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CENTER FOR IMPROVING VALUE IN HEALTH CARE

Colorado All Payer Claims Database
Data Release Application

Thank you for your interest in obtaining data from the CO APCD. As you fill out this application, please let us know if you have any questions or concerns by reaching out to ColoradoAPCD@civhc.org. We are here to help!

Also, please be aware that if you are requesting Protected Health Information (PHI), your request requires a recommendation for approval by the Data Release Review Committee (DRRC). Data elements that are considered PHI under HIPAA are indicated below. If PHI is requested, a CIVHC Account Executive will help you successfully complete an application and navigate the DRRC process.

Please use this application to submit information regarding your request for data from the Colorado All Payer Claims Database (CO APCD). This information will help the Center for Improving Value in Health Care (CIVHC), the Administrator of the CO APCD, answer any questions you have regarding your data request and assist us in helping you complete the data application form.

Note: Please reference the CO APCD Data Elements Request Form found at http://www.civhc.org/get-data/data-release/ when completing this form.

Introduction: Section 10 CCR 2505-5-1.200.5 describes how the CO APCD Administrator addresses Requests for Data and Reports:

1.200.5.A. A state agency or private entity engaged in efforts to improve health care or public health outcomes for Colorado residents may request a specialized report from the CO APCD by submitting to the administrator a written request detailing the purpose of the project, the methodology, the qualifications of the research entity, and by executing a Data Use Agreement (DUA), to comply with the requirements of HIPAA.

1.200.5. B. A data release review committee shall review the request and advise the administrator on whether release of the data is consistent with the statutory purpose of the CO APCD, will contribute to efforts to improve health care for Colorado residents, and complies with the requirements of HIPAA. The administrator shall include a representative of a physician organization, hospital organization, non-physician provider organization and a payer organization on the data release review committee.

This Data Release Application serves as the written request for information noted in section 1.200.5.A.

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PART ONE

Project Information	
Project Title:	21.81 Prenatal and Postpartum Healthcare Utilization among Homeless Women in Colorado
Date:	October 19, 2021
Organization Requesting Data:	The Lundquist Institute for Biomedical Innovation at Harbor-UCLA Medical Center
Contact Person:	Frank Wu
Title:	Research Associate
E-mail:	frank.wu@lundquist.org
Phone Number:	*Cell: (650) 868-7642
Person Responsible for the Project (if different than above):	Dr. Rie Sakai-Bizmark
Title:	Assistant Professor & Principal Investigator
E-mail:	rsakaibizmark@lundquist.org; rsakaibizmark@ucla.edu
Phone Number:	Work: (310) 222-3699

Project Purpose:

Project questions to be discussed with client representative:

- Please describe your project and project goals/objectives.

We are with the Lundquist Institute for Biomedical Innovation at Harbor-UCLA Medical Center. The Lundquist Institute is an independent non-profit biomedical research organization that was founded in 1952. Our research institute is located on the same campus as Harbor-UCLA Medical Center, which is a county hospital that serves low-income patients as well as those experiencing homelessness on a daily basis. Several Lundquist Investigators are physicians who see patients at Harbor-UCLA, while others are professors at the David Geffen School of Medicine at UCLA. Investigators are able to design, test, and implement many of their projects with co-workers and patients. As a result, Investigators have a unique advantage, in that they are able to build relationships with patients/participants and see the positive effects from their work. Though interactions with and data related to those experiencing homelessness or housing insecurity are available on campus, similar data are not yet available on a larger scale. We are unaware of any projects attempting to link statewide medical claims, vital records, homeless management information, provider information, and hospital information.

The goal of our project is to utilize linked 1) Colorado Medicaid and Commercial claims data, 2) Colorado homeless client service data (Colorado Homeless Management Information System [HMIS]), 3) infant birth records (Colorado Department of Public Health & Environment [CDPHE]), and 4) maternal death records or infant death records if available (CDPHE), to assess basic characteristics of healthcare utilization within one year prior to and following delivery among women experiencing housing insecurity (hereafter referred to as *homeless*) compared with housed women. This project will conduct a preliminary analysis that will be used to apply for NIH funding to conduct a study to analyze similarly linked data from other states with large populations of individuals experiencing housing insecurity, including California (CA), New York

(NY), Florida (FL), Texas (TX), Washington (WA) Massachusetts (MA), Oregon (OR), Pennsylvania (PA), Georgia (GA), Ohio (OH), Illinois (IL), Arizona (AZ), and North Carolina (NC). These 14 states comprise approximately 75% of the U.S. homeless population.

Our request is for commercial and Medicaid claims data for all women who delivered a baby in Colorado in 2017, 2018, and 2019. We are requesting a 5-year data set (2016 – 2020) for all these women so that we can do an analysis of health care utilization 1 year prior to delivery and 1 year post delivery. Our study populations will be all women in this data set who are identified in the HMIS database as "homeless". We will also create a control group from the remaining population who delivered in the 2017 – 2019 timeframe and will control for variables such as age, geography, etc.

