



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)						
11/22/2024	V.01	Initial version drafted with client.	Mason Thaxton, Health Data Consultant						
2/24/2025	V.02	Client continuation of application	Heather Tavel, Sr Manager of Research Operations						
3/7/2025	V.03	Updates incorporating CIVHC Compliance feedback.	Lucía Sanders, Key Account Manager						
3/19/2025	V.04	Updates incorporating account manager/analyst feedback	Heather Tavel, Sr Manager of Research Operations						
4/21/2025	V.05	Updates incorporating post-DRRC feedback (questions #1 and #2), removed charged and allowed amounts from variable selections.	Heather Tavel, Sr Manager of Research Operations						
	V.06								
	V.07								
	V.08								
	V.09								
	V.10								

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Data Requestor Details

General Project Details

Project Title:	APCD Master Agreement - KPCO IHR			
Application Start Date:	11/22/2024			
Requested Project Delivery Date:	6/30/2025			
Client Organization (legal name):	Institute for Health Research, Kaiser Permanente Colorado			
Client Organization Address:	16601 E Centretech Parkway, Aurora, CO 80011			
CIVHC can publicly share the Client Organization's name in its Change Agent Index .	⊠ Yes □ No			
To be completed by CIVHC staff				
CIVHC Contact (full name, complete title):	Lucía Sanders, Key Account Manager			
Project Number:	25.07			
Condensed Project Title:	Kaiser Subscription			

Project Contacts

Project Contact Name:	Heather Tavel
Title:	Senior Manager of Research Operations
Email:	Heather.M.Tavel@Kp.org
Phone Number:	303-827-1377
Analytic Contact Name:	Mark Gray
Analytic Contact Name: Title:	Mark Gray Data Specialist/SAS Programmer Sr.
,	





Invoice Contact Name:	Kelly Knight
Title:	Research Finance Manager
Email:	Kelly.L.Knight@kp.org
Phone Number:	720-948-6418
Data Release Fee Signatory:	Julie James
Title:	Director of Research Administration
Email:	Julie.P.James@kp.org
Phone Number:	720-437-1803
Data Use Agreement Signatory:	Claudia Steiner
Title:	Executive Director
Email:	Claudia.Steiner@kp.org
Phone Number:	303-903-8199

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Project Schedule and Purpose

Proposed Project Start Date ¹ :	7/1/2025
Anticipated Project End Date:	12/31/2030
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.

The Institute for Health Research, Kaiser Permanente Colorado (KPCO), has identified the value of the CO APCD and seeks to enter a subscription relationship to have identifiable (in the form of a matched limited data feed) data on KPCO's population. The Institute for Health Research (IHR) at KPCO conducts public health research on disease states, utilization, network adequacy, plan adequacy, prevention and treatment plans, and policy as well as partnering with the clinical care side of Kaiser Permanente to improve patient care and reduce health care costs. There are currently several initiatives that will benefit from having this data, and we anticipate that in the future many of our research and operational aims can benefit from the completeness that APCD data can provide in answer our research questions.

KPCO comprises two separate entities – Colorado Permanente Medical Group (CPMG), and Kaiser Health Plan (KHP). While the IHR is supported financially through the KHP, IHR partnerships with operations are focused on the improvement of clinical care, including the effect on patient cost burden or generalized health care costs; these projects are most often driven by our clinical partners.

Primary Objectives of APCD Subscription Repository at the IHR: The purpose of this repository will be to support public health research as well as TPO projects conducted by our operational partners, including but not limited to our VP of Quality and Improvement; TPO projects are most often performed in collaboration with our investigators. All KPCO research is IRB approved or determined as exempt prior to commencement of analytic work, as well as any TPO project that we partner on with operations with the intent of publishing.

Our projects cover a wide range of topics including epidemiologic and health services, pragmatic trials, and program/intervention evaluations including but not limited to those related to cardiovascular disease, cancer, diabetes, substance abuse, mental health, maternal and child health, aging, women's health, drug safety, health care policy and health services. Because many of our projects are epidemiological in nature and can be longitudinal over many years, our projects utilize member data back through 1994 and follow them through to a censor date, which

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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.

