



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)
11/19/2024	V.01	Initial version drafted with client.	Lucía Sanders, Key Account Manager
12/16/2024	V.02	Updated publication/release date, added background and context to project purpose, clarified Linkage section.	Lucía Sanders, Key Account Manager
12/18/2024	V.03	Corrected requested project deliver date. Removed request for member city.	Lucía Sanders, Key Account Manager
	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:	Care patterns and outcomes of patients with substance use disorders in the UCHealth system
Application Start Date:	10/25/2024
Requested Project Delivery Date:	3/15/2025
Client Organization (legal name):	University of Colorado School of Medicine
Client Organization Address:	12401 East 17th Avenue, 4th floor
CIVHC can publicly share the Client Organization's name in its Change Agent Index .	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
To be completed by CIVHC staff	
CIVHC Contact (full name, complete title):	Lucía Sanders, Key Account Manager
Project Number:	25.11
Condensed Project Title:	SUD Patterns Outcomes

Project Contacts

Project Contact Name:	Eden Bernstein
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Phone Number:	

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Data Use Agreement Signatory:	Chrissy Alexander
Title:	Senior Purchasing Agent
Email:	chrissy.alexander@cu.edu
Phone Number:	303-764-3472

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Project Schedule and Purpose

Proposed Project Start Date ¹ :	12/1/2024
Anticipated Project End Date:	12/1/2029
Proposed Publication or Release Date:	1/1/2026

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.

¹ 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.

Mortality due to substance use disorder has surged in recent decades, and substance use hospitalizations are on the rise.^{1,2} In addition to adults, adolescents are also highly vulnerable to substance use disorders though are understudied.³ Unfortunately, most patients with substance use disorders do not receive evidence-based treatments and significant disparities in access to treatment has been previously described.⁴⁻⁶ Inpatient hospitalizations and outpatient visits where substance use is documented present opportunities to engage patients with treatment. Describing these care patterns in a large hospital system is needed to inform future interventions to improve care of patients with substance use disorders. A large proportion of patients with substance use disorders are insured by Medicaid, including almost one in 10 beneficiaries over the age of 18.⁷ Substance use disorders lead to high healthcare utilization. Medicaid insured nearly one in three hospitalized patients with substance use disorders¹ which contributes to substantial public healthcare expenditure. Understanding care gaps in substance use disorder treatment among patients in the UCHealth system will inform efforts to improve the quality of care and health outcomes experienced by Colorado residents with substance use disorder and reduce healthcare costs for Medicaid beneficiaries.

References:

1. Suen LW, Makam AN, Snyder HR, et al. National Prevalence of Alcohol and Other Substance Use Disorders Among Emergency Department Visits and Hospitalizations: NHAMCS 2014–2018. *J GEN INTERN MED*. 2022;37(10):2420-2428. doi:10.1007/s11606-021-07069-w
2. Tori ME, Laroche MR, Naimi TS. Alcohol or Benzodiazepine Co-involvement With Opioid Overdose Deaths in the United States, 1999-2017. *JAMA Netw Open*. 2020;3(4):e202361. doi:10.1001/jamanetworkopen.2020.2361
3. Volkow ND, Han B, Einstein EB, Compton WM. Prevalence of Substance Use Disorders by Time Since First Substance Use Among Young People in the US. *JAMA Pediatrics*. 2021;175(6):640-643. doi:10.1001/jamapediatrics.2020.6981
4. Han B, Jones CM, Einstein EB, Powell PA, Compton WM. Use of Medications for Alcohol Use Disorder in the US: Results From the 2019 National Survey on Drug Use and Health. *JAMA Psychiatry*. 2021;78(8):922-924. doi:10.1001/jamapsychiatry.2021.1271
5. Barnett ML, Meara E, Lewinson T, et al. Racial Inequality in Receipt of Medications for Opioid Use Disorder. *New England Journal of Medicine*. 2023;388(19):1779-1789. doi:10.1056/NEJMs2212412

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6. Samples H, Nowels MA, Williams AR, Olsson M, Crystal S. Buprenorphine After Nonfatal Opioid Overdose: Reduced Mortality Risk in Medicare Disability Beneficiaries. Am J Prev Med. 2023;65(1):19-29. doi:10.1016/j.amepre.2023.01.037

7. Substance Use Disorders | Medicaid. Accessed December 2, 2024. <https://www.medicaid.gov/medicaid/benefits/behavioral-health-services/substance-use-disorders/index.html>

Individual research questions:

We aim to describe utilization of medications, behavioral treatment, and access to care as well as hospital admissions and mortality for patients with substance use disorders (alcohol, opioid, benzodiazepine, cannabis, tobacco, and stimulants) in the UCHHealth system.

Aim 1: Describe the use of medications, behavioral treatment, use of outpatient treatment services, hospitalizations, and mortality as well as associated costs among patients with a substance use disorder hospitalization.

