaction	TS	R	[1..1]	20230515103000	Assessment completion date/time
10	Entered By	XCN	R	[1..1]	123456789012345^J ONES^JOHN^M^Jr^ DR	EHS assigned Certified assessor UserID and Name (FN^GN^LN^Suffix^Prefix)
11	Verified By	XCN	O	[0..1]		Optional.
12	Ordering Provider	XCN	O	[0..*]		Optional.
13	Enterer's Location	PL	O	[0..1]		Optional.
14	Call Back Phone Number	XT	O	[0..*]	555-123-4567^^CP	Clinician cell phone (if available).
15	Order Effective Date/Time	TS	O	[0..1]		Optional.
21	Ordering Facility Name	XON	R	[1..1]	Org_ID^Boston Medical Center	EHS assigned Organization ID and org name.

Note:

1. Only commonly used fields are shown; additional ORC fields may be populated if needed, following HL7 v2.5.1 conventions.
2. Maintain the ORC.2 Placer Order Number (Assessment ID) when submitting the replacement/update to an assessment.

4.6 OBR Segment (Assessment Domains)

Each **OBR** segment represents a logical assessment domain or section (e.g., Member, Caregiver, Youth Strengths). A typical pattern from CANS is:

- *OBR|1|CANS001^SED|F|... – Complete Assessment header/domain*
- *OBR|1|CANS002^Member|F|... –Complete Member domain*
- *OBR|1|CANS003^Caregiver|F|... – Complete Caregiver domain*
- *OBR|1|CANS001^SED|A|... – Incomplete Assessment header/domain*
- *OBR|1|CANS002^Member|A|... – Incomplete Member domain*
- etc.

Seq	Field Name	Data Type	Usage	Cardinality	Example	Notes
1	Set ID – OBR	SI	R	[1..1]	1	Sequence number of the OBR within the message
2	Placer Order Number	EI	O	[0..1]		
3	Filler Order Number	EI	O	[0..1]		
4	Universal Service ID	CE	R	[1..1]	<i>CANS002^Member</i>	Domain code and description (CANSxxx^DomainName)
7	Observation Date/Time	TS	O/R	[0..1]		Use if domain-specific timestamp is needed
16	Ordering Provider	XCN	O	[0..*]		Optional; inherits from ORC if omitted
18	Placer Field 1	ST	O	[0..1]		May carry additional domain metadata if configured
25	Result Status	ID	R	[1..1]	F	Only A or F values are accepted. A - Incomplete assessment F - Complete assessment

Note:

- OBR-1, OBR-4, and OBR-25 are required for all domains. Other fields may be populated according to local business needs.
- An Incomplete assessment should include the following segments: MSH, PID, ORC, OBR (*CANS001^SED*), and OBX, which in turn includes *CANS001.1^Assessment Type*, *CANS001.2^Level of Care*, and *CANS001.35^Date of Consent for Treatment*.

4.6.1 OBR Domains (OBR-4 Universal Service ID)

The OBR segment identifies the domains and sections of the CANS assessment and serves as a grouper for the child OBX questions and their corresponding answers.

MSH-21 Message Profile Identifier	OBR-4 Universal Service ID (Domain Code ^ Description)	Description
SED	CANS001^SED	Assessment header and Serious emotional disturbance questions
CANS	CANS001^SED	Assessment header and Serious emotional disturbance questions
	<i>CANS002^Member</i>	Contains member Demographics questions
	<i>CANS003^Caregiver</i>	Contains Caregiver demographics questions

	<i>CANS004^Treatment History & Systems Involvement</i>	Contains Member's Treatment history and system involvement domain questions
	<i>CANS005^Child/Youth Developmental Needs</i>	Contains Child/Youth Developmental Needs and its specifications.
	<i>CANS006^Child/Youth Health and Behavioral Health Needs</i>	Contains Child/Youth Health and Behavioral Health Needs and its details.
	<i>CANS007^Family and Community Context</i>	Contains Family & Community Context questions
	<i>CANS008^Transition to Adulthood</i>	Contains Transition to adulthood domain and its details (for members >14.5 years of age)
	<i>CANS009^Youth Strengths</i>	Contains Child/Youth Strengths domain and its description
	<i>CANS010^Family Strengths</i>	Contains Family Strengths of the assessment
	<i>CANS011^Narrative</i>	Contains assessment narrative

The SED message follows an analogous pattern, with specific SED-focused domains.

4.7 OBX Segment (Assessment Questions)

Each **OBX** segment represents a specific assessment domain question and its corresponding response. OBXs are grouped underneath the appropriate OBR (domain).

4.7.1 OBX Segment (General)

Seq	Field Name	Data Type	Usage	Cardinality	Example	Notes
1	Set ID – OBX	SI	R	[1..1]	1	Sequential within each OBR.
2	Value Type	ID	R	[1..1]	CE, NM, TX, ST, TS	Determines data type of OBX-5.
3	Observation Identifier	CE	R	[1..1]	CANS001.1^Assessment Type	Question code and Field label.
4	Observation Sub-ID	ST/SI	R	[1..1]	1	Sub-ID for multi-part questions.
5	Observation Value	Varies	R	[1..*]	l^Initial^Assmt_Type	The answer may include code, display, and code system.
6	Units	CE	O	[0..1]		Not typically used for these assessments.
7	References Range	ST	O	[0..1]		Not used.

8	Abnormal Flags	IS	O	[0..*]		Not used.
11	Observation Result Status	ID	R	[1..1]	F	F = Final.
14	Date/Time of the Observation	TS	O	[0..1]		Optional; typically inherited from ORC/OBR timestamps.

4.7.2 Typical OBX Patterns

- **Coded Enumerated Values (Yes/No, Singleselect or Multiselect values, etc.)**
 - Value Type (OBX-2) = CE
 - Observation Value (OBX-5) = <Code>^<Description>^<CodeSystem>
 - Example: Y^Yes^HL70136
- **Numeric Values (Age, Axis Scores, etc.)**
 - Value Type (OBX-2) = NM
 - Observation Value (OBX-5) = <numeric>^<Description>^<CodeSystem>
 - Example: 0^There is no evidence of any needs^Local
- **Text and Narrative Fields**
 - Value Type (OBX-2) = TX or ST
 - Observation Value (OBX-5) = free text narrative
- **Date/Time Values**
 - Value Type (OBX-2) = TS
 - Observation Value (OBX-5) formatted as TS (YYYYMMDD[HHMMSS]).
- **Multiselect Values**
 - Value Type (OBX-2) = CE
 - Observation Value (OBX-5) formatted as AA^American Indian or Alaska Native^RACE~AS^Asian^RACE
 - Multi select values are separated by Tilde (~) sign
 - Example:
 - OBX|3|CE|CANS002.2^What is your race|1|AA^American Indian or Alaska Native^RACE~AS^Asian^RACE|||||F|
- **Specify field(Free Text)**
 - Value Type (OBX-2) = TX or ST
 - The specify OBX uses observation Identifier OBX-4 =1.1 -meaning question 1, specify field(.1)
 - Examples:
 - OBX|7|CE|CANS001.7^Primary Diagnosis|1|R10.0^Acute abdomen^ICD-10|||||F|
 - OBX|8|TX|CANS001.7.1^Primary Diagnosis Notes|1|Acute disease|||||F|

4.7.3 OBX Segments by Domain OBR

4.7.3.1 SED Domain

This section captures the OBX segments for CANS001^SED – Assessment type and eligibility questions.

Sub-ID	Field Name	Data Type	Usage	Cardinality	Allowed Values	Comments
1	Assessment Type	CE	R	[1..1]	Refer to Assessment Type table for values	This field is mandatory regardless of whether the status of the assessment is Complete or Incomplete.
2	Level of Care	CE	R	[1..1]	Refer to Level of Care table for values	This field is mandatory regardless of whether the status of the assessment is Complete or Incomplete
3	Age_Yr	NM	O	[0..1]		Age = Date of Assessment – Date of Birth
4	Age_Mo	NM	O	[0..1]		
5	Are you an independently licensed clinician?	CE	R	[1..1]	Refer to HL70136 table value	1. If CANS001.5 and CAN001.6 = Y Enable following fields 1a.Primary Diagnosis , Primary Diagnosis Notes , 1b. Secondary Diagnosis , Secondary Diagnosis Notes, 1c. Additional Diagnoses, and 2. Does the member's diagnosis result in an impairment of functioning at.
6	Does the child currently have, or at any time in the last 12 months has had, a diagnosable DSM-V or ICD-10 disorder(s)?	CE	R	[1..1]	Refer to HL70136 table value	2. If CANS001.5 = N and CAN001.6 = Y Enable following fields 1a. Primary Diagnosis, Diagnosing Provider (Primary Diagnosis) , Diagnosing Provider Type (Primary Diagnosis), Primary Diagnosis Notes, 1b. Secondary Diagnosis, Diagnosing Provider (Secondary Diagnosis) , Diagnosing Provider Type (Secondary Diagnosis) , Secondary Diagnosis Notes, 1c. Additional Diagnoses and 2. Does the member's diagnosis result in an impairment of functioning at.

