# Getting started with Beneficiary Claims Data API

Accessing patient Medicare claims for value-added care

July 23, 2026

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

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# Introductions

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# Medicare claims tell an evolving story about patient health.

# For people with Medicare, timely data is actionable data.

# BCDA: data in as few as 2 days from submission

# What is Beneficiary Claims Data API (BCDA)?

## A service that shares Medicare claims data with healthcare organizations

BCDA is an application programming interface (API) that shares data with organizations in alternative payment models.

## To support care coordination and model performance

Use BCDA to integrate claims data with current systems or create new tools for preventive care, intervention, modeling, reporting, and risk mitigation.

## Using a standardized healthcare format

The HL7® FHIR® standard is designed for secure, effective interoperability across different systems in different organizations.

# What's in claims data?

| | |
|---|---|
| **Part A** | Inpatient hospital stays, care in skilled nursing facilities, and hospice care |
| **Part B** | Doctors' services, outpatient care, preventive services, and durable medical equipment (DME) |
| **Part D** | Prescription drugs prescribed by healthcare providers |

# Under the hood: partially processed claims

"Adjudication" is another name for Medicare claims processing and payment.

Rather than waiting until claims are processed to obtain data, BCDA offers access to **partially adjudicated claims**.

Receive patient data 2-4 days after providers submit claims to CMS.

# How are organizations using BCDA?

Timely clinical interventions

Performance monitoring and reporting

Predictive risk modeling

**"That's what value-based care stands for.** We're not just looking at who's the primary care physician, who's working with the patient, it's the totality of which specialists they're visiting, how many medications they're taking, medication adherence... otherwise, value-based care would not be successful."

*BCDA research participant*

# BCDA use cases

# Identify gaps in care

**Monitor outpatient events for follow-up care and track patterns that indicate future utilization.**

- Target case management.
- Identify patients who may benefit from follow up.
- Reduce the volume of unnecessary procedures.

# Monitor changes in care patterns over time

**Ensure continuity of care.**

- Track follow-up utilization.
- Identify changes in frequency or modality of care.
- Detect gaps in care or escalation events.

# Example: Monitor changes in care pattern over time

In the **IOTA (Increasing Organ Transplant Access)** model, hospitals need to manage patients awaiting transplant, especially those on dialysis, to ensure continuity of care while they remain on the waitlist.

- Track dialysis utilization for IOTA-attributed beneficiaries.
- Identify changes in dialysis frequency or modality over time.
- Detect gaps in care or escalation events prior to transplant.

# Coordinate care across providers and networks

**Marla is having nausea and dehydration as a result of chemotherapy.** She goes to the ER instead of her regular doctor and receives IV fluids and nausea medication.

This visit is recorded and shared within days thanks to partially adjudicated claims.

Marla's oncologist can decide whether this warrants changes in care. And there's less burden on Marla to inform her doctor about every event.

# More about FHIR

**FHIR: structured for healthcare use cases across records and admin systems**

HL7 FHIR (Fast Healthcare Interoperability Resources)

- Industry-standard specification for exchanging healthcare data

FHIR Resources

- Structured containers of data in an interoperable JSON format

# FHIR Resource types

**Patient**

- Identifiers, active status, location, demographics, sources of record

**Explanation of Benefit (EOB)**

- Details each episode of care, including location, diagnosis codes, provider, cost

**Coverage**

- Virtual insurance card

# How to get started

# Choose an environment

## Sandbox

- Publicly available
- Fully synthetic data containing no private health information
- A quick way to get started and try the API
- No production credentials required

## Production

- Real data aligned to your organization
- Requires production credentials

# Connect to the sandbox

- No registration needed!
  - See sample client credentials on the BCDA website
- Use sample Curl commands in your terminal or Postman
  - Find sample requests on our website
  - See demo slides in the Appendix
- Leverage our Data Dictionary to help interpret exported FHIR data
- Collaborate with the BCDA Community in the Google Group

# Follow the steps to get your data

1. Create an access token
2. Request data
3. Check progress
4. Download data

Get ongoing support from the team one on one or through the Google Group and our website and documentation.

# Developing your bulk FHIR application

- Secure your API queries
  - All API calls require an access token
- Limit exports to only relevant claims
  - Filter out unneeded claims to eliminate bloat in data files
- Schedule exports on a cadence that works for you
  - Perform incremental data loads using only data changed since your last export
- Send us your feature requests
  - If some key functionality is missing, let us know, it informs our roadmap

# What to do with your BCDA data?

- **Explore it**
  - Export a sample to get a feel for the data structure and values
- **Integrate it**
  - Plug exports into your existing systems, dashboards, or analytics pipelines
- **Build with it**
  - Develop custom applications tailored to your program's specific goals

