For Multiple-Use Case Projects



| Project Tracking | | | |
|-----------------------------------|---|--|--|
| Client Organization (legal name): | Institute for Health Research, Kaiser Permanente Colorado | | |
| CIVHC Project Number: | 25.07 | | |
| Project Title: | APCD Master Agreement – KPCO IHR | | |
| Deliverable Type: | Limited Extract | | |

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Supplement Instructions

To help clients get the most use of Colorado All Payer Claims Database (CO APCD) data, the Center for Improving Value in Health Care (CIVHC) may approve multiple use cases for a particular data extract. This form defines either of the following:

- 1. A new use case of a previously delivered extract
- 2. One of multiple planned use cases of and upcoming data delivery

The use case defined in this document may be for use of all data in the original extract or a further filtered subset of that data.

Use Case Conditions

This document serves only to define a single use case and does not represent the addition of data elements or changes to filtering from those components specified in the final version of Data Element Selection Form (DESF) approved for production and identified in the final version of the Data Release Application (DRA) of the project number above. All conditions of the Data Use Agreement (DUA) executed for the project number above apply to the use case defined in this document.

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Supplement Revision History

The following reflects the history of changes made to this document prior to its final approval by CIVHC.

| To be completed by CIVHC staff | | | | |
|--------------------------------|-----------------------|--------------------------------------|--|--|
| Date | New Version Number | Description of Change(s) | CIVHC Change Author (full name, complete title) | |
| 3/21/2025 | V.01 | Initial version drafted with client. | Lucía Sanders, Key Account Manager | |
| | V.02 | | | |
| | V.03 | | | |
| | V.04 | | | |
| | V.05 | | | |
| | V.06 | | | |
| | V.07 | | | |
| | V.08 | | | |
| | V.09 | | | |
| | V.10 | | | |

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Use Case Details

| Use Case No.: | 002 |
|----------------------|--|
| Use Case Title: | Health Insurance Instabilty and Mortality among Patients Treated for Opioid Use Disorder |
| Use Case Start Date: | 4/1/2025 |

1. Explain the purpose of this specific use case. If the use case is related to a previous project, also explain how this use case is related and whether the data or results of both projects will be combined.

Amidst the current opioid epidemic, the incidence of opioid use disorder (OUD) has increased and medication-based treatments for opioid use disorder (MOUD) remain underutilized. While long-term MOUD is generally associated with improved health and mortality outcomes, maintaining continuous health insurance coverage is a significant challenge to sustained treatment access. Patients with OUD are likely susceptible to experiencing insurance instability due to volatile employment and variable eligibility for public insurance, which results in frequent plan changes and critical coverage gaps. High-risk care transitions and significant disruption of treatment, including discontinuation of OUD treatment, increased risk of relapse, overdose, and mortality. Further, heightened vulnerability to insurance instability among racial/ethnic minorities may contribute to observed disparities in addiction treatment access and retention. Despite the potential for insurance instability to create significant barriers to OUD treatment continuity, current knowledge regarding its health and mortality impacts is limited due to the challenge of capturing and evaluating patient outcomes after disenrollment from health systems.

This research study will examine the association of health insurance instability and mortality risk among patients receiving buprenorphine or naltrexone treatment. We will conduct a retrospective longitudinal cohort study of patients receiving buprenorphine or naltrexone treatment from January 1, 2012 through December 31, 2024. We expect that a certain proportion of patients will lose employment and subsequently transition to Medicaid coverage, lose insurance, or obtain other types of coverage. For patients with Medicaid, we may not have access to all pharmacy, emergency department, and hospitalization utilization because claims for these patients are processed by Medicaid rather than Kaiser Permanente Colorado (KPCO).

The purpose of this request is to obtain complete exposure and outcome data from the Colorado All Payers Claims Database (APCD) on KPCO patients who lose their KPCO insurance and KPCO patients with Medicaid. In this study, we will link APCD and KPCO data to allow us to follow patients treated at KPCO over time, including after disenrollment from our health system.

This use case is an extension of a previous project. We are seeking to collect data for additional years (through 2023 and 2024) to extend longitudinal follow-up of our study cohort. The data collected in this request will be combined with the previous project so that data capture for our study cohort will range from 2012 through 2024.

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This project falls under the master subscription agreement, related to the following research aims presented there:

(i) Full capture of outcomes and exposures for all members, mitigating research bias, for KP members that utilize external providers, as well as evaluation of processes of care, outcomes and value of care for KPCO patients with chronic health conditions. This is foundation in accurate and valid research and operational questions.

