

2019 Data Attribute Supplement for Data Requesters

Version 1.0.2019



June 2019

ADMINISTERED BY  **ACHI**

What You Will Find in This Resource

- Data file types
- Data file type attributes
- Data connections
- Data request process and information

This resource will help the data requester understand the types of data available in the Arkansas APCD that can be requested.

*Use it with the **Arkansas APCD 2019 Data Request Pricing Schedule** document to build your data request.*

Arkansas APCD Data File Types

- Arkansas APCD Data Request Data File Types
 - Claims-Based Data Files
 - Fully insured commercial carriers
 - Self-insured entities receiving public funds
 - Arkansas Medicaid (benefit payer)
 - Arkansas Medicare* (benefit payer)
 - Non-Claims-Based Data File Linkages
 - Arkansas Department of Health (ADH) Vital Statistics Data
 - ADH Hospital Discharge and Emergency Department Data for the uninsured
 - ADH Arkansas Cancer Registry Data
 - ADH Medical Marijuana Cardholder Data
 - Arkansas Workers Compensation Data
- Data Request Models
 - Individual Data Package: Data purchased for one-time use on a single project
 - Subscription Package: Data purchased can be used for multiple projects



**Additional restrictions may apply to the acquisition of Medicare data. See [Medicare Data](#) slide.*

Claims-Based Data File Types

Claims-Based Data File Type	Information Available	Available Data (in years)
Plan/Enrollment data <ul style="list-style-type: none"> Fully insured commercial payers Self-insured entities receiving public funds Arkansas Medicaid Arkansas Medicare* 	Plan information, including plan names and enrollment/disenrollment dates. Includes enrollees with and without associated claims. Contains information about enrollees regardless of claim activity.	2013-2018 (Medicare data: 2013-2016)
Medical claim/claim line data <ul style="list-style-type: none"> Fully insured commercial payers Self-insured entities receiving public funds Arkansas Medicaid Arkansas Medicare* 	Professional, inpatient, outpatient, durable medical equipment services, hospital-based pharmaceuticals including service dates, payment information, diagnoses, procedures, and provider information. May be sourced from carriers, payers, or third-party administrators (TPA).	2013-2018 (Medicare data: 2013-2016)
Pharmacy claim/claim line data <ul style="list-style-type: none"> Fully insured commercial payers Self-insured entities receiving public funds Arkansas Medicaid Arkansas Medicare* 	Prescriptions fulfilled at a pharmacy, not within a hospital, including service dates, payment information, drug and dosage information, and provider information. May be sourced from carriers, payers, or pharmacy benefits managers (PBM).	2013-2018 (Medicare data: 2013-2016)
Dental claim/claim line data <ul style="list-style-type: none"> Fully insured commercial payers Self-insured entities receiving public funds Arkansas Medicaid 	Professional dental services, not within a hospital, including service dates, payment information, diagnoses, procedures, and provider information.	2013-2018
Provider data <ul style="list-style-type: none"> Fully insured commercial payers Self-insured entities receiving public funds Arkansas Medicaid 	Location and specialty information for carrier network providers.	2013-2017

*Additional restrictions may apply to the acquisition of Medicare data. See [Medicare Data](#) slide.



Claims-Based Data Attributes

Types of Information Per Data File Type	Plan/Enrollment Data	Medical Claims	Pharmacy Claims	Dental Claims	Provider Data
Carrier, payer identifiers	✓	✓	✓	✓	✓
Enrollee/subscriber demographics, age, identifiers	✓	✓	✓	✓	✗
Plan information — Enrollment/dis-enrollment dates, plan name, plan types, etc.	✓	✗	✗	✗	✗
Service information — claim identifiers/numbers, service dates, diagnoses, procedures, DRGs	✗	✓	✗	✓	✗
Payment fields including allowed amount, paid amount, and cost sharing amounts — e.g., deductible, co-insurance, etc.	✗	✓	✓	✓	✗
Provider information — NPI, specialties, provider demographics, locations	✓	✓	✓	✓	✓
Prescription information — claim identifiers/numbers, service dates, drug name, dosage, etc.	✗	✗	✓	✗	✗
Multiple lines delivered per enrollee or provider selected	✓	✓	✓	✓	✓
Date on which selection is based	Enrollment/ Disenrollment Dates	Date of Service	Paid Date or Fill Date	Date of Service	Latest Received

