



# Data Release Application

## Limited and Identifiable Extracts

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### Client Application Revision History

The following reflects the history of changes made to this document during the application process prior to project production. Once in production, any further changes to the application may result in additional cost and production delays.

To be completed by CIVHC staff			
Date	New Version Number	Description of Change(s)	CIVHC Change Author (full name, complete title)
11/8/2024	V.01	Initial version drafted with client.	Mathematica
11/20/2024	V.02	Refine PHI justification, add info to purpose, add to data linkages, add to filtering, add years of data	Kate Davidson, DOI
11/25/2024	V.03	Revise word in project purpose	Amanda Kim, DCSI
	V.04		
	V.05		
	V.06		
	V.07		
	V.08		
	V.09		
	V.10		

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### Data Requestor Details

#### General Project Details

Project Title:	Colorado Option Evaluations
Application Start Date:	10/23/2024
Requested Project Delivery Date:	2/1/2025
Client Organization (legal name):	Mathematica Inc.
Client Organization Address:	600 Alexander Park Dr. Suite 100, Princeton, NJ 08540
CIVHC can publicly share the Client Organization's name in its <a href="#">Change Agent Index</a> .	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
To be completed by CIVHC staff	
CIVHC Contact (full name, complete title):	Amanda Kim
Project Number:	25.102.70
Condensed Project Title:	Colorado Option Evaluations

#### Project Contacts

<b>Project Contact Name:</b>	<b>R. Vincent Pohl</b>
Title:	Senior Researcher
Email:	vpohl@mathematica-mpr.com
Phone Number:	206-539-5789
<b>Analytic Contact Name:</b>	<b>Alyssa Evans</b>
Title:	Senior Data Scientist
Email:	aevans@mathematica-mpr.com
Phone Number:	202-250-3570

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<b>Invoice Contact Name:</b>	<b>Maddie Davis</b>
Title:	Colorado Option Program Assistant
Email:	<a href="mailto:Maddie.Davis@state.co.us">Maddie.Davis@state.co.us</a>
Phone Number:	
<b>Data Release Fee Signatory:</b>	<b>Kate Davidson</b>
Title:	Manager of Data Science
Email:	<a href="mailto:Kate.Davidson@state.co.us">Kate.Davidson@state.co.us</a>
Phone Number:	303-359-3475
<b>Data Use Agreement Signatory:</b>	<b>R. Vincent Pohl</b>
Title:	Senior Researcher
Email:	<a href="mailto:vpohl@mathematica-mpr.com">vpohl@mathematica-mpr.com</a>
Phone Number:	206-539-5789

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## Project Schedule and Purpose

Proposed Project Start Date <sup>1</sup> :	2/1/2025
Anticipated Project End Date:	7/31/2026
Proposed Publication or Release Date:	12/31/2025

1. Detail the specific research question(s) you are trying to answer or problem(s) you are trying to solve with this data request. Please list and number the individual questions.

Per Colorado Option enacting statute (HB 21-1232) and C.R.S. 10-16-1304(5), the DOI must contract with a third party to conduct an analysis on the impact of the Colorado Option program on health plan enrollment, health insurance affordability, and health equity. To the extent available, the analysis must include disaggregated data by race, ethnicity, immigration status, sexual orientation, gender identity, age, and ability. Through an RFP process, DOI has procured Mathematica to perform this evaluation, which includes but is not limited to APCD data. DOI will license the APCD data for the evaluation, will assist Mathematica in understanding data elements and linking to other insurance data, and will publish the report publicly on the DOI website.

*Individual research questions:*

- i. What is the effect of the Colorado Option on the use of services with a \$0 copay?
- ii. What is the effect of the Colorado Option on enrollees' out-of-pocket spending?
- iii. What is the effect of the Colorado Option on acute health care use (emergency department visits and inpatient stays)?
- iv. What is the effect of the Colorado Option on total health care spending?
- v. What is the effect of the Colorado Option on health equity?