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may be death, an outcome of interest, or most relevant to the application, end of enrollment - due to the fact that without this subscription we do not have the sufficient data for further follow up. In addition, some projects will be specifically looking at the consequences of disenrollment, requiring patient data extending past KPCO membership. For this reason, we seek to maintain an I APCD registry of limited datasets provided from CIVHC for all current and former members available within the data back through 2012 as well as utilization/claims between and post enrollment to allow us to perform robust and valid public health research. Per our data management plan, no study team members will have access to the full subscription data set. Rather they will be provided data extracts for a pre-specified cohort with pre-defined time periods for any look-back or follow-up.

Below is a list of use cases that comprise both research and TPO; they are inclusive of but not limited to the types of questions that may utilize this data. Because our focus is health care services research, much of what we do is relatable and translatable to our own clinical practice. All of our research is aligned with KPCO Operations Strategic Goals and initiatives for improvement of health care for our members and the communities they live in.

Individual research questions:

i. For any TPO or research question, the fundamental use case for any question is that full capture of outcomes and exposures for all members mitigates any analytic bias related to KP members that utilizing external providers; this applies to evaluation of processes of care, exposures, outcomes, and value/cost of care for KPCO patients with chronic health conditions. This is foundational in accurate and valid TPO and research results. Other more specific use cases are as follows:

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- ii. Disenrollment and Consequences for Health, Healthcare, and Health Coverage: health insurance coverage, continuity of treatment, specialty and primary care, health outcomes, utilization.
- iii. Patient Cost Sharing/Burden and Healthcare Cost: Comparing downstream healthcare costs associated with chronic health conditions, diseases, and injuries
- iv. Benchmarking KPCO outcomes, measures, and membership to other plans and health systems
- v. External utilization among KPCO members and those who leave the Kaiser system: services and care, costs, patient outcomes. What does that care look like? Are there improvements to network, care coordination, cost, treatment outcomes?
- vi. Validating Quality Measures of care that involves KPCO and external providers.
- vii. Evaluation of community providers with clients having mixed health/insurance systems due to less stable access to continued care.
- viii. Screening/detection, diagnosis, treatment, and survivorship-related outcomes for KPCO patients with cancer compared to similar non-KPCO patients with cancer
- ix. Evaluating changes in the Colorado insurance market and associated health and health care outcomes
- x. Understand prior utilization of services to better identify patient sthat will benefit from more intensive medical management
- xi. Understand comparative utilization and cost of care for cohorts of members who enroll and disenroll from KPCO (e.g. employer groups)
- xii. Understand comparative utilization and clinical outcomes for complex members within KPCO and those who disenroll
- xiii. Comparisons of high value and low value care within KPCO as compared to outside KPCO and evaluate clinical outcomes.
- xiv. Lag changes in patient utilization effect of patient receipt/view of care billing on pursuit of care; timing of patient cost sharing based on care dates vs payment dates and total amounts billed.

Dates of service requested and requested delivery dates are as follows. The initial agreement will be for a three year period. An extension may be applied for at the end of this period.

Date of Service Date Range	Requested Delivery Date
01/01/2018-12/31/2024	6/30/2025
01/01/2025-06/30/2025	12/31/2025
07/01/2025-12/31/2025	6/30/2026
01/01/2026-06/30/2026	12/31/2026
07/01/2026-12/31/2026	6/30/2027
01/01/2027-06/30/2027	12/31/2027

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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.

Many of the analyses using this data will be longitudinal retrospective observational studies using member data going back to up to 24 years. However, some studies may also be interventional where these data are linked to recruited populations (e.g. behavioral health interventions) so that we can determine hospital-based outcomes and obtain a full set of utilization patterns.

Unless otherwise stated in specific use cases, cohorts for studies will be defined using member data within the KPCO research data warehouse. APCD data may be used to further refine the cohort (e.g. to assist in excluding based on prior evidence of an exposure or determine number of comorbidities during a lookback period for studies focusing on high risk or patients with multiple comorbididites), to fill gaps in utilization due to billing practices, or to provide the ability to follow up for adverse outcomes following disenrollment.