Claims-Based Data – Medicare

- Arkansas Medicare data is available from the Arkansas APCD through two paths:
 - Data for state-directed/state-funded projects can request data directly from the Arkansas APCD
 - Data used for other types of projects must be requested through the Arkansas APCD in conjunction with the Research Data Assistance Center ([ResDAC](#))
- The Arkansas APCD technical support team will provide guidance to the data requester for procuring Arkansas Medicare data through [ResDAC](#)
- Arkansas Medicare data can be purchased without other claims-based data.

Non-Claims-Based Data File Types

Non-Claims-Based Data File Type	Information Available	Available Data (in years)
Arkansas Department of Health (ADH) Vital Statistics Data*	Birth certificate information, including baby age, date of birth, parent demographics, mother history, risk factors, and conditions and/or abnormalities observed at birth.	2013-2017
	Death certificate information, including death date, decedent's demographics, age, gender, and primary cause of death.	2013-2017
ADH Hospital Discharge Data*	Uninsured hospital discharge information, including patient demographics, age, gender, service dates, diagnoses, procedures, DRGs, charges, and provider information.	2013-2017
ADH Emergency Department Data*	Uninsured Emergency Department information, including patient demographics, age, gender, service dates, diagnoses, procedures, admission types, charges, and provider information.	2013-2016
Arkansas Department of Health (ADH) Cancer Registry Data*	Annual cancer diagnosis and treatment information, including date of diagnosis, patient demographics, age, gender, cancer site areas, provider information, and cancer types.	2013-2015
Arkansas Department of Health (ADH) Medical Marijuana Cardholder Data	Records representing individuals who have received a medical marijuana eligibility card.	August 2018-April 2019
Arkansas Workers' Compensation Data (Claims Data, Forms 2 and 4 Data) <i>For additional information:</i> http://www.awcc.state.ar.us/revforms1.html	Claims information about events and employee costs incurred as a result of job-related accidents and diseases supporting workers' compensation regulations including accident and injury information, event location information, and compensation information.	2013-2018
	Employer's intent to accept or controvert claim, including the insurer's name, service dates, payment dates, and controvert reasons.	
	Employer's report of payment information, including service dates, wage information, and expense details (e.g., medical expense, drug expense, rehab expense, etc.).	

Non-claims-based data can only be provided through linkage to claims-based data.



Non-Claims-Based Data Attributes

Types of Information Per Data File Type	ADH Vital Statistics Data: Birth Certificates	ADH Vital Statistics Data: Death Certificates	ADH Hospital Discharge or Emergency Department Data	ADH Arkansas Cancer Registry Data	ADH Medical Marijuana Cardholder Data	Arkansas Workers' Compensation Data
Individual demographics, age, identifiers	✓	✓	✓	✓	✓	✓
Birth risk factors, conditions, and/or abnormalities observed at birth, mother pregnancy history	✓	✗	✗	✗	✗	✗
Cause of death, date of death	✗	✓	✓	✗	✗	✗
Diagnoses, procedures, DRGs, etc.	✗	✓	✓	✓	✗	✗

Non-claims-based data can only be provided through linkage to claims-based data.

Non-Claims-Based Data Attributes

Types of Information Per Data File Type	ADH Vital Statistics Data: Birth Certificates	ADH Vital Statistics Data: Death Certificates	ADH Hospital Discharge or Emergency Department Data	ADH Arkansas Cancer Registry Data	ADH Medical Marijuana Cardholder Data	Arkansas Workers' Compensation Data
Provider information (NPI, specialties, provider demographics, locations)	✓	✓	✓	✓	✗	✓
Dates of service, birth, payments, etc.	✓	✓	✓	✓	✓	✓
Multiple lines delivered per enrollee selected	✗	✗	✓	✓	✓	✓
Date on which selection is based	Birth Year	Death Year	Service Year	Year of Diagnosis	Card-Issue Date	Claim-Posting Year

Non-claims-based data can only be provided through linkage to claims-based data.