2. Describe your methodology or how you will be using data from the Colorado All Payer Claims Database (CO APCD) to answer your research questions.

We will use various methods to estimate impacts on outcomes of interest, including a pre-post analysis and difference-in-differences, to compare outcomes over time and between Colorado Option enrollees and other marketplace enrollees. We will assess the equity impacts

<sup>1</sup> After all required documents have been signed, typical production time is 30-60 days for a Limited or Identifiable Extract. Anticipate a longer production period for projects including a Finder File or creation of a Member Match File.

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of the Colorado Option by separately estimating impacts by gender for underserved racial or ethnic populations, language spoken, and rural communities.

3. Explain how this project will benefit Colorado and its residents.<sup>2</sup>

The Colorado Option insurance program was designed to provide more Colorado residents with access to quality health insurance through standardizing benefits and decreasing premiums and copays. This evaluation will help policymakers understand how healthcare accessibility, cost, and service use were affected. With data-supported evidence, the policymakers will be able to make better decisions on how to improve or expand this program to continue to benefit Colorado's residents.

4. Describe how your project will improve health care quality, increase health care value, or improve health outcomes for Colorado residents.<sup>2</sup>

By better understanding the impact of the Colorado Option, policies can continue to be implemented to provide more Colorado residents access to health care at a low-cost. The hope is that increasing accessibility and affordability will lead to healthier Colorado residents who need less costly health care services in the future.

5. Health equity is defined as the state in which everyone has a fair and just opportunity to attain their highest level of health. Explain how your project addresses health equity.

We will analyze differences in enrollment, premiums, and out-of-pocket spending by gender, race/ethnicity, urban/rural, and language. We will also evaluate utilization of essential community providers and other providers within their community, like community health workers or promotoras.

6. Describe any publication you plan to develop based on your use of CO APCD data, its intended audience, and whether it will be made publicly available.

We will submit an evaluation report to the CO Division of Insurance, and they will post the report on their website, which is available to the public. The report will include project background, methods, and results.

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<sup>2</sup> It is a statutory requirement for all non-public releases of CO APCD data to benefit Colorado or its residents. Contributions to generalizable knowledge alone are not sufficient to satisfy this requirement.

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## Data Matching and Linkage

### Finder File

A Finder File is a file you submit to CIVHC with information about a pre-selected cohort for matching to CO APCD data. Ask your CIVHC Contact for more information about this process and requirements for Finder File submission.

Will you provide CIVHC with a Finder File as part of this project?

- ☒ No  
☐ Yes

### Member Match File

A Member Match File is a file that CIVHC creates on your behalf to send to a registry or other outside entity to create a crosswalk connecting data from the CO APCD to the other entity's data.

Does this project require the creation of a Member Match File?

- ☒ No  
☐ Yes. Consult with your CIVHC Contact about completing a separate Data Element Selection Form specifying the data elements that should be used to create the Member Match File.

Answer the following:

Who will receive the Member Match File?

### Control Group

A Control Group is a group of individuals who can be used to compare against the cohort identified in the Finder File.

Will you need CIVHC to create a Control Group as part of this project?

- ☒ No  
☐ Yes. Consult with your CIVHC Contact about completing a separate Control Group Data Element Selection Form specifying the data elements that should be used to define the Control Group.



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### Linkage

Data Linkage is a method of joining data from different sources together to create a new data set.

Will the CO APCD data be linked to another data source?

- ☐ No
- ☒ Yes. Answer the following:

What is/are the other data source/s?
This will only be necessary if the claims do not correctly or fully identify Colorado Option enrollees appropriately. DOI will request data from carriers for each member enrolled each CO Option plan they offer, carriers will have to provide DSG element ME011 to DOI and whether that enrollee was in a Colorado Option plan and what the enrollment span was.
Who will perform the data linkage?
Mathmatica will perform the linkage based on the APCD claims/ member eligibility and DOI provided data on the member ID
What identifying data elements will be used to perform the data linkage?
None – Member ID is de-identified and is the payer-generate alphanumeric unique ID code.
What non-CO APCD data elements will appear in the new linked file?
The file will only have a crosswalk to determine which members are enrolled in Colorado Option plans and non-Option plans.



