OFFICE OF HEALTH ANALYTICS
All Payer All Claims Data Reporting Program

Kate Brown, Governor

421 SW Oak Street, Suite 850
Portland, OR 97204
Website: www.oregon.gov/oha/analytics

APAC-3 - Application for APAC Data Files

Instructions

Only fill out this form when instructed by All Payer All Claims (APAC) program staff. To begin a request for APAC Limited or Custom data sets, complete and submit an APAC-2 Pre-Application form first. Please fully complete all sections in the application, and attach any necessary supporting documents with your submission. Once OHA has received your completed application, staff will contact you regarding any costs or further information. Completed applications should be sent to:

APAC.Admin@dhsoha.state.or.us
Or
Office of Health Analytics - APAC
421 SW Oak Street, Suite 850
Portland, OR 97204

If you have questions while completing this application, please follow these steps:

1. Visit the APAC website for more information about the APAC Reporting Program at http://www.oregon.gov/oha/analytics/Pages/All-Payer-All-Claims.aspx
2. Visit the APAC Data Request page for more information about the data request process at http://www.oregon.gov/oha/analytics/Pages/APAC-Data-Requests.aspx
3. Review the APAC Frequently Asked Questions to determine if your question has been answered there.
4. If you still have questions,
    a. Direct questions about APAC or this application to: APAC.Admin@dhsoha.state.or.us
    b. Direct data privacy questions to: dhsprivacy.help@state.or.us
    c. Direct data security questions to: dhsinfo.security@state.or.us

Guidelines for Receiving APAC Data

Before requesting data, please ensure your organization has the capability and resources to import and analyze these data sets. Payment will not be refunded if OHA fulfills the data request, but the receiving entity does not have the capability to import or analyze the data.

1. APAC data sets will be encrypted and sent in delimited text files over secure FTP. Public Use data sets are tab-delimited; Limited and Custom data sets are pipe-delimited.
2. APAC data sets range in size from 6 GB to 75 GB. For example, one year of Pharmacy data will comprise over 30 million rows, whereas one year of All Medical Claims will comprise over 100 million rows.
3. Software capable of importing and analyzing APAC data sets includes SAS, SQL Server, R, and SPSS. APAC data sets are generally too big for Microsoft Excel and Access.
4. Requesters should review the most recent APAC Data Issue Log on the APAC Data Request webpage. This is a log of known issues in APAC data – requesters should anticipate the effects of these issues on their projects and caveat their analyses accordingly. The log is updated as new issues are identified and/or known issues are corrected.

Data Request Review Process

For Limited and Custom data sets, OHA will review this form for completeness and to ensure the minimum amount of data necessary is requested. Once the request passes OHA's initial review, it will be sent to the Data Review Committee (DRC) for further evaluation. Applications requesting direct identifiers may also require review by the Department of Justice (DOJ). After the application passes these reviews, OHA makes the final determination to grant or deny the data request.

The DRC is an advisory body convened by OHA that evaluates requests for Limited and Custom data sets to help determine whether applications comply with state and federal guidelines for using APAC data. At a minimum, the DRC evaluates requests for whether:

- Proposed project purpose is allowable under OHA policies and state and federal laws;
- IRB documentation is required and if submitted, sufficient;
- Proposed privacy and security protections are sufficient;
- Minimum amount of data necessary to complete the project is requested;
- Further clarification is needed.

The DRC meets monthly and reviews requests in the order received (the meeting schedule is posted on the DRC website). Applications are posted for public comment for at least two weeks prior to DRC review. If an application is received within two weeks of the next DRC meeting, it will not be reviewed until the next month's DRC meeting. The DRC may ask the requester for additional information before completing their review. OHA strongly encourages requesters to thoroughly complete the application as soon as possible to account for unanticipated delays. Requests for Limited data sets typically take 2-4 months to complete. Requests for Custom data sets typically take 2-6 months to complete.

SECTION 1: PROJECT INFORMATION

1.1 Contact Information: Please provide the project contact information below.

Applicant name (Principal Investigator or Director of project): Katherine Carman

Title: Economist

Organization: RAND Corporation

Address: 1776 Main Street

City: Santa Monica State: CA Zip: 90401*3208

Phone: (310) 393-0411 x6187

Email: kcarman@rand.org

Application Date:

1.2 Project Staff: Please list any additional staff who will be working on this project. (List only staff who will have direct access to the data.)

Name: Michael Dworsky	Role: Economist	Email: mdworsky@rand.org
Name: Preethi Rao	Role: Policy Researcher	Email: prao@rand.org
Name: Christopher Whaley	Role: Policy Researcher	Email: cwhaley@rand.org
Name: Erin Duffy	Role: Research Assistant	Email: eduffy@rand.org
Name: Michelle Bongard	Role: Research Assistant	Email: mbongard@rand.org
Name: Scot Hickey	Role: Programmer	Email: hickey@rand.org
Name: Colleen McCullough	Role: Programmer	Email: cmccullo@rand.org
Name: Asa Wilks	Role: Programmer	Email: awilks@rand.org
Name:	Role:	Email:

SECTION 2: PROJECT SUMMARY

2.1 Project title: Transitions in Health Coverage

2.2 Project Purpose:

a. Describe the purpose of the project.

Health insurance coverage in the US is often subject to instability due to changes in employment circumstances or family income. Although the creation of the Marketplaces and the expansion of Medicaid under the Affordable Care Act have expanded opportunities for coverage and reduced uninsurance rates to historic lows, research suggests that these new coverage options are also likely to be subject to frequent transitions (or "churning") across coverage sources, and between insurance and uninsurance (J. C. Barnett and Vornovitsky 2016; Sommers et al. 2014).

All-Payer Claims Databases (APCDs) may offer a valuable resource for researchers and policymakers to investigate and monitor health coverage transitions. Studying transition patterns in detail can be challenging with publicly available survey datasets because most insured adults do not switch insurance in a typical year (Carman, Eibner and Paddock, 2015). Because APCDs include information for large fractions of the population, they are well suited to studying less common changes in insurance. The Massachusetts APCD has previously been used to study physician switching after changes in insurance, yet many basic facts about insurance transitions and their distribution across the population have not been rigorously documented. Similarly, there is little research focused on the consequences of insurance transitions for costs, health care quality, and patient outcomes.

The purpose of this study is to assess patterns of health insurance transitions and to understand their relationship with health care utilization. The research will encompass two major research goals:

* Comprehensively describe patterns of insurance transitions for nonelderly adults and families, including an analysis of the factors that are most important for predicting transition behavior.
* Characterize health care utilization and expenditure dynamics before and after insurance transitions, with an emphasis on continuity of care and patterns of utilization that might indicate adverse selection.

b. Describe how the project supports OHA's mission and aims (stated below).
   - OHA mission: Helping people and communities achieve optimum physical, mental and social well-being through partnerships, prevention, and access to quality, affordable healthcare.
   - OHA Aims:
     - Improving the lifelong health of Oregonians;
     - Increasing the quality, reliability, and availability of care for all Oregonians;
     - Lowering or containing the cost of care so it's affordable to everyone.

Most research on health insurance transitions predates the implementation of the ACA. This project will provide descriptive evidence on transitions before and after the implementation of the ACA. Our findings can help improve decisionmaking by Oregon policymakers by determining whether there might be public health benefits from changes intended to reduce insurance churning. For example, if transitions are disruptive, Oregon might consider using Section 1115 waiver authority to adopt 12-month continuous eligibility for adult Medicaid enrollees.
Health insurance transitions may have implications for quality of care, for continuity, and patient outcomes, as consumers who switch insurers may not have access to the same health care providers, potentially disrupting patient-provider relationships and ongoing treatment. This may be more important for those with chronic conditions. Our proposed study will provide new evidence on whether the changes in providers and utilization patterns due to insurance transitions impact cost, quality, or patient outcomes. Insurance churn may also have health equity implications if insurance transitions are concentrated among vulnerable populations. Evidence on which populations experience frequent transitions could help Oregon develop assistance programs or insurance regulations to improve continuity of care through insurance transitions.

2.3 Research Questions: What are the key research questions or hypotheses of the project?

1. Comprehensively describe patterns of insurance transitions for nonelderly adults and families, including an analysis of the factors that are most important for predicting transition behavior.

2. Characterize health care utilization and expenditure dynamics before and after insurance transitions, with an emphasis on continuity of care and patterns of utilization that might indicate adverse selection.

2.4 Methodology: Describe the proposed methodology and analytic plan for the project (you may attach a 1-3 page description). Be sure to include in your description:

- Proposed sample selection algorithm;
- Any filters that will be used to limit the data requested, such as: year, zip code, age range, procedure codes, diagnosis codes, etc. Refer to the Data Element Workbook for a list of standard filters (you may include additional filters.);
- Why the proposed analytic methods were chosen.

The following is also included as an attachment for convenience ("OR Methods Attachment.docx").

While a wide range of transition patterns across the full spectrum of coverage sources could potentially be studied with the Oregon APCD, the primary focus of this study is on transitions to or from Marketplace and Medicaid coverage. The first priority for any subsequent analysis will be to establish basic descriptive patterns about transition rates into and out of coverage, durations of coverage, and seasonality in Medicaid and Marketplace coverage, since there is very limited evidence about these dynamics since the implementation of the ACA. We also intend to create transition tables that document the prevalence of transitions from any one insurance time to any other insurance type. We will focus on Medicaid, Marketplace, Employer Sponsored Insurance, other non-group insurance, and other public programs.

Our data request will filter on age to limit the sample to nonelderly Oregonians (those under age 65). Both adults and children are of interest since coverage transitions are likely to affect entire families at once.

2.5 Products or Reports:

a. Describe the intended product or report that will be derived from the requested data and how this product will be used.

This work is intended for a policy and research audience. RAND will publish a peer reviewed article, either as a RAND report or as in an health policy journal, such as Health Affairs. To coincide with publication, RAND's Office of External Affairs will prepare summaries of the research that can be shared with policy makers, elected officials, journalists, and the general public. Results may also be shared in a conference or presentation setting. All publications will be made available to the OR APCD for review before publication.

b. Will the results of this project be publicly available and free of cost?

☒ Yes ☐ No

If no, please explain.

2.6 Project Timeline: What is the timeline for the project?

a. Anticipated Start Date: November 1, 2017
b. Anticipated Publication/Release Date: Winter 2020
c. Anticipated End Date: September 30, 2020

2.7 Funding Source:

a. What is the project's funding source?

This research will be funded by the U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation.

b. Disclose all actual and potential conflicts of interest.

None

2.8 Organizational Experience: Briefly describe your organization and the organization's experience with projects of similar scope.

RAND has extensive experience conducting research and analysis. RAND has over 1,800 employees, over half with Ph.D.s conducting policy research. We hold contracts with the Department of Health and Human Services, including simultaneous task order contracts with CMS, ASPE, AHRQ, SAMHSA and the CDC. Since 2002, this has included over 120 individual projects, which range from small, discrete projects to large, complex endeavors. RAND researchers, including project staff for this work, have worked with claims data for many of projects, including APCD data from other states, commercial claims data, and Medicare claims data.

2.9 Third Parties: Do you intend to engage any third parties in this project?

☐ Yes ■ No

If yes, please describe the organization(s) and their role in the project. If any third parties will be handling APAC data, those staff must be listed in Section 1.2 Project Staff.

SECTION 3: DATA SHARING AUTHORIZATION

3.1 Direct identifiers. What level of data identifiers are you requesting (***choose only one***)?

☒ Protected health information, but no direct identifiers (as outlined in 45 CFR 164.514(e)).

☐ Direct identifiers (member name, address, date of birth, etc.) *Please note:* Direct identifiers are only released under special circumstances that comply with HIPAA requirements, and may require specific approvals, such as Institutional Review Board (IRB) approval, patient consent, and/or review by the Department of Justice.