						3. If CANS001.5=Y and CAN001.6 = N Disable all the fields in SED part 1
7	1a. Primary Diagnosis	CE	C	[1..1]	ICD9 and ICD 10 code and description	Conditional: This field is triggered when CANS001.5 = Yes and CANS001.6 = Yes. Or Triggered when CANS001.5 = No and CANS001.6 = Yes
7.1	Primary Diagnosis Notes	TX	O	[0..1]		This field is triggered when CANS001.5 = Yes and CANS001.6 = Yes. Or Triggered when CANS001.5 = No and CANS001.6 = Yes
8	Diagnosing Provider (Primary Diagnosis)	TX	O	[0..1]		This field is triggered when CANS001.5 = No and CANS001.6 = Yes
9	Diagnosing Provider Type (Primary Diagnosis)	TX	O	[0..*]		This field is triggered when CANS001.5 = No and CANS001.6 = Yes
10	1b. Secondary Diagnosis	CE	O	[1..1]	ICD9 and ICD 10 code and description	This field is triggered when CANS001.5 = Yes and CANS001.6 = Yes. Or Triggered when CANS001.5 = No and CANS001.6 = Yes
10.1	Secondary Diagnosis Notes	TX	O	[0..1]		This field is triggered when CANS001.5 = Yes and CANS001.6 = Yes. Or

						Triggerred when CANS001.5 = No and CANS001.6 = Yes
11	Diagnosing Provider (Secondary Diagnosis)	TX	O	[0..1]		This field is triggered when CANS001.5 = No and CANS001.6 = Yes
12	Diagnosing Provider Type (Secondary Diagnosis)	TX	O	[0..1]		This field is triggered when CANS001.5 = No and CANS001.6 = Yes
13	1c. Additional Diagnosis	CE	O	[1..1]	Refer to HL70136 table value	If CANS001.13 = Y, then add upto 3 additional diagnosis if required.
14	Additional diagnosis1	TX	O	[0..1]	ICD9 and ICD 10 code and description	This field is triggered If CANS001.13 =Y.
14.1	Additional Diagnosis1 Notes	TX	O	[0..1]		This field is triggered If CANS001.13 =Y.
15	Diagnosing Provider (Additional Diagnosis 1)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y.and -This field is triggered when CANS001.5 = No and CANS001.6 = Yes
16	Diagnosing Provider Type (Additional Diagnosis 1)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y and This field is triggered when CANS001.5 = No and CANS001.6 = Yes
17	Additional diagnosis2	TX	O	[0..1]	ICD9 and ICD 10 code and description	This field is triggered If CANS001.13 =Y.
17.1	Additional Diagnosis2 Notes	TX	O	[0..1]		This field is triggered If CANS001.13 =Y.
18	Diagnosing Provider (Additional Diagnoses 2)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y and

						This field is triggered when CANS001.5 = No and CANS001.6 = Yes
19	Diagnosing Provider Type (Additional Diagnosis 2)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y and This field is triggered when CANS001.5 = No and CANS001.6 = Yes
20	Additional diagnosis3	TX	O	[0..1]	ICD9 and ICD 10 code and description	This field is triggered If CANS001.13 =Y.
20.1	Additional Diagnosis3 Notes	TX	O	[0..1]		This field is triggered If CANS001.13 =Y.
21	Diagnosing Provider (Additional Diagnosis 3)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y and This field is triggered when CANS001.5 = No and CANS001.6 = Yes
22	Diagnosing Provider Type (Additional Diagnosis 3)	TX	O	[0..1]		This field is triggered If CANS001.13 =Y and This field is triggered when CANS001.5 = No and CANS001.6 = Yes
23	2. Does the member's diagnosis result in an impairment of functioning at	CE	R	[1..*]	Refer to Functional Impairment table values	-Select Either CANS001.23 = 'Family' and/or CANS001.23 = 'School' and/or CANS001.23='Community activities' or CANS001.23 ='No Functional Impairment as Defined'. -If CANS001.6 = Y and CANS001.23= 'No Functional Impairment as Defined', then enable CANS001.24 -If CANS001.6 = Y and CANS001.23= 'School' and/or 'Family' and/or 'Community Activities', then disable CANS001.24
24	i. Would the child have met one or more of the functional impairment criteria in Question 2	CE	C	[0..1]	Refer to HL70136_EHS1 table value	Conditional: Required when CANS001.17 value selected is 'No Functional Impairment as Defined'

	without the benefit of treatment?					
25	a. An inability to learn that cannot be explained by intellectual, sensory, or health factors:	CE	R	[1..1]	Refer to HL70136 table value	
26	a. Is this solely the result of one or more of the following: ASD, developmental delay, specific learning disability, hearing impairment, visual impairment, deaf-blindness, speech or language impairment, orthopedic impairment, TBI, other health impairment	CE	C	[0..1]	Refer to HL70136 table value	*Enabled and Required when CANS001.25= Y *Disable when CANS001.25= N
27	b. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers	CE	R	[1..1]	Refer to HL70136 table value	
28	b. Is this solely the result of one or more of the following: ASD, developmental delay, specific learning disability, hearing impairment, visual impairment, deaf-blindness, speech or language impairment, orthopedic impairment, TBI, other health impairment*	CE	C	[0..1]	Refer to HL70136 table value	Conditional: *Enabled and Required when CANS001.27= Y *Disable when CANS001.27 = N

29	c. Inappropriate types of behavior or feelings under normal circumstances	CE	R	[1..1]	Refer to HL70136 table value	
30	c. Is this solely the result of one or more of the following: ASD, developmental delay, specific learning disability, hearing impairment, visual impairment, deaf-blindness, speech or language impairment, orthopedic impairment, TBI, other health impairment	CE	C	[0..1]	Refer to HL70136 table value	Conditional: *Enabled and Required when CANS001.29 = Y *Disable when CANS001.29= N
31	d. A general pervasive mood of unhappiness or depression	CE	R	[1..1]	Refer to HL70136 table value	
32	d. Is this solely the result of one or more of the following: ASD, developmental delay, specific learning disability, hearing impairment, visual impairment, deaf-blindness, speech or language impairment, orthopedic impairment, TBI, other health impairment	CE	C	[0..1]	Refer to HL70136 table value	Conditional: *Enabled and Required when CANS001.31= Y *Disable when CANS001.31 = N
33	e. A tendency to develop physical symptoms or fears associated with personal or school problems	CE	R	[1..1]	Refer to HL70136 table value	

34	e. Is this solely the result of one or more of the following: ASD, developmental delay, specific learning disability, hearing impairment, visual impairment, deaf-blindness, speech or language impairment, orthopedic impairment, TBI, other health impairment	CE	C	[0..1]	Refer to HL70136 table value	Conditional: *Enabled and Required when CANS001.34 = Y *Disable when CANS001.34 = N
35	Date of Consent for Treatment	TS	R	[1..1]	MM/DD/YYYY	This field is mandatory regardless of whether the status of the assessment is Complete or Incomplete

4.7.3.2 Member Domain

This section captures the OBX segments for CANS002^Member – Member demographics and characteristics.

Sub-ID	Field Name	Data Type	Usage(R/O/C)	Cardinality	Code table reference	Notes
1	Relationship to Guardian	CE	R	[1..*]	Refer to Relationship_to_Guardian table for values	Select all that applies
1.1	Other Relationship to Guardian	TX	C	[0..1]		Required when CANS002.1 = Other value is selected
2	What is your race?	CE	O	[0..5]	Refer to Race table for values	
2.1	Other Race (please specify)	TX	O	[0..1]		Enter text when CANS002.2 = Other Race is selected
3	Are you of Hispanic or Latino origin or descent?	CE	O	[0..1]	Refer to Hisp_Latin table for values	
4	What is your ethnicity?	CE	O	[0..5]	Refer to Ethnicity table for values	
4.1	Please specify ethnicity	TX	O	[0..1]		Enter text when CANS002.4 = “My ethnicity is not listed (please specify)” value is selected
5	What language do you feel most comfortable speaking with your doctor or nurse?	CE	O	[0..1]	Refer to Spoken_Language table for values	

5.1	Please specify language	TX	O	[0..1]		Enter text when CANS002.5= My language is not listed (please specify) is selected
6	In which language would you feel most comfortable reading medical or health care instructions?	CE	O	[0..1]	Refer to Reading_Language table for values	
6.1	Please specify preferred language	TX	O	[0..1]		Enter information when CANS002.6= My language is not listed(please specify) is selected
6.2	Specify Chinese	CE	O	[0..1]	Refer to Written_Chinese table for values	Select values when CANS002.6= Chinese (please specify traditional or simplified) is selected
7	Does the family require an interpreter for CBHI Services?	CE	O	[0..1]	Refer to HL70136 table value	
8	Are you deaf or do you have serious difficulty hearing?	CE	O	[0..1]	Refer to Disability value	
9	Are you blind or do you have serious difficulty seeing, even when wearing glasses?	CE	O	[0..1]	Refer to Disability value	
10	Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?	CE	O	[0..1]	Refer to Disability value	
11	Do you have serious difficulty walking or climbing stairs?	CE	O	[0..1]	Refer to Disability value	
12	Do you have difficulty dressing or bathing?	CE	O	[0..1]	Refer to Disability value	
13	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?	CE	O	[0..1]	Refer to Disability value	
14	Reason for Referral	TX	O	[0..1]		

4.7.3.3 Caregiver Domain

This section captures the OBX segments for *CANS003^Caregiver* – Caregiver demographics and support

