

# Understanding How the CO APCD Works

Most explanations of how the CO APCD does what it does are very technical and can be difficult to follow. This illustration is intended to make the system a little easier to understand.



## 1. Sowing Seeds

When a Coloradan with insurance sees a doctor, their provider gets paid by sending a claim. These claims are like seeds of grain.



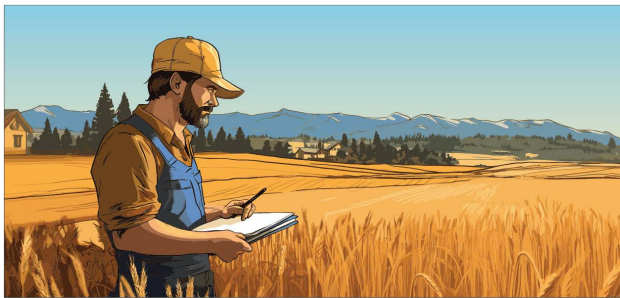
## 2. A Plentiful Harvest

Health insurance companies are similar to farmers. They harvest the grain and send it to be stored in a community silo, operated by CIVHC.



## 3. A Collective Resource

The silo represents the CO APCD. CIVHC oversees the silo while also milling the collected grain into flour for use by the community.



## 4. Guaranteeing Good Grain

CIVHC tests the grain to make sure its good before processing, storing, or turning it into flour. Bakers like CO APCD data users need high quality ingredients.



## 5. Assisting Individual Efforts

When bakers want to bake a certain type of bread or pastry for their shops, they ask CIVHC to mill a specific type and amount of flour (or data).



## 6. Supporting the Community

CIVHC also uses the flour to make different kinds of baked goods. These feed the community at no cost, similar to public CO APCD data releases on [civhc.org](http://civhc.org).



## Collecting and Releasing CO APCD Data

Once CIVHC and the Advisory Committee decided on what data should be collected in the CO APCD, they had to determine how it would be submitted and how it would (and wouldn't) be released. There was a lot to figure out.

- Colorado has more health insurance payers than many other states. They each have different computer systems and ways they collect claims information that don't always match how others collect data.
- Personal information needs to be protected at all costs, and laws like the Health Information Portability and Accountability Act (HIPAA) have guidelines that need to be followed when collecting and releasing health care data.
- Health care billing is incredibly complicated, and many times there are errors on claims. This means the data has to be thoroughly checked before it can be incorporated into the database.
- CO APCD data must be available to help Coloradans, but there needs to be guidance about who should be able to access it, how, and for what purposes.

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Bringing in good files is just the beginning of CIVHC's process to ensure the best data possible. The following elements make up the defining components of data quality in the CO APCD.

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### Submission/Intake

The condition of the data submitted and evaluated during the intake and validation processes



### Processing

Business rules that make sense of the millions of claims submitted every month



### Accuracy

Quality checks throughout the analytic process to align outputs with expectations



### Completeness

How well the contents of the CO APCD reflect health care in Colorado



### Timeliness

Availability of the most current claims information possible



### Consistency

Ensuring all of the data in the CO APCD is processed under the same rules

## Ensuring the Best CO APCD Data Possible

Long before any files made it to the database, CIVHC worked to make sure the data in the CO APCD would be the best possible. In collaboration with data managers, first 3M and now Human Services Research Institute (HSRI), we created rules to govern how the data would be processed and what tests it would have to pass when submitted. Payers helped develop a Data Submission Guide, which is similar to a manual that shows what information should be sent to the CO APCD and how it should be formatted.

Once submissions were established, CIVHC created a process to regularly update the CO APCD warehouse. Payers provide CIVHC with data monthly, and every two months we incorporate that data and re-process the entire CO APCD to fix or correct irregularities that may have existed with previous submissions. This also ensures that all data in the CO APCD is consistent and processed using the same rules. Since their files are the building blocks of the CO APCD, CIVHC is in constant contact with the payers to help them with any questions or challenges that may arise.

## CIVHC releases CO APCD data in two ways:



### Non-Public Data

For individuals or organizations to use to improve care for Coloradans.



### Public Data

For anyone to use to help make data-driven health decisions.



For public releases, the CO APCD Advisory Committee reviews all analyses and reports before they are published.

*CIVHC appreciates the volunteers who donate time to participate in the review processes; they are a vital part of the transparency and collaboration woven into the CO APCD.*

## Rules for Releasing CO APCD Data

The same cross-sector Advisory Committees that helped CIVHC design and build the CO APCD also offered us their expertise to help develop the rules and policies that direct how the data can be used and released. Privacy and security are two of the most important things that CIVHC does, and it is critical to be very careful about balancing what data is released and how, with making sure it's accessible to as many people as possible.

CIVHC checks every application for non-public CO APCD data to make sure it meets all of the criteria and requirements for release. If an application contains a request for protected health information (PHI), a Data Release and Review Committee (DRRC) made up of CIVHC partners from different areas of health care also evaluates the application. The DRRC considers all parts of these applications, including whether they meet the CO APCD requirements for release as well as whether they comply with HIPAA and federal regulations.