3.2 Covered Entity: Is your organization a covered entity?

☐ Yes ☒ No

3.3 Purpose of Data Request:

a. Below are the purposes for which OHA may share APAC data. Please choose the category in which your project falls (***choose only one***).

☒ Research (refer to 45 CFR 164.501 for definition)

☐ Public health activities (refer to 45 CFR 164.512(b) for definition)

☐ Health care operations (refer to 45 CFR 164.501 for definition)

☐ Work done on OHA's behalf by a Business Associate (refer to 45 CFR 160.103 for definition). If an OHA contract exists for the work in which data is needed, purpose of request is most likely a business associate request.)

☐ Treatment of patient by health care provider (refer to 45 CFR 164.506 (c)(2) for definition)

☐ Payment activities performed by covered entity or health care provider (refer to 45 CFR 164.506 (c)(3) for definition)

b. Justify how the project falls into the category chosen above (3.2a).

This work is intended to produce a research paper, to be published in a health policy journal. It will promote our understanding of the prevalence of health insurance transitions and their relationship with health care utilization. This research is intended to advance our understanding of health insurance policy.

3.4 Human Subjects Research: Human subjects research is subject to approval by your organization's Institutional Review Board.

a. Does your project have approval for human subjects research from your organization's Institutional Review Board for this project? (IRB protocol and approval memo are mandatory for all research requests and requests for Medicare FFS data.)

☒ Yes ☐ Not applicable (project is not research on human subjects)

If yes, attach IRB application and approval memo and complete parts b-e below.

☒ IRB application and approval memo attached.

b. Describe how this application is within the scope of the current IRB approval.

This application is directly addressed in our IRB application. Oregon is one of 6 states for which we have applied to use APCD data. The analysis planned for all states is the same. As a result, the description of our research project in our IRB application is identical to that we intend to do with Oregon APCD data.

c. Describe why the approving IRB has jurisdiction over this project.

RAND's Human Subjects Protection Committee (HSPC) acts as RAND's institutional review board. It has jurisdiction over all research conducted at RAND.

d. Describe why the project could not be practicably conducted without a waiver of individual authorization (a waiver of individual authorization is provided by the IRB in cases in which the researcher does not need written authorization from participants to use their PHI):

Our study procedures use only secondary data that has been compiled by state APCDs in compliance with state and federal laws.

e. On what date does the IRB approval expire? 9/26/2018 (HSPC requires yearly renewal)

SECTION 4: DATA ELEMENTS

4.1 Limited Data Sets. Refer to the Data Element Workbook for more information about the data elements included in each Limited data file. *Please note*: OHA will only provide the minimum necessary required data for the project at hand. In other words, you will only receive those data elements that you request and adequately justify.

a. Are you requesting a Limited data set?

☐ Yes ■ No

If yes, please complete parts b and c below.

b. In the table below, indicate which Limited data file(s) you are requesting (refer to Section 6 for the cost of each file).

		Payer					
		All Payers[1]	Medicaid	Medicare Advantage	Commercial Insurance	OEBB/ PEBB	Medicare FFS[2]
Data File	Episodes of Care[3]	☐	☐	☐	☐	☐	☐
	All Medical Claims[4]	☐	☐	☐	☐	☐	☐
	Hospital Inpatient Claims	☐	☐	☐	☐	☐	☐
	Emergency Department Claims	☐	☐	☐	☐	☐	☐
	Ambulatory Surgery Claims	☐	☐	☐	☐	☐	☐
	Ambulatory Outpatient Claims	☐	☐	☐	☐	☐	☐
	All Pharmacy Claims[5]	☐	☐	☐	☐	☐	☐

c. Please indicate the year(s) requested for the data files selected above.

☐ 2011 ☐ 2012 ☐ 2013 ☐ 2014 ☐ 2015

[1] All Payers includes Medicaid, Medicare Advantage, and Commercial Insurance (including OEBB/PEBB).
[2] Medicare FFS data will only be given to projects in which OHA is funding and directing. Projects requesting Medicare FFS data will also need to be approved by requester's Institutional Review Board.
[3] Episodes of Care file contains all medical claims, all pharmacy claims, and fields from the Medical Episode Grouper (MEG). MEG is a proprietary grouping algorithm that creates episodes that describe a patient's complete course of care for a single illness or condition. If requesting Episodes of Care file, no other data file is needed.
[4] All Medical Claims file includes hospital inpatient, emergency department, ambulatory surgery and ambulatory outpatient claims, and other hospital treatment settings. If requesting all medical claims, you do not need to request these other data sets.
[5] All Pharmacy Claims file contains only pharmacy claims.

4.2 Custom Data Sets. Refer to the *Data Elements Collected by APAC* section of the APAC Data User Guide to view elements that are available in APAC. *Please note:* OHA will only provide the minimum necessary data for the project. In other words, you will only receive those data elements that you request and adequately justify.

a. Are you requesting a Custom data set?

☒ Yes ☐ No

4.3 Data Element Workbook: For both Limited and Custom data set requests, please complete the Data Element Workbook according to the instructions on the "Instructions" tab, including providing a justification for each element requested, and attach it to this application.

☒ Data Element Workbook completed and attached, including justifications for each element requested and payers tab completed.

4.4 Minimum Necessary Requirement: In addition to providing justification for each data element requested in the data element workbook, please explain why the project could not be conducted without the requested APAC data:

The following is also included as an attachment for convenience ("Minimum Necessary Requirement.docx").

The data requested for this research project are necessary because no other type of data, contains information about the health insurance coverage or health care utilization for as many consumers. Because health insurance transitions are relatively uncommon (with most enrollees remaining covered by the same insurance throughout the year and from year to year), a large data set such as that provided by APAC is necessary to have sufficient statistical power to describe the frequency of transition and assess their relationship with other characteristics including utilization.

We are requesting information about member enrollment dates. These data elements are critical to our ability to observe insurance transitions, which are the primary focus of our study. Other information on the enrollment file, such as payer type, product codes, and other details about the specific insurance plans in which individuals are enrolled, is necessary to identify the nature of the insurance transition in question and to model whether different types of transitions differ in their impacts on utilization and costs.

We are also requesting member birth year and month. These data elements are needed to allow us to calculate each member's age at all times under observation. We can omit member DOB day to reduce the identifiability of the data.

We have requested several physician identifiers (Provider ID, Provider Tax ID, NPI, DEA number, license number, and street address) to measure physician switching after insurance transitions. We have requested the variable prov_key, which we understand to be a Milliman-created variable allowing linkage of provider records across multiple payers. Additional physician identifiers have been requested to allow us to validate prov_key and conduct senstitivity analyses on a subset of provider switches that are identified with certainty or high confidence.

We have requested provider specialty to identify primary care physicians and encounters with particular types of specialists for patients with chronic conditions of interest.

We are requesting the HIOS plan ID, which is an ID number that uniquely identifies Qualified Health Plans sold on the Marketplace. This is necessary in order to merge contextual information at the plan level about benefit design, network size, and premiums onto our analytic file. We discuss this merge procedure further under item 5.2.

We are requesting the county of residence for enrollees and patients in order to merge on contextual information about Marketplace participation (e.g., number of Marketplace insurers) sociodemographics (e.g., age structure and racial/ethnic composition of overall county population) and local economic conditions (e.g., unemployment rate). We are not requesting city, zip code, or street address information in order to reduce the identifiability of the data.

We are requesting medical and pharmacy claims files to construct utilization, expenditure, continuity of care, and

SECTION 5: DATA MANAGEMENT & SECURITY

5.1 Data Reporting: APAC data or findings may not be disclosed in a way that can be used to re-identify an individual. Data with small numbers – defined as values of 30 or less (n≤30) or subpopulations of 50 or fewer individuals (n≤50) – cannot be displayed in findings or outputs derived from APAC data. Please describe the techniques you will use to prevent re-identification when findings or outputs result in small numbers or subgroups (e.g. aggregation, cell suppression, generalization, or perturbation).

We will use aggregation and, if necessary, cell suppression to avoid disclosing cells with fewer than 50 individuals or aggregate values smaller than 30. We anticipate that aggregation will be sufficient to avoid small cells in most cases because we will be primarily reporting on statewide transition probabilities, statewide averages, or regression coefficients estimated by pooling multiple years of data. However, in cases where our initially planned level of analysis yields small cells, we will reduce the risk of re-identification by aggregating to broader categories for reporting (e.g., reporting transition rates from all exchange plans rather than reporting by metal level) or aggregating across longer time frames to include more individuals. If needed, we will also engage in cell suppression (for example redacting two or more cells in a contingency table) to prevent re-identification of small subpopulations.

5.2 Data Linkage: OHA seeks to ensure that APAC data cannot be re-identified if it is linked or combined with data from other sources.

a. Does this project require linking to another data source?

Yes ■ No ☐

If yes, please complete parts b-d below.

b. At what level will data be linked? *Please note:* Linking at the individual patient level is only allowed in certain circumstances, and should be strongly justified.

Aggregate ■ Facility ☐ Patient ☐

c. Describe and justify all necessary linkages, including the key fields in each data set, how they will be linked, the software that will be used to perform the linkage, and why it is necessary to the project.

We propose to link APCD enrollment data to several sources of contextual information about the county in which an enrollee resides and characteristics of marketplace insurance plans. We will make no attempt to link data in the APCD to other person-level data. All linkages will be at the level of the county or the insurance plan, and after the linkages are made it will not be necessary to retain the county or insurance plan identifiers. We will not report results by county or by specific insurance plan or insurer. We will merge with county level characteristics from the Census Bureau and the Bureau of Labor Statistics (such as poverty rates, unemployment rates, average income, and population), and characteristics of the county's overall ACA marketplace from Qualified Health Plan files for 2014-2016 (such as the number of plans and insurers participating, and exit and entry of plans). For enrollees in ACA marketplace plans, we will also merge on plan-level variables about plan design (such as the coinsurance rate or deductible). This plan-level merge will be performed using the HIOS Plan ID, which is a unique identifier for Qualified Health Plans.

d. Describe in detail the steps will you take to prevent re-identification of linked data.

Because linked data is only contextual, not linked at the individual level, re-identification is unlikely. However, to protect against re-identification aided by linked data, we will remove county identifiers and the HIOS plan ID after the data have been merged.

5.3 Data Security:

a. Attach copies of data privacy and security policies for the requesting organization and any third party organizations that may have access to the requested data.

☐ Data privacy and security documents attached.

b. Describe your plans to manage access to the APAC data throughout the duration of the project, including:

- Ensuring compliance with all applicable federal and state laws and regulations regarding privacy and security of PHI and electronic health information, including but not limited to HIPAA and the HITECH Act;
- Ensuring any third parties accessing the data agrees to the same terms and conditions for securing and protecting the data as the requesting organization;
- Designation of a single individual as "Custodian" of APAC data, responsible for oversight of APAC data, reporting any breaches to OHA, and ensuring data is properly destroyed upon project completion.

All project staff are RAND employees and work in a RAND office. Any RAND employee who may come in contact with human subject data much complete a course in human subjects protection every three years.

The data custodian for the project is the lead programmer. He is responsible for permission to access the data, ensuring data at rest is encrypted, and reporting any lapse to the project PI. Once the project has ended, he is responsible for destroying the data.

c. Describe your personnel safeguards, including:
   - Procedures to restrict access to only those individuals with a need to know the information maintained in the requested data, and limit access to only the minimum data necessary;
   - Training for project personnel on how to properly manage protected health information and electronic health information;
   - Confidentiality agreements in place with all project personnel;
   - Written agreements in place with project personnel to follow organizational security and privacy policies, including a security risk management plan for APAC data.

Access to the data is restricted by a combination of username and password authentication, Linux user group inclusion, and Linux file and directory level permissions.

All project staff dealing with restricted data will sign an agreement that they will not attempt to identify any individual in the data.