# Questions?


# Thank you

## Stay in touch

Visit our website: bcda.cms.gov

Email us: bcapi@cms.hhs.gov

Join

# Appendix

- Connect to the data
- Additional resources

# Connect to the data

# Process

# Process

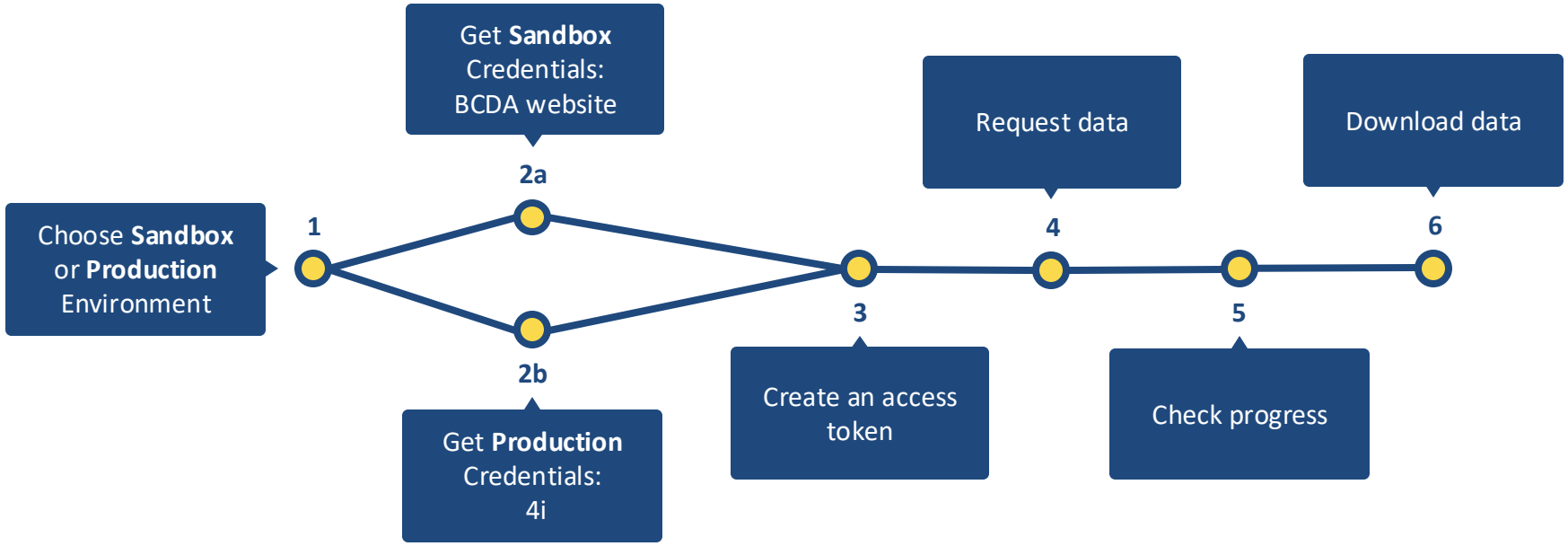


Diagram showing steps to get started:

1. Choose Sandbox or Production Environment
2. Get BCDA Credentials
   a. Sandbox - BCDA website
   b. Production - 4i
3. Create an access token
4. Request data
5. Check progress
6. Download data

# Step 1: Choose an environment

## Sandbox

- Publicly available
- Fully synthetic data containing no private health information
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## Production