HOW DATA CAN BE CONNECTED

Types of Connections

- Enrollees/individuals are connected using three types of linkages across data file types:
 - Enrollee identification within a carrier or payer
 - Assesses enrollee experience within carrier or payer-specific plans
 - Tracks enrollee experience within a carrier or payer over time
 - Enrollee identification across carriers or payers
 - Tracks enrollee experience across different carriers or payers over time
 - Appends concurrent coverage for an enrollee
 - Denominates a population for analytics and research
 - Links plan/enrollment data across plans that use TPAs or PBMs to administer claims data (these systems may not use the same IDs for the same enrollees)
 - Supplements enrollee linkage within carriers or payers when enrollee IDs are modified by marital status changes, plan changes, etc.
 - Individual identification between claims-based and non-claims-based data (when available)
 - Associates health statistics outcome information with claims information (e.g., individuals on Arkansas Cancer Registry data with enrollees from claims-based data)
 - Associates uninsured inpatient and emergency department data with claims-based data to assess utilization and/or outcomes

Enrollee Identification Within a Carrier/Payer

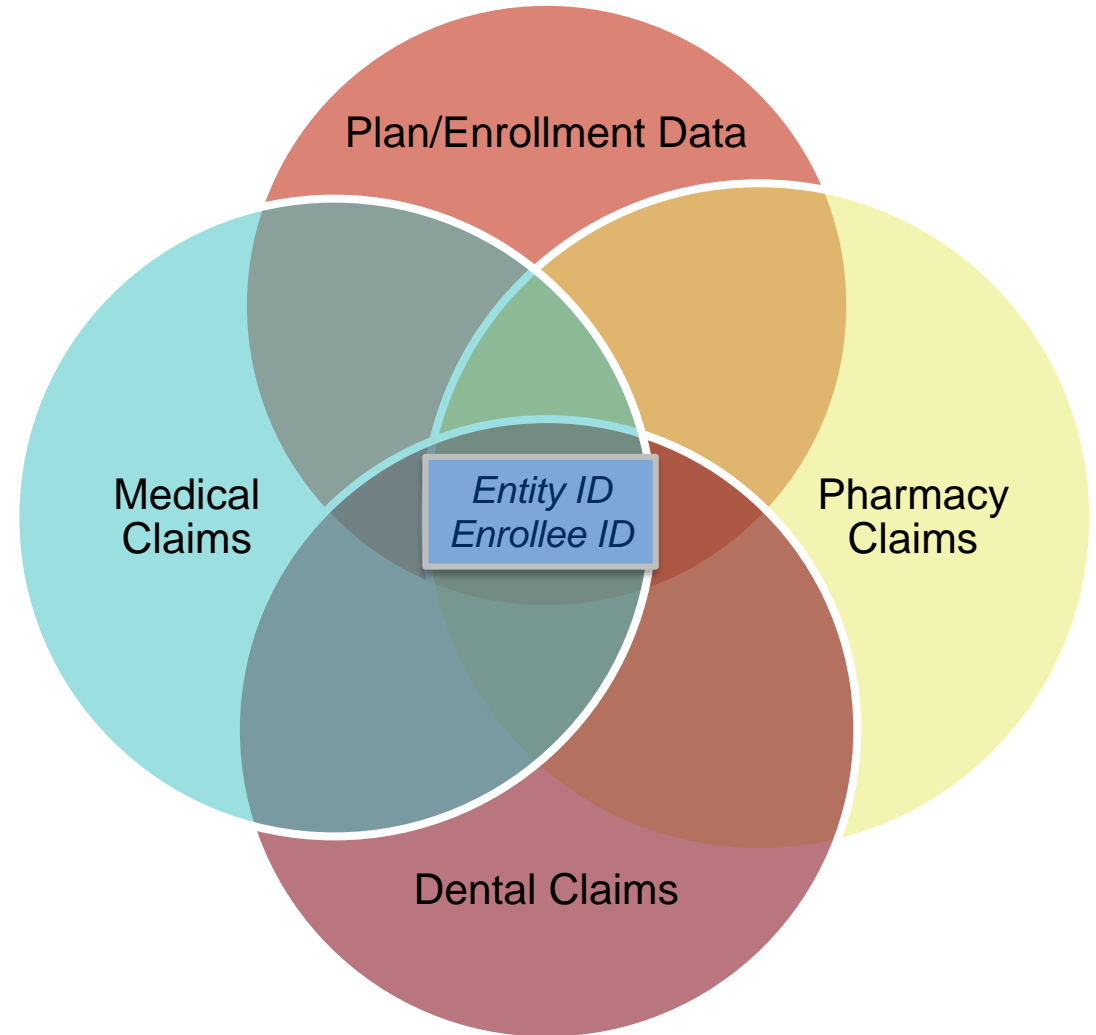
When connecting enrollees to claims data within carriers or payers, use **Entity ID*** and **Enrollee ID** to link an enrollee's plan/enrollment data to their claims information.