All RAND employees are required to complete a course on information security every year, which emphasizes techniques for safeguarding critical information, avoiding attacks on the RAND network, and properly following security protocols on personal and network machines. In addition, any employee who may come in contact with human subject data much complete a course in human subjects protection every three years.

d. Describe your technical and physical safeguards, including:
   - Procedures to keep APAC data encrypted at rest and in transit;
   - Procedures for restricting transmission of APAC data, and method for secure transmission if needed;
   - User account controls, such as password protections, maximum failed login attempts, lockout periods after idle time, user audit logs, etc.;
   - Electronic device protections, such as anti-virus or anti-malware software, firewalls, and network encryption;
   - Procedures for restricting remote access to APAC data, and using encrypted connections if necessary to access data remotely;
   - Procedures for storing hard copy data, such as locked file cabinets and offices;
   - If applicable, procedures for handling direct identifiers, including storing identifiers separately from other APAC data.

Linux systems are equipped with GPG which is used to encrypt data at rest using AES-256. The data is kept on a server on the internal network. Access is restricted using username and password authentication, Linux group membership, and specific permissions for directories and filenames. Access to the data requires a connection to our internal network. The server drive is not mapped to the workstation network directly so the files are not visible from a Windows or Mac workstation.

If there is a need to have hard copy data, our office doors have locks, as do our file cabinets. Access to our building is restricted as well.

RAND considers our security procedures to be sensitive information. As a Federally Funded Research and Development Center (FFRDC) we are regularly inspected for compliance with Federal standards. Our unclassified information security has been certified NIST SP 800-171 compliant by the US Army.

All access to the data is done from within our internal network. Any work done remotely requires network access through a VPN.

e. Describe your administrative safeguards. You may refer to specific sections in the attached organizational privacy and security policies.

All project staff are RAND employees. If an employee leaves RAND their IT accounts are immediately locked and their physical access to the property is removed. If a project staff member leaves the project, the data custodian can immediately remove their access to the data.

All project staff has information security training and training on protecting sensitive information. Compliance with training requirements is monitored by Human Resources to ensure employees maintain their training.

All RAND research undergoes a strict Quality Assurance (QA) review. In addition to the review or written documents RAND will include a QA review of all statistical analysis programs. Reviewers are tasked with ensuring that the all work meets RAND's standards for high quality research and that the work has followed any agreed upon terms, either from the funder or those included in a DUA. Reviewers will be appraised of the DUA requirements and asked to check that all results are appropriate.

f. What tools and applications do you plan to use to access the data?

Data management and construction of an analytic file will be carried out using RAND's SAS Grid.

Statistical analysis will be carried out using Stata 14 and R.

g. Data must be destroyed within 60 days after the completion of the project, in a manner that renders it unusable, unreadable, or indecipherable. What are your plans for destruction of the dataset and any potentially identifiable elements of the data once the project has completed?

Within 60 days of completion of the project, the restricted data will be wiped off the storage computers and all removable media containing restricted data or backups of it. To delete restricted files, we will use a "Wipe File" utility which provides an extremely secure means of file deletion. Finally, any removable media will be destroyed using the "sensitive waste" disposal used by RAND.

h. Does any of the staff working on this project have a history of data or security breach?

☐ Yes ■ No

If yes, what procedures have been implemented to prevent future breach?

SECTION 6: COST OF DATA

6.1 Cost of Data: If requesting a Limited data set, please calculate the cost below. (This table should match the files/years selected in Section 4.) ***Please include payment with the application.*** Checks should be made to Oregon Health Authority and will not be cashed until application is approved. If requesting a Custom data set, an invoice will be sent if/when OHA approves request.

		Payers					
		All Payers	Medicaid	Medicare Advantage	Commercial Insurance	OEBB/ PEBB	Medicare FFS
Data File	Episodes of Care	☐ $3,000	☐ $1,000	☐ $1,000	☐ $1,000	☐ $1,000	☐ $1,000
	All Medical Claims	☐ $1,500	☐ $500	☐ $500	☐ $500	☐ $500	☐ $500
	Hospital Inpatient Claims	☐ $375	☐ $125	☐ $125	☐ $125	☐ $125	☐ $125
	Emergency Department Claims	☐ $375	☐ $125	☐ $125	☐ $125	☐ $125	☐ $125
	Ambulatory Surgery Claims	☐ $375	☐ $125	☐ $125	☐ $125	☐ $125	☐ $125
	Ambulatory Outpatient Claims	☐ $375	☐ $125	☐ $125	☐ $125	☐ $125	☐ $125
	All Pharmacy Claims	☐ $1,500	☐ $500	☐ $500	☐ $500	☐ $500	☐ $500
	a. Total each column	0	0	0	0	0	0
	b. Add column totals	0					
	c. Enter number of years of data requested (Q4.1.c)						
	d. Multiply rows b and c	0					
	e. OHA Production Cost	560					
	f. Add rows d and e for Total Payment	560					

☐ **Check box if payment is not included because Custom data set is requested.**

☐ **Check box if payment is not included for another reason. Please explain.**

SECTION 7: CHECKLIST AND SIGNATURE

7.1 Checklist: Please indicate that all of the following have been completed:

- ☐ All questions are answered completely.
- ☐ Data Element Workbook with justifications is attached, including justifications for each element requested and payers tab completed.
- ☐ IRB approval memo is included, if applicable. (IRB protocol and approval memo are mandatory for all research and requests for Medicare FFS data.)
- ☐ Copies of data privacy and security policies for the requesting organization and any third party organizations are attached.
- ☐ Payment is included, if applicable. If requesting a Custom data set, an invoice will be sent at a later date.
- ☐ Requester has the capability and resources to import and analyze these data sets. (See Guidelines for Receiving APAC data on page 2 of this application.) Payment will not be refunded if OHA fulfills the data request, but the receiving entity does not have the capability to import or analyze the data.
- ☐ Requester has reviewed the most recent APAC Data Issue Log on OHA's website. This is a log of known issues in APAC data and requesters should anticipate the effects of these issues on their projects and caveat their analyses accordingly. The log is updated as new issues are identified and/or known issues are corrected.

7.2 Signature: The individual signing below has all necessary authority to complete this application and sign on behalf of the organization identified in Section 1 above. By signing below, the signatory attests that all information contained within this data Request Application is true and correct.

Curtis M Hoy Digitally signed by Curtis M Hoy
DN: c=US, o=IdenTrust ACES Business Representative, ou=THE RAND CORPORATION, cn=Curtis M Hoy, 0.9.2342.19200300.100.1.1=A01096A0000013636FE2D69000018E2
Date: 2017.11.09 08:34:28 -08'00'

11/9/17

Applicant Signature (Project PI or Director) *Date*

Return completed form to apac.admin@state.or.us.

Completed form may also be printed and mailed to:
APAC Program Manager
Office of Health Analytics
421 SW Oak St., Suite 850 – APAC
Portland, OR 97204

Staff Use Only

Application Number: _____
(Should correspond with APAC-2 Pre-Application Number)

OR Application Research Methodology

2.4 Methodology: Describe the proposed methodology and analytic plan for the project (you may attach a 1-3 page description). Be sure to include in your description:

- Proposed sample selection algorithm;
- Any filters that will be used to limit the data requested, such as: year, zip code,age range, procedure codes, diagnosis codes, etc. Refer to the Data ElementWorkbook for a list of standard filters (you may include additional filters.);
- Why the proposed analytic methods were chosen.

While a wide range of transition patterns across the full spectrum of coverage sources could potentially be studied with the Oregon APCD, the primary focus of this study is on transitions to or from Marketplace and Medicaid coverage. The first priority for any subsequent analysis will be to establish basic descriptive patterns about transition rates into and out of coverage, durations of coverage, and seasonality in Medicaid and Marketplace coverage, since there is very limited evidence about these dynamics since the implementation of the ACA. We also intend to create transition tables that document the prevalence of transitions from any one insurance time to any other insurance type. We will focus on Medicaid, Marketplace, Employer Sponsored Insurance, other non-group insurance, and other public programs.

Another major focus of our research will be exploring the feasibility of using Oregon's APCD to identify gaps in coverage (i.e., spells without coverage by covered payers), and in characterizing the extent to which individuals alternate between Marketplace or Medicaid coverage and other insurance sources (including employer-sponsored insurance, other non-group coverage, or other public programs) that were not expanded under the ACA.

Specific statistics that we anticipate calculating include:

- Lengths of time in coverage experienced by plan enrollees
- Shares of Medicaid-enrolled and Marketplace-enrolled population transitioning off of plan coverage on a monthly or annual basis by coverage type
- Patterns in transitions (e.g., changes/spikes/drop off in number of transitions during certain months of the year)
- Source of prior coverage, including having no coverage or unknown coverage and each coverage source's share of enrollees
- Source of coverage post transition, including having no coverage or unknown coverage and each coverage source's share of enrollees
- Lengths of time for gaps in coverage experienced by enrollees

Our analysis will include the following descriptive analysis. Each contributes to documenting transition patterns.

- Create year on year transition matrices
- Estimate share of people experiencing a transition each month, year, over entire time frame, and by coverage type
- Use graphing software to produce visualizations describing rates of insurance transitions and trajectories across sources over time

- Use cluster analysis to identify the most common transition patterns observed in the data
- Document seasonal patterns in transitions
- Analyze duration of gaps
- Compare transition patterns before and after rollout of major ACA provisions in 2014.

In addition, we plan to estimate discrete-time parametric and semi-parametric transition models (e.g., exponential and Weibull regression, Cox regression, or more flexible transformation models) to identify the most important individual and contextual factors that predict insurance transitions. We will be interested in the roles of demographics (age, sex, race/ethnicity, and family structure), health status (as measured by comorbidity indices and diagnoses for specific chronic conditions), seasonality, and differences across Oregon counties in the number and net premiums of Marketplace plans. We have requested county of residence primarily to merge on contextual information about Marketplace offerings and premiums. These models can also be used to compare transition patterns pre- and post-ACA implementation while controlling for changing demographics, local economic conditions, and other confounding factors.[1]

Finally, to address our second research aim, we plan to study the impact of insurance transitions on health care utilization. Our basic research design will identify a sample containing both insurance switchers (those who change insurers while under observations) and insurance stayers (those who remain continuously insured in the same plan). As in Barnett et al. (2017), which used the Massachusetts APCD to study utilization after insurance switches, we will use nearest-neighbor matching to improve the comparability of insurance switchers and insurance stayers. After constructing a matched analytic sample, we will use event study regression methods to compare within-person changes in outcomes (such as cost, total utilization, or quality measures) between switchers and stayers over time. We anticipate using linear regression for normally distributed outcomes, but we note that count models or generalized linear models will likely be more appropriate for the proposed cost and utilization measures. Similarly, duration models for the time to rare events (such as primary care-sensitive hospitalizations) might make more efficient use of information than models for average outcomes over a fixed follow-up period.

---

[1] See Lancaster (1992) for Cox regression and transition models, Wooldridge (2002) for parametric transition models, and Han and Hausman (1990) for transformation models.

Wooldridge, Jeffrey M. 2002. Econometric Analysis of Cross Section and Panel Data. Cambridge, MA: MIT press.

Lancaster, Tony. 1992. The Econometric Analysis of Transition Data. Cambridge University Press.

Han, Aaron, and Jerry A. Hausman. 1990. “Flexible Parametric Estimation of Duration and Competing Risks Models.” Journal of Applied Econometrics 5 (1): 1–28.

DATA SAFEGUARDING PLAN

Transitions in Health Coverage

Project Description

The Assistant Secretary for Planning and Evaluation (ASPE) in the Department of Health and Human Services (HHS) has requested that RAND use data from multiple state All-Payer Claims Databases (APCDs) to establish basic facts about patterns of insurance transitions across sources of health insurance, and out of covered insurers.

The primary focus will be on quantifying rates of and predictors of transitions to, from, and between Medicaid and Marketplace plans, and on measuring gaps in coverage (i.e., spells when individuals are not covered by any form of insurance). In states where data collection began well before the 2014 implementation date of the major ACA coverage expansions, there will also be interest in comparing transition rates from the pre-ACA health insurance system to rates estimated for 2014 and later years.