Sub -ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Values	Comments
1	Is the Member living with Caregiver 1?	CE	R	[1..1]	Refer to Caregiver table for values	
2	Is Caregiver 1 the Member's Legal Guardian?	CE	R	[1..1]	Refer to HL70136 table for value	
3	Name - CG1:	TX	C	[0..1]		Required when CANS003.2=Y
4	Date of Birth - CG1:	TS	O	[0..1]	MM/DD/YYYY	
5	What is your race? - CG1:	CE	O	[0..1]	Refer to Race table for value	Select upto 5 values
6	Are you of Hispanic or Latino origin or descent? - CG1:	CE	O	[0..1]	Refer to Hisp_Latin table for value	
7	What is your ethnicity? - CG1:	CE	O	[0..1]	Refer to Ethnicity table for value	Select upto 5 values
8	What language do you feel most comfortable speaking with your doctor or nurse? - CG1:	CE	O	[0..1]	Refer to Spoken_Language table for value	
9	In which language would you feel most comfortable reading medical or health care instructions? - CG1:	CE	O	[0..1]	Refer to Reading_Language table for value	
10	Are you deaf or do you have serious difficulty hearing? - CG1:	CE	O	[0..1]	Refer to Disability table for value	
11	Are you blind or do you have serious difficulty seeing, even when wearing glasses?	CE	O	[0..1]	Refer to Disability table for value	
12	Because of a physical, mental, or emotional condition, do you have serious	CE	O	[0..1]	Refer to Disability table for value	

	difficulty concentrating, remembering, or making decisions? - CG1:					
13	Do you have serious difficulty walking or climbing stairs? - CG1:	CE	O	[0..1]	Refer to Disability value	
14	Do you have difficulty dressing or bathing? - CG1:	CE	O	[0..1]	Refer to Disability value	
15	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? - CG1:	CE	O	[0..1]	Refer to Disability value	
16	Marital Status - CG1:	CE	O	[0..1]	Refer to Marital_Status table	
17	Add another Caregiver?	CE	O	[0..1]	Refer to HL70136 table for value	If Yes, then Caregiver2 section will be triggered
18	Is the Member living with Caregiver 2?	CE	C	[0..1]	Refer to Caregiver table for value	Required if CANS003.17 = Y
19	Is Caregiver 2 the Member's Legal Guardian?	CE	C	[0..1]	Refer to HL70136 table for value	Required when CANS003.17 = Y
20	Name - CG2:	TX	C	[0..1]		Required when CANS003.19 =Y
21	Date of Birth - CG2:	TS	O	[0..1]	MM/DD/YYYY	
22	What is your race? - CG2:	CE	O	[0..1]	Refer to Race table for value	Select upto 5 values
23	Are you of Hispanic or Latino origin or descent? - CG2:	CE	O	[0..1]	Refer to Hisp_Latin table for value	
24	What is your ethnicity? - CG2:	CE	O	[0..1]	Refer to Ethnicity table for value	Select upto 5 values
25	What language do you feel most comfortable speaking with your doctor or nurse? - CG2:	CE	O	[0..1]	Refer to Spoken_Language table for value	
26	In which language would you feel most comfortable reading medical or health care	CE	O	[0..1]	Refer to Reading_Language table for value	

	instructions? - CG2:					
27	Are you deaf or do you have serious difficulty hearing? - CG2:	CE	O	[0..1]	Refer to Disability table for value	
28	Are you blind or do you have serious difficulty seeing, even when wearing glasses?	CE	O	[0..1]	Refer to Disability table for value	
29	Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions? - CG2:	CE	O	[0..1]	Refer to Disability table for value	
30	Do you have serious difficulty walking or climbing stairs? - CG2:	CE	O	[0..1]	Refer to Disability table for value	
31	Do you have difficulty dressing or bathing? - CG2:	CE	O	[0..1]	Refer to Disability table for value	
32	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? - CG2:	CE	O	[0..1]	Refer to Disability table for value	
33	Marital Status - CG2:	CE	O	[0..1]	Refer to Marital_Status table for value	
34	Add another Caregiver?	CE	O	[0..1]	Refer to HL70136 table for value	
35	Is the Member living with Caregiver 3?	CE	C	[0..1]	Refer to Caregiver table for value	Required when CANS003.34 = Y
36	Is Caregiver 3 the Member's Legal Guardian?	CE	C	[0..1]	Refer to HL70136 table for value	Required when CANS003.34 = Y
37	Name - CG3:	CE	C	[0..1]		Required when CANS003.36 = Y
38	Date of Birth - CG3:	TS	O	[0..1]		

39	What is your race? - CG3:	CE	O	[0..1]	Refer to Race table for value	
40	Are you of Hispanic or Latino origin or descent? - CG3:	CE	O	[0..1]	Refer to Hisp_Latin table for value	
41	What is your ethnicity? - CG3:	CE	O	[0..1]	Refer to Ethnicity table for value	
42	What language do you feel most comfortable speaking with your doctor or nurse? - CG3:	CE	O	[0..1]	Refer to Spoken_Language table for value	
43	In which language would you feel most comfortable reading medical or health care instructions? - CG3:	CE	O	[0..1]	Refer to Reading_Language table for value	
44	Are you deaf or do you have serious difficulty hearing? - CG3:	CE	O	[0..1]	Refer to Disability table for value	
45	Are you blind or do you have serious difficulty seeing, even when wearing glasses?	CE	O	[0..1]	Refer to Disability table for value	
46	Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions? - CG3:	CE	O	[0..1]	Refer to Disability table for value	
47	Do you have serious difficulty walking or climbing stairs? - CG3:	CE	O	[0..1]	Refer to Disability table for value	
48	Do you have difficulty dressing or bathing? - CG3:	CE	O	[0..1]	Refer to Disability table for value	
49	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's	CE	O	[0..1]	Refer to Disability table for value	

	office or shopping? - CG3:					
50	Marital Status - CG3:	CE	O	[0..1]	Refer to Marital status table for value	
51	Add another Caregiver?	CE	O	[0..1]	Refer to HL70136 table for value	
52	Is the Member living with Caregiver 4?	CE	C	[0..1]	Refer to Caregiver table for value	Required when CANS003.51 = Y
53	Is Caregiver 4 the Member's Legal Guardian?	CE	C	[0..1]	Refer to HL70136 table for value	Required when CANS003.51 = Y
54	Name - CG4:	TX	C	[0..1]		Required when CANS003.53 = Y
55	Date of Birth - CG4:	TS	O	[0..1]		
56	What is your race? - CG4:	CE	O	[0..1]	Refer to Race value	
57	Are you of Hispanic or Latino origin or descent? - CG4:	CE	O	[0..1]	Refer to Hisp_Latin value	
58	What is your ethnicity? - CG4:	CE	O	[0..1]	Refer to Ethnicity value	
59	What language do you feel most comfortable speaking with your doctor or nurse? - CG4:	CE	O	[0..1]	Refer to Spoken_Language value	
60	In which language would you feel most comfortable reading medical or health care instructions? - CG4:	CE	O	[0..1]	Refer to Reading_Language value	
61	Are you deaf or do you have serious difficulty hearing? - CG4:	CE	O	[0..1]	Refer to Disability value	
62	Are you blind or do you have serious difficulty seeing, even when wearing glasses?	CE	O	[0..1]	Refer to Disability value	
63	Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions? - CG4:	CE	O	[0..1]	Refer to Disability value	

64	Do you have serious difficulty walking or climbing stairs? - CG4:	CE	O	[0..1]	Refer to Disability value	
65	Do you have difficulty dressing or bathing? - CG4:	CE	O	[0..1]	Refer to Disability value	
66	Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? - CG4:	CE	O	[0..1]	Refer to Disability value	
67	Marital Status - CG4:	CE	O	[0..1]	Refer to Marital status	

4.7.3.4 Treatment History & Systems Involvement

This section captures the OBX segments for CANS004^Treatment History & Systems Involvement

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Values	Comments
1	Concurrent System Involvement	CE	R	[1..*]	Refer to CSI table for values	select all that apply.
1.1	Other Concurrent System Involvement:	TX	C	[0..1]		Required when CANS004.1 = Other.
2	Date of Last Team Meeting for Concurrent System Involvement:	TS	O	[0..1]	MM/DD/YY YY format	
3	Does the child currently have a specialized education plan?	CE	R	[1..1]	Refer to HL70136 table for value	
4	If yes, select the specialized education plan(s) currently in place.	CE	C	[1..*]	Refer to SEP values	Select all that apply. Enable when CANS004.3 = Y. Disabled if CANS004.3 = N.
5	Date of Last Team Meeting for Specialized Education Plan(s)	TS	O	[0..1]	MM/DD/YY YY Format.	Enable when CANS004.3 = Y. Disabled if CANS004.3 = N.

4.7.3.5 Child/Youth Developmental Needs

This section captures the OBX segments for CANS005^Child/Youth Developmental Needs – Child/Youth Developmental Needs and its specifications.