## Rules for Non-Public Releases

### Who can request data?

- Anyone

### What data can be released?

- Only the minimum amount needed for the intended use
- Protected Health Information (PHI) in very limited circumstances (requires additional approval process)

### How can the data be used?

- To improve care, lower costs, and make Colorado healthier
- It cannot be used for marketing directly to patients
- It cannot be re-sold or used by anyone other than the requestor

### What criteria must the release meet?

- Be consistent with the legislative purpose of the CO APCD – better care, better health, and lower costs
- Contribute to efforts to improve health care for Colorado residents
- Comply with the requirements of HIPAA and federal regulations
- Use recognized analytic methods

## How is the data released?

Based on the requestor's needs and comfort with using data, non-public releases come in different formats with various levels of custom information or PHI.

- Custom Report
- Custom Data Set
- Standard Report
- Standard Data Set

#### Custom Report

High customization,  
Low comfort with data

#### Custom Data Set

High customization,  
High comfort with data

#### Standard Report

Low customization,  
Low comfort with data

#### Standard Data Set

Low customization,  
High comfort with data

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## Rules for Public Releases

Data must be combined and summarized to protect patient identity according to HIPAA and follow all federal regulations.

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## Sustaining the CO APCD

In the beginning, there was no State money available to fund the CO APCD, and CIVHC was compelled to look for grants to pay for building and running the database. The Colorado Health Foundation and The Colorado Trust believed in the importance of the CO APCD and provided the necessary funding to get the effort on its way, but their support was never intended to be permanent. To move toward sustainability, CIVHC began licensing non-public CO APCD data to requestors.

Many foundations changed how they awarded funding during the early implementation years of the CO APCD. They moved from a strategy where they provided grants to operate an entire organization to one which provided money for single projects. This proved a challenging environment for CIVHC, though several foundations contributed to specific projects which helped keep the CO APCD operating.

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Over time, CIVHC became aware of opportunities to receive federal matched funding for the CO APCD through the Centers for Medicare & Medicaid Services (CMS). These opportunities required the State Medicaid department, HCPF, to provide a percentage of the total award, while CMS supplies the rest. The first matching award CIVHC received was a 50/50 split to fund Medicaid operations of the CO APCD. CIVHC continued to work with HCPF and was awarded additional ongoing State funding to sustain the CO APCD beginning in FY 2019-2020. As part of the contracts for the State and matching funding, CIVHC has specific projects to complete that support State agencies as well as requirements to continue improving the CO APCD.



More information about CIVHC's historical funding for the CO APCD in [Appendix A](#).



# Components of the CO APCD Budget

## DATA COMPLEXITY

CIVHC works to broaden the breadth and depth of the CO APCD by collecting data beyond medical and pharmacy claims from commercial, Medicaid, Medicare Advantage, and Medicare Fee-for-Service payers. The addition of new elements such as dental, vision, supplemental plans, Alternative Payment Models (APM), and Drug Rebates require corresponding intake resources and data quality staff.

## DATA QUALITY

The usability of the CO APCD and the ability to provide advanced analytics are directly tied to the credibility of the underlying data. Specialized quality analysts are vital to ensuring the data and outputs are as accurate as possible.

## PROCESSING AND HOUSING THE CO APCD

Payers submit claims for over 5 million lives to the CO APCD every month. The claims are then processed according to extensive business rules before being incorporated into the data warehouse. Because the database grows by 2 terabytes each year, the space and costs necessary to store it keep increasing.

## CO APCD DATA MANAGEMENT PARTNER

CIVHC's Data Manager, HSRI, has significantly improved the quality of CO APCD data and analytics by establishing rigorous processes and validations. They also regularly develop public and non-public analyses to supplement the internal CIVHC analyst team.

## CO APCD DATA COMPLIANCE

With the rise in releases of public and non-public CO APCD data, CIVHC strengthened data privacy and compliance processes and policies. A compliance team now reinforces the work of the Data Release and Review Committee to ensure that all releases of CO APCD data meet federal regulations, including HIPAA and anti-trust.

## THIRD-PARTY VENDOR ANALYTICS

Certain CO APCD analyses would not be possible without specialized analytics developed by third-party vendors, including our work in Low Value Care, Reference Based Pricing, and identification of prescription drugs by therapeutic class.

## REQUESTS FOR NON-PUBLIC DATA

CIVHC and the CO APCD are now one of the leading sources of claims data and analytics in the nation. The number of non-public requests for data has increased steadily since year one. These requests require resources to fulfill, from analysts to project managers to client-facing positions.

## COMMUNICATIONS AND PUBLIC REPORTING TEAM

The CO APCD enabling legislation states that Public Reporting is one of the key purposes of the database, and the number of public reports released grows annually. The public reporting team is made up of specialists to ensure the data is provided in a way that is easy to understand.