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### Data Inclusion Criteria

Make selections in the following sections based on what data you want to have included in this extract. If you will be creating a Control Group, complete this section for your study population and not the Control Group.

#### Protected Health Information (PHI)

Indicate which [Protected Health Information](#) data elements you require for your project purpose:

Available for Limited and Identifiable extracts:		
<input checked="" type="checkbox"/> Member 5-Digit Zip Code	<input checked="" type="checkbox"/> Member County	<input type="checkbox"/> Member City
<input checked="" type="checkbox"/> Member Dates of Service	<input checked="" type="checkbox"/> Member Eligibility Dates	<input type="checkbox"/> Claim Paid Dates
<input type="checkbox"/> Employer Name	<input checked="" type="checkbox"/> Member <a href="#">Census Tract</a>	<input type="checkbox"/> Member <a href="#">Census Block</a>
<input type="checkbox"/> Member <a href="#">Census Block Group</a>		
Available for Identifiable extracts only (see also <a href="#">Identifiable Data Use Approval</a> ):		
<input type="checkbox"/> Member Name	<input type="checkbox"/> Member Date of Birth (if requesting more than year only)	
<input type="checkbox"/> Member Street Address	<input type="checkbox"/> Member Latitude and Longitude	
Provide detailed justification for the inclusion of all PHI data selected above, and explain how its inclusion meets the <a href="#">Minimum Necessary Requirement</a> . <sup>3</sup>		
<p>Member 5-Digit Zip Code: We will use member 5-digit zip code to compare utilization across geographies, including assessing utilization and expenditures within specific hospital/carrier combinations including CO Option enrollee access to hospitals with reduced reimbursement rates through the program and how many enrollees have access to these hospitals in their networks.</p> <p>Member County: We plan to use county to map members to a DOI Rating Area.</p> <p>Member Dates of Service: To complete our impact evaluation, we need to know which year the member received particular services and how soon after enrolling in a plan they used the service</p>		

<sup>3</sup> Limited and Identifiable extracts must adhere to the [Minimum Necessary Requirement](#) under the [HIPAA Privacy Rule](#); only that data required to answer the project purpose can be included in the request.

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Member Eligibility Dates: As a part of our evaluation, we are tracking changes to enrollment

Member Census Tract: We will use census tract to merge on ACS data to enhance our culturally responsive provider network analysis. By assessing demographics at this granular of a level, we will have additional insight into enrollee demographics, which in combination with other data from the DOI, and our key informant interviews will help provide insight into what the culturally responsive networks should look like for Colorado Option enrollees and help to assess whether carriers have achieved these these network standards.

### Line(s) of Business

- ☒ Commercial Payers
- ☐ Health First Colorado (Colorado's Medicaid and CHP+ programs)<sup>4</sup>
- ☐ Medicare Advantage
- ☐ Medicare Fee for Service (FFS)<sup>5</sup>

### Year(s) of Data

- |   |                               |  |  |  |  |
|---|-------------------------------|--|--|--|--|
| <input type="checkbox"/> 2012                         | <input type="checkbox"/> 2013 | <input type="checkbox"/> 2014            | <input type="checkbox"/> 2015            | <input type="checkbox"/> 2016            | <input type="checkbox"/> 2017            |
| <input type="checkbox"/> 2018                         | <input type="checkbox"/> 2019 | <input checked="" type="checkbox"/> 2020 | <input checked="" type="checkbox"/> 2021 | <input checked="" type="checkbox"/> 2022 | <input checked="" type="checkbox"/> 2023 |
| <input checked="" type="checkbox"/> 2024 <sup>6</sup> |                               |  |  |  |  |