Using Medicaid and Commercial claims, we will be able to capture all instances of healthcare utilization (e.g., pregnancy-related visits as well as any additional inpatient, emergency department [ED], outpatient services, or other services) and track the same individuals, even if they utilized different healthcare facilities throughout the year. Vital records will be used to identify maternal and fetal/infant deaths during the study period, and fetal births, which will provide the gestational age and date of delivery. Fetal/infant disposition may influence maternal health and behaviors. HMIS data will be used to confirm clients experienced homelessness during the study period. We are also requesting information on nights in shelter by month so that we can examine how many nights the client was in shelters during the prenatal and/or postpartum periods, as well as whether they had to temporarily use the shelter or if they relied on shelter for primary housing. We are also requesting the shelter ID where women stayed. Based on shelter IDs in the HMIS database, we will create a second database, *Housing Supplement*, populated from supportive housing information collected through contact, web presence, etc. Detailed data will include characteristics, such as number of beds, eligibility, standard services, transportation, and medical and mental health services. We will evaluate whether any of these shelter characteristics are associated with the postpartum healthcare utilization or postpartum mortality rate.

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

  With this research project, we will seek to answer five key questions:

  (1) Do prenatal healthcare service utilization rates differ between homeless and non-homeless women?
  (2) Do postpartum healthcare service utilization rates differ between homeless and non-homeless women?
  (3) Do postpartum mortality rates differ between homeless and non-homeless women?
  (4) Are there any shelter characteristics associated with postpartum healthcare service utilization and postpartum mortality rates?
  (5) Are there prenatal and or postpartum differences in cost of care between homeless and non-homeless women?

- How will this project benefit Colorado or Colorado residents? (this is a statutory requirement for all non-public releases of CO APCD data)

  It is our hope that through the proposed research, we will be able to identify healthcare utilization patterns of low-income and insecurely housed women and children in Colorado and design a set of interventions to improve pregnancy-related healthcare access. For example, if we find that women utilized shelters during the prenatal period, but not during the postpartum period, and their healthcare utilization did not extend into the postpartum period, we will consider that the client likely had competing priorities that prevented them from accessing services. It is possible they still experienced some sort of insecurity, even if it was not housing-related. In this case, we would pursue a set of interventions to coordinate resources in shelters or drop-in centers for prenatal care *and* postpartum care. Services would include assisting expectant mothers with scheduling appointments with a culturally- and circumstance-appropriate provider, educational resources, peer support services, securing transportation to visits, and perhaps motivational interviewing with health educators or physicians who can create a common goal for the client, can be employed to ensure good health for the baby and the client. Generally, if we find that women experiencing homelessness utilize healthcare services at lower rates than their housed counterparts during the postnatal period, we will work to develop a set of interventions to be delivered during the prenatal period at hospitals, clinics, and other locations where prenatal care is delivered, that focus on provider accessibility, culturally- and circumstance-appropriate care, guided by compassion, with the primary goal to ensure the patient/client feels comfortable, seen, heard, and supported. We will work with Colorado providers to determine feasible methods to deliver this type of care. In addition, we will work to make additional resources available to low-income and homeless women, such as transportation, housing, childcare, and other basic necessities. Based on the three definitions of homelessness we will analyze, (i.e., 1] shelter use during both prenatal and postnatal periods; 2] shelter use during prenatal period only; and 3] shelter use during postpartum period only), we will establish which “definition” demonstrated the lowest healthcare utilization rate so that we can prioritize strategies that lead to interventions. Furthermore, before designing a set of interventions for either the first or second scenario, we will work with providers, shelters, and clients, to understand what is needed. It is important that all members play an integral role in bridging the service gap. While securing housing is the most important step, good physical, mental, and emotional health of the patient/client are arguably the next most important goal for the Colorado population.

- Please answer all applicable questions below (Note that your project must meet one or more of the Triple Aim criteria below to generate a benefit for Colorado):
  - If applicable, how will your project support lowering health care costs?
  - If applicable, how will you project help improve the health of Coloradans?
  - If applicable, how will your project improve the quality of care or patient experience?

  As outlined in the previous paragraph, better and more frequent access to care throughout the prenatal and postnatal periods may provide regular opportunities for clients to interface with their physicians and discuss health concerns. As is commonly understood, waiting to treat conditions rather than working to prevent conditions, can be much more expensive. Therefore, identifying key time periods in which to implement interventions could not only improve client

health, but lower healthcare costs for the client, the hospital, and the insurance provider (i.e., Medicaid, commercial insurance, etc.). Finally, if clients are given resources and assistance in the process to connect with a physician they feel comfortable with and seen, the quality of care and patient experience as perceived by the client will increase.

- Do you need a claims data set or would you like a custom report generated by CIVHC that addresses the specific questions/problems your project seeks to address?
  We are requesting a claims data set.