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Values	Comments
1	Communication	CE	R	[1..1]	Refer to Scoring table for values	
2	Social Needs	CE	R	[1..1]	Refer to Scoring table for values	
3	Coordination	CE	R	[1..1]	Refer to Scoring table for values	
4	Sensory Regulation	CE	R	[1..1]	Refer to Scoring table for values	
5	Physical Development	CE	R	[1..1]	Refer to Scoring table for values	
6	Cognitive Development	CE	R	[1..1]	Refer to Scoring table for values	
7	Restricted Interests	CE	R	[1..1]	Refer to Scoring table for values	
8	Repetitive Behavior	CE	R	[1..1]	Refer to Scoring table for values	
9	Learning Disability	CE	R	[1..1]	Refer to Scoring table for values	
10	Child/ Youth Developmental Needs Narrative	TX	O	[0..1]		

4.7.3.6 *Child/Youth Health and Behavioral Health Needs*

This section captures the OBX segments for CANS006^Child/Youth Health and Behavioral Health Needs – Child/Youth Health and Behavioral Health Needs, along with their details.

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Values	Comments
1	Physical Illness	CE	R	[1..1]	Refer to Scoring table for values	
2	Health Behaviors	CE	R	[1..1]	Refer to Scoring table for values	
3	Disordered Eating	CE	R	[1..1]	Refer to Scoring table for values	
4	Depression	CE	R	[1..1]	Refer to Scoring table for values	
5	Anxiety	CE	R	[1..1]	Refer to Scoring table for values	
6	Hallucinations/ Delusions	CE	R	[1..1]	Refer to Scoring table for values	
7	Emotional Regulation	CE	R	[1..1]	Refer to Scoring table for values	
8	Physical Regulation	CE	R	[1..1]	Refer to Scoring table for values	
9	Executive Functioning	CE	R	[1..1]	Refer to Scoring table for values	
10	Lack of Concern for Others	CE	R	[1..1]	Refer to Scoring table for values	
11	Suicidal Ideation	CE	R	[1..1]	Refer to Scoring table for values	
12	Nonsuicidal Self Harm	CE	R	[1..1]	Refer to Scoring table for values	

13	Aggression	CE	R	[1..1]	Refer to Scoring table for values	
14	Bullying	CE	R	[1..1]	Refer to Scoring table for values	
15	Victim of Bullying	CE	R	[1..1]	Refer to Scoring table for values	
16	Sexual Safety	CE	R	[1..1]	Refer to Scoring table for values	
17	Running Away	CE	R	[1..1]	Refer to Scoring table for values	
18	Sleep Difficulties	CE	R	[1..1]	Refer to Scoring table for values	
19	Technology	CE	R	[1..1]	Refer to Scoring table for values	
20	Technology Narrative	TX	C	[0..1]		Required when value selected for CANS006.19 -Technology = 1,2 or 3
21	Child/ Youth Health and Behavioral Health Needs Narrative	TX	O	[0..1]		
Substance Use						This is a module under Child/ Youth Health and Behavioral Health Needs domain
22	Is the use of substances a concern?	CE	R	[1..1]	Refer to HL70136 table value	If CANS006.22 =Y, then trigger the following questions in substance use module. If CANS006.22 =N, then disable the following questions in substance use module.
23	Alcohol	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22 = Y
24	Amphetamines	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22 = Y
25	Cannabis	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22= Y
26	Hallucinogens	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22 = Y
27	Inhalants	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22= Y
28	Nicotine	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22= Y
29	Opiates	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22 = Y
30	Sedatives	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22= Y
31	Synthetic/designer drugs	CE	C	[0..1]	Refer to Frequency table for values	Required when CANS006.22 = Y
32	Risk Behavior Associated with Substance Use	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.22 = Y

33	Readiness for Change	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.22 = Y
34	Substance Abuse Narrative	TX	O	[0..1]		
Traumatic Stress						This is a module under Child/ Youth Health and Behavioral Health Needs domain
35	Impact of Trauma on the Individual	CE	R	[1..1]	Refer to HL70136 table value	If CANS006.35=Y, -Enable questions CANS006.36 through CANS006.46. If CANS006.35 =N., -Disable questions CANS006.36 through CANS006.46.
36	Physical Abuse	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
37	Neglect	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
38	Emotional Abuse	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
39	Medical Trauma	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
40	Witness to Family Violence	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
41	Intergenerational Trauma	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
42	Witness to Community Violence	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35= Y
43	War/Terrorism Affected	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35= Y
44	Disruptions in Caregiving/Attachment	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35 = Y
45	Exploitation	CE	C	[0..1]	Refer to HL70136 table value	Required when CANS006.35= Y
46	Traumatic Stress Narrative	TX	O	[0..1]		
Traumatic Stress Symptoms						This subsection is required if any field from CANS006.36 to CANS006.45 is set to Y.
47	Intrusive Thoughts or Re-Experiencing	CE	C	[0..1]	Refer to Scoring table for values	
48	Hypervigilance	CE	C	[0..1]	Refer to Scoring table for values	
49	Grief	CE	C	[0..1]	Refer to Scoring table for values	
50	Numbing	CE	C	[0..1]	Refer to Scoring table for values	

51	Dissociation	CE	C	[0..1]	Refer to Scoring table for values	
52	Avoidance	CE	C	[0..1]	Refer to Scoring table for values	
53	Traumatic Stress Symptoms Narrative	TX	O	[0..1]		
School						This is a module under Child/ Youth Health and Behavioral Health Needs domain
54	Are there difficulties in the child/youth's school setting?	CE	R	[1..1]	Refer to HL70136 table value	If CANS006.54 =Y, -Enable questions CANS006.54 through CANS006.59 If CANS006.54 =N., -Disable questions CANS006.54 through CANS006.59
55	School Attendance	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.54=Y
56	School Behavior	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.54=Y
57	Academic Achievement	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.54=Y
58	Relationship to School	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS006.54=Y
59	School Narrative	TX	C	[0..1]		

4.7.3.7 Family and Community Context

This section captures the OBX segments for CANS007^Family and Community Context-Family & Community Context of the assessment

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Default Value	Comments
1	Accessibility	CE	R	[1..1]	Refer to Scoring table for values	
2	Housing Stability	CE	R	[1..1]	Refer to Scoring table for values	
3	Built Environment	CE	R	[1..1]	Refer to Scoring table for values	
4	Economic Resources	CE	R	[1..1]	Refer to Scoring table for values	
Identity Related Stress						This is a module under Family and Community Context domain

5	Does the youth experiences stress or difficulties related to their social identity (race, gender, sexuality, ability, skin color, etc.), including discrimination.	CE	R	[1..1]	Refer to HL70136 table value	IF CANS007.5 = Y, then enable and required CANS007.6 through CANS007.10 If CANS 007.5 =N, then disable CANS007.6 through CANS007.10
6	Family Acceptance/Recognition of Young Person’s Identity	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.5= Y
7	Stereotyping & Experiences of Discrimination	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.5= Y
8	Immigration	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.5= Y
9	Need for Gender Affirming Care	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.5= Y
10	Identity Related Isolation	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.5= Y
Caregiver Need for Support						This is a module under Family and Community Context domain
11	Does the Caregiver have a need for additional support to effectively manage the responsibilities of the child/youth and their family’s everyday needs.	CE	R	[1..1]	Refer to HL70136 table value	IF CANS007.11 = Y, then enable and required CANS007.12 through CANS007.18. If CANS007.11 =N, then disable CANS007.12 through CANS007.18.
12	Understanding of the Child/Youth	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
13	Supervision	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
14	Engagement and Responsiveness	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
15	Routines/Expectations	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
16	Organization	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
17	Personal Stress Management	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
18	Management of Challenging Moments	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.11= Y
Family Functioning						This is a module under Family and Community Context domain

19	Are there difficulties within the family that are negatively impacting individuals within the family, or the family as a whole.	CE	R	[1..1]	Refer to HL70136 table value	IF CANS007.19 = Y, then enable and required CANS007.20 through CANS007.24. If CANS 007.19 =N, then disable CANS007.20 through CANS007.24.
20	Family Conflict	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.19= Y
21	Family Communication	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.19= Y
22	Caregiving Alignment	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.19= Y
23	Sibling Needs	CE	C	[0..1]	Refer to Scoring table for values	Required when CANS007.19= Y
24	Family and Community Context Narrative	TX	O	[0..1]		Required when CANS007.19= Y

4.7.3.8 Transition to Adulthood

This section captures the OBX segments for *CANS008^Transition to Adulthood-Transition to adulthood* domain and its details (for members >14.5 years of age).

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed value	This domain is required for children of age is => 14.5 years
1	Independent Living Skills	CE	C	[0..1]	Refer to Scoring table for values	
2	Transportation	CE	C	[0..1]	Refer to Scoring table for values	
3	Management of Needs	CE	C	[0..1]	Refer to Scoring table for values	
4	Vocational Interests/Employment Opportunities	CE	C	[0..1]	Refer to Scoring table for values	
5	Natural Supports	CE	C	[0..1]	Refer to Scoring table for values	

4.7.3.9 Youth Strengths

This section captures the OBX segments for *CANS009^Youth Strengths – Youth Strengths* domain and its description.

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Value	Comments
1	Advocacy Skills	CE	R	[1..1]	Refer to HL70136 table for values	
2	Interests/Passions	CE	R	[1..1]	Refer to HL70136 table for values	
3	Community Connection	CE	R	[1..1]	Refer to HL70136 table for values	
4	Adult/Mentor Connection	CE	R	[1..1]	Refer to HL70136 table for values	
5	Ability to Engage Coping Mechanisms	CE	R	[1..1]	Refer to HL70136 table for values	

6	Peer Connections	CE	R	[1..1]	Refer to HL70136 table for values	
7	School Partnership	CE	R	[1..1]	Refer to HL70136 table for values	
8	Clarity in Defining and Taking Pride in Their Identities	CE	R	[1..1]	Refer to HL70136 table for values	
9	Youth Strengths Narrative	TX	R	[0..1]		

4.7.3.10 Family Strengths

This section captures the OBX segments for *CANS010^Family Strengths* – Family Strengths domain of the assessment.