Data

The study population will consist of non-elderly persons aged 0-64 in states meeting several criteria:

* Adopted ACA Medicaid expansion
* Established state-based marketplace
* Has APCD data suitable for analysis of health insurance transitions, including
* Coverage of Medicaid and Marketplace enrollees
* Sufficient coverage of all payers in state
* Maintenance of a database tracking plan enrollment
* Longitudinal identifiers available for tracking individuals across different payers
* Data available to outside researchers

We will use All-Payer Claims Database data from 2011 through the most recent year available from these states. The data will consist of claims and eligibility data for the study population.

Responsibility for Data Safeguarding

All project staff dealing with restricted data will sign an agreement that they will not attempt to identify any individual in the data. In the Data Protection Plan below, we describe the specific steps that will be taken to prevent *inadvertent* identification and release of private health information.

Safeguarding of electronic data will be carried out by the lead programmer with the oversight of study investigators.

All members of the project staff have experience working with restricted use data and are familiar with the guidelines for maintaining confidentiality. As an institution, RAND

has extensive experience handling sensitive data on health, demographics, and national security. All RAND employees are required to complete a course on information security, which emphasizes techniques for safeguarding critical information, avoiding attacks on the RAND network, and properly following security protocols on personal and network machines.

As lead programmer, Scot Hickey is responsible for ensuring data is store appropriately and access to the data is limited to project staff.

Data Sensitivity

Though key identifiers will be removed from the data making it not identifiable directly, subjects in the data could be identified by inference making this data is sensitive.

Disclosure Risks

Study subjects are not placed at risk of physical harms by virtue of their study participation. The primary source of potential risk associated with this study is a risk to confidentiality. A subject in the data could experience an adverse outcome if he/she were identified, and if his/her information were released into the public. The harm in this case would be a substantial violation of privacy.

Data and Safetyguarding Procedures

An appropriate set of procedures which are generally used to protect sensitive data will be adopted for use by the project. These procedures will include the following:

1. Preparing and maintaining a log of all sensitive data files acquired. Date materials are received and returned or destroyed will be recorded.

2. Training staff on data sensitivity and data safeguards being employed. Each staff member will sign a data confidentiality agreement for this project, and Michael Dworsky will maintain custody of the agreement. Project staff will be the only researchers granted access rights to the provided data or derived files. The only other individuals with rights to the machines are RAND's system administrators. These individuals are RAND employees with proper Department of Defense Security Clearance, who have broad responsibilities across all of RAND.

3. The data provider will encrypt the APCD data using a cryptographic module validated by the National Institute of Standards and Technology (NIST) to Federal Information Processing Standard (FIPS) 140-2 Level 1, and using an NIST-validated encryption algorithm, such as AES-256. This encrypted data will be sent to RAND by SFTP. Data provider will exchange cryptographic keys with RAND using a separate method of communication.

4. While at RAND, data at rest will be encrypted using AES-256 with a secure passphrase.

5. All derived data will be stored and analyzed on a grid of Linux workstations. Access to these files will be restricted by limiting access to computer hard drives over the RAND network to authorized personnel only and by securing physical

access to the computer with password protection. Computer user access to the disk with these data will be controlled by the file permission access system built into Linux (the chmod command). We will restrict the access permissions for all directories and files to project staff. The only other non-project team individuals at RAND who could by pass file permissions are RAND's system administrators who have root privileges (though these individuals will not have access to the encryption passwords). These individuals are RAND employees with proper Department of Defense Security Clearance, who have broad responsibilities across all of RAND.

6. Computer password protection will be activated whenever a project team member using the data leaves his/her office for extended periods of time and will also be set to activate automatically after 5 minutes

7. Hardcopy printouts will be kept to a minimum. We plan to print cases from the data as infrequently as possible. When it is necessary to print results, the printouts will be picked up from the printer as soon as they are printed or we will refrain from printing until we can do so. We will dispose of these printouts in the sensitive waste contains provided on every floor in the RAND building by the Security Office. Between the time the listings are printed and when they are disposed, we will secure them in a locked cabinet when they are not in use.

8. The data will only be kept as long as they are needed to complete this research, or any follow on or related research approved by the client. Once all relevant publications following from this research are completed, the data will be destroyed. While the exact timeframe for this is uncertain, and subject to change based on the publication process and any contract extensions, they will be within 60 days after the project end date.

9. RAND promises that private information to which RAND gains access during this project shall not be disclosed to any person, agency (governmental or other), corporation, or other entity, except to the extent that such disclosure is required by law. Only aggregated, non-identifiable information that is consistent with the guidelines of our research will be published and disseminated.

10. Upon completion of the project, the restricted data will be wiped off the storage computers and all removable media containing restricted data or backups of it. To delete restricted files, we will use a "Wipe File" utility which provides an extremely secure means of file deletion. Finally, any removable media will be destroyed using the "sensitive waste" disposal used by RAND

11. Reporting all violations of the Data Safeguarding Plan in writing to the Principal Investigator, with a copy to the Privacy Resource Office.

12. If required by a data provider, a site inspection visit to review the security of the data at RAND can be arranged by Katherine Carman or Scot Hickey.

Minimum Necessary Requirement

The data requested for this research project are necessary because no other type of data, contains information about the health insurance coverage or health care utilization for as many consumers. Because health insurance transitions are relatively uncommon (with most enrollees remaining covered by the same insurance throughout the year and from year to year), a large data set such as that provided by APAC is necessary to have sufficient statistical power to describe the frequency of transition and assess their relationship with other characteristics including utilization.

We are requesting information about member enrollment dates. These data elements are critical to our ability to observe insurance transitions, which are the primary focus of our study. Other information on the enrollment file, such as payer type, product codes, and other details about the specific insurance plans in which individuals are enrolled, is necessary to identify the nature of the insurance transition in question and to model whether different types of transitions differ in their impacts on utilization and costs.

We are also requesting member birth year and month. These data elements are needed to allow us to calculate each member's age at all times under observation. We can omit member DOB day to reduce the identifiability of the data.

We have requested several physician identifiers (Provider ID, Provider Tax ID, NPI, DEA number, license number, and street address) to measure physician switching after insurance transitions. We have requested the variable prov_key, which we understand to be a Milliman-created variable allowing linkage of provider records across multiple payers. Additional physician identifiers have been requested to allow us to validate prov_key and conduct senstitivity analyses on a subset of provider switches that are identified with certainty or high confidence. We have requested provider specialty to identify primary care physicians and encounters with particular types of specialists for patients with chronic conditions of interest.

We are requesting the HIOS plan ID, which is an ID number that uniquely identifies Qualified Health Plans sold on the Marketplace. This is necessary in order to merge contextual information at the plan level about benefit design, network size, and premiums onto our analytic file. We discuss this merge procedure further under item 5.2.

We are requesting the county of residence for enrollees and patients in order to merge on contextual information about Marketplace participation (e.g., number of Marketplace insurers) sociodemographics (e.g., age structure and racial/ethnic composition of overall county population) and local economic conditions (e.g., unemployment rate). We are not requesting city, zip code, or street address information in order to reduce the identifiability of the data.

We are requesting medical and pharmacy claims files to construct utilization, expenditure, continuity of care, and outcome measures. In order to measure total utilization, we need information about dates of service, hospital admission dates, dates when prescriptions were filled, and paid dates.

We will need to work with the most precise information available about dates of insurance eligibility and dates of service. Our research questions require accurate measures of the occurrence and timing of transitions in health coverage. We also plan to construct measures of utilization, continuity of care, and other outcomes based on medical/pharmacy claims data on a

time frame defined relative to the date of health insurance transitions. Information about the exact timing of insurance transitions and health care utilization will be critically important for our ability to determine whether episodes of care and other medical events occur before or after care transitions, and to make statistically efficient use of information about the timing of medical events relative to insurance transitions. For patients with certain chronic conditions requiring regular care or medication (e.g., warfarin for cardiovascular disease patients or lithium for bipolar disorder) interruptions in care or access to medication may be clinically meaningful even if the interruption does not last for a full month. Similarly, we may be interested in modeling the duration between insurance changes and receipt of specific preventive or curative procedures, and the statistical efficiency of such modeling will be enhanced if day-frequency data on receipt of care and insurance transitions is available.

Finally, to measure continuity of care, we also need to know what procedures were rendered and what medications were provided. Information about diagnoses associated with procedures, hospitalizations, and other health care events is needed to construct certain patient outcome measures (e.g., to identify primary care-sensitive hospitalizations), to implement risk-adjustment in models for cost and utilization, and to carry out our matching strategy for studying the effect of transitions on utilization and continuity of care.

CAROLYN TSCHOPIK
HSPC ADMINISTRATOR

1776 MAIN STREET
P.O. BOX 2138
SANTA MONICA, CA
90407-2138

TEL 310.393.0411 X 6124
FAX 310.393.4818
tschopik@rand.org

September 27, 2017

To Whom It May Concern:

On 9/27/2017, the Human Subjects Protection Committee (HSPC) approved the study described below in expedited review Category 5.

The HSPC approved a waiver of informed consent under 45 CFR 46.116(d).

Approval of the study is for the period of 9/27/2017 to 9/26/2018.

HSPC Project ID:	2017-0656
Project Title:	Transitions in Health Coverage
Principal Investigator:	Katherine Carman
Funding Source:	HHS ASPE
Prime Recipient:	RAND
RAND Unit:	Health
Assurance Number:	FWA00003425
IRB ID Number:	IRB00000051
Administrator:	Carolyn Tschopik

The HSPC is RAND's Institutional Review Board to review research involving human subjects, as required by federal regulations. RAND's "Federalwide Assurance for the Protection of Human Subjects" (FWA00003425, effective through July 1, 2018) serves as our assurance of compliance with the regulations of 16 federal departments and agencies. According to this assurance, the Committee is responsible for review regardless of source of funding.

Sincerely,

Carolyn Tschopik

Carolyn Tschopik
Administrator
RAND Human Subjects Protection Committee

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RAND HSPC Information Online (RHINO)

Date: 9/28/2017 12:40:51 PM

Print | Close

ID: 2017-0656

Study #:2017-0656

Last Update from Study Team: Mon Sep 25 14:33:36 PDT 2017

1A Study Introduction

1A1 Study Description

1A1.1 ** **Title:**

Transitions in Health Coverage

1A1.2 ** **Provide a brief summary or abstract for this study. Describes its purposes, study methods (i.e., participants, procedures, data sources), and expected results.** (5,000 character limit)

The Assistant Secretary for Planning and Evaluation (ASPE) in the Department of Health and Human Services (HHS) has requested that RAND use data from multiple state All-Payer Claims Databases (APCDs) to establish basic facts about patterns of insurance transitions across sources of health insurance, and out of covered insurers. Health insurance coverage in the US is often subject to instability due to changes in employment circumstances or family income. Although the creation of the Marketplaces and the expansion of Medicaid under the Affordable Care Act have expanded opportunities for coverage and reduced uninsurance rates to historic lows, research suggests that these new coverage options are also likely to be subject to frequent transitions (or "churning") across coverage sources, and between insurance and uninsurance (J. C. Barnett and Vornovitsky 2016; Sommers et al. 2014).
All-Payer Claims Databases (APCDs) may offer a valuable resource for researchers and policymakers to investigate and monitor health coverage transitions. Studying transition patterns in detail can be challenging with publicly available survey datasets because most insured adults do not switch insurance in a typical year (Carman, Eibner and Paddock, 2015). Because APCDs include information for large fractions of the population, they are well suited to studying less common changes in insurance. The Massachusetts APCD has previously been used to study physician switching after changes in insurance, yet many basic facts about insurance transitions and their distribution across the population have not been rigorously documented. Similarly, there is little research focused on the consequences of insurance transitions for costs, health care quality, and patient outcomes.