- Do you need Protected Health Information (PHI)? Yes
  - Do you need patient-specific dates (e.g., dates of service or DOB) or 5 digit zip code. If so, this is a request for a **Limited Data Set**.
  - Do you need direct patient identifiers such as name, address, or city? If so, this is a request for an **Identifiable Data Set** (requires IRB approval).
  - If you do not require any PHI, please only complete PART ONE of the application.

  Yes, we are requesting a Limited Data Set.

Please note: your CIVHC representative will work with you to complete **Addendum I – Analyst Supplement** to address data warehouse specific questions.

If you are requesting a Custom Report with analytics to be provided by CIVHC; please stop here and submit the information above to your CIVHC representative.

PART TWO

1. Type of CO APCD Analytic Data Set Requested

Please select the type of data set that you are requesting by checking one of the boxes below (**select only ONE option**). Details on each type of CO APCD data set can be found in *The CO APCD Companion Instruction Guide* (available from your CIVHC representative):

Types of Analytic Data Sets (Please select ONE below)

For users interested in a wide range of data to analyze on their own.

☐ De-Identified Data Set
☒ Limited Data Set*
☐ Identified Data Set *

*These types of data requests include Protected Health Information (PHI). Under HIPAA, PHI may only be released in limited circumstances for public health, health care operations, and research purposes under the terms of a HIPAA compliant data use agreement (DUA).

2. Requested Data Elements – Limited and Fully Identifiable Data Sets

The CO APCD is committed to protecting the privacy and security of Colorado's health care claims data. The CO APCD will limit the use of the data to purposes permitted under applicable laws,

including APCD Statute/Rule and HIPAA/HITECH, to information reasonably necessary to accomplish the project purpose as described in this Application.

Data Element Selection and Justification

If you have not already done so, please use the Data Element Dictionary (DED) to identify the specific data elements that are required for this project. In keeping with the minimum necessary standard established under HIPAA, CO APCD policy is to release only those data elements that are required to complete your project.

Please see the attached DED and below.

Type of Data	Justification for Elements on the DED
Names	
Street Address	
City	
Zip Code	Zip codes will be used to examine median income levels based on census estimates and will serve as a proxy for socioeconomic status
Health Plan Beneficiary Numbers	
Dates (including Day and Month detail.) Specify which date fields are needed and why.	Procedure and service dates will tell us whether services occurred during the prenatal or postnatal period.
Provider Identifying Information	Will be linked to additional datasets to identify provider characteristics such as years of experience, gender, medical school, residency program, etc.

A. Counts, Totals and other Summary Statistics

The CO APCD seeks to provide aggregated summary data whenever possible. Applicants are encouraged to request counts, totals, rates and other summary values whenever such information can reasonably accomplish the purpose of the project (add rows to the table below if necessary). The CO APCD supports the federal CMS minimum cell size suppression policy that requires any cell in any report or data table, printed or electronic, with less than eleven records or observations to be replaced by "Less than eleven" or similar text. You must also apply complementary cell suppression techniques to ensure that cells with fewer than eleven records cannot be identified by manipulating data in adjacent rows and columns.

Field Number and Name	Requested Count or Sum
	[add rows as needed]

B. Linkages to Other Data Sets

The CO APCD seeks to ensure that data cannot be re-identified if it is linked to or combined with information obtained from other sources. If this project requires claims line level detail or includes linkages to other databases, or if CO APCD data will be combined with other information, provide a justification for each proposed linkage. Be sure to describe how this will contribute to achieving the project purpose, including whether the project can be completed without this linkage, and the steps you will take to prevent the identification of individual patients:

Will you link the CO APCD data to another data source?

☐ No.
☒ Yes. If yes, please answer the following questions.

- Which CO APCD identifying data elements will be used to perform the linkage?
  We are suggesting the use of a concatenated variable, comprised of components of the client's first and last name and last four digits of their Social Security Number (SSN). Month of birth could also be used to differentiate between clients with identical concatenated record IDs.
- Once the linkage is made, what non-CO APCD data elements will appear in the new linked file?
  Once linked with Colorado's Homeless Management Information System (HMIS), there will be a homeless flag variable and variables related to service use (e.g., nights in shelter per month).
  Once linked with Vital Records from the Colorado Department of Public Health and Environment (CDPHE), there will be variables related to maternal deaths (if applicable), fetal or infant death (if applicable), infant birth date (to identify delivery date that separates the prenatal and postnatal periods), and infant gestational age.

- Have all necessary approvals been obtained to receive and link with the other data files (e.g., IRB or Privacy Board approval)?
  ☒ Yes, if so please provide copy
  ☐ In progress, anticipated approval date:
  ☐ No or N/A, reason: _____

C. Distribution of the Report or Product:

Prior Review by the CO APCD Administrator

If you are producing a report for publication in any medium (print, electronic, lecture, slides, etc.) the CO APCD Administrator must review the report prior to public release. The CO APCD Administrator will review the report for compliance with CMS cell suppression rules; risk of inferential identification; and consistency with the purpose and methodology described in this Application.