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Allowed Values	Comments
1	Family: Advocacy Skills	CE	R	[1..1]	Refer to HL70136 table for values	
2	Family: Natural Supports	CE	R	[1..1]	Refer to HL70136 table for values	
3	Family: Offering Opportunities for Success	CE	R	[1..1]	Refer to HL70136 table for values	
4	Family: Resourcefulness	CE	R	[1..1]	Refer to HL70136 table for values	
5	Family: Family Strengths Narrative	TX	O	[0..1]		

4.7.3.11 Narrative

This section captures the OBX segments for *CANS011^Narrative* – Assessment narrative domain of the assessment.

Sub-ID	Field Name	Data Type	Usage (R/O/C)	Cardinality	Length	Allowed value
1	Assessment Narrative	TX	No	[0..1]	10000	

4.7.4 Sample OBX Questions and Answers

Below are conceptual examples that illustrate patterns from the sample CANS/SED messages (full samples are included in Section 14).

- **Assessment Type**
 - *OBX|1|CE|CANS001.1^Assessment Type|1|I^Initial^Assmt_Type|||||F|*
- **Level of Care**
 - *OBX|2|CE|CANS001.2^Level_of_Care|1|FIT^Family-based Intensive Treatment^Level_of_Care Values|||||F|*
- **Age**
 - *OBX|3|NM|CANS001.3^Age_Yr|1|12|||||F|*
 - *OBX|4|NM|CANS001.4^Age_Mo|1|5|||||F|*
- **Yes/No Clinical Questions**

- *OBX/5/CE/CANS001.5^Are you an independently licensed clinician?/1/Y^Yes^HL70136/////F/*
- **ICD Diagnosis Fields**
 - *OBX/7/CE/CANS001.7^1a. Primary Diagnosis/1/R10.0^Acute abdomen^ICD-10/////F/*
- **Local Scales (0–3)**
 - *OBX/1/CE/CANS005.1^Communication/1/0^Local/////F/*

4.8 Code Sets and Lookup Tables (Overview)

Detailed tables are provided in **Appendix B**. This section summarizes the major categories.

4.8.1 12.1 HL7 Standard Tables

- **HL70136 – Yes/No Indicator**
 - Commonly used for yes/no questions throughout the assessment.
- **Additional HL7 tables** may be used as appropriate (e.g., language, country).

4.8.2 12.2 Local Code Tables

Local tables are used for CANS/SED scoring and multi-level responses, including but not limited to:

- **CANS Scoring (0–3)**
 - 0 – No evidence / Strength
 - 1 – Watchful waiting / Mild need
 - 2 – Moderate need / Action needed
 - 3 – Severe need / Immediate or intensive action required
- **Input Patient Data 0–3, Input Patient Data 0–3 and N/A**
 - Used extensively in domain scores (e.g., Risk, Strengths, Life Domain Functioning).
- **Frequency (Substance Use Frequency)**
 - Includes values like *N^Never^Frequency*.

4.8.3 12.3 ICD-9 / ICD-10 Tables

- ICD code systems are used for diagnostic fields (e.g., Primary/Secondary Diagnosis).
- The code system identifier in OBX-5 component 3 must correctly reflect ICD-9 vs ICD-10 (e.g., *ICD-9*, *ICD-10*).

A complete listing of CANS/SED-specific local tables, along with value descriptions, is provided in Appendix B.

5 Integration Environments

The eCAS integration endpoints for the Test and Production environments will be shared in a separate Integration Guide document.

The eCAS team will share a separate Integration Guide document that captures the following information:

1. The eCAS integration endpoints for the Test and Production environments.
2. Test and production accounts and credentials.
3. Test scenarios and supporting data.

6 Sample Messages (CANS and SED)

This section offers representative, non-exhaustive examples of CANS and SED ORU^R01 messages aligned with this specification. The full mapping and precise field values may be refined during onboarding, but the overall structure must stay consistent.