A variety of analytic methods may be used to analyze data used from this subscription service, ranging from descriptive analyses to complex statistical methodologies. Logistic regression, propensity scoring, predictive modeling, causal inference techniques, for example, may be used; in some cases more novel approaches may be appropriate. We have a staff of eight PhD and MS biostatisticians and epidemiologists, as well as a health economist, who consult on methodologies used and then conduct the analyses. Our organization is committed to selecting the simplest and most appropriate methodology to fit the data and study aim. Because these data are intended to be applied to multiple study aims, it is unknown at this time what methodologies may be appropriate for each analysis; it may be depended on biases present within the data based on selection criteria and specific populations with unstable insurance coverage. However, using this data may alleviate some bias due to known or unknown missingness in their utilization. In most cases this data will be linked with the electronic medical record on a project-by-project basis as approved by CIVHC to cover gaps in utilization, ensuring complete exposures, outcomes and health care costs as well as allow our research questions to be broader and more generalizable to the general Colorado population. Our request for financial detail request will be used in health economic studies to understand cost burden for members and the effects of cost sharing/highcost care on patient outcomes. All of these latter studies will be under the consultation of our PhD Health Economist.

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

There are many opportunities for the use of this data and our research to benefit Colorado and its residents, as this subscription is intended to be in use for a number of research aims within the IHR. The IHR is committed to conducting, publishing, and disseminating high quality epidemiologic and health care services research to improve the health of our members and the communities our members live in. We strive to translate our research directly into practice within our health system. In many cases we collaborate with multiple health care systems across the nation, broadening the population, to ensure that our research questions are generalizable to everyone, regardless of socioeconomic status or demographic. In addition, as one of the larger health care providers within Colorado, a significant portion of our research and operational partnership informs and improves the care delivery within KPCO, touching 500,000+ Colorado residents directly.

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

The Institute for Health Research's and KPCO's mission is to improve the health of our members as well as the communities that our members live in. This encompasses the state of Colorado due to our broad service areas, directly in line with the mission of CIVHC. All of our research and operational projects are in line with our mission to provide high quality and low cost care to all, including those with unstable social determinants of health. We aim to use this data to improve quality of care for individuals who may face gaps and transitions in their health care services due to health insurance instability or through standard health insurance practice (e.g. pediatric patients with dual parental coverage). Ensuring complete exposures and outcomes is critical to accurately inform interventions or health care services that can mitigate adverse events.

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.

This data specifically addresses utilization gaps of our most vulnerable populations, and those who may go outside of our system due to various reasons (financial concerns, HSA and high deductibles, plan flexibility, state regulatory requirements, etc.). As mentioned in question #3, we collaborate with health care organizations across the country to ensure generalizable research for all regardless of demographic or socioeconomic status.

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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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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.

Any research project using APCD data approved by CIVHC will have an ultimate deliverable of a publication per grant requirements and departmental mission. Operational use may result in publications if partnering with our research organization. Many projects may also result in direct translation into clinical practice. All publications utilizing APCD data will acknowledge CIVHC.

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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

rilider rii	data. Ask your CIVHC Contact for more information about this process and requirements for e submission.
Will you p	provide CIVHC with a Finder File as part of this project?
	No Yes
Membe	er Match File
	er Match File is a file that CIVHC creates on your behalf to send to a registry or other outside 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:
W	ho will receive the Member Match File?
W	/ho will receive the Member Match File?
W	/ho will receive the Member Match File?
Control	
Control	Group Group is a group of individuals who can be used to compare against the cohort identified in
Control A Control the Finde	Group Group is a group of individuals who can be used to compare against the cohort identified in

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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?

KPCO Virtual Data Warehouse (VDW)

Who will perform the data linkage?

KPCO IHR VDW Team

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

Crosswalk of KP Unique Identifier to CO APCD Member Composite ID, provided by CIVHC

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

The APCD-specific repository itself will only contain a data warehouse identifier and an encounter ID for records identified as being matched/duplicative between our internal warehouse and the APCD-provided data (i.e. the intersection of our data). In any individual research study, data may be linked to a variety of EMR data, including but not limited to:

- 1. Membership/Administrative data (e.g. demographics, enrollment, benefits)
- 2. Internal Clinical Utilization Systems (e.g. ambulatory encounters, oncology, disease registries, appointments, provider taxonomies)
- 3. External Utilization, Claims and Referral data (e.g. internal and external claims adjudication and billing, including denied utilization, internal and external referrals)
- 4. Ancillary Services (e.g. pathology, labs, vital signs, molecular markers, radiology, pharmacy dispenses and fills)