- Please describe your audience and how to you will make your project publicly available?
  We will prepare and submit manuscripts to peer-reviewed academic journals. Presentations for national and international professional conferences will be created if the PI is invited to present her findings. All findings will be presented in aggregate and will not contain any identifying

information. The requestors will send all reports to the CO APCD Administrator for review prior to manuscript submission or conference presentation.

- If the report is not to be made publicly available, then briefly describe how the information derived from this data will be used and by whom:

Other Organizations: Do you intend to engage third parties who will have access to the data requested as part of this project? If so, list the organizations below, describe their role(s); and explain why they will be granted access to the requested data.

Organization/Company Name:	
Contact Person:	
Title:	
Address:	
Telephone Number:	
E-mail Address:	
Role or responsibility in this project	*[add rows as needed]*

Project Schedule:

Proposed Project Start Date:	December 30, 2021 (tentative)
Project End Date:	September 29, 2025 (tentative)
Proposed Publication or Release Date:	January 1, 2025 (tentative)
End of Date Retention Period:	September 29, 2025 (tentative)

D. Frequency

Data in the CO APCD Warehouse is refreshed every other month and data products can be provided on a one time basis or under a subscription model (e.g., quarterly, bi-annually or annually). Please select frequency below.

☐ One Time

OR

Subscription (Please select subscription model below)

☐ Quarterly
☐ Bi-annually
☒ Annually (Additionally in 2022 and 2025)

E. Project Reporting

CIVHC highlights projects and data analysis on the public website: www.civhc.org/change-agents. This display of CO APCD projects provides future data requesters with ideas of how they

can structure their analysis, and allows CIVHC's stakeholders to see how CO APCD data recipients are working to accomplish the Triple Aim for Colorado. Data recipients have the option of choosing whether to be identified or to not be identified.

☒ Yes, it is okay for CIVHC to identify my organization
☐ No, I do NOT wish for CIVHC to identify my organization

PART THREE

DATA MANAGEMENT PLAN (Not applicable for Custom Report Requests)

1. Organizational Capacity

As an Attachment, please provide copies of the Data Privacy and Security Policies and Procedures for the Requesting Organization as well as those of any third parties that will have access to the requested CO APCD data.

- Has the Requesting Organization or any member of the project team ever been involved with a project that experienced a data security incident? If so, describe the incident, the response procedures that were followed and any subsequent changes in procedures, processes or protocols to mitigate the risk of further events.
  No.

  To the extent that the Data Privacy and Security Policies and Procedures, provided as an Attachment, do not already do so, please answer or attach answers for the following:

- **Physical Possession and Storage of CO APCD Data Files:**
  - Describe how you will maintain an inventory of CO APCD data files and manage physical access to them for the duration of the project:
  - Describe your personnel/staffing safeguards, including:
    - Confidentiality agreements in place with individuals identified as being assigned to this study. Include, for example, agreements between the Principal Investigator or Data Custodian and others, including research team members, and information technology and administrative staff: **Confidentiality agreements between the Principal Investigator, associated research staff (a biostatistician, assistant researcher, and research associate), CIVHC, Colorado HMIS, and CDPHE will be signed.**
    - Staff training programs you have in place to ensure data protections and stewardship responsibilities are communicated to the research team: **All Lundquist staff will read the Investigator Protocol, which has been approved by Lundquist's IRB. Additionally, all Lundquist staff have completed the Collaborative Institutional Training Initiative (CITI) as it relates to PHI and data handling.**
    - Procedures to track the active status and roles of each member of the research team throughout the project and a process for notifying the CO APCD of any changes to the team:

The Principal Investigator, Assistant Researcher, and Research Associate set reminders in their work calendars to complete continuing review applications and notify organizations of results that will be included in manuscripts or presentations.

- Describe your technical and physical safeguards. Examples include:
  - Actions taken to physically secure data files, such as site and office access controls, secured file cabinets and locked offices.
    Data will be encrypted using AED (Advanced Encryption Standard) implemented with SAS software. Data will be stored on a computer with anti-virus continuous scan software (Sophos anti-virus and Windows defender) and an anti-spyware continuous scan software (Windows defender). Security patches will be kept current. The computer will not have access to WiFi connections and will be protected by The Lundquist Institute's institutional firewall. Access will be limited to researchers working directly on this project. Password length will be a minimum of 8 characters with a mix of alphanumeric characters and symbols and will not be observable or guessable. All workstations will have compliant, full-disk encryption. Should some states release direct identifiers for us to perform linkages ourselves, we will perform additional data security measures. We will maintain a separate key log/list of direct identifiers, i.e., combinations of patient's first and last names and last 4 digits of their SSN, linked with study records numbers. We will store this separate list in an encrypted and password protected document. Only the PI will have access to this document. The PI will store this document on her encrypted and password protected computer in her private office on the Lundquist campus. Passwords will be a mixture of alphanumeric characters and will be at least 8 characters long. Passwords will not be observable or guessable. No paper records of the separate key link/log will exist. Once all data has been received from the multiple sources and linked, the key log will be destroyed
  - Safeguards to limit access to CO APCD data and analytical extracts among the research team (Note: if the distribution of analytical data extracts among the researcher team is part of your data management plan, the extracts remain subject to the terms of your Data Use Agreement).
    Data will be encrypted using AED (Advanced Encryption Standard) implemented with SAS software. Data will be stored on a computer with anti-virus continuous scan software (Sophos anti-virus and Windows defender) and an anti-spyware continuous scan software (Windows defender). Security patches will be kept current. The computer will not have access to WiFi connections and will be protected by The Lundquist Institute's institutional firewall. Access will be limited to researchers working directly on this project. Password length will be a minimum of 8 characters with a mix of alphanumeric characters and symbols and will not be observable or guessable. All