The purpose of this study is to assess patterns of health insurance transitions and to understand their relationship with health care utilization. The research will encompass two major research goals:
* Comprehensively describe patterns of insurance transitions for nonelderly adults and families, including an analysis of the factors that are most important for predicting transition behavior.
* Characterize health care utilization and expenditure dynamics before and after insurance transitions, with an emphasis on continuity of care and patterns of utilization that might indicate adverse selection.

The first goal will focus on on quantifying rates of and predictors of transitions to, from, and between Medicaid and Marketplace plans, and on measuring gaps in coverage (i.e., spells when individuals are not covered by any form of insurance). In states where data collection began well before the 2014 implementation date of the major ACA coverage expansions, there will also be interest in comparing transition rates from the pre-ACA health insurance system to rates estimated for 2014 and later years.

The second goal will focus on whether insurance transitions are related to health care utilization. We will focus on those transitions described in the paragraph above and study their relationship health care utilization.

The study population will consist of non-elderly residents (age 0-64) in states meeting several criteria:

* Adopted ACA Medicaid expansion
* Established state-based marketplace
* Has APCD data suitable for analysis of health insurance transitions, including
* Coverage of Medicaid and Marketplace enrollees
* Sufficient coverage of all payers in state
* Maintenance of a database tracking plan enrollment
* Longitudinal identifiers available for tracking individuals across different payers
* Data available to outside researchers

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We will use data from 2011 through the most recent year available (2016 in most states).

Our expected results will include findings about the incidence rates of different insurance transition patterns, estimates of what factors are most important for predicting transitions and the degree to which serial transitions (or churning) are concentrated among specific populations, and estimates of the effect of insurance transitions on utilization, costs, quality, and outcomes.

1A1.3 ** **Who is the intended audience for the results of this study? Where and in what form will you disseminate results? What are the potential benefits of the study to society?**

The primary intended audience is ASPE (the client).

We plan to produce a publicly available RAND Report which should also be of broad interest to state and federal policymakers concerned with health insurance policy and the performance of new coverage options established under the Affordable Care Act.

This study might confer several benefits on society. Insurance transitions can disrupt continuity of care and as such may be undesirable for patients with significant health care needs. However, insurance transitions have been difficult to study in detail with survey datasets because most individuals do not experience an insurance transition in any given period of time. The use of APCD data to study insurance transitions will thus provide new insights into how common these transitions are and may help policymakers prioritize future health policy reforms. E.g., if we find that churning between Medicaid and Marketplace plans is common or is concentrated among subgroups with high income volatility, states might promote continuous coverage by establishing automatic enrollment policies or by requiring Medicaid Managed Care plans to offer Marketplace plans with the same network.

1A1.4 ** **Research Unit(s):**

- ☐ Arroyo Center
- ☐ Child Policy
- ☐ Education
- ☑ **Health**
- ☐ Homeland Security Division
- ☐ Justice, Infrastructure, and Environment *
- ☐ Labor and Population
- ☐ National Security Research Division
- ☐ Project AIR FORCE
- ☐ Pardee RAND Graduate School
- ☐ Other
- ☐ N/A

* JIE includes all work fomerly done under ISE, ICJ, and LBR.

1A2 Study Staff

1A2.1 ** **Principal Investigator.** (If there are multiple PIs, please designate one PI here as being responsible for human subjects protection. Include the other PIs in the study staff list asked for in the next question.) The PI will receive all emails on the project from the HSPC. The PI in OASIS is the PI in RHINO.
Katherine Carman

1A2.2 **Study Staff List.** Enter the names of all study staff whom you want to have view and edit privileges for the study file in RHINO. Note that these staff will receive all emails on the project from the HSPC.

Last Name	First Name	Organization
Bogdan	Olena	PRGS Fellows
Duffy	Erin	PRGS Fellows
Dworsky	Michael	Global Research Talent Operations

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1A2.3 **Primary HSPC Contact.** You can designate only one person as the primary contact. This can be the PI or a study staff member listed above or anyone else you choose. The Primary HSPC Contact should be someone who can be reached quickly if there is a question. The person designated a primary contact will receive all emails on the project from the HPSC.
Katherine Carman

1A2.4 **Other Key Personnel.** In order to (1) determine the experience of the study staff and (2) avoid reviewer assignment conflicts, please identify other key personnel involved in the study. The individuals you list here will not receive email notifications or have view/edit rights on the study in RHINO. *Note: To avoid reviewer assignment conflicts, you can see if staff on your study would potentially be reviewers by looking at the HSPC membership list.*

	Last Name	First Name	Organization	Role
View	Case	Spencer	Behavioral and Policy Sciences	Project Assistant
View	Hickey	Scot	Information Services	Other

1A2.5 **Email List**. Specify any other RAND staff (i.e., beyond the study staff) who should receive email notifications about this study. The persons you list here will have read-only access privileges to the study file.

Last Name	First Name	Organization	E-Mail
There are no items to display			

1A3 Screen for Involvement of Human Subjects and Eligibility for Exemption

1A3.1 ** **Before completing the full set of review questions, would you like to see if any of the population-procedure components of your study do not require review or are exempt from review?**

- (●) **A. Yes - I want to see if all of the population-procedure components are exempt or do not require review.**
- ( ) B. Yes - I want to see if some of the population-procedure components are exempt or do not require review.
- ( ) C. No - Take me to the full set of the review questions.

1A3.2 If your existing population(s) and procedure(s) need to be modified, you will need to select option B above and then edit the populations and procedures on screens 1C and 1D.

Version 2.15

1B Study Funding

1B1 Funding Status

1B1.1 * **Funding Status:**

- ( ) Proposed
- ( ) Sponsor requires review before funding (Just in Time Review)
- (●) **Funded**
- ( ) Initiated, but not yet funded

1B2 * **Funding Sources.**
Click Add to list a funding source. To edit, click on the [Edit] link. To delete, check the checkbox next to the funding source to be removed, then click Delete.

	Name	Project Task Number	Proposal Number	Funding Institution Type	Instiution Other	Status
View	HHS ASPE	HDS0110B-HPHAC27		Federal Govt		Completed

1B3 Prime Contractor

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1B3.1 * **Which institution is the prime contractor or grantee?**
RAND

Version 2.15

1C Populations and Procedures

1C1 ** **Specify Populations - Click Add to list a population. To edit, click on the link. To delete, check the checkbox and click Delete.**

Population	Created
Non-Elderly Adults and Children	8/28/2017

1C2 ** **Specify Procedures - Click Add to list a procedure. To edit, click on the link. To delete, check the checkbox and click Delete.**

Procedure	Created
Statistical Analysis of Health Insurance Transitions	8/28/2017

Version 2.15

1D Populations and Procedures Matrix

Population Procedures:

Population	Procedure	Check here if this procedure applies to this population	Check here to see if your study meets the criteria for the abridged set of review questions
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑	☑

Version 2.15
ID: 2017-0656

2 Is This Reviewable?

Population	Procedure	Complete screeners by clicking on all active links below	Status
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	2A Determining Human Subjects Involvement	Completed
		2B Adult Interviews and Surveys Exemption	Not Applicable
		2C Existing Data Exemption	Completed
		2D Regular Educational Practices Exemption	Not Applicable
		2E Public Benefit Program Research Exemption	Not Applicable
		2F Taste and Food Evaluation Exemption	Not Applicable
		2G Elected Officials, Political Appointees Exemption	Not Applicable

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Population

Procedure	Complete screeners by clicking on all active links below	Status
	2H Final Screening Questions	Completed
	Follow up questions will be asked	

Your project may not involve human subjects of research. For each component above that indicates "Follow up questions not required" please go to Screen 7A and attach a data safeguarding plan as a Miscellaneous Document. For those components that involve the collection of new data, please also attach the consent protocol and questions.

Non-Elderly Adults and Children: Statistical Analysis of Health Insurance Transitions

2A Determining Human Subjects Involvement

2A1 Activities That Do Not Involve Human Subjects

2A1.1 * **Will you be doing any of the following activities which *would not be* classified as involving human subjects? You will be asked about other research activities later.**

- ☐ A. Providing advisory services or expert consultation without additional data collection (e.g., surveys) or use of previously collected data (e.g., school records).
- ☐ B. Convening a conference or meeting with no data collection other than an anonymous evaluation (for example, the conference may not be used as a focus group).
- ☐ C. Preparing a concept paper or op-ed piece, or otherwise developing an article that doesn't require any new research activity.
- ☐ D. Conducting a review of published literature or historical research that doesn't involve reviewing identifiable information (unpublished) about living individuals.
- ☐ E. Using existing anonymous unrestricted data from publicly available sources (e.g., Census, Current Population Survey).
- ☐ F. Using previously collected data not provided at the individual person level (e.g., aggregate data, data recorded at the transaction or event level that does not contain any indicator about individuals, data recorded on operations or systems that does not contain any indicator about individuals).
- ☐ G. Interviewing individuals to gather factual information about organizations and their activities (e.g., weapons acquisitions program, logistics workflow) if it would not lead to damage to employability if there was a breach of confidentiality (e.g., identifying a whistleblower).
- ☑ **H. None of the above**

2A1.5 Since you selected "None of the above" on 2A1.1, an answer needs to be provided on 2A2.1 below. If you do not believe that you are doing any of the activities listed below in 2A2.1, please contact the HSPC Helpdesk at x4772.

2A2 Activities That Are Typically Classified to Involve Human Subjects

2A2.1 * **Will you be doing any of the following activities which are typically considered to involve human subjects? (Check all that apply)**

☐	A. Expert panel or workshop to discuss current or future concepts and systems	(e.g., meetings of experts to arrive at shared advice, decisions and recommendations; obtain views on their utility; issues for system design)
☐	B. Interview	(e.g., oral or background interviews with key individuals)
☐	C. Survey	(e.g., written, internet, mail)
☐	D. Focus group or group discussion for data collection purposes	
☐	E. Observation of public behavior	
☑	**F. Analysis of person-level data from extant records or previously collected datasets**	**(extant records such as educational, criminal, military, or medical records)**
☐	G. Tests or assessments related to education/training	
☐	H. Psychological tests or assessments	
☐	I. Physical exams or measurements	

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☐ J.	Social-behavioral intervention	(e.g., effect of counseling on drug use, effect of innovative educational practices on learning, effects of training or new procedures on individual performance, assignment to experimental conditions, or pilot demo programs)
☐ K.	Clinical treatment or intervention	(e.g., nutritional supplementation)
☐ L.	Specimen collection	(e.g., collection of blood, urine, hair, or other material for tests, including genetic testing)
☐ M.	Any other activities which will gather person-level information	

2A3 - Information Acquired/Accessed

2A3.1 * **Please specify the information that you will be acquiring, accessing, or recording as part of data collection. (Check all that apply)**

☐ A.	Attitudes, opinions, judgments from a living individual, including opinions about organizations and performance	
☐ B.	Facts about organizations, programs, and systems, such as their policies and procedures	(e.g., statistics whether estimated or measured)
☑ C.	**Personal data about or personal experiences of a living individual**	**(i.e., private information that is recorded as part of data collection)**
☐ D.	Other (specify below)	

2A3.7 This study component does involve human subjects of research because attitudes, opinions, judgements, or personal data/experiences will be collected. In order for a reviewer to determine whether this study component is exempt, please select an exemption category below. This will expose questions on other screens that the reviewer will need to make this determination.

2A4 Proprietary Information

2A4.1 * **Could the research involve proprietary information (i.e., trade or business information that belongs to an organization)?**
Yes

2A4.2 Note: RAND has policies regarding the handling of proprietary information. Please review the policies on the intranet before acquiring any such information.

2A5 Choose Exemptions to Qualify For

2A5.1 **This component may qualify for one of the exemptions listed below. Please check any boxes to see which exemptions the component may qualify for.**

☐ A.	Adult Interviews and Surveys Exemption	
☑ B.	**Existing Data Exemption**	
☐ C.	Regular Educational/Training Practices Exemption	
☐ D.	Public Benefit Program Research Exemption	
☐ E.	Taste and Food Evaluation Exemption	
☐ F.	Elected Officials, Political Appointees Exemption	
☐ G.	None of the Above	

2A5.3 If you elect to apply for one or more exemptions which are not granted, a few of the questions you are asked regarding exemption eligibility may be repeated in sections 3 – 7 of the study form with regard to specific procedures in your study.