Important: Because duplicate Enrollee IDs can occur across different carriers or payers (e.g., John Smith on Carrier A has enrollee ID = 123, and Mary Green on Carrier B has enrollee ID = 123), it is important to include the Entity ID representing the carrier when identifying unique enrollees.

For example:

Entity ID + Enrollee ID = Carrier A 123 (John Smith)

Entity ID + Enrollee ID = Carrier B 123 (Mary Green)



Enrollee Identification Across Carriers/Payers

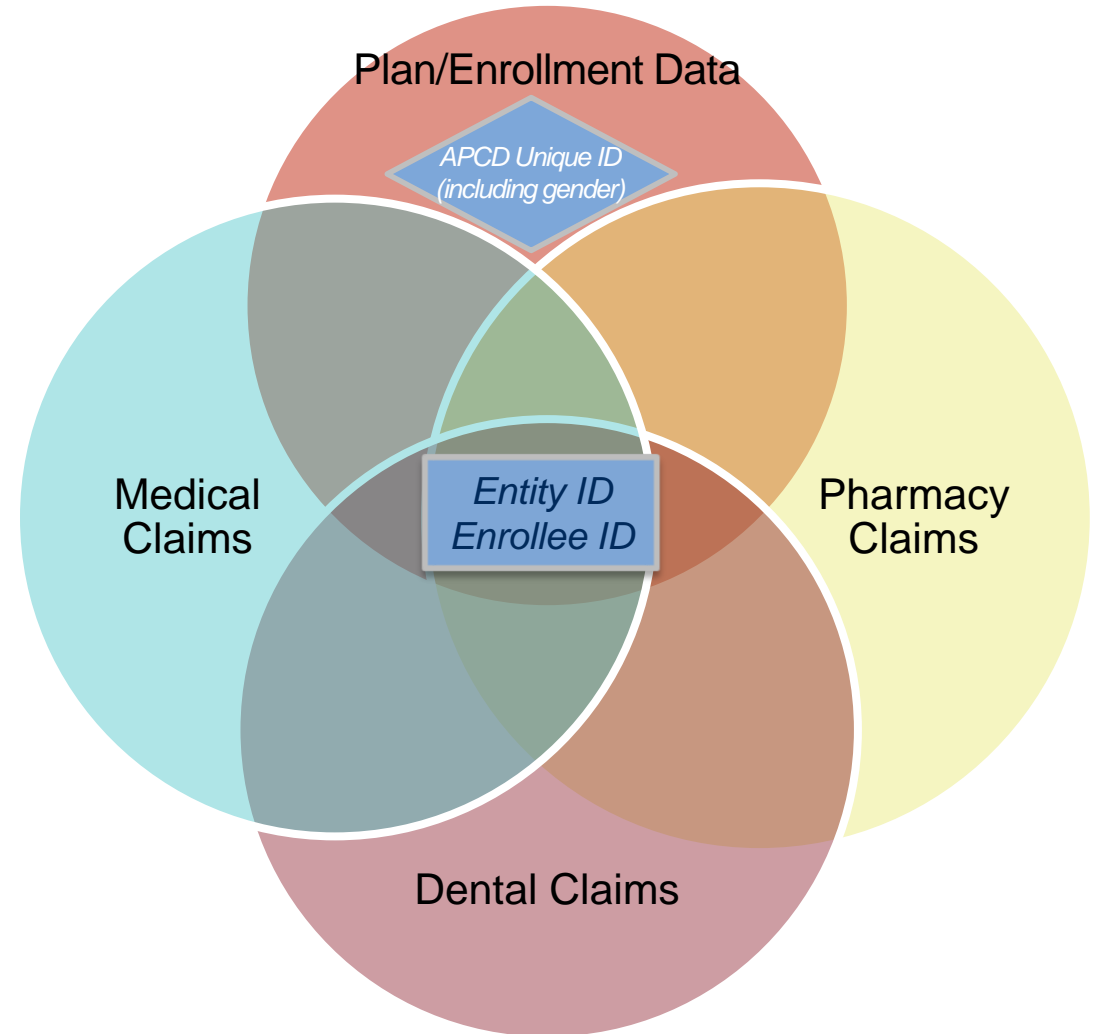
Use APCD Unique ID to link enrollees across carriers or payers. The Arkansas APCD does not contain personal identifiers, however the APCD Unique ID can be used as a proxy.