- Real data aligned to your organization
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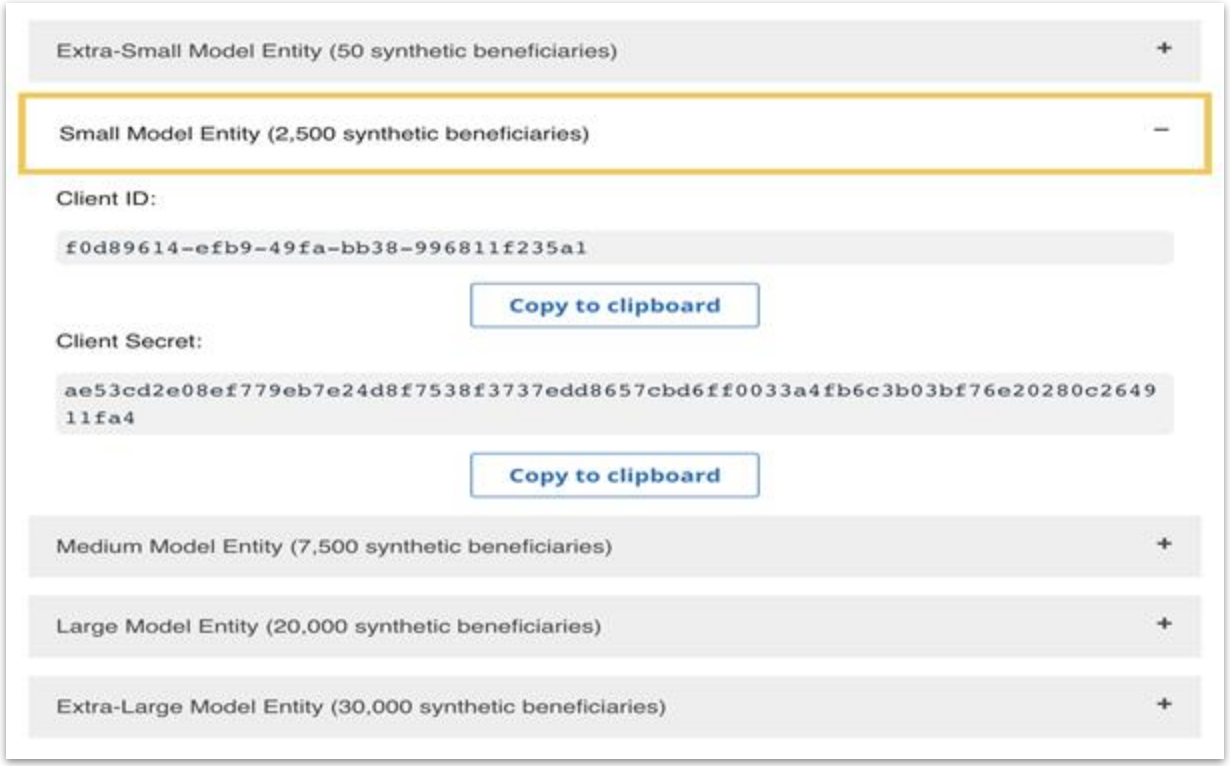
# Sandbox: test data

# Get BCDA sandbox credentials

Access the sandbox at the BCDA website.

- Five **simple datasets**
  - 50 to 30,000 synthetic beneficiaries
  - Best for testing API access and file ingestion
- Two **advanced datasets**
  - 100 or 10,000 synthetic beneficiaries
  - More realistic set of disease and demographic distribution
- Two **partially adjudicated claim datasets**
  - 100 or 10,000 synthetic beneficiaries
  - Includes Claim and ClaimResponse resources



# Production environment: patient data

# Ready for production data?

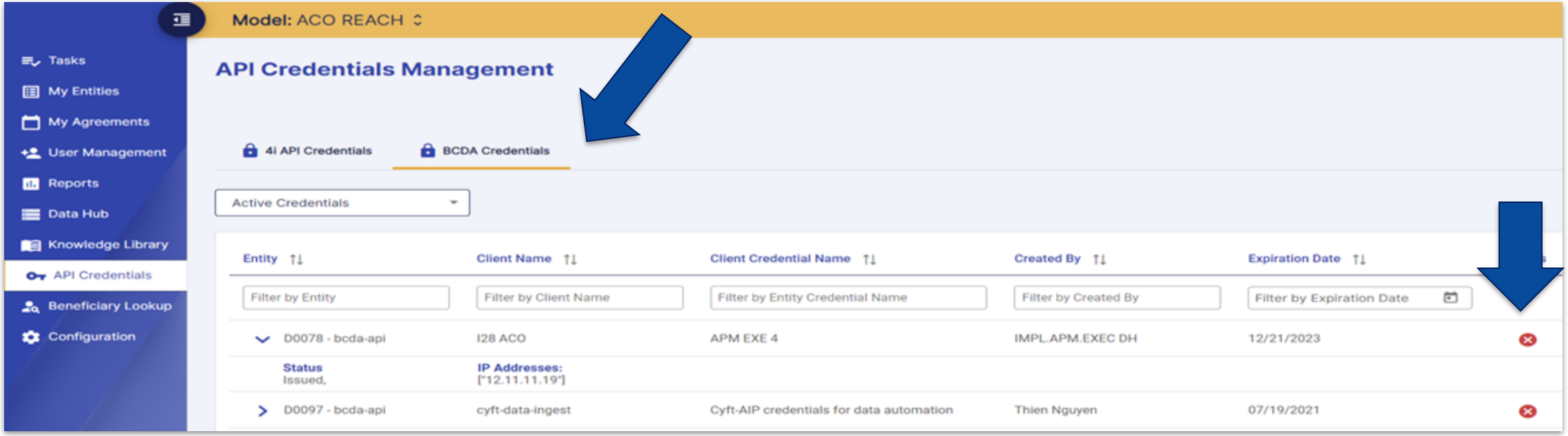
Once you're confident you can access sandbox data, you're ready to generate production credentials

- You'll do this in 4i
- You'll also need to add your IP address to the BCDA allow list

After Step 1, accessing the data follows the same steps as it does for the sandbox.