2C Existing Data Exemption

2C1 * **Are all of the data to be acquired or accessed publicly available with no conditions on use, transfer, or publication?**
No

2C2 Datasets Gathered

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2C2.1 * **Listed below are some of the common types of existing datasets gathered at RAND. Keep in mind that to qualify as existing data, the data collection effort must have been completed before the start of the current project.** (Check all that apply)

- ☐ A. Education records (e.g., school administrative data, grades or test scores)
- ☑ **B. Medical records (e.g., symptoms, diagnosis, or treatment; Medicare data)**
- ☐ C. Personnel records (e.g., DMDC data or employment history)
- ☐ D. Criminal justice records (e.g., arrest, conviction, imprisonment, probation or parole)
- ☐ E. Audio or video recordings
- ☐ F. Organizational/miltary records (e.g., lessons learned reports, transcripts, chat logs, email records, system records, transaction information)
- ☐ G. Policies and procedures
- ☐ H. Biologic specimens
- ☐ I. Previously collected quantitative or qualitative research data
- ☐ J. Other existing dataset

2C3 Restrictive Conditions to Acquire/Access Data

2C3.1 * **Are any of the data to be acquired or accessed available only under certain restrictive conditions (e.g., the data provider requires the signing of a data use agreement or requires expedited or full committee review by the HSPC before the data will be released to the study)?**
Yes

2C3.2 * **If "Yes", what are the restrictions?**
Prior to receiving the data, requestors will be required to sign a legally binding data use agreement contract.

2C4 Data Identifiability

2C4.1 * **In determining risk, it is important for the HSPC to understand whether individuals can be identified by the data you acquire or access. Which of the following identifiers are you collecting?** (Check all that apply)

☐ A. Names	including names appearing on consent forms, payment receipts, medical records, and emergency contact lists
☑ **B. Location and Contacting Information**	**including any address information smaller than state, telephone or fax numbers, email addresses, web URLs, and IP addresses**
☑ **C. Dates**	**including birth date, marriage date, and treatment or visit dates from medical records**
☑ **D. Identification Numbers**	**including Social Security Numbers, medical record or health plan beneficiary numbers, account numbers, student ID numbers, certificate or license numbers (e.g., driver's license), vehicle identifiers and serial numbers (e.g., license plates), and device identifiers and serial numbers (e.g., serial numbers on surgical implants)**
☐ E. Audio, Video, or Biometric Indicators	including photographic or video images, audio recordings, and finger or voice prints
☐ F. None of the Identifiers Listed Above	by checking this box you certify that you are not obtaining any of the information listed above

2C5 **If you have additional information to support an Existing Data Exemption, please provide it here.**
Location: We will use data on county of residence because Marketplace insurers choose whether or not to participate at the county level. County may thus be a critically important variable for analyzing how Marketplace prices and market structure affect insurance transitions. We are not requesting geographic detail below the county level.

Dates: Dates will include start and end dates (aggregated to the monthly level) for spells of health insurance coverage.

Identification numbers: Each state constructs a unique person-level longitudinal identifier based on direct identifiers reported by payers to the state. Our research design requires the use of this identifier and information about current age: a longitudinal ID is necessary to measure insurance transitions, while age is likely to be a key explanatory variable in predicting transitions. However, we do not need to request the direct identifiers (name, date of birth, and Social Security Number) used to create a unique individual identifier.

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3A Research Overview - Dates

3A1 Start Dates

3A1.1 * **Project Start Date (mm/dd/yyyy): (Grant and non-FFRDC research should use the award date as the project start date. FFRDC research should use the date on which the project task number was opened.)**
7/1/2017

3A1.2 * **Anticipated Data Acquisition Start Date (mm/dd/yyyy): *(Note: This should include pilot/pretest activites)***
11/1/2017

3A2 End Dates

3A2.1 * **Anticipated Data Acquisition End Date (mm/dd/yyyy):**
2/28/2018

3A2.2 * **Anticipated Data Analysis End Date (mm/dd/yyyy): (The date on which data analysis is completed and reports or articles have been published.)**
9/30/2018

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3B Research Overview - External Organizations Collaborating in the Research

3B **If a collaborating institution is participating in human subjects research as defined by the regulations, either its own IRB must review its activities or it must arrange to have a registered IRB (e.g., RAND's HSPC) do the review.**

Organization	Status
Dept of Health and Human Services, Asst. Secretary for Planning and Evaluation	Completed

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3B Research Overview - External Organizations Collaborating in the Research

3B1 ** **Name of external organization.**
Dept of Health and Human Services, Asst. Secretary for Planning and Evaluation

3B2 External Organization Staff Activities

3B2.1 * **External organization staff will be involved in the following (Check all that apply):**

- ☐ A. Give RAND names and contact information to assist in subject recruitment without their prior written consent
- ☐ B. Obtaining informed consent
- ☐ C. Collecting data
- ☐ D. Receive identifiable person-level data
- ☑ **E. Sharing responsibility for research design, data analysis, and/or interpreting and reporting results**
- ☐ F. Performing other activities
- ☐ G. None of the above

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3B2.4 If you check options A - E, it may be necessary for this external organization to obtain an IRB review because the activities this organization will be performing could be considered to be human subjects research.

3B3 IRB Review

3B3.1 * **Will the external organization be carrying out its own IRB review?**
No

3B3.2 * **Will the external organization be deferring IRB review?**

◉	**A.**	**Yes - to RAND's HSPC**
○	B.	Yes - to another IRB
○	C.	No
○	D.	Don't know

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4A - Populations

Click on the link for each Population to answer the questions for that population.

Population	Status
Non-Elderly Adults and Children	Completed

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Non-Elderly Adults and Children

Related procedures:

- *Statistical Analysis of Health Insurance Transitions*

Required fields are indicated with a red asterisk (*) to the left of the question.

4A1 Piloting or Pretesting Procedures

4A1.1 * **Will you be piloting or pre-testing procedures or instruments for this population?**
no

4A2 Inclusion Criteria

4A2.1 * **Please give the inclusion or selection criteria for participation in the research.** *Note: questions on exclusion criteria will be asked later.*
Our study population will include all non-elderly residents (Adults and Children) of 6 states who are covered by health insurers participating in the state's APCD. Data from 6 states will be included in our analysis: Colorado, Massachusetts, New Hampshire, Oregon, Rhode Island, and Vermont.

All residents covered by insurance will be included in our data unless they covered by a small insurance company.

4A2.2 * **Please indicate which, if any, of the following vulnerable populations would be intentionally included among your research subjects as part of your study design. Do not check any that may be included incidentally.**

☑	**A.**	**Children/minors**
	B.	Prisoners, incarcerated individuals, detainees, parolees, probationers

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- [ ]
- [ ] C. Cognitively impaired persons
- [ ] D. Seriously or terminally ill individuals, including those with serious mental illnesses
- [ ] E. Illegal immigrants
- [ ] F. Economically or educationally disadvantaged individuals
- [ ] G. Other potentially vulnerable participant groups
- [ ] H. None of the above

4A2.7 * **Could prisoners, incarcerated individuals, detainees, parolees, or probationers be included in your sample either inadvertently or by chance?**
yes

4A2.8 * **Please explain the circumstances under which this might happen and any steps that may be taken to prevent them from being enrolled.**
Non-elderly parolees and probationers who are covered by health insurance may be included in the data; the data provider does not have any information about individuals' justice involvement, nor will we.

4A2.9 Because this is a protected population, there may be additional requirements for informed consent, interactions, and use of subjects' data.

4A3 Exclusion Criteria

4A3.1 * **Are you going to intentionally exclude anyone because of gender, racial/ethnic groups, or language fluency?**
no

4A3.3 * **Are there additional criteria for excluding individuals from participation not described above (such as minimum time in current job, specific health conditions, cognitive impairment, literacy)?**
no

4A4 Coercion or Undue Pressure to Participate

4A4.1 * **Are any of the participants in a situation, role, or position where they could be coerced or feel undue pressure to participate (e.g., employer/employee, doctor/patient, supervisor/subordinate, student/teacher)?**
no

4A5 Participant Recruitment

4A5.1 * **Next we will be asking questions related to communication or interaction with potential study participants. These questions will cover number of participants, recruitment procedures, recruitment materials to be used, obtaining informed consent, and contact after the research ends.**

How will the study staff (including subcontractors and vendors) be communicating or interacting with individuals from this population?

- [ ] D. None of the above

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5 - Procedures

Procedure	Answer questions by clicking on all active links below	Status
Statistical Analysis of Health Insurance Transitions	5A Procedures - Interventions: Overview	Not required

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5B Procedures - Interventions: Biologic Samples or Specimens	Not required
5C Procedures - Interactions with Participants	Not required
5D Procedures - Secondary Data	Completed
5E Procedures - Risks	Completed
5F Procedures - Benefits, Incentives, Costs	Not required
5G Procedures - Confidentiality	Completed

Statistical Analysis of Health Insurance Transitions

3C Research Overview - Procedures

Related Populations:

- *Non-Elderly Adults and Children*

3C1 Procedure Description

3C1.1 * **Which of the following describes this procedure? (Check all that apply)**

☑ **A. Acquiring previously collected person-level information**	**(e.g., medical records, census data, employment records, education records, other existing datasets)**
☐ B. Interview	(e.g., phone interview)
☐ C. Survey (either oral or written)	(e.g., mail survey, web survey)
☐ D. Group discussion	(e.g., focus group, expert panel)
☐ E. Observation of individuals or groups	(e.g., in-person visual observation, video observation)
☐ F. Educational testing	(e.g., aptitude testing, military/vocational training assessment)
☐ G. Psychological testing, measurement, or assessment	
☐ H. Physical exam, testing, measurement, assessment (w/o specimen collection)	(e.g., blood pressure, weight measurement,)
☐ I. Biologic sample collection	(e.g., tissue, blood, urine, saliva)
☐ J. Testing of existing biological samples	(e.g., testing for the presence of disease or drugs)
☐ K. Socio-behavioral or educational intervention	(e.g., randomized trials, quasi-experimental designs, demonstration projects)
☐ L. Clinical treatment	(e.g., administering drugs, therapy)
☐ M. Other intervention research procedures	(e.g., physical procedures, manipulating environment to evaluate impact on outcome)
☐ N. Other interaction research procedures	(e.g., obtaining information from individuals)

3C2 Secondary Data Follow-Up Questions

We will ask a few secondary data questions at this point to determine whether some of the population and procedure questions on the later screens can be skipped.

