

Los Angeles County | Department of Mental Health



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**DEPARTMENT OF
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EPSDT FHIR New Provider Companion Guide

Document Information

Item	Value
Version	1.1.0
Status	Draft
Last Updated	7/1/2026
Audience	New providers/vendors integrating with HIDEX for EPSDT assessments
FHIR Version	R4 (4.0.1)

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1. What is EPSDT?

EPSDT (Early and Periodic Screening, Diagnostic, and Treatment) is a federal program that requires Medicaid to provide comprehensive health services to children. The LA County Department of Mental Health (DMH) collects two standardized assessments:

- **CANS-50** (Child and Adolescent Needs and Strengths) — A 50-item clinical assessment measuring needs across 7 domains. Used to determine a Level of Care score (1–5).
- **PSC-35** (Pediatric Symptom Checklist) — A 35-question caregiver-reported screening tool that identifies children at risk for emotional/behavioral problems.

Providers submit these assessments electronically through the **HIDEX Provider Access API** using FHIR R4 [QuestionnaireResponse](#) resources.

2. How It Works

```
Provider EHR → HTTPS POST/PUT → HIDEX Provider Access API → Validation → FHIR Store
                                                    ↓ (CANS only)
                                                    Level of Care calculation
```

1. Your system sends a FHIR R4 [QuestionnaireResponse](#) to the API
2. The API validates the submission against business rules
3. If valid, the assessment is written to the FHIR store and an EPSDT ID is generated
4. The EPSDT ID is included in the FHIR resource identifier collection with a timestamp
5. For CANS assessments, a Level of Care score is calculated and returned
6. If invalid, the API returns an error with all validation issues listed

Note: The API is the single authenticated endpoint for all EPSDT intake. Submissions converge on one shared business-logic core, so every submission is validated, persisted, identity-stamped, and scored identically. As a native FHIR provider, you submit [QuestionnaireResponse](#) resources directly to this endpoint.

3. Key Concepts

Concept	Description
QuestionnaireResponse	The FHIR resource type used for all assessment submissions
CANS-50	50-item clinical assessment, scored 0–3 per item across 7 domains
PSC-35	35-question screening tool, scored 0–2 per question
AssessmentType	"1" = Standard clinical assessment, "5" = Administrative close

Concept	Description
Admin Close	Closing an assessment record without clinical data (metadata only)
Level of Care	CANS-derived acuity score (1=lowest, 5=highest need)
Meta Tag	Identifies the assessment type: "CANS" or "PSC"
Subscription Key	The API credential used to authenticate every request
ProgramID authorization	The authorization associated with your subscription key that must contain the assessment's ProgramID
EPSDT ID	The unique identifier assigned to the assessment, included in the FHIR identifier collection
OperationOutcome	FHIR error response containing all validation issues
Duplicate Detection	API rejects repeated POST with same patient + provider + tag + date

4. Onboarding Steps

- 1. Contact DMH to request API access credentials
- 2. Receive OAuth2 client credentials and subscription key from DMH
- 3. Confirm your OAuth2 token is authorized for your ProgramID(s)
- 4. Configure your system to include both credentials in all requests
- 5. Connect to the TEST sandbox environment
- 6. Submit test CANS and PSC assessments
- 7. Verify validation errors are handled correctly
- 8. Verify successful submissions return the EPSDT id on the resource identifier
- 9. Complete the certification checklist (Section 13)
- 10. Request promotion to TEST environment
- 11. After successful TEST validation, request production access

5. Authentication and Access Model

Every request to the API requires an OAuth2 bearer token obtained via the client credentials grant, plus an APIM subscription key. See the **API Credentials Reference** table below for what's provisioned and where each value is used.

Step 1: Acquire OAuth2 Access Token

```
POST https://login.microsoftonline.com/{tenant-id}/oauth2/v2.0/token
Content-Type: application/x-www-form-urlencoded
```

```
grant_type=client_credentials
&client_id={your-client-id}
```

```
&client_secret={your-client-secret}
&scope={your-resource-audience}
```

`{your-resource-audience}` is the Resource Audience value from the API Credentials Reference table below (e.g., `api://{resource/appID}/.default`).