workstations will have compliant, full-disk encryption. Should some states release direct identifiers for us to perform linkages ourselves, we will perform additional data security measures. We will maintain a separate key log/list of direct identifiers, i.e., combinations of patient's first and last names and last 4 digits of their SSN, linked with study records numbers. We will store this separate list in an encrypted and password protected document. Only the PI will have access to this document. The PI will store this document on her encrypted and password protected computer in her private office on the Lundquist campus. Passwords will be a mixture of alphanumeric characters and will be at least 8 characters long. Passwords will not be observable or guessable. No paper records of the separate key link/log will exist. Once all data has been received from the multiple sources and linked, the key log will be destroyed

- Provide a brief description of your policies and procedures for ensuring that CO APCD data are protected when stored on a server.
  - Describe how your organization prevents the copying or transfer of data to local workstations and other hard media devices (CDs, DVDs, hard drives, etc.). Note that Applicants are required to encrypt CO APCD data both in motion and at rest:
    Data will be encrypted using AED (Advanced Encryption Standard) implemented with SAS software. Data will be stored on a computer with anti-virus continuous scan software (Sophos anti-virus and Windows defender) and an anti-spyware continuous scan software (Windows defender). Security patches will be kept current. The computer will not have access to WiFi connections and will be protected by The Lundquist Institute's institutional firewall. Access will be limited to researchers working directly on this project. Password length will be a minimum of 8 characters with a mix of alphanumeric characters and symbols and will not be observable or guessable. All workstations will have compliant, full-disk encryption. Should some states release direct identifiers for us to perform linkages ourselves, we will perform additional data security measures. We will maintain a separate key log/list of direct identifiers, i.e., combinations of patient's first and last names and last 4 digits of their SSN, linked with study records numbers. We will store this separate list in an encrypted and password protected document. Only the PI will have access to this document. The PI will store this document on her encrypted and password protected computer in her private office on the Lundquist campus. Passwords will be a mixture of alphanumeric characters and will be at least 8 characters long. Passwords will not be observable or guessable. No paper records of the separate key link/log will exist. Once all data has been received from the multiple sources and linked, the key log will be destroyed
- Data Reporting and Publication

- Your organization must ensure that all analytic extracts, analyses, findings, presentations, reports, and publications based on CO APCD data files adhere to specific requirements of the Data Use Agreement (DUA: refer to sections 6, 7 and 8 in the Data Use Agreement). **Briefly describe your plan for demonstrating that data reporting and publication processes will be consistent with the DUA, including adhering to CO APCD cell suppression policies:**

  Cells ≤15 will be suppressed, as will neighboring cells to prevent the reader from discerning precise cell counts ≤15. The requestors will send any manuscripts and/or presentations to the CO APCD Administrator prior to submission and/or presentation

2. Completion of Research Tasks and Data Destruction

Your organization must ensure that it has policies and procedures in place to destroy the CO APCD data files upon completion of the project and that you have safeguards to ensure the data are protected when researchers terminate their participation in the research project. Describe your plan for demonstrating that your organization has policies and procedures in place to reliably destroy the data files upon completion of the research:

At the end of the project, CD-ROMs (if applicable) will be physically destroyed and electronic records will be destroyed using the Eraser software program.

3. Request for Privacy Board Approval *(Only Applicable to Identifiable Data Requests)*

Projects that request Identifiable information for a research purpose may require approval from the DRRC acting as a Privacy Board if an IRB is not available.

- The DRRC, acting as a Privacy Board, may approve a waiver of the individual authorization normally required to release PHI under CFR § 164.508 if:
- It would be impracticable for researchers to obtain written authorization from patients that are the subject of the research; and
- The research could not practicably be conducted without access to and use of the PHI.
- The DRRC, acting as a Privacy Board, is required to evaluate certain criteria in considering whether to approve an authorization waiver. If you are requesting Identifiable Information for a research purpose, explain why your proposed use of PHI involves no more than a minimal risk to the privacy of patients that are the subject of the research. Evidence of minimal risk to the privacy of patients that should be addressed in your explanation includes:
- An adequate plan to protect PHI identifiers from improper use and disclosure;
- An adequate plan to destroy PHI identifiers at the earliest opportunity; and
- Adequate written assurances that PHI will not be reused or disclosed.