### Claim Type(s)

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Inpatient Facility | <input checked="" type="checkbox"/> Outpatient Facility | <input checked="" type="checkbox"/> Professional |
| <input checked="" type="checkbox"/> Pharmacy           | <input type="checkbox"/> Dental                         |  |

### Financial Detail by Line Item

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Charged Amount       | <input checked="" type="checkbox"/> Allowed Amount         | <input checked="" type="checkbox"/> Plan Paid Amount  |
| <input checked="" type="checkbox"/> Plan Pre-Paid Amount | <input checked="" type="checkbox"/> Member Copay           | <input checked="" type="checkbox"/> Member Deductible |
| <input checked="" type="checkbox"/> Member Coinsurance   | <input checked="" type="checkbox"/> Total Member Liability |   |

<sup>4</sup> Medicaid-only data requests must be approved by the Colorado Department of Health Care Policy and Financing.

<sup>5</sup> Medicare FFS data are not available for all requests and must go through a separate approval process.

<sup>6</sup> This year's data is incomplete and not fully adjudicated. Consult with your CIVHC Contact to find out what data is available at the time of your request.

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### Filter Criteria – Services, Providers, Facilities

If you need data for specific services, providers and/or facilities, specify that filter criteria below (ask your CIVHC Contact about including an additional file with this application for large code lists):

ICD Diagnosis Code(s):
Procedure(s) (list CPT, HCPCS, DRG, ICD, and/or CDT codes):
Drug(s) (list pharmacy NDC and/or HCPCS codes):
Facility Type(s):
Facilities (list NPIs and/or Pharmacy IDs):
Facilities within these geographical areas (list county, zip code, <a href="#">Census Tract</a> , etc.):
Provider Type(s):
Provider(s) (list NPIs):
Providers within these geographical areas (list county, zip code, <a href="#">Census Tract</a> , etc.):
Specific payers (minimum of five):

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### Other claim specification:

If Colorado Option enrollees are not completely or fully identified in the claims/eligibility files, data linkage from DOI/carrier supplied information on enrollees will be necessary. The entire commercial population should be included to ensure that all Colorado Option enrollees are included and correctly identified in the data.

### Filter Criteria – Members/Patients

If you need data for specific member/patient groups, specify that filter criteria below (ask your CIVHC Contact about including an additional file with this application for large code lists):

Ages:		
<input type="checkbox"/> At the time of service	<input type="checkbox"/> At year end	<input type="checkbox"/> By another anchor date: <i>Specify here</i>
With these ICD Diagnosis Code(s):		
Who have had the following procedure(s) (list CPT, HCPCS, DRG, ICD, and/or CDT codes):		
Within these geographical areas (list county, zip code, <a href="#">Census Tract</a> , etc.):		

### Value-Add Data Elements

- ☐ [Medicare Severity Diagnosis Related Group](#) Codes (MS-DRGs)
- ☐ [3M All Patient Refined Diagnosis Related Group](#) Codes (3M APR DRGs)
- ☐ [Medicare Repricer](#) (available at the claim line level)
- ☐ Fields from the [American Community Survey](#) (available at the Census Tract level):

*Specify here*

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## Additional Documentation

### Data Element Selection Form (DESF)

The Data Release Application must be accompanied by a completed Data Element Selection Form. Ask your CIVHC Contact for more information about completing this form.

- ☒ By checking this box, the Client Organization confirms that the Data Element Selection Form has been completed.
- ☐ If applicable, by checking this box the Client Organization confirms that a separate Member Match File Data Element Selection Form has been completed.
- ☐ If applicable, by checking this box the Client Organization confirms that a separate Control Group Data Element Selection Form has been completed.

### Identifiable Data Use Approval

If you are requesting [Identifiable](#) information, approval from an [Institutional Review Board \(IRB\)](#) or a [Privacy Board](#) is required before such data can be released.

- ☒ Not applicable; the Client Organization is requesting a Limited Extract.

