

CENTER FOR IMPROVING

Data Release Application Limited and Identifiable Extract

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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		
10/1/2023	V.01	Initial version drafted with client.	Eddy Costa, Sr. Health Data Consultant		
10/15/2023	V.02	Update PI justification	Eddy Costa, St. Health Data Consultant		
11/8/2023	V.03	Transposed V.02 to new CIVHC form. Removed references to linkage of APCD data with cancer registry or vital records. Updated CIVHC contact. Updated filter criteria. Updated to no control group creation by CIVHC required. Confirmed age at time of service included in DESF, and filter criteria is age at year end.	Lucía Sanders, Key Account Manager		
Date	V.04	Click or tap here to enter text.	Name, Title		
Date	V.05	Click or tap here to enter text.	Name, Title		
Date	V.06	Click or tap here to enter text.	Name, Title		
Date	V.07	Click or tap here to enter text.	Name, Title		
Date	V.08	Click or tap here to enter text.	Name, Title		
Date	V.09	Click or tap here to enter text.	Name, Title		
Date	V.10	Click or tap here to enter text.	Name, Title		
Date	V.11	Click or tap here to enter text.	Name, Title		
Date	V.12	Click or tap here to enter text.	Name, Title		
Date	V.13	Click or tap here to enter text.	Name, Title		
Date	V.14	Click or tap here to enter text.	Name, Title		
Date	V.15	Click or tap here to enter text.	Name, Title		

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Data Requestor Details

General Project Details

Project Title:	Comparing Utilization, Outcomes, and Choice between VHA and non-VHA Health Care Systems			
Application Start Date:	4/1/2022			
Requested Project Delivery Date:	1/19/2024			
Client Organization:	Trustees of Boston University			
Client Organization Address:	Talbot Building, 2W, 715 Albany Street, Boston, MA 02118			
To be completed by CIVHC staff				
CIVHC Contact:	Lucía Sanders			
Project Number:	22.20			
Condensed Project Title:	VA Utilization Outcomes			

Project Contacts

Project Contact Name:	Christine Yee		
Title:	Economist / Research Scientist		
Email:	yeec@bu.edu		
Phone Number:	702-538-8739		
Analytic Contact Name:	Christine Yee		
Title:	Economist / Research Scientist		
Email:	yeec@bu.edu		
Phone Number:	702-538-8739		
Invoice Contact Name:	Christine Yee		
Title:	Economist / Research Scientist		
Email:	yeec@bu.edu		
Phone Number:	702-538-8739		

Data Release Fee Signatory

Name:	Steven Pizer
Title:	Professor of Health Law, Policy and Management
Email:	pizer@bu.edu



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Data Use Agreement Signatory

Name:	Steven Pizer
Title:	Professor of Health Law, Policy and Management
Email:	pizer@bu.edu



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Project Schedule and Purpose

Proposed Project Start Date ¹ :	1/19/2024
Anticipated Project End Date:	12/31/2029
Proposed Publication or Release Date:	1/15/2030

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.

The project will compare utilization patterns, outcomes, and costs among patients based on their health coverage. Specifically, the aims are to:

1. Compare utilization patterns among patients who receive services in the traditional VHA system and patients who receive services from private providers, which may be covered by MFFS, Medicare, Medicare Adv., Medicaid, Commercial insurance, or the VHA under the Community Care program implemented under the Choice and MISSION Acts of 2014 and 2018. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6973037/

2. Compare outcomes and utilization among patients treated at VHA medical centers that implemented various policy and operational structures, patients at non-VHA medical centers that implemented similar policies and structures, and patients at non-VHA medical centers that did not implement any such policies or structures. Examples of policies and structures include virtual or telehealth technologies and policies, COVID-19 related policies, and Choice and MISSION Acts.

3. To the extent possible, examine factors associated with patient choice of provider and health coverage and evaluate the share of services covered by various types of payers and whether this has changed (and if there is crowd out) due to the Choice and/or MISSION Acts of 2014 and 2018.

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.

Using the CO APCD data, investigators will develop measures that quantify utilization, outcomes, and choice. Examples include readmission rates, emergency department admissions, episode durations, mortality rates, surgery rates, office visit rates, prescription drug usage, transfer rates (e.g., from ICU to skilled nursing facilities), and cost of services to treat an episode. The investigators will use regression analyses to compare these measures across VHA and non-VHA health care systems using statistical software, such as SAS, Stata, and/or R. The analyses will compare areas with a larger veteran population to areas with a lower population of veterans.