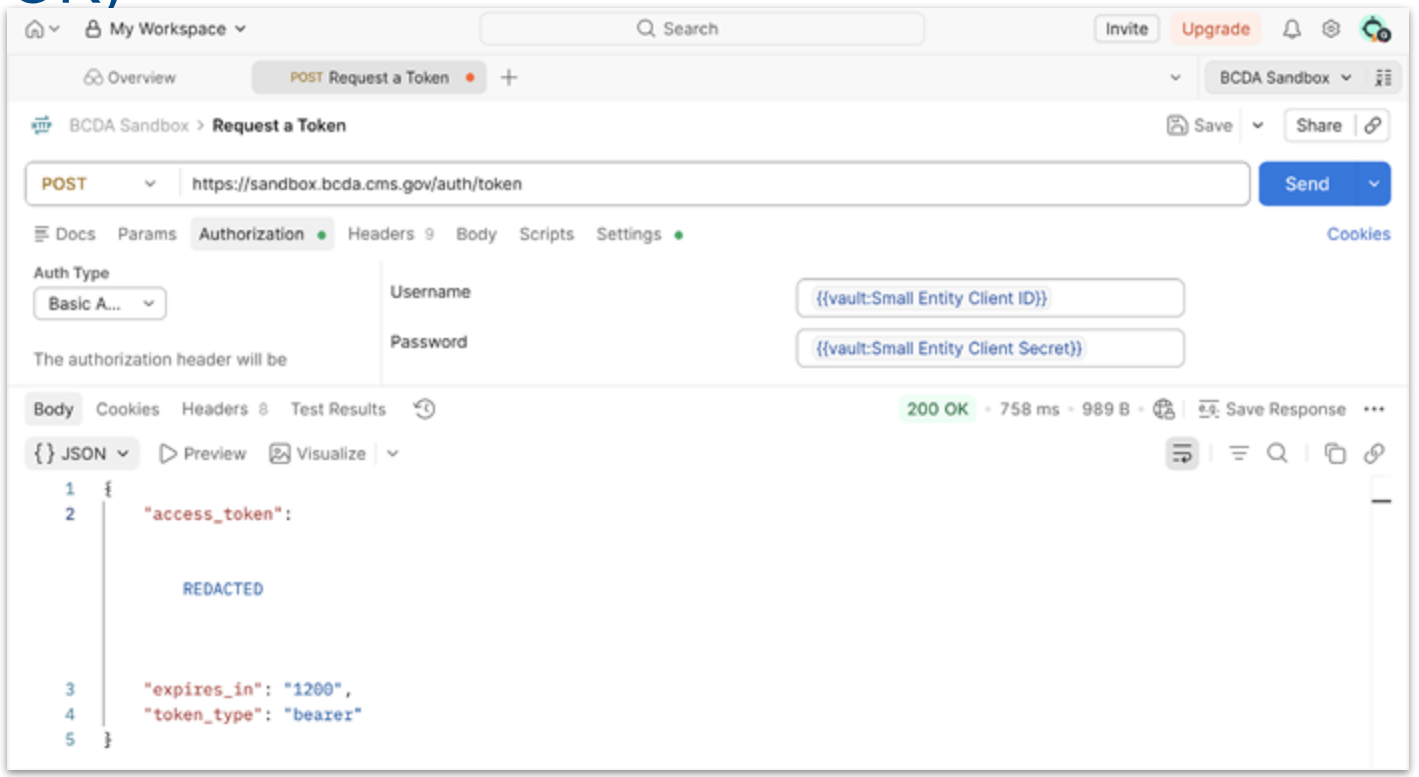
# 1. Get BCDA production credentials

Create, manage, and delete BCDA production credentials from 4i



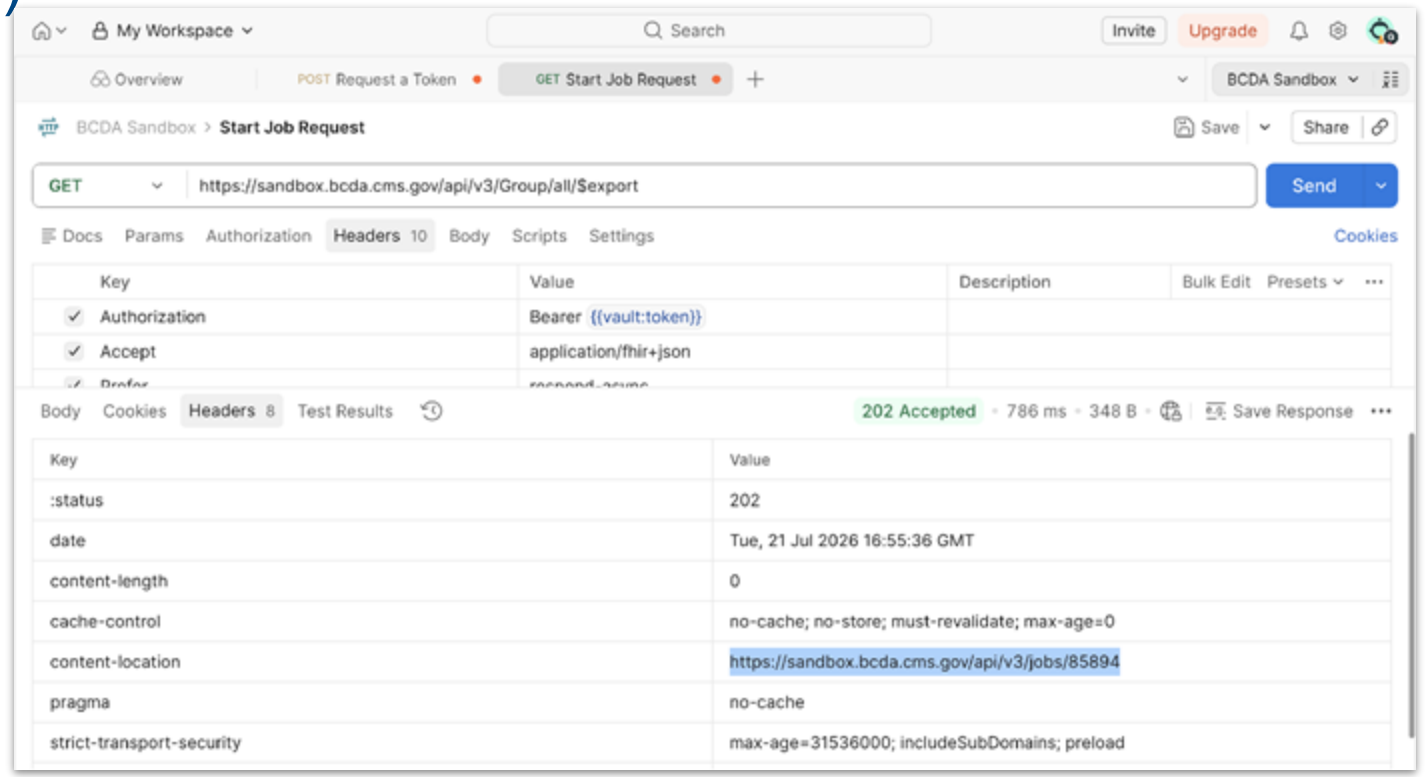
# 2. Create an access token

Postman view of auth token request and successful system body response (200 OK)