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Appendix I
Certification of Project Completion and Destruction or Retention of Data
(Please Save)

Name:	
Title:	
Organization:	
Address:	
Tel Number:	
Fax Number:	
E-mail Address;	
Project Title:	
Data Sets:	
Years:	
❒ Certification of Data Destruction	Date the Data was Destroyed:
❒ Request to Retain Data	Date Until Data Will Be Retained:

Instructions: Data must be destroyed so that it cannot be recovered from electronic storage media in accordance with the methods established by the "Guidance to Render Unsecured Protected Health Information Unusable, Unreadable, or Indecipherable to Unauthorized Individuals," as established by the U.S. Department of Health and Human Services (HHS).
I hereby certify that the project described in the Application is complete as of this date _____, ___, 20__.

Complete the appropriate section, below:

☐ I/we certify that we have destroyed all Data received from the CO APCD Administrator in connection with this project, in all media that were used during the research project. This includes, but is not limited to data maintained on hard drive(s), diskettes, CDs, etc.

☐ I/we certify that we are retaining the data received in connection with the aforementioned project, pursuant to the following health or research justification (provide detail, use as much additional space as necessary and state how long the data will be retained).

☐ I/we hereby certify that we are retaining the Data received from the APCD Administrator in connection with the aforementioned project, as required by the following law. [Reference the appropriate law and indicate the timeframe].

By signing this Agreement, the Receiving Organization agrees to abide by all provisions set out in this Agreement.

SIGNATURES:

For the CO APCD: CIVHC	**For Receiving Organization: Lundquist Institute**
Signature: DocuSigned by: Pete Sheehan 89075611D33E47E...	**Signature:** DocuSigned by: Rie Sakai-Bizmark 783E5FAF791042E...
Name: Pete Sheehan	**Name:** Rie Sakai-Bizmark
Title: VP of Client Solutions & State Initiatives	**Title:** Assistant Professor

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Addendum I – Analyst Supplement
Colorado All Payer Claims Database Application

Project Description and Data Objective

Project Title and number: 21.81 Prenatal and Postpartum Healthcare Utilization among Homeless Women in Colorado

Date Range or Years Requested – *What years of claims do you need to meet your project purpose? (If you want a range of data with specific month and day start and end dates, please supply the start and end dates next to the appropriate year.)*

Check all that apply:

- ☐ 2012
- ☐ 2013
- ☐ 2014
- ☐ 2015
- ☒ 2016
- ☒ 2017
- ☒ 2018
- ☒ 2019
- ☒ 2020*

*Please consult the Data Warehouse refresh schedule to learn what is currently available for 2020

Medicare FFS data: Data requests are only available for research purposes and must be approved and financially supported by HCPF.

Check all that apply:

- ☐ 2012
- ☐ 2013
- ☐ 2014
- ☐ 2015
- ☐ 2016
- ☐ 2017
- ☐ 2018

Lines of Business: *Which payers do you need for your project purpose?*

Please check all that apply

- ☒ **Commercial Payer Claims** - Data available with appropriate levels of aggregation
  Need to discuss appropriate level of aggregation for client request type; would need analyst input
  - ☒ **Individual**
  - ☒ **Small Group Plans**
  - ☒ **Large Group Plans**
    - ***Currently available:*** Medical Claims AND Pharmacy Claims from 2012-2020
      - **Claims**

- **Eligibility**
- **Servicing and Billing Provider information**

☒ **Fully insured Employer Plans**

☒ **Self-Insured ERISA and non-ERISA based Employer Plans (note: ERISA-based plans are voluntary submitters and are not all represented in the CO APCD)**

- ***Currently available:*** Medical Claims AND Pharmacy claims
  - **Claims**
  - **Eligibility**
  - **Servicing and Billing Provider information**

☒ **Medicare Advantage** - data is available with appropriate levels of aggregation
Need to discuss appropriate level of aggregation for client request type; would need analyst input

- ***Currently available:*** Medical AND Pharmacy claims from 2012-2020
  - **Claims**
  - **Eligibility**
  - **Servicing and Billing Provider information**

☒ **Health First Colorado (Colorado's Medicaid Program)** - Data requests must be reviewed by the Colorado Department of Health Care Policy and Financing (HCPF) to ensure alignment with administration of the Medicaid program as required by federal law

- ***Currently available:*** Medical Claims AND Pharmacy Claims from 2012-2020
  - **Claims**
  - **Eligibility**
  - **Servicing and Billing Provider information**

The following lines of business, when requested, require CIVHC Data Release Review Committee review as well as HCPF review, approval, and financial support.

☐ **Medicare Fee For Service (FFS) -** Data requests are only available for research purposes and must be approved and financially supported by HCPF.

- ***Currently available:*** Medical Claims AND Pharmacy Claims from 2012-2018
  - **Claims**
  - **Eligibility**
  - **Servicing and Billing Provider information**

Payer-Specific Details – Do you need to limit claims to particular health insurance coverage types?