¹ After all required documents have been signed and the Data Release Review Committee has approved the project, 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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Some of the analyses will characterize measures by provider. Hence, we need to include all members in the areas specified (by zip codes where veterans reside) and all members who have been patients of providers who have treated a member residing in specified areas. The analyses will control for many factors that may lead to differences in utilization, outcomes, and choice. Factors include local socioeconomic factors, demographics, practice patterns, health plan information, provider characteristics, and health care market characteristics. These factors will be derived from publicly available data, which will be merged to the CO APCD data using zip codes, counties, and other geographic identifiers.

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

The project will benefit Colorado's stakeholders because it will shed light on the similarities and differences between several types of health care systems. It will evaluate utilization, choice, and outcomes among patients under different systems in the state of Colorado. This is important for both public and private stakeholders, especially those focused on implementing value-based care. For example, payers may be interested in knowing the changes in utilization among their beneficiaries that are associated with changes in switching from traditional fee-for-service to global-budget payments or vice versa. Ultimately, this may lead to lower costs for health care and/or improvement in quality.

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

Improve quality: The project will examine differences in quality metrics between the types of health care systems. If quality varies by system type, this may encourage payers and providers to alter their contracting so as to yield the highest quality care per dollar spent.

Improve health: The project will examine whether patient outcomes differ based on where patients receive care and who pays for the care. If there are differences, this may encourage restructuring contracts so that health may be improved for the patients in Colorado.

Lower cost: The project will examine utilization differences between different types of health care systems. Each type of health care system is associated with different costs to providing services. The findings could be extrapolated to suggest which type of system may achieve lower costs and may be more efficient in achieving certain patient outcomes.

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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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.

The project will examine differences and similarities between several health care systems. To the extent that the investigators identify certain factors that yield better outcomes or lower costs, the findings will be used to improve health care systems so that everyone can attain their highest level of health.





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 <u>Member Match File Data Element</u> <u>Selection Form</u>. Answer the following:

Who will receive the Member Match File?

Please specify here.

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 to create a Control Group as part of this project?

🛛 No

□ Yes. Consult with your CIVHC Contact about completing a <u>Control Group Data Element</u> <u>Selection Form</u>.

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

 \boxtimes Yes. Answer the following:

What is (are) the other data source(s)?



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Project investigators will link the CO APCD to several other databases by zip code (or other geographic identifier) and month (or other unit of time). The other databases provide local area health, demographic, and economic characteristics. They include the Area Health Resource File, data from the Bureau of Labor Statistics, data from the VHA (to which the principal investigator already has access), and potentially other public data sources. For certain research questions, we may also link to VHA data using NPI, if feasible with the data.

Who will perform the data linkage?

Investigators

What identifying data elements will be used to perform the data linkage?

Zip Code, County, Month (based on Date Variables), NPI

What non-CO APCD data elements will appear in the new linked file?

Data elements from the Area Health Resource File, the Bureau of Labor Statistics, the VHA, NPPES, and potentially other public data sources.



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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

Indicate which Protected Health Information data elements you require for your project purpose:

Available for Limited and Identifiable extracts:				
🛛 Member 5-Digit Zip Code	Member <u>Census Tract</u>	🛛 Member County		
🛛 Member City	🛛 Member Eligibility Date 🖾 Employer Tax ID			
Member Dates of Service				
Available for Identifiable extrac	ts only (see also <u>Identifiable Data</u>	u Use Approval):		
Member Name	□ Member Date of Birth (if req	uesting more than year only)		
Member Geocoded Address	Member Geocoded Latitude	and Longitude		
Provide detailed justification fo its inclusion meets the Minimu	r the inclusion of all PHI data sele <u>m Necessary Requirement</u> . ³	ected above, and explain how		
 Member 5-Digit Zip Code is necessary to identify the sample and control for zip-level factors that may impact utilization or choice of provider. Zip codes will also be used to create patient distance to providers. It is important to control for a wide variety of measures to reduce confounding explanations for differences in utilization and choice. Member City is necessary to control for city-level factors that may impact utilization or choice of provider. It is also necessary to assist in merging public use data that will provide more control measures. 				
- Member Census Tract is necessary to control for tract-level factors that may impact utilization or choice of provider. It is also necessary to assist in merging public use data that will provide more control measures.				
 Member County is necessary to control for county-level factors that may impact utilization or choice of provider. It is also necessary to assist in merging other data that will provide more control measures and measures of interest. 				
- Employer Tax ID is necessary for two reasons; 1) to control for employment differences as it pertains to health care coverage and offerings and employer-plan changes, which can impact				