Response:

```
{
  "token_type": "Bearer",
  "expires_in": 3600,
  "access_token": "eyJ0eXAiOiJKV1QiLCJhbGciOi..."
}
```

The access token contains claims including your `program_id` authorization.

Step 2: Using Your Credentials

Include both credentials on every request:

```
POST https://hidex-test.dmh.lacounty.gov/healthcare/QuestionnaireResponse
Authorization: Bearer {access_token}
Ocp-Apim-Subscription-Key: {your-subscription-key}
Content-Type: application/json
Accept: application/json
```

Important: Store both credentials securely (treat them like passwords).

Important: A request whose ProgramID authorization does not contain the assessment's ProgramID — or that carries no ProgramID authorization — is rejected with HTTP 403 and no assessment data is persisted.

Important Notes

- **OAuth2 tokens expire after 1 hour** — implement token caching and refresh logic
- **Subscription key** targets the specific environment (TEST, QA, or PRODUCTION)
- Your token's `program_id` claim must match the program codes in your submissions
- Contact DMH HIDE X Support if you need to rotate your subscription key
- Contact LACDMH CIOB for OAuth2 client credential provisioning

API Credentials Reference

The Integration Team provisions the following credentials for API access:

Item	Type	Scope	Value
Client ID	App Registration	Shared across TEST and QA	Your OAuth2 application identifier (<code>client_id</code>)
Client Secret	App Registration	Shared across TEST and QA	Your OAuth2 application secret (<code>client_secret</code>) — store securely
Tenant ID	Azure AD	Same for both TEST and QA	The Azure AD tenant identifier (<code>tenant_id</code>)
Resource Audience	OAuth2 Scope	Same for both TEST and QA	<code>api://{resource/appID}/.default</code> — used as the <code>scope</code> parameter in the token request
Base URL	Endpoint	Environment-specific	TEST: <code>https://hidex-test.dmh.lacounty.gov/healthcare</code> QA: <code>https://hidex-qa.dmh.lacounty.gov/healthcare</code>
APIM Subscription Key	API Management	Environment-specific	Sent as the <code>Ocp-Apim-Subscription-Key</code> header on every request

Note: Client ID, Client Secret, Tenant ID, and Resource Audience are shared across the TEST and QA environments. Base URL and the APIM Subscription Key are environment-specific — request separate values for TEST and QA.

6. Endpoint Configuration

Base URLs

Environment	Base URL
TEST	<code>https://hidex-test.dmh.lacounty.gov/healthcare</code>
QA	<code>https://hidex-qa.dmh.lacounty.gov/healthcare</code>
PRODUCTION	<code>https://hidex.dmh.lacounty.gov/healthcare</code>

Operations

Operation	Method	Path
Submit new assessment	POST	<code>/QuestionnaireResponse</code>
Update existing assessment	PUT	<code>/QuestionnaireResponse/{id}</code>
Retrieve assessment	GET	<code>/QuestionnaireResponse/{id}</code>

Operation	Method	Path
Search assessments	GET	/QuestionnaireResponse? subject=Patient/{id}&_tag=CANS

Required Headers

Header	Value
Authorization	Bearer {access_token}
Ocp-Apim-Subscription-Key	{your-subscription-key}
Content-Type	application/json
Accept	application/json

7. CANS Assessment Submission

Complete Example (Standard Assessment)