6.1 Sample Complete CANS ORU^R01 Message (Excerpt)

```

MSH|^~\&|SENDSYS|SNDFAC|ECAS-CANS|MA-
EHS|20251104164100||ORU^R01|MSGID12345|P|2.5.1|||AL|AL|USA|||CANS

PID|1||123456789012^^^MMIS|SMITH^JOHN^A||19700101|M|||||||

ORC|NW|Assessment
ID||CM|||20230515103000|123456789012345^JONES^JOHN^M^Jr^DR|||555-123-
4567^^CP|||||Org_ID^Boston Medical Center|

OBR|1||CANS001^SED|||||||||||||||||F|

OBX|1|CE|CANS001.1^Assessment Type|1|I^Initial^Assessment_Type|||||F|

OBX|2|CE|CANS001.2^Level of Care|1|FIT^ Family based Intensive Treatment
^Level_of_Care |||||F|

OBX|3|NM|CANS001.3^Age Yr|1|12|||||F|

OBX|4|NM|CANS001.4^Age Mo|1|5|||||F|

OBX|5|CE|CANS001.5^Are you an independently licensed
clinician?|1|Y^Yes^HL70136|||||F|

OBX|6|CE|CANS001.6^Does the child currently have, or at any time in the last 12
months has had...|1|Y^Yes^HL70136|||||F|

OBX|7|CE|CANS001.7^1a.Primary Diagnosis|1|R10.0^Acute abdomen^ICD_10|||||F|

OBX|8|TX|CANS001.7.1^Primary Diagnosis Notes|1|Acute disease|||||F|

OBX|11|CE|CANS001.10^1b.Secondary Diagnosis|1|784.0^Headache^ICD_9|||||F|

OBX|12|TX|CANS001.10.1^Secondary Diagnosis Notes|1|Child suffering from
Headache|||||F|

OBX|15|CE|CANS001.13^1c.Additional Diagnoses|1|Y^Yes^HL70136|||||F|

OBX|16|CE|CANS001.14^Additional diagnosis|1|784.0^Headache^ICD_9|||||F|

OBX|17|TX|CANS001.14.1^Additional Diagnoses1 Notes|1||Additional diagnosis required
for headache|||||F|

OBX|18|CE|CANS001.23^2.Does the member's diagnosis result in an impairment of
functioning at|1|NA^No Functional Impairment as Defined^Functional_Impairment|||||F|

OBX|21|CE|CANS001.24^i.Would the child have met one or more of the functional
impairment criteria in ...|1|Y^Yes^HL70136_EHS1|||||F|

OBX|22|CE|CANS001.25^a.An inability to learn that cannot be explained by
intellectual, sensory, or health factors|1|Y^Yes^HL70136|||||F|

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OBX|23|CE|CANS001.26^a.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|

OBX|24|CE|CANS001.27^b.An inability to build or maintain satisfactory interpersonal
relationships with peers and teachers|1|Y^Yes^HL70136|||||F|

OBX|25|CE|CANS001.28^b.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|

OBX|26|CE|CANS001.29^c.Inappropriate types of behavior or feelings under normal
circumstances|1|Y^Yes^HL70136|||||F|

OBX|27|CE|CANS001.30^c.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|

OBX|28|CE|CANS001.31^d.A general pervasive mood of unhappiness or
depression|1|Y^Yes^HL70136|||||F|

OBX|29|CE|CANS001.32^d. Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|

OBX|30|CE|CANS001.33^e.A tendency to develop physical symptoms or fears associated
with personal or school problems:|1|Y^Yes^HL70136|||||F|

OBX|31|CE|CANS001.34^e.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|

OBX|32|TS|CANS001.35^Date of Consent for Treatment|1|11/2/2025|||||F|

OBR|1|||CANS002^Member|||||||||||||||||F|

OBX|1|CE|CANS002.1^Relationship to Guardian|1|0^Other^Relationship_to
_Guardian|||||F|

OBX|2|TX|CANS002.1.1^Other Relationship to Guardian|1|Life Partner|||||F|

OBX|3|CE|CANS002.2^What is your race|1|AA^American Indian or Alaska
Native^RACE~AS^Asian^RACE|||||F|

OBX|5|CE|CANS002.3^Are you of Hispanic or Latino origin or descent|1|H^Hispanic or
Latino^Hisp_Latin|||||F|

OBX|6|CE|CANS002.4^What is your ethnicity?|1|A^African^Ethnicity|||||F|

OBX|7|CE|CANS002.5^What language do you feel most comfortable speaking with your
doctor or nurse|1|E^English^Spoken_Language|||||F|

OBX|8|CE|CANS002.6^In which language would you feel most comfortable reading medical
...|1|E^English^Reading_Language|||||F|

OBX|9|CE|CANS002.7^Does the family require an interpreter for CBHI
Services|1|Y^Yes^HL70136|||||F|

OBX|10|CE|CANS002.8^Are you deaf or do you have serious difficulty
hearing|1|Y^Yes^Disability|||||F|

OBX|11|CE|CANS002.9^Are you blind or do you have serious difficulty seeing, even when
wearing glasses|1|Y^Yes^Disability|||||F|

OBX|12|CE|CANS002.10^Because of a physical, mental, or emotional condition, do you
have serious...|1|Y^Yes^Disability|||||F|

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OBX|13|CE|CANS002.11^Do you have serious difficulty walking or climbing
stairs|1|Y^Yes^Disability|||||F|

OBX|14|CE|CANS002.12^Do you have difficulty dressing or bathing|1|Y^Yes^Disability
|||||F|

OBX|15|CE|CANS002.13^Because of a physical, mental, or emotional condition, do you
have difficulty doing...|1|Y^Yes^Disability|||||F|

OBX|16|TX|CANS002.14^Refer_Reason|1|Enter reason for referral|||||F|

OBR|1|||CANS003^Caregiver|||||||||||||||||F

OBX|1|CE|CANS003.1^Is the Member living with Caregiver
1|1|FT^Fulltime^Caregiver|||||F|

OBX|2|CE|CANS003.2^Is Caregiver 1 the Member's Legal Guardian|1|Y^Yes^HL70136|||||F|

OBX|3|CE|CANS003.3^Name|1|Joe Jones|||||F|

OBX|4|TS|CANS003.4^Date of birth|1|11/2/2025|||||F|

OBX|5|CE|CANS003.5^What is your race|1|AA^American Indian or Alaska
Native^RACE~AS^Asian^RACE|||||F|

OBX|6|CE|CANS003.6^Are you of Hispanic or Latino origin or descent|1|H^Hispanic or
Latino^Hisp_Latin|||||F|

OBX|7|CE|CANS003.7^What is your ethnicity?|1|A^African^Ethnicity|||||F|

OBX|8|CE|CANS003.8^What language do you feel most comfortable speaking with your
doctor or nurse|1|E^English^Spoken_Language|||||F|

OBX|9|CE|CANS003.9^In which language would you feel most comfortable reading medical
...|1|E^English^Reading_Language|||||F|

OBX|10|CE|CANS003.10^Are you deaf or do you have serious difficulty
hearing|1|Y^Yes^Disability|||||F|

OBX|11|CE|CANS003.11^Are you blind or do you have serious difficulty seeing, even
when wearing glasses|1|Y^Yes^Disability|||||F|

OBX|12|CE|CANS003.12^Because of a physical, mental, or emotional condition, do you
have serious...|1|Y^Yes^Disability|||||F|

OBX|13|CE|CANS003.13^Do you have serious difficulty walking or climbing
stairs|1|Y^Yes^Disability|||||F|

OBX|14|CE|CANS003.14^Do you have difficulty dressing or bathing|1|Y^Yes^Disability
|||||F|

OBX|15|CE|CANS003.15^Because of a physical, mental, or emotional condition, do you
have difficulty doing...|1|Y^Yes^Disability|||||F|

OBX|16|CE|CANS003.16^Marital status|1|S^Single^Marital_status|||||F|

OBR|1|||CANS004^Treatment History & Systems Involvement|||||||||||||||||F

OBX|1|CE|CANS004.1^Concurrent System Involvement|1|DCF^DCF^CSI~DMH^DMH^CSI|||||F|

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OBX|2|TS|CANS004.2^Date of Last Team Meeting for Concurrent System Involvement|1|11/2/2025|||||F|

OBX|3|CE|CANS004.3^Does the child currently have a specialized education plan|1|Y^Yes^HL70136|||||F|

OBX|4|CE|CANS004.4^If yes, select the specialized education plan(s) currently in place|1|IEP^IEP^SEP|||||F|

OBX|5|TS|CANS004.5^Date of Last Team Meeting for Specialized Education Plan(s)|1|11/2/2025|||||F|

OBR|1|||CANS005^Child/Youth Developmental Needs|||||||||||||||||F

OBX|1|CE|CANS005.1^Communication|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|2|CE|CANS005.2^Social Needs|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|3|CE|CANS005.3^Coordination|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|4|CE|CANS005.4^Sensory Regulation|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|5|CE|CANS005.5^Physical Development|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|6|CE|CANS005.6^Cognitive Development|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|7|CE|CANS005.7^Restricted Interests|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|8|CE|CANS005.8^Repetitive Behavior|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|9|CE|CANS005.9^Learning Disability|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|10|ST|CANS005.10^Child/ Youth Developmental Needs Narrative|1|Developmental narrative|||||F|

OBR|1|||CANS006^Child/Youth Health and Behavioral Health Needs|||||||||||||||||F

OBX|1|CE|CANS006.1^Physical Illness|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|2|CE|CANS006.2^Health Behaviors|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|3|CE|CANS006.3^Disordered Eating|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|4|CE|CANS006.4^Depression|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|5|CE|CANS006.5^Anxiety|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|6|CE|CANS006.6^Hallucinations/Delusions|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|7|CE|CANS006.7^Emotional Regulation|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|8|CE|CANS006.8^Physical Regulation|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|9|CE|CANS006.9^Executive Functioning|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|10|CE|CANS006.10^Lack of Concern for Others|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|11|CE|CANS006.11^Suicidal Ideation|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|12|CE|CANS006.12^Nonsuicidal Self Harm|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|13|CE|CANS006.13^Aggression|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|14|CE|CANS006.14^Bullying|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|15|CE|CANS006.15^Victim of Bullying|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|16|CE|CANS006.16^Sexual Safety|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|17|CE|CANS006.17^Running Away|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|18|CE|CANS006.18^Sleep Difficulties|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|19|CE|CANS006.19^Technology|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|20|ST|CANS006.21^Child/ Youth Health and Behavioral Health Needs Narrative|1|Child/ Youth Health and Behavioral Health Needs Narrative|||||F|

OBX|21|CE|CANS006.22^Is the use of substances a concern?|1|Y^Yes^HL70136|||||F|

OBX|21|CE|CANS006.23^Alcohol|1|N^Never^Frequency|||||F|

OBX|22|CE|CANS006.24^Amphetamines|1|N^Never^Frequency|||||F|

OBX|23|CE|CANS006.25^Cannabis|1|N^Never^Frequency|||||F|

OBX|24|CE|CANS006.26^Hallucinogens|1|N^Never^Frequency|||||F|

OBX|25|CE|CANS006.27^Inhalants|1|N^Never^Frequency|||||F|

OBX|26|CE|CANS006.28^Nicotine|1|N^Never^Frequency|||||F|

OBX|27|CE|CANS006.29^Opiates|1|N^Never^Frequency|||||F|

OBX|28|CE|CANS006.30^Sedatives|1|N^Never^Frequency|||||F|

OBX|29|CE|CANS006.31^Synthetic/designer drugs|1|N^Never^Frequency|||||F|

OBX|30|CE|CANS006.32^Risk Behavior Associated with Substance Use|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|31|CE|CANS006.33^Readiness for Change|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|32|CE|CANS006.34^Substance Abuse Narrative|1|Enter Substance abuse narrative free text |||||F|

OBX|33|CE|CANS006.35^ Impact of Trauma on the Individual |1|Y^Yes^HL70136|||||F|

OBX|34|CE|CANS006.36^Physical Abuse|1|Y^Yes^HL70136|||||F|

OBX|35|CE|CANS006.37^Neglect|1|Y^Yes^HL70136|||||F|

OBX|36|CE|CANS006.38^Emotional Abuse|1|Y^Yes^HL70136|||||F|

OBX|37|CE|CANS006.39^Medical Trauma|1|Y^Yes^HL70136|||||F|

OBX|38|CE|CANS006.40^Witness to Family Violence|1|Y^Yes^HL70136|||||F|

OBX|39|CE|CANS006.41^Intergenerational Trauma|1|Y^Yes^HL70136|||||F|

OBX|40|CE|CANS006.42^Witness to Community Violence|1|Y^Yes^HL70136|||||F|

OBX|41|CE|CANS006.43^War/Terrorism Affected|1|Y^Yes^HL70136|||||F|

OBX|42|CE|CANS006.44^Disruptions in Caregiving/Attachment|1|Y^Yes^HL70136|||||F|

OBX|43|CE|CANS006.45^Exploitation|1|Y^Yes^HL70136|||||F|

OBX|44|ST|CANS006.46^Traumatic Stress Narrative|1|Traumatic stress narrative|||||F|

OBX|45|CE|CANS006.47^Intrusive Thoughts or Re-Experiencing|1|0^There is no evidence of any needs^Scoring|||||F|

OBX|46|CE|CANS006.48^Hypervigilance|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|47|CE|CANS006.49^Grief|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|48|CE|CANS006.50^Numbing|1|0^There is no evidence of any needs^Scoring|||||F|

OBX|49|CE|CANS006.51^Dissociation|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|50|CE|CANS006.52^Avoidance|1|0^There is no evidence of any needs^Scoring|||||F|

OBX|51|ST|CANS006.53^Traumatic Stress Symptoms Narrative|1|Enter Traumatic stress symptoms narrative|||||F|

OBX|52|ST|CANS006.54^Are there difficulties in the child/youth's school setting?|1|Y^Yes^HL70136|||||F|

OBX|53|ST|CANS006.55^School Attendance|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|54|ST|CANS006.56^School Behavior|1|0^There is no evidence of any needs^Scoring|||||F|

OBX|55|ST|CANS006.57^Academic Achievement|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|56|ST|CANS006.58^Relationship to School|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|57|ST|CANS006.59^School Narrative|1|0^There is no evidence of any needs^Scoring |||||F|

OBR|1|||CANS007^Family and Community Context|||||||F

OBX|1|CE|CANS007.1^Accessibility|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|2|CE|CANS007.2^Housing Stability|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|3|CE|CANS007.3^Built Environment|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|4|CE|CANS007.4^Economic Resources|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|5|CE|CANS007.5^Does the youth experiences stress or difficulties related to their social identity (race, gender, sexuality, ability, skin color, etc.), including discrimination?|1|Y^Yes^HL70136|||||F|

OBX|6|CE|CANS007.6^Family Acceptance/Recognition of Young Person's Identity|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|7|CE|CANS007.7^Stereotyping & Experiences of Discrimination|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|8|CE|CANS007.8^Immigration|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|9|CE|CANS007.9^Need for Gender Affirming Care|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|10|CE|CANS007.10^Identity Related Isolation|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|11|CE|CANS007.11^ Does the Caregiver have a need for additional support to effectively manage the responsibilities of the child/youth and their family's everyday needs?|1|Y^Yes^HL70136|||||F|

OBX|12|CE|CANS007.12^Understanding of the Child/Youth|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|13|CE|CANS007.13^Supervision|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|14|CE|CANS007.14^Engagement and Responsiveness|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|15|CE|CANS007.15^Routines/Expectations|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|16|CE|CANS007.16^Organization|1|0^There is no evidence of any needs^Scoring |||||F|

OBX|17|CE|CANS007.17^Personal Stress Management|1|0^ There is no evidence of any needs^Scoring |||||F|

OBX|18|CE|CANS007.18^Management of Challenging Moments|1|0^ There is no evidence of any needs^Scoring|||||F|

OBX|19|CE|CANS007.19^ Are there difficulties within the family that are negatively impacting individuals within the family, or the family as a whole?|1|Y^Yes^HL70136|||||F|

OBX|20|CE|CANS007.20^Family Conflict|1|0^ There is no evidence of any needs^Scoring|||||F|

OBX|21|CE|CANS007.21^Family Communication|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|22|CE|CANS007.22^Caregiving Alignment|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|23|CE|CANS007.23^Sibling Needs|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|24|ST|CANS007.24^Family and Community Context Narrative|1|Familyand community context narrative|||||F|

OBR|1|||CANS008^Transition to Adulthood|||||||||||||||||F

OBX|1|CE|CANS008.1^Independent Living Skills|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|2|CE|CANS008.2^Transportation|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|3|CE|CANS008.3^Management of Needs|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|4|CE|CANS008.4^Vocational Interests/Employment Opportunities|1|0^There is no evidence of any needs^Scoring ||||||F|

OBX|5|CE|CANS008.5^Natural Supports|1|0^There is no evidence of any needs^Scoring ||||||F|

OBR|1|||CANS009^Youth Strengths|||||||||||||||||F

OBX|1|CE|CANS009.1^Advocacy Skills|1|Y^Yes^HL70136 ||||||F|

OBX|2|CE|CANS009.2^Interests/Passions|1| Y^Yes^HL70136 ||||||F|

OBX|3|CE|CANS009.3^Community Connection|1| Y^Yes^HL70136 ||||||F|

OBX|4|CE|CANS009.4^Adult/Mentor Connection|1| Y^Yes^HL70136 ||||||F|

OBX|5|CE|CANS009.5^Ability to Engage Coping Mechanisms|1| Y^Yes^HL70136 ||||||F|

OBX|6|CE|CANS009.6^Peer Connections|1| Y^Yes^HL70136 ||||||F|

OBX|7|CE|CANS009.7^School Partnership|1| Y^Yes^HL70136 ||||||F|

OBX|8|CE|CANS009.8^Clarity in Defining and Taking Pride in Their Identities|1| Y^Yes^HL70136 ||||||F|

OBX|9|ST|CANS009.9^Youth Strengths Narrative|1| Y^Yes^HL70136 ||||||F|