The APCD Unique ID is a hashed version of the last name and date of birth for each enrollee. Each plan/enrollment record contains the enrollee's APCD Unique ID.

Used with gender, the APCD Unique ID can identify unique enrollees across carriers or payers with high accuracy.

To link enrollees across carriers or payers:

1. Find enrollees with the same APCD Unique IDs and gender codes within the plan/enrollment data file level (use other data as needed to strengthen the linkage).
2. Once a linkage has been established with the APCD Unique ID, use Entity ID and Enrollee ID to find associated data on other data file types. See the [Linkages Across Source Type](#) slide for an example.



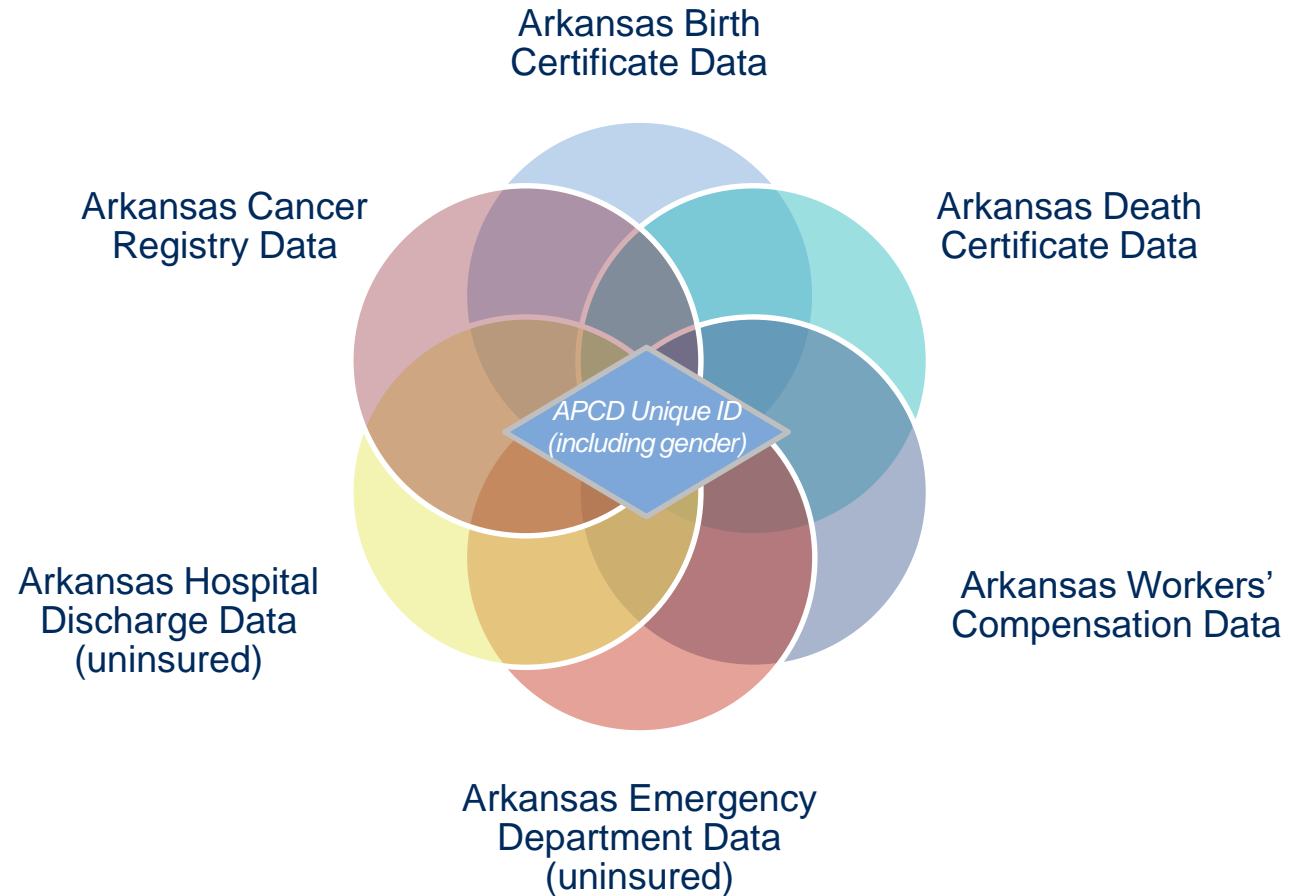
Individual Identification Across Non-Claims-Based Data Types