POST /fhir/QuestionnaireResponse

```
{
  "resourceType": "QuestionnaireResponse",
  "id": "my-cans-001",
  "status": "completed",
  "questionnaire": "https://lacdmh.lacounty.gov/fhir/Questionnaire/cans-50",
  "subject": { "reference": "Patient/3462959" },
  "source": { "reference": "Practitioner/1234567890" },
  "author": { "reference": "Organization/ORG001" },
  "meta": { "tag": [{ "code": "CANS", "display": "CANS" }] },
  "item": [
    { "linkId": "401", "text": "AssessmentType", "answer": [{ "valueString": "1" }] },
    { "linkId": "402", "text": "AssessmentDate", "answer": [{ "valueString": "2025-06-15" }] },
    { "linkId": "408", "text": "Caregiver", "answer": [{ "valueString": "N" }] },
    {
      "linkId": "child-behaviors",
      "text": "Child Behaviors",
      "item": [
        { "linkId": "CB01", "answer": [{ "valueCoding": { "code": "1" } }] },
        { "linkId": "CB02", "answer": [{ "valueCoding": { "code": "0" } }] },
        { "linkId": "CB03", "answer": [{ "valueCoding": { "code": "2" } }] },
        { "linkId": "CB04", "answer": [{ "valueCoding": { "code": "0" } }] },
      ]
    }
  ]
}
```

```

    { "linkId": "CB05", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "CB06", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "CB07", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "CB08", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "CB09", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "CB10", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
},
{
  "linkId": "life-domain",
  "text": "Life Domain",
  "item": [
    { "linkId": "LD01", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "LD02", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "LD03", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "LD04", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "LD05", "answer": [{ "valueCoding": { "code": "1" } }] }
  ]
},
{
  "linkId": "risk-behaviors",
  "text": "Risk Behaviors",
  "item": [
    { "linkId": "RB21", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "RB22", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "RB23", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
},
{
  "linkId": "cultural-factors",
  "text": "Cultural Factors",
  "item": [
    { "linkId": "CF01", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "CF02", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
},
{
  "linkId": "strengths-development",
  "text": "Strengths Development",
  "item": [
    { "linkId": "SD32", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "SD34", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "SD38", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
},
{
  "linkId": "caregiver-resources",
  "text": "Caregiver Resources",
  "item": [
    { "linkId": "CR41", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "CR42", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
}

```

```

    ]
  },
  {
    "linkId": "trauma",
    "text": "Trauma",
    "item": [
      { "linkId": "T01", "answer": [{ "valueCoding": { "code": "0" } }] },
      { "linkId": "T02", "answer": [{ "valueCoding": { "code": "0" } }] },
      { "linkId": "T03", "answer": [{ "valueCoding": { "code": "0" } }] }
    ]
  }
]
}

```

Admin Close Example

```

{
  "resourceType": "QuestionnaireResponse",
  "id": "my-cans-adminclose",
  "status": "completed",
  "questionnaire": "https://lacdmh.lacounty.gov/fhir/Questionnaire/cans-50",
  "subject": { "reference": "Patient/3462959" },
  "source": { "reference": "Practitioner/1234567890" },
  "author": { "reference": "Organization/ORG001" },
  "meta": { "tag": [{ "code": "CANS", "display": "CANS" }] },
  "item": [
    { "linkId": "401", "text": "AssessmentType", "answer": [{ "valueString": "5"
  }} ] },
    { "linkId": "402", "text": "AssessmentDate", "answer": [{ "valueString":
"2025-07-01" }] },
    { "linkId": "403", "text": "AdminCloseReason", "answer": [{ "valueString":
"Client discharged" }] }
  ]
}

```

8. PSC Assessment Submission

Complete Example (Standard Assessment)

POST /fhir/QuestionnaireResponse

```

{
  "resourceType": "QuestionnaireResponse",
  "id": "my-psc-001",
  "status": "completed",
  "questionnaire": "https://lacdmh.lacounty.gov/fhir/Questionnaire/psc-35",
  "subject": { "reference": "Patient/10" },
  "source": { "reference": "Practitioner/9876543210" },
  "author": { "reference": "Organization/ORG002" },
  "meta": { "tag": [{ "code": "PSC", "display": "PSC" }] },
  "item": [
    { "linkId": "401", "text": "AssessmentType", "answer": [{ "valueString": "1"
  ] } },
    { "linkId": "402", "text": "AssessmentDate", "answer": [{ "valueString":
"2025-06-15" }] },
    { "linkId": "Q01", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q02", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q03", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q04", "answer": [{ "valueCoding": { "code": "2" } }] },
    { "linkId": "Q05", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q06", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q07", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q08", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q09", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q10", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q11", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q12", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q13", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q14", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q15", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q16", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q17", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q18", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q19", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q20", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q21", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q22", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q23", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q24", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q25", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q26", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q27", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q28", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q29", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q30", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q31", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q32", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q33", "answer": [{ "valueCoding": { "code": "1" } }] },
    { "linkId": "Q34", "answer": [{ "valueCoding": { "code": "0" } }] },
    { "linkId": "Q35", "answer": [{ "valueCoding": { "code": "0" } }] }
  ]
}