```
OBR|1|||CANS010^Family Strengths|||||||||||||||||F
OBX|1|CE|CANS010.1^Advocacy Skills|1| Y^Yes^HL70136 |||||F|
OBX|2|CE|CANS010.1^Natural Supports|1| Y^Yes^HL70136 |||||F|
OBX|3|CE|CANS010.1^ Offering Opportunities for Success|1| Y^Yes^HL70136 |||||F|
OBX|4|CE|CANS010.1^ Resourcefulness|1| Y^Yes^HL70136 |||||F|
OBX|5|ST|CANS010.1^ Strengths Narrative|1|Enter Strength narratives |||||F|
```

```
OBR|1|||CANS011^Narative|||||||||||||||||F
OBX|1|CE|CANS011.1^Assessment Narrative|1|Enter Assessment narratives free text
|||||F|
```

6.2 Sample Complete SED ORU^R01 Message (Excerpt)

```
MSH|^~\&|SENDSYS|SNDFAC|ECAS-CANS|MA-
EHS|20251104164100||ORU^R01|MSGID12345|P|2.5.1|||AL|AL|USA|||CANS
PID|1||123456789012^^^MMIS|SMITH^JOHN^A||19700101|M|||||||
ORC|NW|Assessment
ID||CM|||20230515103000|123456789012345^JONES^JOHN^M^Jr^DR|||555-123-
4567^^CP|||||Org_ID^Boston Medical Center|
OBR|1|||CANS001^SED|||||||||||||||||F|
OBX|1|CE|CANS001.1^Assessment Type|1|I^Initial^Assessment_Type|||||F|
OBX|2|CE|CANS001.2^Level of Care|1|FIT^ Family based Intensive Treatment
^Level_of_Care |||||F|
OBX|3|NM|CANS001.3^Age Yr|1|12|||||F|
OBX|4|NM|CANS001.4^Age Mo|1|5|||||F|
OBX|5|CE|CANS001.5^Are you an independently licensed
clinician?|1|Y^Yes^HL70136|||||F|
OBX|6|CE|CANS001.6^Does the child currently have, or at any time in the last 12
months has had...|1|Y^Yes^HL70136|||||F|
OBX|7|CE|CANS001.7^1a.Primary Diagnosis|1|R10.0^Acute abdomen^ICD_10|||||F|
OBX|8|TX|CANS001.7.1^Primary Diagnosis Notes|1|Acute disease|||||F|
OBX|11|CE|CANS001.10^1b.Secondary Diagnosis|1|784.0^Headache^ICD_9|||||F|
OBX|12|TX|CANS001.10.1^Secondary Diagnosis Notes|1|Child suffering from
Headache|||||F|
OBX|15|CE|CANS001.13^1c.Additional Diagnoses|1|Y^Yes^HL70136|||||F|
OBX|16|CE|CANS001.14^Additional diagnosis|1|784.0^Headache^ICD_9|||||F|
OBX|17|TX|CANS001.14.1^Additional Diagnoses1 Notes|1||Additional diagnosis required
for headache|||||F|
```

```

OBX|18|CE|CANS001.23^2.Does the member's diagnosis result in an impairment of
functioning at|1|NA^No Functional Impairment as Defined^Functional_Impairment|||||F|
OBX|21|CE|CANS001.24^i.Would the child have met one or more of the functional
impairment criteria in ...|1|Y^Yes^HL70136_EHS1|||||F|
OBX|22|CE|CANS001.25^a.An inability to learn that cannot be explained by
intellectual, sensory, or health factors|1|Y^Yes^HL70136|||||F|
OBX|23|CE|CANS001.26^a.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|
OBX|24|CE|CANS001.27^b.An inability to build or maintain satisfactory interpersonal
relationships with peers and teachers|1|Y^Yes^HL70136|||||F|
OBX|25|CE|CANS001.28^b.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|
OBX|26|CE|CANS001.29^c.Inappropriate types of behavior or feelings under normal
circumstances|1|Y^Yes^HL70136|||||F|
OBX|27|CE|CANS001.30^c.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|
OBX|28|CE|CANS001.31^d.A general pervasive mood of unhappiness or
depression|1||Y^Yes^HL70136|||||F|
OBX|29|CE|CANS001.32^d. Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|
OBX|30|CE|CANS001.33^e.A tendency to develop physical symptoms or fears associated
with personal or school problems:|1|Y^Yes^HL70136|||||F|
OBX|31|CE|CANS001.34^e.Is this solely the result of one or more of the following:
ASD, developmental delay...|1|Y^Yes^HL70136|||||F|
OBX|32|TS|CANS001.35^Date of Consent for Treatment|1|11/2/2025|||||F|

```

Complete, fully validated sample files should be shared as part of vendor onboarding and can be used as golden test cases.

6.3 Sample Incomplete CANS ORU^R01 Message (Excerpt)

Incomplete Assessment should contain MSH, PID, ORC, OBR (CANS001^SED) , OBX (CANS001.1^Assessment Type,CANS001.2^Level of Care and CANS001.35^Date of Consent for Treatment)

```

MSH|^~\&|SENDSYS|SNDFAC|ECAS-CANS|MA-
EHS|20251104164100||ORU^R01|MSGID12345|P|2.5.1||AL|AL|USA|||CANS
PID|1||123456789012^^^MMIS|SMITH^JOHN^A||19700101|M|||||||
ORC|NW|Assessment ID||CM|||20230515103000|123456789012345^JONES^JOHN^M^Jr^DR|||555
-123-4567^^CP|||||Org_ID^Boston Medical Center|
OBR|1||CANS001^SED|||||||||||||||A|
OBX|1|CE|CANS001.1^Assessment Type|1|I^Initial^Assessment_Type|||||F|

```