Aim 2: Describe the use of medications, behavioral treatment, use of outpatient treatment services hospitalizations, and mortality as well as associated costs among patients with a substance use disorder outpatient visit.

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 conduct a retrospective cohort study. A finder file of encounters with substance use disorder diagnoses at UCHHealth will be obtained from Health Data Compass from 2019 to 2024. The finder file will be sent to CIVHC for linkage with all payer claims data. Additionally, we will supplement all payer claims data with EHR data from Health Data Compass and mortality data through the CDPHE death registry. The American Community Survey and Area Deprivation Index will be used to describe additional geographic and socioeconomic characteristics based on patient census tract.

All-payer claims data will be critical to answering our proposed research questions. Medication data (including pharmacy fills and administration through CPT codes) are needed to track the use

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of recommended treatments for substance use disorders (e.g. naltrexone, buprenorphine, methadone, naloxone, etc.) and the co-use of high risk medications (e.g. opioids, benzodiazepines). Encounter data are needed to account for behavioral treatment such as therapy or other specialty addiction treatment as well as negative outcomes such as hospitalizations and emergency room visits. In addition, because cost is a major driver of treatment access, we will need to account for patient cost and how they were paid (e.g. as a part of a deductible, coinsurance, etc.).

3. Explain how this project will benefit Colorado and its residents.²

Understanding care delivery for substance use disorders will inform future interventions to improve access to evidence-based and equitable treatment available to Colorado residents.

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

Patients with substance use disorders often do not receive evidence-based treatments. This study will describe care delivery to inform health systems leaders and clinicians about opportunities to improve uptake of equitable care.

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 evaluate patient-level factors such as race/ethnicity, type of insurance, and geographic variables to account for sociodemographic factors that affect access to treatment and health outcomes.

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 disseminate our findings directly to UHealth clinicians and administrative leadership to inform quality improvement efforts and to the broader scientific and medical community through peer-reviewed publications.

² 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?
EHR data from Health Data Compass, CDPHE Vital Statistics Death Registry, American Community Survey (ACS), Area Deprivation Index (ADI)
Who will perform the data linkage?
Division of Hospital Medicine Data Team – Eric Grimm Health Data Compass will send member match file to CDPHE Vital Statistics for matching against death registry
What identifying data elements will be used to perform the data linkage?
Full name, SSN, DOB
What non-CO APCD data elements will appear in the new linked file?
EHR data from Health Data Compass, date and cause of death (from CDPHE), social determinants of health (ACS and ADI)

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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 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 Census Tract	<input checked="" type="checkbox"/> Member Census Block
<input checked="" type="checkbox"/> Member Census Block Group		
Available for Identifiable extracts only (see also Identifiable Data Use Approval):		
<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 Minimum Necessary Requirement . ³		
<p>We will need geographic variables (5-digit zip, census tract/block/group) to account for important area-based social determinants of health that influence care delivery and outcomes, as we plan to use these data for linkage with American Community Survey (ACS) and Area Deprivation Index data.</p> <p>We will need eligibility dates and dates of service because temporal relationships are crucial for our longitudinal analysis. For example, we will need to account for whether patients were enrolled in insurance during lookback windows (to assess for prior healthcare utilization) as well as following healthcare encounters such as hospitalizations.</p>		

³ 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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Line(s) of Business

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

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 checked="" 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 ⁶ | | | | | |

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 type="checkbox"/> Charged Amount | <input checked="" type="checkbox"/> Allowed Amount | <input checked="" type="checkbox"/> Plan Paid Amount |
| <input 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 | |

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

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

⁶ 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, Census Tract , etc.):
Provider Type(s):
Provider(s) (list NPIs):
Providers within these geographical areas (list county, zip code, Census Tract , etc.):
Specific payers (minimum of five):

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Other claim specification:

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:		
All claims for patients in finder file		
<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, Census Tract , 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:	
Date Approved by CIVHC:	

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](#)⁷ must be completed and returned to DataCompliance@CIVHC.org by 12/31/2029 based on the [Anticipated Project End Date](#).

⁷ 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
Eric Grimm	Data analyst	CU Division of Hospital Medicine
Eden Bernstein	PI	CU Division of Hospital Medicine

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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.03	Presented at CIVHC Application Review
V.03	Presented to the Data Release Review Committee (DRRC)
V.00	Final version approved for production

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:		Signature:	
Name:	Lucía Sanders	Name:	Eden Bernstein
Title:	Key Account Manager	Title:	Assistant Professor
Date:		Date:	

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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.04	Presented at CIVHC Application Review
V.04	Presented to the Data Release Review Committee (DRRC)
V.00	Final version approved for production

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:		Signature:	
Name:	Lucía Sanders	Name:	Eden Bernstein
Title:	Key Account Manager	Title:	Assistant Professor
Date:		Date:	