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



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utilization as it takes members time to understand their new plans, and 2) to control for the work environment, which impacts use of services. Members who work at employers that have flexible work environments, for example, are more likely to have medical treatment relative to employers who do not. This is particularly important during and after COVID.

- Member Dates of Service are necessary to create outcome measures, such as mortality within a certain number of days of admission or discharge, readmission rates, episode duration, length of stay, etc.

- Member Eligibility Date is necessary to understand member insurance coverage and enrollment, which can impact utilization and choice of provider.

- Although we do not need date of birth (so we did not mark above), we do need patient age at time of service.

- The analysis requires Dental data. VHA covers dental services. While not a large fraction of services, this is potentially a service in which the VHA has used more community care relative to other services, even prior to the Choice and MISSION Acts. We would like to evaluate dental services on their own, but also it potentially can serve as a control group in the sense that dental may not have been impacted by the Choice and MISSION Acts as much as other services have been.

- The analysis requires going back to 2012 to provide enough time periods prior to the Choice Act, which was enacted in 2014.

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

⊠ 2012	⊠ 2013	⊠ 2014	⊠ 2015	⊠ 2016	🛛 2017
⊠ 2018	2019	⊠ 2020	⊠ 2021	⊠ 2022	⊠ 2023 ⁶
Claim Types					
🛛 Inpatient	Facility	🛛 Outpatier	nt Facility	⊠ Profession	nal

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. Consult with your CIVHC Contact to find out what data is available at the time of your request.



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⊠ Pharmacy

🛛 Dental

Financial Detail by Line Item

- Allowed Amount ⊠ Charged Amount
- Plan Pre-Paid Amount
- Member Copay
- Plan Paid Amount
- Member Deductible

 Member Coinsurance Total Member Liability

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):

		0			0	/
ICD Diagno	osis Code(s):					
Please spec	ify here.					
Procedure	(s) (list CPT, HC	PCS, DRG, ICD,	and/or CD	T codes):		
Please spe	cify here.					
Drug(s) (lis	st pharmacy ND	OC and/or HCPC	CS codes):			
Please spe	cify here.					
Facility Ty	pe(s):					
Please spe	cify here.					
Facilities (I	list NPIs and/or	Pharmacy IDs):			
Please spe	cify here.					
Facilities w	vithin these geo	ographical area	s (list count	ty, zip code	, <u>Census Tract</u>	<i>,</i> etc.):
Please spe	cify here.					
Provider T	ype(s):					
Please spe	cify here.					
Provider(s) (list NPIs):					
Please spe	cify here.					
			<i>///</i>			

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Please specify here.	
Specific payers (minimum of five):	
Please specify here.	
Other claim specification:	
Please specify here.	

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:					
18 years of age and older					
$\hfill\square$ At the time of service.	🛛 At year end	□ By another anchor date:			
		Please specify here.			
With these ICD Diagnosis	Code(s):				
Please specify here.					
Who have had the follow codes):	ring procedure(s) (list CPT,	HCPCS, DRG, ICD, and/or CDT			
Please specify here.					
Within these geographical areas (list county, zip code, <u>Census Tract</u> , etc., in keeping with your selected <u>Protected Health Information</u>):					
All members residing in zip codes listed on Member Zip tab of DESF, AND all members with claims from a provider who has treated members residing in zip codes listed on Member Zip tab of DESF.					
The Member Zip tab of the DESF lists all zip codes in which veterans reside. To answer our research questions, we need all members residing in zip codes listed and all patients (members) of any provider who has treated a member residing in zip codes listed in the Excel File. The purpose of the second half is to ensure a representative sample for characterizing a provider's treatment pattern. This is important to mitigate bias in our analysis.					