3C2.1 * **Will the secondary data received by this RAND project (including RAND subcontractors) include any of the following types of identifiers? (Check all that apply)** *Note: You may have answered this question on screens 2B or 2C if you applied for an exemption for one or more population-procedure components of your study. However, your information is not carried over automatically because your prior answer was not at the procedure level and this may differ.*

A. Names

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☐		including names appearing on consent forms, payment receipts, medical records, and emergency contact lists
☑	**B. Location and contacting information**	**including any address information smaller than state, telephone or fax numbers, email addresses, web URLs, and IP addresses**
☑	**C. Dates**	**including birth date, marriage date, and treatment or visit dates from medical records**
☑	**D. Identification numbers**	**including Social Security Numbers, medical record or health plan beneficiary numbers, account numbers, student ID numbers, certifcate or license numbers (e.g., driver's license), vehicle identifiers and serial numbers (e.g., license plates), and device identifiers and serial numbers (e.g., serial numbers on surgical implants)**
☐	E. Audio, video, or biometric indicators	including photographic or video images, audio recordings, and finger or voice prints
☐	F. None of the identifiers listed above	by checking this box you certify that you are not obtaining any of the information listed above

3C2.6 * **Who will be able to identify a participant in the dataset? (Check all that apply)**

- ☐ A. Research team members (whether or not they are RAND associates)
- ☑ **B. Person or organization providing the data (i.e., data provider)**
- ☐ C. Subcontractors, vendors, or other service providers hired by RAND (other than the data provider)
- ☐ D. Anyone else who is not on the research team

3C2.7 * **Is there a written agreement involved in obtaining the data (e.g. data use agreement, web based agreement, other conditions on use)?**

- ◉ **Yes**
- ○ No
- ○ Don't know

3C3 You will be asked to complete the following screens in section 5 for this procedure based on your answers given above:

- 5D Procedures - Secondary Data
- 5E Procedures - Risks
- 5G Procedures - Confidentiality

5D Procedures - Secondary Data

5D1 * **Which previously collected person-level information (e.g., medical records, census data, employment records, education records, other existing datasets) will you acquire? If unsure, please list what you are considering.**

To analyze health insurance transitions using APCD data, we will be working with person-level records of health plan enrollment at the monthly frequency. I.e., covered payers provide the APCD administrator with a list of current enrollees at the monthly frequency.

In addition to the state-constructed longitudinal identifer, we also will obtain selected individual-level and health plan characteristics. Individual characteristics will include the following sociodemographics:

* Age
* Sex
* Race/Ethnicity

We are also requesting county of residence so that we can add contextual information about the availability and price of available Marketplace plans

* County of residence

Health plan characteristics (in addition to a plan identifier) will include the following:

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* Type of plan (e.g., Medicaid, ESI, CHIP, Marketplace)
* Type of plan (e.g., HMO, PPO, etc.)
* Medicaid eligibility pathway
* Coverage tier (e.g., family vs single)

We will also collect information on medical claims to address our second research aim, we plan to study the impact of insurance transitions on health care utilization. Our basic research design will identify a sample containing both insurance switchers (those who change insurers while under observations) and insurance stayers (those who remain continuously insured in the same plan). For these groups we will compare the timing of medical appointments and the total amount spent on medical claims.

5D2 Private Health Information

5D2.1 * **Will private health information (e.g., medical records, health-related administrative data, health insurance claims, pharmaceutical data) be acquired?**

- (●) **Yes**
- ( ) No
- ( ) Don't know

5D2.2 * **If "Yes", from whom will the private health information be acquired?**

- ( ) A. Participant (including participant's parent/guardian)
- ( ) B. Medical care provider/insurer (e.g., a doctor or other health care provider, hospital, insurance company, managed care company, other covered entity under HIPAA)
- (●) **C. Other**

5D2.3 * **If "Other", please describe from which other individuals will the private health information be acquired.**
The state All-Payer Claims Database.

5D3 Agreements for Obtaining Data

5D3.1 * **Previously you indicated that a data use agreement or other paperwork is involved in obtaining the data. Do you have the written agreement available to upload in draft or final form?**
yes

5D3.2 If "Yes", you will be able to upload the data use agreement or other paperwork in Section 7.

5D4 Merging Data

5D4.1 * **Do you plan to merge and retain person-level secondary data with person-level data from other sources (e.g., other existing records, datasets, interview data from this study)?** *Note: Do not consider data that will be used only to contact participants and will not be retained in the study data*
no

5D5 Destroying Data Identifiers/Link File

5D5.1 * **Will the data identifiers or link file maintained by the project ever be destroyed?**

- (●) **Yes**
- ( ) No
- ( ) Don't know

5D5.2 * **If "Yes", when do you estimate that the data identifers or link files will be destroyed? (mm/dd/yyyy)**
4/1/2019

5E Procedures - Risks

5E1 Breach of Confidentiality Risk

5E1.1 * **In the event a *breach of confidentiality allowing* someone outside of the research team to identify participants in this study, which of the following types of harm might result? (Check all that apply)**

A. Legal (i.e., criminal or civil liability)

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☐		
☑	**B.**	**Financial/economic (e.g., damage to employability)**
☑	**C.**	**Psychological (e.g., embarrassment, distress)**
☑	**D.**	**Social (e.g., damage to reputation)**
☐	E.	Other
☐	F.	No anticipated risk

5E3 In the questions that follow, the phrase "individuals in the general U.S. population" refers to healthy individuals in the United States who are not incarcerated. Thus, the high standard of minimal risk is based on the amount of risk typically encountered in everyday life by healthy individuals in the United States. If the study population is unhealthy individuals, incarcerated individuals, or individuals in another country, the appropriate comparison is now how much risk "healthy individuals" would face. The comparison is what the actual subject population would face in comparison to miminal risk as defined by everyday life for healthy individuals in the United States. ***If a breach of confidentiality or participation would be dangerous in the study population, it is above minimal risk.***

5E5 Financial/Economic Risks Associated with a Breach of Confidentiality

5E5.1 * **Might the degree or amount of financial/economic harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E5.2 * **Might the likelihood of financial/economic harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E5.3 * **Please explain the nature of the financial/economic harm, what might cause it, and steps that would be taken to mitigate it.**
Participation in certain types of insurance (e.g., Medicaid, Medicare for non-elderly disabled adults) may carry a degree of stigma: an individual's insurance coverage status is generally considered private, and so a breach of confidentiality would cause discomfort. Furthermore, information about insurance status may, under some circumstances or currently proposed policy changes, affect an individual's ability to obtain affordable health insurance.

Furthermore, our data will contain sensitive medical claims information, including diagnosis codes. Should insurance regulations change, pre-existing conditions could have an impact on the cost of or ability to get insurance in the future.

To mitigate the potential for harm, we will institute and adhere to a rigorous data security plan. We have refrained from requesting information that would be likely to lead to indirect identification in event of a breach (e.g., date of birth, zip code). In addition, we will not receive any direct identifiers from the APCD.

5E6 Psychological Risks Associated with a Breach of Confidentiality

5E6.1 * **Might the degree or amount of psychological harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E6.2 * **Might the likelihood of psychological harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E6.3 * **Please explain the nature of the discomfort or distress, what might cause it, and steps that would be taken to mitigate it.**
Participation in certain types of insurance (e.g., Medicaid, Medicare for non-elderly disabled adults) may carry a degree of stigma: an individual's insurance coverage status is generally considered private, and so a breach of confidentiality would cause discomfort.

Furthermore, our data will contain sensitive medical claims information, including diagnosis codes. Health conditions are general considered private, so a breach of confidentiality could cause discomfort.

To mitigate the potential for harm, we will institute and adhere to a rigorous data security plan. We have refrained from requesting information that would be likely to lead to indirect identification in event of a breach (e.g., date of birth, zip code). In addition, we will not receive any direct identifiers from the APCD.

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5E7 Social Risks Associated with a Breach of Confidentiality

5E7.1 * **Might the degree or amount of social harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E7.2 * **Might the likelihood of social harm *resulting from a breach of confidentiality* be greater than ordinarily encountered in daily life by individuals in the general U.S. population?**
yes

5E7.3 * **Please explain the nature of the social harm, what might cause it, and steps that would be taken to mitigate it.**
Participation in certain types of insurance (e.g., Medicaid, Medicare for non-elderly disabled adults) may carry a degree of stigma: an individual's insurance coverage status is generally considered private, and so a breach of confidentiality would cause social harm.

Furthermore, our data will contain sensitive medical claims information, including diagnosis codes. Certain health conditions could carry a degree of stigma.

To mitigate the potential for harm, we will institute and adhere to a rigorous data security plan. We have refrained from requesting information that would be likely to lead to indirect identification in event of a breach (e.g., date of birth, zip code). In addition, we will not receive any direct identifiers from the APCD.

5G Procedures - Confidentiality

5G1 Sensitive Information

5G1.1 * **Will any of the following types of sensitive information be intentionally accessed, acquired, or recorded as part of data collection about an individual? (Check all that apply)** *Note: You may have answered this question 2H with regard to a specific population if you applied for an exemption for one or more population-procedure components of your study. However, we are asking this question again because the information may be sensitive with regard to another population in your study that you have associated with this procedure.*

☐ A. Substance use	including alcohol, drugs, and tobacco
☑ **B. Physical health**	**including diagnosis, treatment, or any other private physical health information**
☑ **C. Mental health**	**including diagnosis, treatment, current mental health status (e.g., suicidality), or any other private mental health information**
☐ D. Traumatic events	including victimization, bereavement, accidents, natural disasters, and military combat
☐ E. Illegal activity	including illicit drug use, human trafficking, and terrorism
☐ F. Immigration status	
☐ G. Sexual behavior	
☐ H. Abuse/neglect	including child, elder, domestic, and partner
☐ I. Educational records	including status, history, or performance
☐ J. Employment records	including status, history, or performance
☑ **K. Financial information**	
☐ L. Other	
☐ M. None of the above	

5G3 Disclosure of Identifiable Person Level Data

5G3.1 * **Will any information that you collect go into person level non-research records (e.g., medical, educational, employment records) that are not maintained and controlled solely by the research team?** *Note: This is a relatively rare occurence for research done at RAND and would require HSPC approval.*

- ○ Yes
- ◉ **No**
- Don't know

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5G4 Reasons for Breaking Confidentiality

5G4.1 * **Could the procedure yield information potentially of importance to individual participants that they otherwise would be unlikely to know? This includes information specifically gathered or spontaneously provided or observed.**
no

5G5 Promise of Confidentiality

5G5.1 * **Is confidentiality being promised to participants with no additional exceptions aside from those noted in 5G4?**

- [x] **A. Yes**
- [ ] B. No, participants can choose to allow potentially identifiable information (e.g., quotes, performance information) to be included in published reports
- [ ] C. No, participants must agree to be attributable in published reports (this is a rare exception and might only occur in studies of a single organization)
- [ ] D. No, there will be other exceptions (e.g., intent to harm self or others, suspected child abuse)

5G5.5 * **Do you plan to apply for a Certificate of Confidentiality? Please note that such applications can be filed only after consent protocols have been approved.**

- ○ Yes
- ◉ **No**
- ○ Don't know

5G6 Identifiability by Inference in Published Reports

5G6.1 * **Might comments or other information included in published reports be identifiable by inference for participants who do not agree to be identified and are being assured of confidentiality?**
no

5G7 Data Safeguarding Plan

5G7.1 * **Based on previous answers, a Data Safeguarding Plan (DSP) is required. Are you ready to upload it in draft or final form at this time?**
yes

5G7.2 You will be able to upload the Data Safeguarding Plan (DSP) later in Section 7

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6 - Informed Consent

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Population	Procedure	Answer questions by clicking on all active links below	Name	Status
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	6A Informed Consent		Waiver Requested

6A Informed Consent

6A1 Informed Consent Applies to Multiple Components

6A1.1 Which of the following population-procedure components does this Informed Consent apply to? (Check all that apply)

Population	Procedure	This Informed Consent applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

6A2 Plan to Obtain Informed Consent

6A2 * Please explain how you plan to obtain informed consent (and/or assent from youth) for the population-procedure component(s) checked above. Describe the processes and methods involved (e.g., written, oral, implicit, passive). For additional explanation of these methods, refer to http://intranet.rand.org/groups/hspc/consent.html.
We are requesting a waiver of consent in its entirety. Our study procedures use only secondary data that has been compiled by state APCDs in compliance with state and federal laws.

6A3 Informed Consent Material Upload

6A3.1 * Do you have informed consent material(s) to upload now?
B. No - I am requesting a waiver of consent in its entirety (partial waiver of elements is requested later when selecting either option A or C)

6A8 Future Contract After Research Ends

6A8.1 * After the project ends, is there a possibility that the participants will be contacted to participate any in future research (including research conducted on other topics or by other research teams)?
No

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7A - Main Documents to Upload

Based on your prior answers, below RHINO displays a matrix that indicates the documents you need to upload for review. Here you may be asked to upload documents related to any of the following as applicable to your study: participant questions, recruitment material, Data and Safety Monitoring Plan (DSMP), Data Use Agreement (DUA), Data Safeguarding Plan (DSP), and miscellaneous documents other than consent (which can be uploaded in section 6) . A DSMP is not the same as a DSP.