```

OBX|2|CE|CANS001.2^Level of Care|1|FIT^ Family based Intensive Treatment
^Level_of_Care |||||F|
OBX|3|NM|CANS001.3^Age Yr|1|12|||F|
OBX|4|NM|CANS001.4^Age Mo|1|5|||F|

OBR|1|||CANS002^Member|||A|
OBX|1|CE|CANS002.1^Relationship to Guardian|1|0^Other^Relationship_to
_Guardian|||F|
OBX|2|TX|CANS002.1.1^Other Relationship to Guardian|1|Life Partner|||F|
OBX|3|CE|CANS002.2^What is your race|1|AA^American Indian or Alaska
Native^RACE~AS^Asian^RACE|||F|
OBX|5|CE|CANS002.3^Are you of Hispanic or Latino origin or descent|1|H^Hispanic or
Latino^Hisp_Latin|||F|
OBX|6|CE|CANS002.4^What is your ethnicity?|1|A^African^Ethnicity|||F|
    
```

6.4 Sample Incomplete SED ORU^R01 Message (Excerpt)

Incomplete Assessment should contain MSH, PID, ORC, OBR (CANS001^SED) , OBX (CANS001.1^Assessment Type, CANS001.2^Level of Care and CANS001.35^Date of Consent for Treatment)

```

MSH|^~\&|SENDSYS|SNDFAC|ECAS-CANS|MA-
EHS|20251104164100||ORU^R01|MSGID12345|P|2.5.1||AL|AL|USA|||SED
PID|1||123456789012^^^MMIS||SMITH^JOHN^A||19700101|M|||
ORC|NW|Assessment ID||CM|||20230515103000|123456789012345^JONES^JOHN^M^Jr^DR|||555
-123-4567^^CP|||Org_ID^Boston Medical Center|
OBR|1|||CANS001^SED|||A|
OBX|1|CE|CANS001.1^Assessment Type|1|I^Initial^Assessment_Type|||F|
OBX|2|CE|CANS001.2^Level of Care|1|FIT^ Family based Intensive Treatment
^Level_of_Care |||||F|
    
```

7 Error Handling and Acknowledgments

7.1 HL7 ACK Structure

The ACK message returned by eCAS will contain:

- **MSH** – Message header for the ACK
- **MSA** – Acknowledgment segment

Example:

```
MSH|^~\&|ECAS|MA-EHS|SENDSYS|SNDFAC|20251104164500||ACK^R01|ACK12345|P|2.5.1  
MSA|AA|MSGID12345
```

7.1.1 MSA-1 Acknowledgment Code

- **AA** – Application Accept (message processed successfully)
- **AE** – Application Error (processing error; some issues may be transient)
- **AR** – Application Reject (structural or critical validation error)

7.1.2 Error Codes and Text

In the case of AE or AR, additional error segments (e.g., ERR) may be included with:

- Error location (segment-field-component)
- Error code and severity
- Human-readable description

Implementers should log and display ACK results appropriately to support operational troubleshooting.

8 Security and Privacy Considerations

MassHealth/EOHHS will share Environment/Security/Message Transportation requirements (e.g., Endpoints, Ports, et.al) separately.

9 Implementation and Onboarding Checklist

The following captures the steps that EMR vendors should complete to achieve the integration with the new eCAS application:

- Register with MassHealth/EOHHS for eCAS integration.
- Obtain Test and Production Credentials and endpoint URLs.
- Construct HL7 ORU^R01 Messages according to this guide.
- Implement a REST or XDR Client to submit Base64-encoded messages to the eCAS test endpoint.
- Validate ACK Handling, including AA, AE, and AR.
- Execute Test Scenarios.
- Undergo Formal Certification/UAT with MassHealth.
- Promote the integration clients and code to Production once certified.

10 Appendix A – Code Tables (HL7 and Local)

Appendix B will contain detailed enumerations of the various code lookup tables.

10.1 HL7-Based Tables

10.1.1 HL70136

Code	Display
N	No
Y	Yes

10.1.2 HL70136_EHS1

Code	Display
N	No
Y	Yes
NA	Not applicable

10.1.3 HL70136_EHS2

Code	Display
N	No
Y	Yes
FAN	Further Assessment Needed

10.2 Local Scoring and Categorical Tables for CANS/SED Domains

10.2.1 Assessment_Type

Code	Description	Comments
I	Initial	
R	Reassessment	
D	Discharge	

10.2.2 Level_of_Care

Code	Description	Comments
IP	Inpatient Psychiatric Care	
CYT	CBAT/YCCS/TCU	
FIT	Family based Intensive Treatment	
ICC	Intensive Care Coordination	
IHT	In Home Therapy	
OP	Outpatient	

10.2.3 Functional_Impairment

Code	Description	Comments
------	-------------	----------

F	Family	
S	School	
C	Community Activities	
NA	No Functional Impairment as Defined	

10.2.4 Relationship_to_Guardian

Code	Description	Comments
BC	Biological Child	
A	Adoption	
N	Niece or Nephew	
GC	Grandchild	
F	Foster	
O	Other	

10.2.5 Race

Code	Description	Comments
AA	American Indian or Alaska Native	
AS	Asian	
BA	Black or African American	
HP	Native Hawaiian or Other Pacific Islander	
W	White	
O	Other Race	
UK	Don't know	
NA	Choose not to answer	

10.2.6 Hisp_Latin

Code	Description	Comments
H	Hispanic or Latino	
N	Not Hispanic or Latino	
D	Don't Know	
NA	Choose not to answer	

10.2.7 Ethnicity

Code	Description	Comments
A	African	
AA	African American	
AM	American	
AI	Asian Indian	
B	Brazilian	

C	Cambodian	
CV	Cape Verdean	
CI	Caribbean Islander	
CA	Central American	
CE	Chinese	
CL	Colombian	
CN	Cuban	
D	Dominican	
EE	Eastern European	
EU	European	
FO	Filipino	
G	Guatemalan	
H	Haitian	
z	Honduran	
J	Japanese	
K	Korean	
L	Laotian/Lao	
M	Mexican	
ME	Middle Eastern or North African	
P	Portuguese	
PR	Puerto Rican	
R	Russian	
S	Salvadoran	
SA	South American	
V	Vietnamese	
O	My ethnicity is not listed (please specify)	
UK	Don't know	
NA	Choose not to answer	

10.2.8 Spoken_Language

Code	Description	Comments
E	English	
S	Spanish	
P	Portuguese	
C	Chinese	
H	Haitian	
F	French	
V	Vietnamese	
R	Russian	
A	Arabic	
ASL	Sign Language, such as ASL	

O	My language is not listed (please specify)	
UK	Don't know	
NA	Choose not to answer	

10.2.9 Reading_Language

Code	Description	Comments
E	English	
S	Spanish	
P	Portuguese	
C	Chinese (Please specify traditional or simplified)	
H	Haitian	
F	French	
V	Vietnamese	
R	Russian	
A	Arabic	
N	My language is not listed (please specify)	
UK	Don't know	
NA	Choose not to answer	

10.2.10 Disability

Code	Description	Comments
Y	Yes	
N	No	
UK	Don't Know	
NA	Choose not to answer	

10.2.11 Marital_status

Code	Description	Comments
S	Single	
M	Married	
D	Divorced	
P	Partnered	

10.2.12 Caregiver

Code	Description	Comments
FT	Full time	
PT	Part time	
NA	Not at all	

10.2.13 CSI (Concurrent System Involvement)

Code	Description	Comments
------	-------------	----------

DCF	DCF	
DMH	DMH	
DDS	DDS	
DYS	DYS	
Other	Other	
None	None	

10.2.14 SEP (Specialized Education Plan)

Code	Description	Comments
IEP	IEP	
504	504	
Alternative School Placement	Alternative School Placement	
Plan in Progress	Plan in Progress	

10.2.15 Scoring

Code	Description	Comments
0	There is no evidence of any needs	
1	Requires monitoring, watchful waiting, or preventative activities	
2	Requires action to ensure that this identified need or risk behavior is addressed	
3	Requires immediate or intensive action	

10.2.16 Frequency

Code	Description	Comments
N	Never	
O	Once or twice	
M	Monthly	
W	Weekly or more	

10.2.17 Written_Chinese

Code	Description	Comments
S	Simplified	
T	Traditional	

10.2.18 ICD-9 and ICD-10 code system identifiers

The eCAS application requires the use of the standard ICD-9 and ICD-10 codes developed and maintained by the National Center for Health Statistics (NCHS).

11 Appendix B – Vendor Quick-Start Checklist

The following captures the EMR Vendor Quick-Start checklist.

- Register with MassHealth for eCAS onboarding and test credentials
- Construct HL7 ORU^R01 messages that include MSH, PID, ORC, OBR, OBX segments
- Submit HL7 ORU message to Test Environment endpoint
- Handle HL7 ACK response
- Validate *AA*, *AE*, and *AR* response codes
- Ensure all domains and questions required by CANS/SED are included
- Pass UAT scenarios, including invalid cases
- Promote to production upon certification