When available:

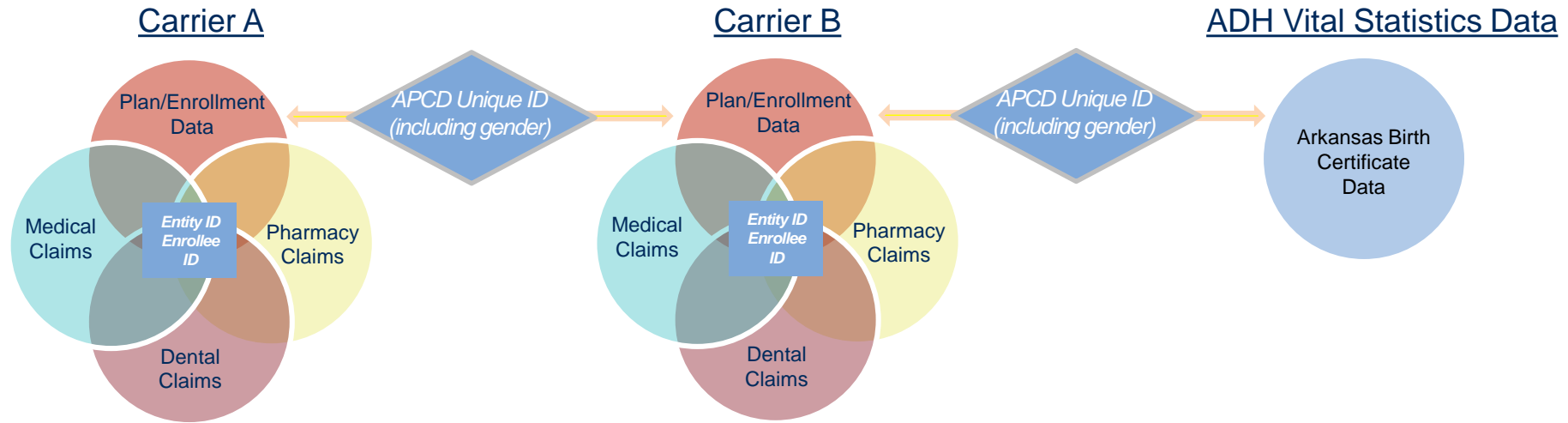
The APCD Unique ID can identify unique individuals across non-claims-based data types with high accuracy.

To link individuals across non-claims-based data types:

1. Find individuals with the same APCD Unique IDs and gender codes within each non-claims-based data type.
2. Once a linkage has been established with the APCD Unique ID, use source-specific individual identifiers to find associated data on other data file types. See the [Linkages Across Source Type](#) slide for an example.