```

```
]
}
```

9. Validation Rules

What Gets Validated

The API validates every POST and PUT before persisting to the FHIR store. If validation fails, you get a 400 response with all errors listed.

CANS Standard Assessment (AssessmentType = "1")

Rule	Description
Identity fields	ClientID, ProviderNumber, ProgramID, NPI, AssessmentType, AssessmentDate all required
All domain items	CB, LD, RB, CF, SD, T fields must be present and non-empty
Caregiver conditional	If Caregiver="Y", all CR fields (including b/c/d variants) required
No AdminCloseReason	AdminCloseReason must NOT be present on standard assessments

CANS Admin Close (AssessmentType = "5")

Rule	Description
Allowed fields only	Only: CANSID, AssessmentType, AssessmentDate, AdminCloseReason, NPI, ProviderNumber, ClientID, ProgramID
Required subset	AssessmentType, AssessmentDate, AdminCloseReason, NPI, ProviderNumber, ClientID, ProgramID

Update (PUT)

Rule	Description
Key field	CANS Update requires CANSID ; PSC Update requires PSCID
Resource id	The FHIR resource id is required on the update

PSC Standard Assessment (AssessmentType = "1")

Rule	Description
Identity fields	ClientID, ProviderNumber, ProgramID, NPI, AssessmentType, AssessmentDate, RespondentName, RespondentRelationship
Blank-count	Maximum 3 blank answers among Q01–Q35
Exemption	CaregiverDeclined="Y" or CaregiverDidNotRespondToAll="Y" bypasses blank-count

Note: Empty means null, empty string, or whitespace-only.

10. Optional Fields and Forward Compatibility

The EPSDT assessment contract evolves additively. New fields are introduced as **optional**, so adding a field never breaks an existing integration.

- New fields are optional. A submission that omits an optional field is still valid and processable.
- Required/optional enforcement is decided by the backend rule set, keyed by assessment type and operation — not by the schema. This keeps one source of truth for what is required.
- The same data receives the same required/optional treatment regardless of how it is submitted.

Newly surfaced optional fields

Field	Domain	Notes
T03	Trauma	Trauma item carried end-to-end. Whether it is required for a standard (neq5) CANS assessment is decided by the backend rule set.
CR41b–CR50b	Caregiver Resources	Caregiver "b" variants (2nd caregiver)
CR41c–CR50c	Caregiver Resources	Caregiver "c" variants (3rd caregiver)
CR41d–CR50d	Caregiver Resources	Caregiver "d" variants (4th caregiver)

Note: When **Caregiver**="Y", supply the full caregiver attribute set — the CR41–CR50 main items, their b/c/d variants, caregiver identity items, and contributor metadata. When **Caregiver** is not "Y", omit those caregiver variant, identity, and contributor items.

11. Identity Stamping and Persistence

Each accepted assessment is persisted to the FHIR store with an EPSDT ID assigned and included in the identifier collection along with a timestamp.

Identifier Stamping Convention

Assessment	Identifier system	Identifier value
CANS	https://lacdmh.lacounty.gov/epsdt/cans	EPSDT id
PSC	https://lacdmh.lacounty.gov/epsdt/psc	EPSDT id

Exactly one identifier is set for the assessment's system; identifiers belonging to other systems are preserved. Stamping is idempotent.