☐ **Yes**

☒ **No**

- **If YES,** please indicate the specific information you would like to include:
  - **Payer Line of Business**
    - ☐ **Commercial**
      - **Payer Name: Please note Anti-trust guidelines will be followed. (DRRC review maybe also be required)**
        - *Please provide listing of payer names and health plans*

- **Commercial Product Line(s):**
  - ☐ **PPO**
  - ☐ **HMO**
  - ☐ **POS**
  - ☐ **Supplemental**
  - ☐ **Indemnity**
  - ☐ **Other- Please specify**
    - *Please provide listing of other product lines*

☐ **Colorado's Exchange, Connect for Health Colorado, Product Lines**:
- ☐ **Gold**
- ☐ **Silver**
- ☐ **Bronze**

Payment Type – *Which elements of total paid amount on each claim do you need to support your project purpose? (Check all that apply)*

☒ **Charged Amount**
☒ **Plan Paid Amount***
☒ **Member Liability, i.e., amount the member is responsible for (check all that apply)**
- ☒ **Coinsurance**
- ☒ **Deductible**
- ☒ **Copay**

☒ **Total Allowed Amount** – (summation of plan paid and member liability)
☒ **Prepaid Amount** – (*to be considered for capitated payment plans only*)

Medical Claims – *Which types of claims do you need for your project purpose?*

- Check all that apply

☒ **Inpatient (IP)** – Related to individuals who receive care in hospital settings
☒ **Outpatient (OP)** – Related to an individual receiving medical treatment in any setting other than a hospital admission (i.e. ambulatory surgery center; doctor's office, imaging center, Emergency Room, home health, etc.)
☒ **Professional (PROF)** – Related to medical procedures within professional settings (e.g. physician office, imaging center, etc.) and clinics

Pharmacy Claims – *Do you need prescription drug-based claims for your project purpose?*

☐ **Yes**
☒ **No**

- **If YES**, and you need pharmacy claims limited to specific drug types, ***please list the 11-digit NDC codes you would like to receive (DO NOT INCLUDE DASHES AND PROVIDE LEADING ZEROS):***
  - *Please provide listing*

Dental Claims – *Do you need dental claims for your project purpose?*

- ☐ **Yes**
- ☒ **No**

Site of Service Detail – *Do you need to look at claims that occurred in specific care settings for your project purpose? i.e., do you need to limit services by site of service?*

- ☐ **Yes**
- ☒ **No**

- **If YES,** please indicate the specific information you would like to include:
  - ☐ **Hospital**
  - ☐ **Ambulatory Surgery Centers**
  - ☐ **Outpatient Facilities**
  - ☐ **Physician offices**
  - ☐ **Specialty offices**
  - ☐ **Home Health**
  - ☐ **Urgent Care**
  - ☐ **Emergency Room (Note: cannot differentiate between majority of Free-Standing and hospital-based ERs)**
  - ☐ **Other** (specify)
    - *Please list other site of service details*

Provider-level Detail – *Do you need claims limited to specific providers or provider type(s) ie. (Provider IDs, locations, hospitals, medical groups, etc.) for your project purpose?*

- ☐ **Yes**
- ☒ **No**

- **If YES,** please indicate the specific provider types you would like to include or provide a list of providers:
  - ☐ **Facilities (hospitals, ambulatory surgery centers, etc.)**
    - *Please provide listing*
  - ☐ **Professionals**
    - *Please provide listing*
  - ☐ **Provider Taxonomy - Specialty Designations**
    - *Please provide listing*
  - ☐ **National Provider Identifier**
    - *Please provide listing*
  - ☐ **Other**
    - *Please provide listing*

Geography– *Do you need claims data limited by geography or location for your project purpose?*

- ☐ **Yes**
- ☒ **No**

- **If YES,** please indicate the geographic groupings you would like to include:
  - ☐ **Provider location address**
    - *Need full address of all providers in CO*
  - ☐ **Member location address**
    - *Please provide listing*
  - ☐ **Zip 3**
    - *Please provide listing*
  - ☐ **Health Statistic Region**
    http://www.cohid.dphe.state.co.us/brfssdata.html
    - *Please provide listing*
  - ☐ **County (Potential PHI)**
    - *Please provide listing*
  - ☐ **Zip 5** (**PHI**)
    - *Please provide listing*
  - ☐ **Other**
    - *Please provide listing*

Age and/or Gender – *Do you need claims data limited by age or gender for your project purpose?*

- ☒ **Yes**
- ☐ **No**

- **If YES,** please indicate the groupings you would like to include:
  - ☒ **Age bands/range (in years) requested (i.e. 0-21, 22-39, 40-55, etc.)**
    Please specify specific bands and/or ranges
    Ages 18–60 years

    Please specify how you would like age to be calculated (i.e. Patient age at the end of year, at the time of service, etc.)
    Age at time of service

  - ☒ **Gender**
    - ☐ **Male**
    - ☒ **Female**
    - ☐ **Unspecified**

Member-level Detail – *Do you need claims filtered at the member level for your project purpose? i.e., do you need claims limited to specific members for your project?*