Linkages Across Source Type

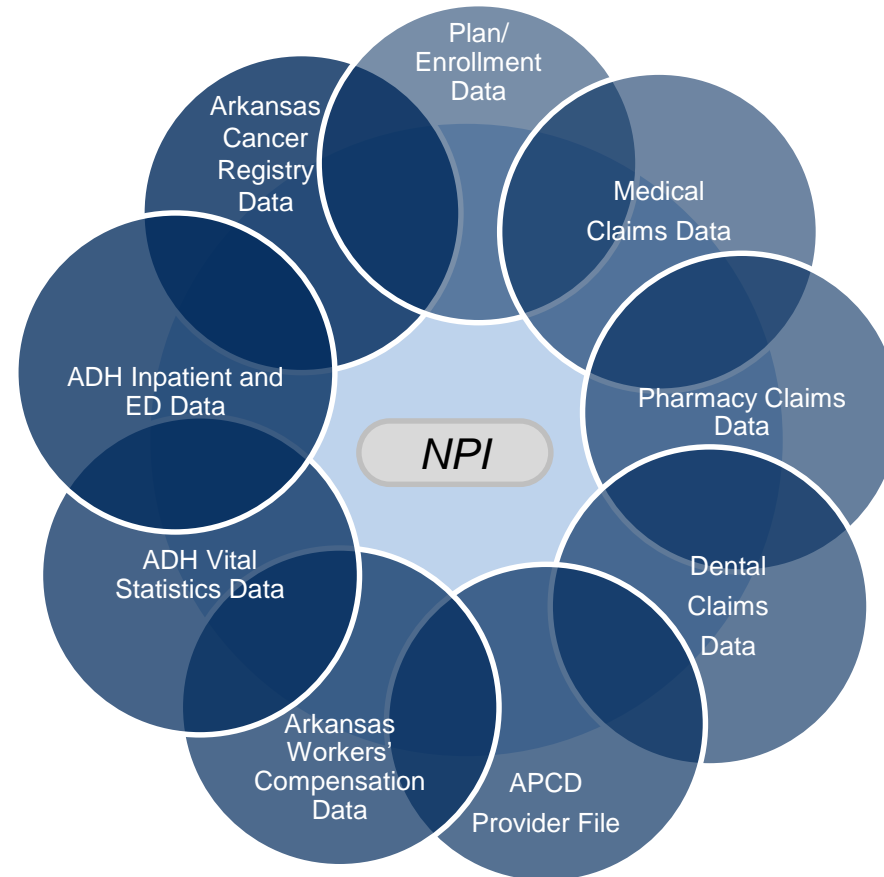


Data linkages example:

1. Identify the enrollees and individuals within the Carrier A data, Carrier B data, and Arkansas Birth Certificate data using the APCD Unique ID and gender.
2. Select Carrier A plan/enrollment data using the selected APCD Unique IDs.
3. Select Carrier A claims-based data using the Entity IDs and Enrollee IDs associated with the selected APCD Unique IDs.
4. Select Carrier B plan/enrollment data using the selected APCD Unique IDs.
5. Select Carrier B claims-based data using the Entity IDs and Enrollee IDs associated with the selected APCD Unique IDs.
6. Select Arkansas Birth Certificate data using the selected APCD Unique IDs.
7. Create analytic dataset with selected data from steps 1 through 6.

Provider Linkages Across Data Types

Use the National Provider Identifier (NPI) code to identify provider data across claims-based and non-claims-based data (when available).



Linkages by Data File Type

Claims-Based Data: Linkages Within Carriers/Payers	Plan/Enrollment Data	Medical Claims	Pharmacy Claims	Dental Claims	Provider Data
Enrollee Identification (Entity ID + Enrollee ID)	✓	✓	✓	✓	n/a
Provider ID (National Provider ID)	✓	✓	✓	✓	✓
APCD Unique ID (Enrollee Only)	✓	n/a	n/a	n/a	n/a