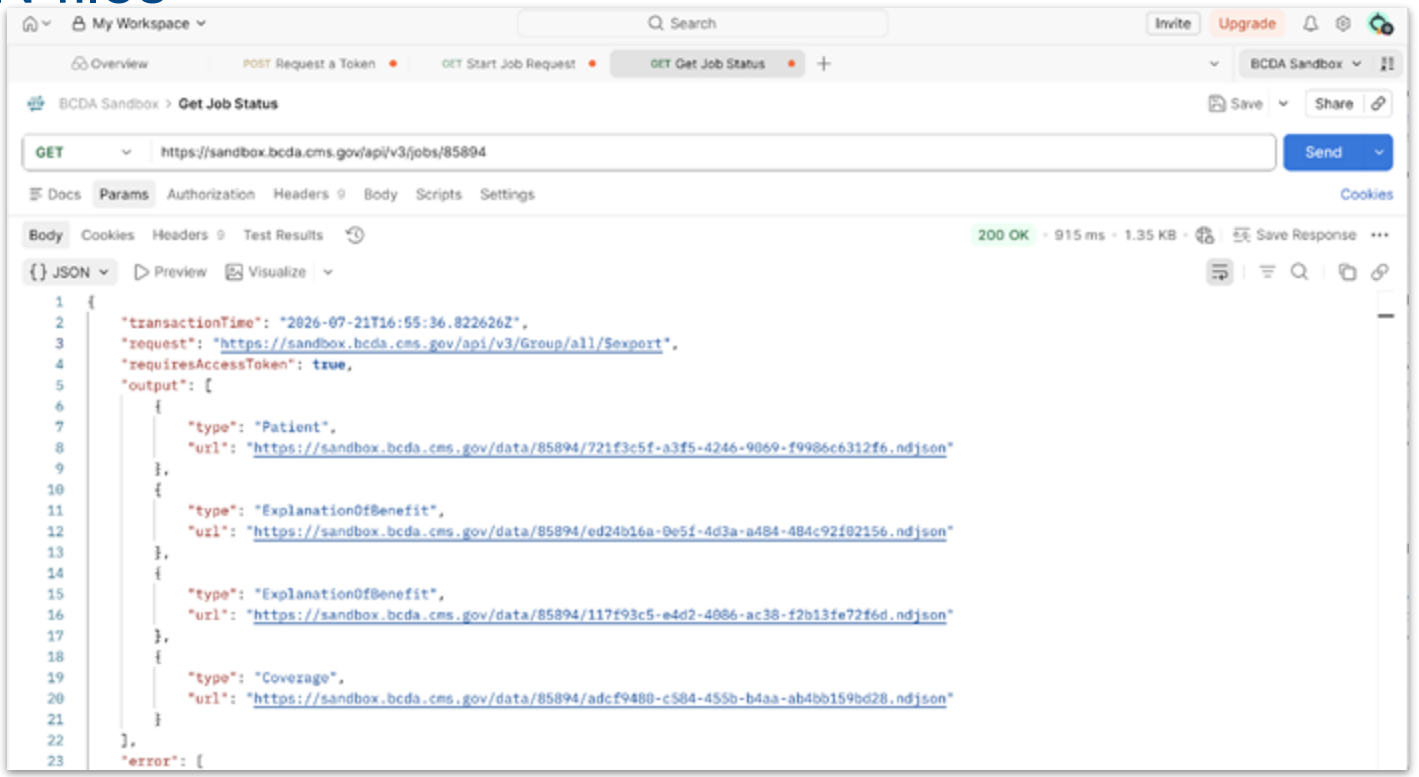
# 3. Request data

Postman view of successfully initiating jobs per system header response (202 Accepted)