Value-Add Data Elements

Indicate which (if any) of the following value-add options you would like included with this extract:

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- Medicare Severity Diagnosis Related Group Codes (MS-DRGs)
- ☑ <u>3M All Patient Refined Diagnosis Related Group</u> Codes (3M APR DRGs)
- Medicare Repricer
- □ Fields from the <u>American Community Survey</u>:

Please specify here.





Additional Documentation

Data Element Selection Form

The Data Release Application must be accompanied by a completed Data Element Selection Form to be reviewed internally and by the Data Release Review Committee. 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.

□ By checking this box, the Client Organization confirms that a separate <u>Member Match File</u> <u>Data Element Selection Form</u> 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, if applicable.

Identifiable Data Use Approval

If you are requesting <u>Identifiable</u> information, approval from an <u>Institutional Review Board (IRB)</u> or a <u>Privacy Board</u> 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

State of Approval

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

- Submitted to CIVHC on 9/12/2023
- □ Approved by CIVHC on Date

Client Acknowledgements and Signatures

Change Agent Index

CIVHC can publicly share the Client Organization's name in its Change Agent Index.

🖾 Yes 🗌 No

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 <u>CMS cell suppression rules</u>, 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.

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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.

 \boxtimes By checking this box, the Client Organization acknowledges that CIVHC's <u>Data Destruction</u> <u>Certificate</u>⁷ must be completed and returned to <u>DataCompliance@CIVHC.org</u> by 12/31/2029 based on the <u>Anticipated Project End Date</u>.

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.

Name	Role	Organization
Christine Yee	PI	Boston University
Eric Jacobsen	Director of Information Security	Boston University
Ryan Turcotte	IT	Boston University
Fernando Mattar	Data Analyst	Boston University
Martha Mulugeta	Data Analyst	Boston University
Timothy Jang	Research Assistant	Boston University
Farai Kuwonza	Data Analyst	Boston University
Abbie Zhang	Data Analyst	Boston University
Steven Pizer	Co-Pl	Boston University
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

⁷ Available on the <u>Data Release Application and Documents</u> page of CIVHC's website under *Privacy, Security, and Regulatory Information*.





Data Release Application Version Approvals

Checkpoint 1: Preparation for CIVHC's internal Application Review Meeting

The Client Organization has reviewed and confirms that V.03 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Initials:	LS	Initials:	CY
Name:	Lucía Sanders	Name:	Christine Yee
Title:	Key Account Manager	Title:	Economist
Date:	11/8/2023	Date:	11/27/2023

Checkpoint 2: Preparation for presentation to the Data Release Review Committee

The Client Organization has reviewed and confirms that V.03 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Initials:	LS	Initials:	CY
Name:	Lucía Sanders	Name:	Christine Yee
Title:	Key Account Manager	Title:	Economist
Date:	11/27/2023	Date:	11/27/2023

Checkpoint 3: Final approval to begin project production

The Client Organization has reviewed and confirms that V.00 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:		Signature:	
Name:	Click or tap here to enter text.	Name:	Click or tap here to enter text.
Title:	Click or tap here to enter text.	Title:	Click or tap here to enter text.
Date:	Date	Date:	Date





Data Element Selection Form Version Approvals

Checkpoint 1: Preparation for CIVHC's internal Application Review Meeting

The Client Organization has reviewed and confirms that V.07 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Initials:	LS	Initials:	CY
Name:	Lucía Sanders	Name:	Christine Yee
Title:	Key Account Manager	Title:	Economist
Date:	11/8/2023	Date:	11/28/2023

Checkpoint 2: Preparation for presentation to the Data Release Review Committee

The Client Organization has reviewed and confirms that V.08 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Initials:	LS	Initials:	CY
Name:	Lucía Sanders	Name:	Christine Yee
Title:	Key Account Manager	Title:	Economist
Date:	11/27/2023	Date:	11/28/2023

Checkpoint 3: Final approval to begin production

The Client Organization has reviewed and confirms that V.00 of this Data Release Application represents the correct details to meet the project objectives.

CIVHC Sign-Off		Receiving Organization Sign-Off	
Signature:		Signature:	
Name:	Click or tap here to enter text.	Name:	Click or tap here to enter text.
Title:	Click or tap here to enter text.	Title:	Click or tap here to enter text.
Date:	Date	Date:	Date