Claims-Based Data: Linkages Across Carriers/Payers	Plan/Enrollment Data	Medical Claims	Pharmacy Claims	Dental Claims	Provider Data
Enrollee Identification (Entity ID + Enrollee ID)	✗	✗	✗	✗	n/a
Provider ID (National Provider ID)	✓	✓	✓	✓	✓
APCD Unique ID (Enrollee Only)	✓	n/a	n/a	n/a	n/a

Linkages by Data File Type

Linkages Within Non-Claims-Based Data	ADH Vital Statistics Data: Birth Certificates	ADH Vital Statistics Data: Death Certificates	ADH Arkansas Hospital Discharge or ED Data	ADH Arkansas Cancer Registry Data	ADH Medical Marijuana Cardholder Data	Arkansas Workers' Compensation Data
National Provider ID	✓	✓	✓	✓	✗	✓
APCD Unique ID (Individual)	✓	✓	✓	✓	✓	✓
Case Number*	✗	✗	✗	✓	✗	✗
Birth Certificate Number*	✓	✗	✗	✗	✗	✗
Death Certificate Number*	✗	✓	✗	✗	✗	✗
Patient ID*	✗	✗	✓	✗	✗	✗
File Number*	✗	✗	✗	✗	✗	✓

Non-claims-based data can only be provided through linkage to claims-based data.



*All enrollee or individual identifiers are masked.

Linkages by Data File Type

Linkages Between Claims-Based Data and Non-Claims-Based Data (when available)	Plan/ Enrollment Data	Medical, Pharmacy, Dental Claims Data	ADH Vital Statistics Data: Arkansas Birth and Death Certificates	ADH Arkansas Hospital Discharge or Emergency Department Data	ADH Arkansas Cancer Registry Data	ADH Medical Marijuana Cardholder Data	Arkansas Workers' Compensation Data
Provider ID (National Provider ID)	✓	✓	✓	✓	✓	✗	✓
Enrollee Identification (Entity ID + Enrollee ID)	✓	✓	✗	✗	✗	✗	✗
APCD Unique ID (Enrollee or Individual)	✓	✗	✓	✓	✓	✓	✓

Non-claims-based data can only be provided through linkage to claims-based data.

What is the APCD Unique ID?

- The Arkansas APCD does not include personally identifiable data
 - APCD Unique ID is the data element available to represent an enrollee across sources and data file types
- APCD Unique ID represents enrollee's last name and date of birth
- APCD Unique ID is hashed securely, masking enrollee's last name and date of birth so that it cannot be re-identified

Example:

If the enrollee's last name and date of birth = JONES1983-12-30, the hashed value placed in the APCD Unique ID field representing this combination is:

aJDhkskZ90wP1n1akloOgReHjm+iFJ0ofPt3CNhvFy8=

Only the hashed value is available in the Arkansas APCD

What is the APCD Unique ID?

- The APCD Unique ID field is defined in the Arkansas APCD Data Submission Guide (DSG), data element ME998
- The APCD Unique ID must be hashed securely prior to being delivered to the Arkansas APCD
- Additional hashing is applied during the APCD data intake process to further secure the unique ID values
- This allows for unique IDs that are requester-specific
 - The additional hashing approach is intended to prevent re-identification and will not be disclosed

Is the APCD Unique ID Truly Unique?

- The APCD Unique ID represents the last name and date of birth of the enrollee
 - Because different enrollees can have the same last name and date of birth, the Arkansas APCD utilizes the hashed value with gender and, when necessary, other data such as dates and place of service to differentiate between enrollees and reduce collisions
- Depending on file size, using other data with the hashed value can reduce collision probability to as little as 3%

How to Select APCD Unique ID for a Data Request to Manage Collisions

- To mitigate collision probabilities, utilize the Arkansas APCD collision probability model to select enrollees who have the lowest probability of collision for the requested universe (custom data pull)
- To enable the data requester's use of their own collision management protocols, pull data without using the Arkansas APCD collision probability model

Data Request Forms and Process

- Arkansas APCD data request information is located here:
 - <https://www.arkansasapcd.net/Other/DataReleaseDocs/>
- Complete the data request packet using the process instructions at the above link
- Reach out to support@achiapcd.atlassian.net for questions about a data request or pricing

Use this resource in conjunction with the Arkansas APCD 2019 Data Request Pricing Schedule.