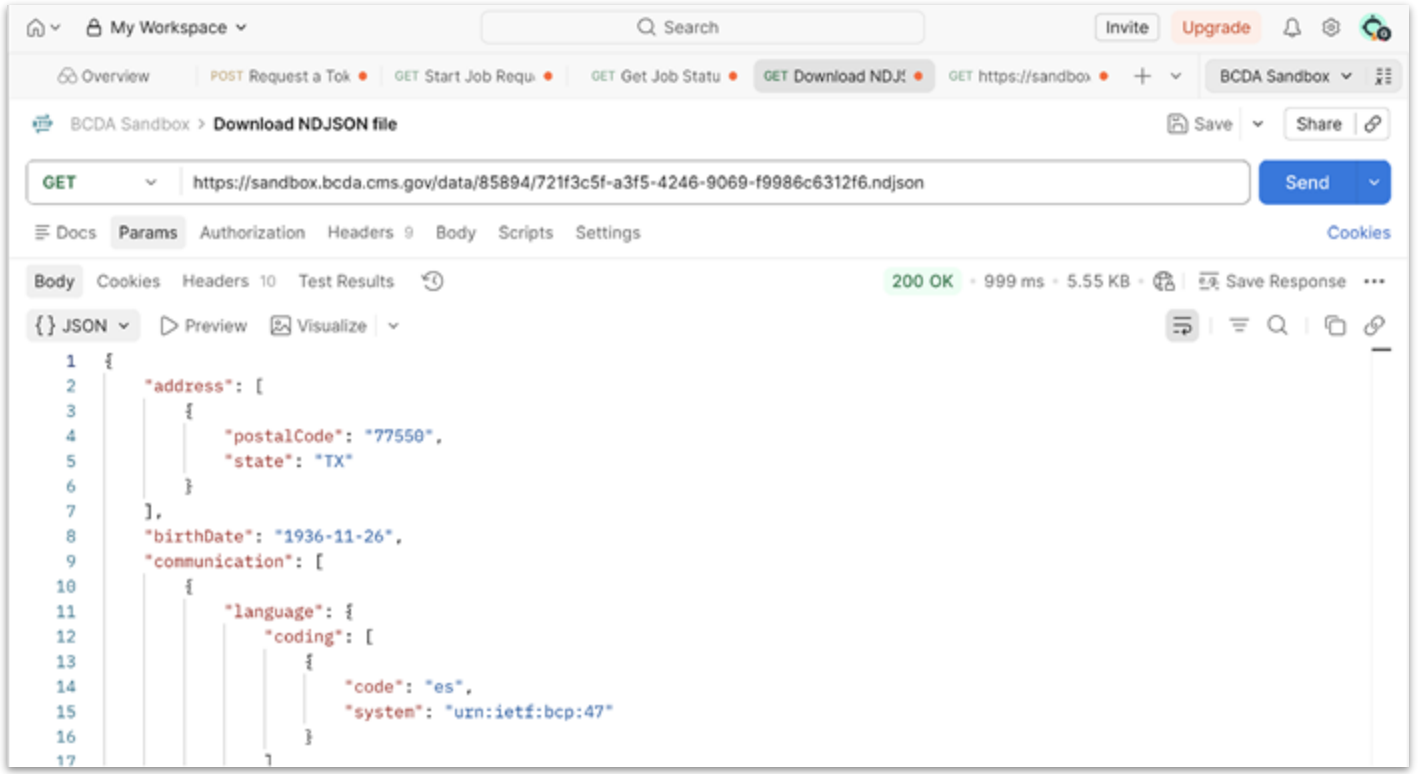
# 4. Check the job status

Postman view of job completion; output provides resulting URLs to obtain NDJSON files