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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:						
	☐ Member County	☐ Member City				
☐ Employer Name						
Available for Identifiable extrac	ts only (see also <u>Identifiable Dat</u>	a Use Approval):				
☐ Member Name	☐ Member Date of Birth (if requesting more than year only)					
☐ Member Street Address	☐ 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						
Member Census Tract, Block & Block Group – These fields are necessary for us to be able to do geospatial analysis on our APCD-sourced data population.						
Member 5-digit Zip code – In cases where we don't have good census data, this would allow us to get the census tract from a zip-to-census location crosswalk – and in some cases the data are more interpretable using zip codes or the matching file for what we are wanting to link to is by Zip.						
Member Dates of Service, Claim Paid Dates – These fields allow us to determine more granular dates of cohort entry or censorship as well as time-dependent definitions (determining incidence, look back periods for comorbidities or related medications, and followup periods for outcomes, etc.) where needed.						

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.





Member Eligibility Dates – These dates allow us to create a denominated population over time, smoothing over gaps of x days as required by a specific study aim, and determine coverage for any look-back periods.

Line(s) of Busines	S							
	⊠ Medicare Ac	Colorado (Colora		Medicaid ar	nd C	HP+ program	าร) ⁴		
Year(s	s) of Data								
	⊠ 2012	⊠ 2013	\boxtimes	2014	\boxtimes	2015	\boxtimes	2016	⊠ 2017
	⊠ 2018	⊠ 2019	\boxtimes	2020	\boxtimes	2021	\boxtimes	2022	⊠ 2023
	⊠ 2024 ⁶								
Claim	Type(s)								
		acility	\boxtimes	Outpatient	Faci	lity	\boxtimes	Professiona	I
	⊠ Pharmacy			Dental					
Finan	cial Detail by	y Line Item							
	☐ Charged Ar	mount		Allowed Am	our	nt	\boxtimes	Plan Paid Aı	mount
	⊠ Plan Pre-Pa	id Amount				\boxtimes	Member De	ductible	
	⊠ Member Co	oinsurance	\boxtimes	Total Memb	er L	iability			

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

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Other claim specification:	Other claim specification:						
Filter Criteria – Members/Patio	ents						
f 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 patients in finder file							
☐ At the time of service	☐ At year end	☐ By another anchor date: Specify here					
With these ICD Diagnosis Code	(s):						
Who have had the following pr	ocedure(s) (list CPT, HCPCS, DRG	, ICD, and/or CDT codes):					
Within these geographical area	as (list county, zip code, <u>Census Tr</u>	r <u>act,</u> etc.):					
Value-Add Data Elements							
	Related Group Codes (MS-DRGs) osis Related Group Codes (3M Ale at the claim line level)						
	mmunity 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 <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.
oximes 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:	4/21/2025
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 <u>Data Destruction</u> <u>Certificate</u>⁷ must be completed and returned to <u>DataCompliance@CIVHC.org</u> by 1/30/2031 based on the <u>Anticipated Project End Date</u>.

⁷ Available on the <u>Data Release Application and Documents</u> 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
Mark Gray	Data Specialist	IHR
Andrew Jessen	Data Specialist	IHR
Glenn Goodrich	Biostatistican	IHR
Heather Tavel	Sr Manager	IHR
Ravi Zalavadia	Data Specialist	IHR
Jason Lyons	Data Specialist	IHR
James Lagrotteria	Data Specialist	IHR
Brian Hixon	Data Specialist	IHR
Artie Runkle	Data Specialist	IHR
Andrew Sterrett	Data Specialist	IHR
Diego Gomes	Data Specialist	IHR

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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.05	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:	Heather Tavel
Title:	Key Account Manager	Title:	Senior Manager of Research Operations
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.02	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 Receiv		Receiving C	ceiving Organization Sign-Off	
Signature:		Signature:		
Name:	Lucía Sanders	Name:	Heather Tavel	
Title:	Key Account Manager	Title:	Senior Manager of Research Operations	
Date:		Date:		