Example identifier on a CANS response:

```
{
  "resourceType": "QuestionnaireResponse",
  "identifier": {
    "system": "https://lacdmh.lacounty.gov/epsdt/cans",
    "value": "1048576"
  }
}
```

12. Error Handling

Status Codes

Code	Meaning
201	Assessment created successfully
200	Assessment updated (PUT) or retrieved (GET)
400	Validation failed, or update missing the resource id — check OperationOutcome
401	Authentication failed — subscription key absent, invalid, or malformed
403	Authorization failed — ProgramID authorization mismatch or no ProgramID authorization
409	Duplicate detected — same patient/provider/date/tag already exists
500	Server error — contact DMH support

Error-outcome contract

Condition	Status	OperationOutcome
Validation failure	400	One error issue per failed rule
Update missing resource id	400	One issue, code required , diagnostic indicating a resource id is required

Condition	Status	OperationOutcome
Duplicate submission	409	One error issue, code duplicate
Authorization (ProgramID) failure	403	Nothing persisted

Example Error Response

```
{
  "resourceType": "OperationOutcome",
  "issue": [
    {
      "severity": "error",
      "code": "required",
      "diagnostics": "The required attribute 'AssessmentDate' is missing."
    }
  ]
}
```

Common Errors and Fixes

Error Message	Fix
"Field 'resourceType' is missing or invalid"	Add "resourceType": "QuestionnaireResponse"
"Field 'status' is missing or invalid"	Use "status": "completed"
"Questionnaire URL is required"	Add the questionnaire URL field
"Subject reference is required"	Add "subject": { "reference": "Patient/{id}" }
"AdminCloseReason is not required"	Remove AdminCloseReason from non-admin-close submissions
"A resource id is required for the update"	Include the resource id in the URL and body for PUT
"The attribute 'X' is not required"	Remove field X from admin close submission
403 Forbidden	Confirm your subscription key is authorized for the assessment's ProgramID

13. Testing and Certification

Sandbox URLs

Environment	URL
TEST	https://hidex-test.dmh.lacounty.gov/healthcare

Certification Checklist

- Successfully acquire an OAuth2 access token
- Token refresh logic handles expiry correctly (tokens expire after 1 hour)
- Include both Authorization and Ocp-Apim-Subscription-Key headers on all requests
- Submit valid CANS standard assessment → 201 Created
- Submit valid CANS admin close → 201 Created
- Submit valid PSC standard assessment → 201 Created
- Submit valid PSC admin close → 201 Created
- Update existing assessment via PUT (with CANSID/PSCID) → 200 OK
- Retrieve submitted assessment via GET → 200 OK
- Submit assessment with missing required field → 400 with OperationOutcome
- Submit duplicate assessment → 409 Conflict
- Submit with a ProgramID outside your authorization → 403 Forbidden
- Confirm the response identifier carries the EPSDT id (CANS/PSC system)
- Confirm CANS response includes Level of Care extension
- Confirm a submission that omits new optional fields still succeeds
- Verify both credentials are stored securely in your application
- Confirm error responses are parsed and logged

14. Quick Reference

Questionnaire URLs

Assessment	URL
CANS-50	https://lacdmh.lacounty.gov/fhir/Questionnaire/cans-50
PSC-35	https://lacdmh.lacounty.gov/fhir/Questionnaire/psc-35

Identifier Systems

Assessment	Identifier System	Value
CANS	https://lacdmh.lacounty.gov/epsdt/cans	EPSDT id
PSC	https://lacdmh.lacounty.gov/epsdt/psc	EPSDT id

Meta Tags

Assessment	Code
CANS	"CANS"
PSC	"PSC"

CANS Scoring (0–3)

Score	Meaning
0	No evidence of need
1	Watchful waiting / prevention
2	Action needed
3	Immediate / intensive action needed

PSC Scoring (0–2)

Score	Meaning
0	Never
1	Sometimes
2	Often

Assessment Types

Code	Meaning
"1"	Initial / Standard assessment
"5"	Administrative close

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