(ii) Disenrollment and Consequences for Health, Healthcare, and Health Coverage

(iv) Benchmarking KPCO outcomes, measures, and membership to other plans and health systems

(x) Understand prior utilization of services to better identify patients that will benefit from more intesnxive medical management

(xii) Understand comparative utilization and clinical outcomes for complex homebound members within KPCO and those who disenroll

- 2. Detail the specific project aims, research question(s) you are trying to answer, or problem(s) you are trying to solve with this use case.
 - i. We seek to determine external healthcare utilization, including medication use, before and after disenrollment from KPCO.
 - ii. For patients with Medicaid, we seek to determine healthcare utilization outside the health system covered by a carve-out.
 - iii. We seek to distinguish insurance loss from a change in insurance coverage after disenrollment from our health system.
 - iv. We seek to identify overdoses from inpatient or emergency department settings, including after disenrollment, not identified in our data at KPCO.

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3. 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 CO APCD data, we will calculate the proportion of our study cohort with evidence of external MOUD utilization and insurance coverage by another provider within one year of disenrollment from KPCO. We will also calculate the time from disenrollment to new coverage and MOUD utilization, if any. Building on our original analytic plan and based on our medical chart review findings, we will quantitatively assess the frequency of key trajectories, including commercial insurance to Medicaid, commercial to no new coverage, and public insurance (Medicaid or Medicare) to no new coverage. Within these categories, we will examine evidence of MOUD treatment. We will then evaluate patient characteristics associated with the trajectories identified using multinomial logistic regression. To evaluate the potential impact of insurance coverage and MOUD treatment after disenrollment on healthcare utilization, we will also calculate rates of emergency care and in-patient stays following disenrollment.

- 4. Explain how this use case will benefit Colorado and its residents.¹
 - This research will improve care for patients vulnerable to experiencing health insurance instability and disruptions in continuity for treatment of opioid use disorder. It will inform healthcare interventions to reduce high-cost care in emergency departments and hospitals and mortality, such as patient navigators to facilitate health insurance transitions and development of clinical standards for managing care for patients receiving buprenorphine or naltrexone treatment who face care coverage gaps, that may be tested and implemented within KP Colorado.
 - This research will provide evidence to inform public policies to address insurance coverage gaps, such as insurance subsidies for people with opioid use disorder using opioid settlement funds received by Colorado.
 - This project will enable us to study the unique needs of and improve healthcare and health outcomes in patients experiencing insurance instability by following them after disenrollment from our health system at KP Colorado.

¹ 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. Describe how this use case will improve health care quality, increase health care value, or improve health outcomes for Colorado residents.²
 - This project will improve the quality of patient care for individuals who face gaps and transitions in treatment of opioid use disorder by investigating health insurance instability and treatment retention.
 - This project will improve the health of populations by investigating health care transitions, including discontinuation of treatment for opioid use disorder, after losing health insurance, which will directly inform interventions to reduce emergency department and hospital uses and mortality risk.

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Protected Health Information (PHI)

If <u>Protected Health Information</u> data elements will be used, indicate what elements are available in the original CO APCD data extract and which of those are needed for this use case:

| Available in the Extract | Use Case Need | Data Element | | |
|---|---------------|--|--|--|
| \boxtimes | | Member 5-Digit Zip Code | | |
| | | Member County | | |
| | | Member City | | |
| \boxtimes | \boxtimes | Member Dates of Service | | |
| \boxtimes | \boxtimes | Member Eligibility Dates | | |
| \boxtimes | | Claim Paid Dates | | |
| | | Employer Name | | |
| \boxtimes | \boxtimes | Member <u>Census Tract</u> | | |
| \boxtimes | | Member <u>Census Block</u> | | |
| \boxtimes | | Member <u>Census Block Group</u> | | |
| | | Member Name | | |
| | | Member Date of Birth (if requesting more than year only) | | |
| | | Member Street Address | | |
| | | Member Latitude and Longitude | | |
| | | Employer Tax ID | | |
| Provide detailed justification for the inclusion of all PHI data selected above to carry out this use case, and explain how its inclusion meets the <u>Minimum Necessary Requirement</u> . ² | | | | |
| Dates of service, eligibility dates, and claims dates are needed to establish enrollment dates and to identify the timing of care utilization (e.g., in emergency departments) following health plan disenrollment. | | | | |

Census tract information is necessary to link to census-based socioeconomic measures used as covariates in models.

² 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.