# 5. Download the data

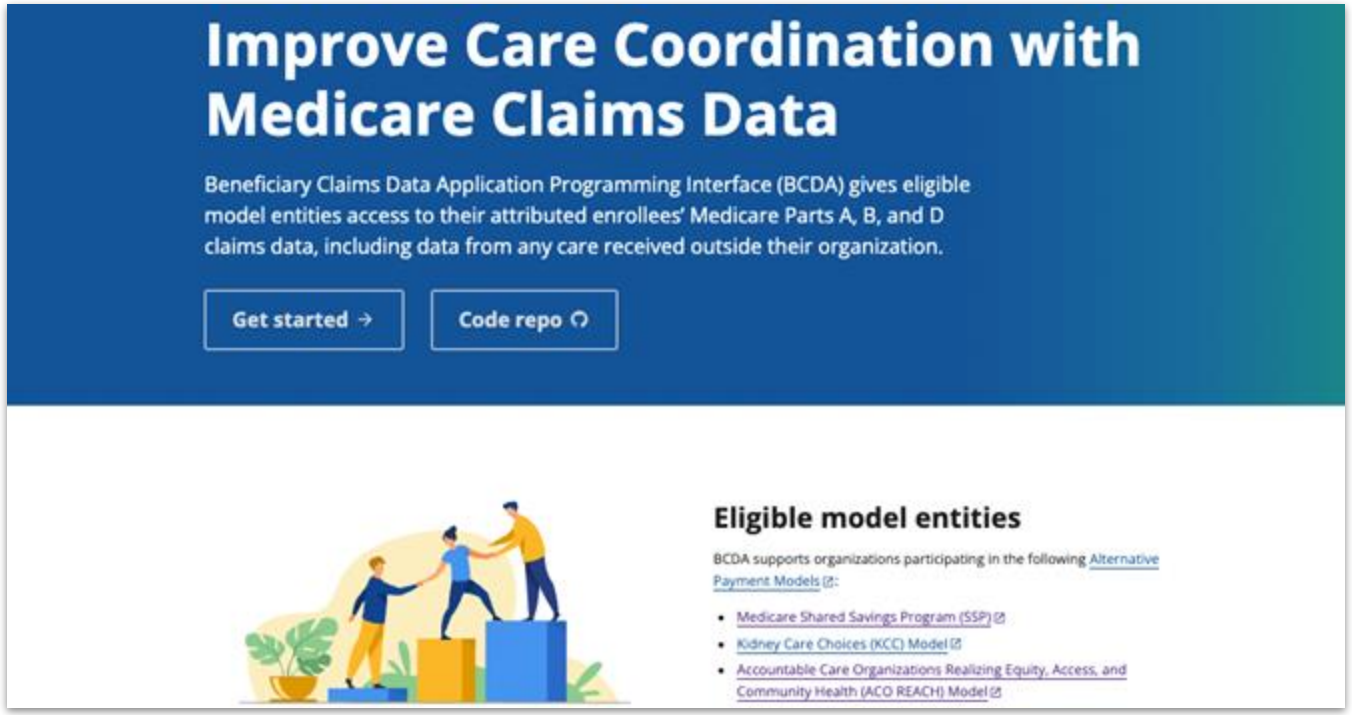
## Postman view of the NDJSON file



# Resources

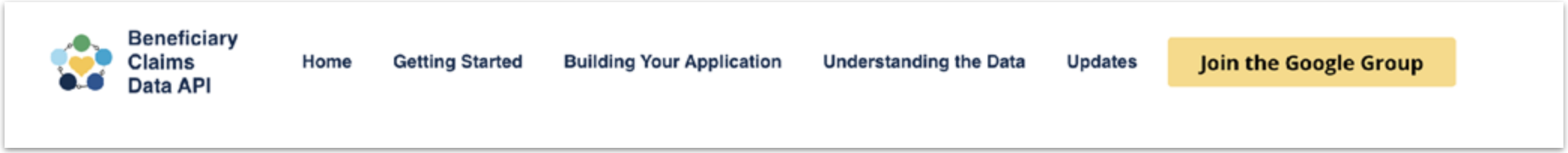
# BCDA website

Offers documentation, a data dictionary, details on BCDA data, sandbox and production info,  and announcements. bcda.cms.gov.



# BCDA Google Group

We make API announcements, respond to user questions, and encourage supportive BCDA community discussions. You don't need API credentials to join.



# About JSON and NDJASON

## JSON Format

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It's easy for humans to read and write and for machines to parse and generate: https://www.json.org/json-en.html

## NDJSON Format

Claims data is provided as FHIR resources in NDJSON (Newline delimited JSON) format. NDJSON is a convenient format for storing or streaming structured data that can be processed one record at a time:

https://github.com/ndjson/ndjson-spec/

# BCDA Data Dictionary

The BCDA Data Dictionary provides additional information on how BCDA data is mapped to CCLF data fields and how to use FHIR resources and extensions.