### Approval Type

- ☐ IRB Approval
- ☐ Privacy Board Approval

### Approval Type

- ☐ Approval request not yet submitted.  
Anticipated submission date:
- ☐ Approval request submitted and under review.  
Anticipated project approval date:
- ☐ Approval already received.

### Approval Documentation

- ☐ By checking this box, the Client Organization confirms that the IRB or Privacy Board **application and approval documents** have been provided to CIVHC.

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### Data Management Plan

An organization requesting CO APCD data must submit an organizational Data Management Plan to CIVHC outlining the organization’s data security and data management policies and procedures to safeguard the data. This Data Management Plan must be approved by CIVHC prior to any data release.

Date Submitted to CIVHC:	8/5/2024
Date Approved by CIVHC:	8/15/2024

## Client Acknowledgements and Signatures

### Report or Product Distribution

If your project results in the production of a report for public distribution in any format (print, electronic, lecture, slides, etc.), including peer-reviewed publication, it must be submitted to CIVHC for review prior to public release. CIVHC will assess compliance with [CMS Cell Size Suppression Policy](#), risk of inferential identification, CIVHC and CO APCD citations, and consistency with the purpose and methodology described in this Data Release Application. CIVHC will not assess the accuracy of the study results or attempt to recreate results.

This requirement is further defined in the Data Use Agreement. Failure to pursue and obtain CIVHC approval prior to publication will be a violation of the Data Use Agreement and may put the organization’s future access to data from the CO APCD at risk.

☒ By checking this box, the Client Organization acknowledges this requirement.

### Data Destruction Period

All data must be destroyed within 30 days of the project end date. If your project end date changes from this application, please reach out to your CIVHC Contact for a project extension request form.

☒ By checking this box, the Client Organization acknowledges that CIVHC’s [Data Destruction Certificate](#)<sup>7</sup> must be completed and returned to [DataCompliance@CIVHC.org](mailto:DataCompliance@CIVHC.org) by 8/30/2026 based on the [Anticipated Project End Date](#).

<sup>7</sup> Available on the [Data Release Application and Documents](#) page of CIVHC’s website under *Privacy, Security, and Regulatory Information*.

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### Data Users

List any individuals that will be working with the data. The Data Use Agreement must be updated through your CIVHC Contact every time individuals are granted access to the data during the course of the project.

Full Name	Title/Role	Organization
Alyssa Evans	Senior Data Scientist	Mathematica
Ian Huff	Senior Data Scientist	Mathematica



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### Data Release Application Version Approvals

The Client Organization has reviewed and confirms that the final version number of the Data Release Application reflected below correctly represents the project objectives.

Version	Checkpoint
V.01	Presented at CIVHC Application Review
V.03	Presented to the Data Release Review Committee (DRRC)
V.03	Final version approved for production

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:	<div>Signed by:  219CE029057E4AB...</div>	Signature:	<div>Signed by:  4BBC05019FCE47D...</div>
Name:	Amanda Kim	Name:	Kate Davidson
Title:	Director of Colorado State Initiatives	Title:	Insurance Data Science Manager
Date:	12/23/2024	Date:	12/23/2024

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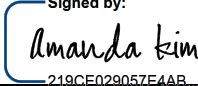

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### Data Element Selection Form Version Approvals

The Client Organization has reviewed and confirms that the final version number of the Data Element Selection Form reflected below correctly represents the data specifications needed to meet the project objectives.

Version	Checkpoint
V.02	Presented at CIVHC Application Review
V.04	Presented to the Data Release Review Committee (DRRC)
V.04	Final version approved for production

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:	<div>Signed by:  219CE029057E4AB</div>	Signature:	<div>Signed by:  4BBC05019ECE47D</div>
Name:	Amanda Kim	Name:	Kate Davidson
Title:	Director of Colorado State Initiatives	Title:	Insurance Data Science Manager
Date:	12/23/2024	Date:	12/23/2024