- ☒ **Yes**
- ☐ **No**

- **If YES,** please indicate the information you would like to include:

- ☒ **De-identified member information**
  - ☒ **Unique member and person ID**
  - ☒ **Gender**
  - ☒ **Age: (at time of service)**
  - ☒ **3-digit zip**
- ☒ **Protected Health Information (PHI)** – Any of the below requires DRRC approval process
  - ☐ **Names (first, last, middle) (PHI)**
  - ☐ **Street Address (PHI)**
  - ☐ **City (PHI)**
  - ☒ **5 Digit Zip (PHI)**
  - ☐ **DOB-Dates of Birth (PHI)**
  - ☒ **DOS-Dates of Service (PHI)**

Diagnosis Detail – *Do you need claims limited to a specific diagnosis or multiple diagnoses for your project purpose?*

- ☐ **Yes**
- ☒ **No**

- **If YES,** please indicate the specific diagnosis code(s) you would like to include (DO NOT USE DECIMAL POINTS AND DO NOT REMOVE LEADING AND TRAILING ZEROS):
  - *Please provide listing*

Procedure/Revenue Code Detail – *Do you need claims limited to specific procedure or revenue code(s) for your project purpose?*

- ☒ **Yes**
- ☐ **No**

- **If YES,** please indicate the specific procedure/revenue code(s) you would like to include under each type requested:
  - ☐ **CPT4**
    Please provide listing
  - ☐ **CDT**
    Please provide listing
  - ☐ **Revenue code**
    Please provide listing
  - ☒ **APR-DRG**
    Please provide listing
    765 (complicated caesarean section)
    766 (uncomplicated caesarean section)
    774 (complicated vaginal delivery)
    775 (uncomplicated vaginal delivery)
    767 (uncomplicated vaginal delivery with sterilization and/or dilatation and curettage)
    768 (vaginal delivery with operation room procedure except sterilization and/or dilatation and curettage)

☒ **ICD9 or ICD10**

(Please indicate whether the codes you provide are ICD 9 or 10 codes)

Please provide listing

ICD-10-CM:

Z37 O80 O82 (including caesarean section)

ICD-10-PCS:

10D00 10D07Z3 10D07Z4 10D07Z5 10D07Z6 10D07Z7 10D07Z8 10E

ICD-10-CM Exclusions:

O00 O02 O04 O03 O04 O07 O08

ICD-10-PCS Exclusions:

10ª

Additional Requests/Info Not Included Above – *Is there any additional information you would like for us to know to fulfill your request?*

We can provide SAS code and/or diagnosis and procedure codes to identify deliveries based on an expanded identification technique. While we want to identify women who delivered, we do not want to limit our analyses to specific diagnoses and procedures they may have received throughout the study period (i.e., the year prior to delivery and the year after delivery).

Inclusion Criteria for Diagnosis Codes:

Condition	Previous Code	Updated Code
Outcome of Delivery	**ICD-9-CM:** V27	**ICD-10-CM:** Z37
Normal Delivery	**ICD-9-CM:** 650	**ICD-10-CM:** O80 O82 (including caesarean section)
Diagnosis-related group (DRG) delivery codes	**DRG:** 370 (complicated caesarean section) 371 (uncomplicated caesarean section) 372 (complicated vaginal delivery) 373 (uncomplicated vaginal delivery) 374 (uncomplicated vaginal delivery with sterilization and/or dilatation and curettage)	

	375 (vaginal delivery with operation room procedure except sterilization and/or dilatation and curettage)	
Selected delivery related procedures	**ICD-9-CM:** 720 721 7221 7229 7231 7239 724 726 (forceps) 7251 7252 7253 7254 (breech extraction) 7271 7279 (vacuum extraction) 728 729 732 (other specified and unspecified delivery) 7359 (other manually assisted deliveries) 736 (episiotomy)	**ICD-10-PCS:** 10D00 10D07Z3 10D07Z4 10D07Z5 10D07Z6 10D07Z7 10D07Z8 10E
Exclusions	**ICD-9-CM:** 630 (hydatidiform mole) 631 (other abnormal product of conception) 633 (ectopic pregnancy) 632 634 635 636 637 638 639 69.01 69.51 74.91 75.0 (abortion)	**ICD-10-CM:** O00 O02 O04 O03 O04 O07 O08 **ICD-10-PCS:** 10A

By signing this Agreement, the Receiving Organization agrees to abide by all provisions set out in this Agreement.

SIGNATURES:

For the CO APCD: CIVHC	**For Receiving Organization: Lundquist Institute**
Signature: DocuSigned by: Pete Sheehan 89075611D33E47E...	**Signature:** DocuSigned by: Rie Sakai-Bizmark 783E5FAF791042E...
Name: Pete Sheehan	**Name:** Rie Sakai-Bizmark
Title: VP of Client Solutions & State Initiatives	**Title:** Assistant Professor