It’s formatted as a downloadable spreadsheet on our website.

| CCLF File | CCLF Claim Field Label | Claim Field Name | FHIR R4 - Mapping |
|---|---|---|---|
| CCLF1 | PRNCPL_DGNS_CD | Principal Diagnosis Code | Eob.diagnosis[N].diagnosisCodeableConcept.coding[N].code |
| CCLF1 | ADMTG_DGNS_CD | Admitting Diagnosis Code | Eob.diagnosis[N].diagnosisCodeableConcept.coding[N].code |
| CCLF1 | CLM_MDCR_NPMT_RSN_CD | Claim Medicare Non-Payment Reason Code | Eob.extension[N].valueCoding.code |
| CCLF1 | CLM_PMT_AMT | Claim Payment Amount | Eob.payment.amount.value |

Table 1: An extract from the BCDA Data Dictionary's CCLF-FHIR R4 mapping which shows a sample of the rows and columns found in the worksheet.

# Q&A

Questions from Attendees of the July 23, 2026 BCDA Office Hours

# Open Q&A

**Question**: Issues using BCDA API; how to get approval for SFTP capability for ACOs in Medicare Shared Savings Program?

**Response**: SFTP is managed via CCLF files and self-service; reach out to the Shared Savings Program help desk. The BCDA team can assist with BCDA-specific issues.

**Question**: Will BCDA open access to more CMMI models? Are attribution dates available in the data?

**Response**: Access is planned for GUIDE, IOTA, and ACCESS models. No specific attribution dates yet, but the attribution status endpoint shows when the most recent attribution data was received for your organization.

# Open Q&A

**Question**: Does the BCDA sandbox include end-to-end claim lifecycle scenarios for testing claim history/versioning?

**Response**: Some versions of claims exist for matching, but not fully sufficient for all testing. More realistic synthetic data is being developed. Specific use cases can be requested from bcapi@cms.hhs.gov

**Question**: How do EHRs like Oracle Health work with BCDA? Is it something to bring to ACO leaders?

**Response**: FHIR format enables easier integration with EHRs; standards are compliant. Epic, Oracle, Athena can work with this format, but individual development is needed. The BCDA team can help EHRs with integration.

# Open Q&A

**Question**: Is there a reliable key to match claims from BCDA and CCLF?

**Response**: Yes, patient IDs and claim control numbers match in v3. BCDA v1 and v2 required more work; guides are available. Robust demographic matching is another method.

**Question**: Are partially adjudicated claims available to programs beyond REACH?

**Response**: In v3, partially adjudicated claims are available to Shared Savings Program, Kidney Care Choices, and others. Not available for GUIDE model.

# Open Q&A

**Question**: Does BCDA contain both fully and partially adjudicated claims?

**Response**: Yes, both are included in v3 in the same extract (Explanation of Benefits). In v2, they are separate resources.

**Question**: What percentage of BCDA claims are adjusted, reversed, or denied over time?

**Response**: Most claims have only one revision; long tail for multiple revisions. No specific numbers of denials and reversals are available at this point. For your organization's financial reporting, use fully adjudicated claims rather than partially adjudicated claims which are still undergoing processing.

# Open Q&A

**Question**: Does the API support queries for large numbers of patients (e.g., 500,000)?

**Response**: Yes, BCDA and sibling APIs are bulk FHIR APIs for entire populations. Blue Button is for single-patient queries.

**Question**: What type of patient population/sample data is in the sandbox?

**Response**: Sandbox includes sample files for different ACO sizes, with a "golden beneficiary" for full data. Synthetic data for v3 is being refined.

# Open Q&A

**Question**: Recommended integration pattern for vendors supporting multiple organizations? Multi-tenant setup? Best practices?

**Response**: Vendors can be credential delegates or organizations manage credentials. No specific architecture recommended; we recommend crowdsourcing with others in Google Group.

**Question**: For fully adjudicated claims, should NCH or MCS records be used for reporting?

**Response**: NCH aligns with CCLF and ACO benchmarking; MCS includes final adjustments. Check with model support team for reporting requirements.

# Open Q&A

**Question**: What are the differences between BCDA versions and migration guidance?

**Response**: BCDA v3 uses IDR as backend (same as CCLF), offers improved identifiers, more models, faster, and more complete data. V1/V2 will be deprecated; new users should start with v3. Migration guidance is available.

# Open Q&A

**Question**: How much historical claims data is available for MSSP? Is history complete back to 2014? Any limitations for longitudinal records?

**Response**: History is complete back to 2014. Initial data load for new patients includes all history. Be aware of MBI changes. Large initial loads may take longer; incremental loads are recommended.

**Question**: Is ALR and QALR attribution information available in v3?

**Response**: Not yet available from BCDA. However, this will be easier to share in v3, and updates will be posted in Google Group and on the website.