Click on the hyperlink in the first column to add or replace a specific document. You can click on the hyperlink in the second column to directly open uploaded documents. You will be able to associate a document with multiple population-procedure components (e.g., questionnaire, or DSP that applies to different populations or procedures) when you upload it. Note: The reviewer may also ask to see documents in addition to those you load below.

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Population	Procedure	Upload documents by clicking on all active links below	View Uploaded Documents	Document Status
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	7A1 Participant Questions		Document is not required
		7A2 Recruitment Material		Document is not required
		7A3 Data and Safety Monitoring Plan (DSMP)		Document is not required
		7A4 Data Use Agreement (DUA)	MA Data-Use-Agreement-for-PHI.docx 9/12/2017	Uploaded
		7A5 Data Safeguarding Plan (DSP)	dsp 092517.docx 9/25/2017	Uploaded
		7A6 Miscellaneous Documents	NH Application Research Goals Statement 091217.docx 9/12/2017	Uploaded
		7A6 Miscellaneous Documents	VT VHCURES DUA Rev 2017-07 20170707.pdf 9/22/2017	Uploaded
		7A6 Miscellaneous Documents	RI HealthFactsDataUseAgreement.docx 9/12/2017	Uploaded
		7A6 Miscellaneous Documents	OR CUSTOM Data Use Agreement APAC.docx 9/22/2017	Uploaded
		7A6 Miscellaneous Documents	CO RAND Draft APCD DUA.pdf 9/22/2017	Uploaded

7A4 Data Use Agreement (DUA)

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
MA Data-Use-Agreement-for-PHI.docx(0.02) | History

47

ID: 2017-0656

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
These are standard DUA obained from the Massachusetts, New Hampshire, and Rhode Island APCD website. We will update this with our DUA once our application has been approved. Colorado, Oregon, and Vermont do not have DUAs available until the application to purchase data has been approved.

7A5 Data Safeguarding Plan (DSP)

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
dsp 092517.docx(0.02) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
Updated Data Safeguarding plan added 9/25/17

7A6 Miscellaneous Documents

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
NH Application Research Goals Statement 091217.docx(0.01) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
An additional Data Use Agreement

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ID: 2017-0656

7A6 Miscellaneous Documents

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
VT VHCURES_DUA_Rev 2017-07_20170707.pdf(0.01) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
Another DUA, see notes there

7A6 Miscellaneous Documents

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
RI HealthFactsDataUseAgreement.docx(0.01) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
An additional Data Use Agreement, see notes there.

7A6 Miscellaneous Documents

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

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ID: 2017-0656

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
OR CUSTOM_Data_Use_Agreement__APAC.docx(0.01) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
This is the Data Use Agreement for Oregon.

7A6 Miscellaneous Documents

7AX.1b * **Which of the following population-procedure study components does this document apply to? (Check all that apply)**

Population	Procedure	This document applies to this population-procedure component
Non-Elderly Adults and Children	Statistical Analysis of Health Insurance Transitions	☑

7AX.2a ** **Please upload the document.**
CO RAND Draft APCD DUA.pdf(0.01) | History

7AX.3a **Please enter any comments that you wish to share with the reviewer regarding this document.**
Another data use agreement, see notes there

ID: 2017-0656

8A Conclusion

8A1 Other Ethical Issues

8A1.1 * **Does the proposed study involve any ethical issues not already discussed in the study application?**
no

8A2 **Please enter any other comments or information that you would like to share with the HSPC reviewer that would be relevant to the review.**

Version 2.10

Data Element	Name	Years Requested	Filters Applied	Justification	Notes
Eligibility File					
personkey	Unique person identifier	2011 - 2015	age < 65	needed to link to claims files	OHA recommends for all requests: needed on all files
patid	Encrypted patient ID	2011 - 2015	age < 65	needed to link to claims files	Unique member key for a person who is or was enrolled in a health insurance plan. The member is the person who has received the service. The same individual has a unique patid for each insurance plan.
ME001	Payer type	2011 - 2015	age < 65	needed to identify insurance transitions	
prod	Product code	2011 - 2015	age < 65	needed to identify insurance transitions	
ME004A	Eligibility date	2011 - 2015	age < 65	needed to identify insurance transitions	
ME005A	Termination date	2011 - 2015	age < 65	needed to identify insurance transitions	
ME007	Subscriber ID	2011 - 2015	age < 65	needed to identify insurance transitions	
ME009	Plan specific contract number	2011 - 2015	age < 65	needed to link to claims files	
ME012	Relationship code	2011 - 2015	age < 65	needed to identify subscriber and family relations	
gender	Gender	2011 - 2015	age < 65	needed to adjust for demographics	
	Member year of birth	2011 - 2015	age < 65	needed to adjust for demographics	Year and month of birth requested: exact day of birth not needed
	Member month of birth	2011 - 2015	age < 65	needed to adjust for demographics	Year and month of birth requested: exact day of birth not needed
	Member county of residence	2011 - 2015	age < 65	needed to merge on county demographics and Marketplace data	
state	Member state	2011 - 2015	age < 65	needed to define Oregon	
medflag	Medical coverage flag	2011 - 2015	age < 65	needed to identify medical coverage	
ME019	Prescription drug coverage flag	2011 - 2015	age < 65	needed to identify medical coverage	
ME201	Medicare coverage flag	2011 - 2015	age < 65	needed to measure insurance type	
ME202	Market Segment	2011 - 2015	age < 65	needed to measure insurance type	
ME203	Metal Tier	2011 - 2015	age < 65	needed to measure insurance type	
ME204	HIOS Plan ID	2011 - 2015	age < 65	needed to merge on exchange plan characteristics	
ME205	High Deductible Health Plan Flag	2011 - 2015	age < 65	needed to measure insurance type	
ME206	Primary Insurance Indicator	2011 - 2015	age < 65	needed to measure insurance type	
race	Race	2011 - 2015	age < 65	needed to adjust for demographics	
ethn	Ethnicity	2011 - 2015	age < 65	needed to adjust for demographics	
lang	Primary spoken language	2011 - 2015	age < 65	needed to adjust for demographics	
Medical Provider					
prov_key	Provider key	2011 - 2015		needed to link providers across payers and identify provider switching	
MP003	Provider ID	2011 - 2015		needed to measure utilization and provider switching/link to claims file	
MP004	Provider Tax ID	2011 - 2015		needed to measure utilization and provider switching	
MP010	Provider specialty	2011 - 2015		needed to measure utilization and provider switching	
MP010A- B	Provider second/third specialty	2011 - 2015		needed to measure utilization and provider switching	
MP011A	Provider street address1	2011 - 2015		needed to validate crosswalk linking providers across payers	
MP011	Provider city	2011 - 2015		needed to measure utilization and provider switching	
MP012	Provider state	2011 - 2015		needed to measure utilization and provider switching	
MP013	Provider Zip	2011 - 2015		needed to validate crosswalk linking providers across payers	
MP017	Provider DEA Number	2011 - 2015		needed to validate crosswalk linking providers across payers	
MP018	Provider NPI	2011 - 2015		needed to validate crosswalk linking providers across payers	
MP018A	Provider License Number	2011 - 2015		needed to validate crosswalk linking providers across payers	
Payer (Insurance)					
PB001	Payer type	2011 - 2015	age < 65	needed to measure insurance type	
PB003	Product code	2011 - 2015	age < 65	needed to measure insurance type	
PB007	Subscriber ID	2011 - 2015	age < 65	needed to identify subscriber/link to enrollment file	
PB008	Premium billed month	2011 - 2015	age < 65	needed to analyze transition behavior	
PB009	Covered members in premium billed month	2011 - 2015	age < 65	needed to analyze transition behavior	
PB010	Total Premium Billed for Premium Billed Month	2011 - 2015	age < 65	needed to analyze transition behavior	
PB202	Market segment	2011 - 2015	age < 65	needed to analyze transition behavior	
Episodes of Care					
clmid	Claim ID	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Key that represents a unique Claim ID.
line	Claim line	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Unique number within a claim identifying it as a unique service line item.
clmstatus	Claim status	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Indicates the state of the claim, e.g. paid, denied, etc.
cob	COB status	2011 - 2015	age < 65	needed to construct analytic variables from claims file	Indicates whether claim is a Coordination of Benefits claim.
paytype	Payer type	2011 - 2015	age < 65	needed to measure insurance type	Type of payer that paid the claim, e.g. carrier, third party administrator, etc.
prod	Product code	2011 - 2015	age < 65	needed to measure insurance type	Insurance type or product code that indicates the type of insurance coverage the individual has.
medflag	Medical coverage flag	2011 - 2015	age < 65	needed to identify medical coverage	Flag indicating if the claim has a valid Medical Member Month record in eligibility for the month associated with the incurred date of the claim.
rxflag	Pharmacy coverage flag	2011 - 2015	age < 65	needed to measure insurance type	Flag indicating if the claim has a valid Pharmacy Member Month record in eligibility for the month associated with the incurred date of the claim.
pebb	PEBB flag	2011 - 2015	age < 65	needed to identify insurance transitions	Indicates if member of the claim was associated with Public Employee Benefits Board group during the date of service.
oebb	OEBB flag	2011 - 2015	age < 65	needed to identify insurance transitions	Indicates if member of the claim was associated with Oregon Educators Benefits Board group during the date of service.
patid	Encrypted patient ID	2011 - 2015	age < 65	needed to construct analytic variables from claims file, needed to link to payers in enrollment file	Unique member key for a person who is or was enrolled in a health insurance plan. The member is the person who has received the service. The same individual has a unique patid for each insurance plan.
personkey	Unique person identifier	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Unique person key to identify the same individual who is reported by multiple payers or with different member IDs from the same payer. The same individual has one unique personkey across all payers.
gender	Gender	2011 - 2015	age < 65	needed to adjust for demographics	Member's gender.
	Age at time of service	2011 - 2015	age < 65	needed to adjust for demographics	
race	Race	2011 - 2015	age < 65	needed to adjust for demographics	Member race.
ethn	Ethnicity	2011 - 2015	age < 65	needed to adjust for demographics	Member ethnicity.
lang	Primary spoken language	2011 - 2015	age < 65	needed to adjust for demographics	Member language.
state	Member state	2011 - 2015	age < 65	needed to adjust for demographics	Two digit abbreviation representing the state of the member's address.
	County of residence	2011 - 2015	age < 65	needed to merge on county demographics and Marketplace data	
fromdate	From date	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	For services that span more than one day, such as inpatient hospital stays, this is the first date of a service. For services that do not span more than one day, it is the date of service. This date is from the date of service as supplied on detail claims lines. For pharmacy claims, this is the filled date.

Data Element	Name	Years Requested	Filters Applied	Justification	Notes
todate	To date	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	For services that span more than one day, such as inpatient hospital stays, this is the last date of service. For services that do not span more than one day it is the date of service. It is from the detail date of service as supplied on detail claims lines.
paydate	Payment date	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Date that the claim line is considered paid by the plan for general ledger purposes. The presence of the paid date does not necessarily indicate that the claim has been paid, but rather that the claim has been processed and may have been denied.
paid	Total payment	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Amount in dollars that was paid by the payer to the service provider for the service.
copay	Co-payment	2011 - 2015	age < 65	needed to measure expenditures, benefit design, and patient cost-sharing	Amount in dollars that is the portion of allowed amount applied to the member's copay.
coins	Co-insurance	2011 - 2015	age < 65	needed to measure expenditures, benefit design, and patient cost-sharing	Amount in dollars that is the portion of allowed amount applied to the member's coinsurance.
deduct	Deductible	2011 - 2015	age < 65	needed to measure expenditures, benefit design, and patient cost-sharing	Amount in dollars that is the portion of the allowed amount that was applied to the member's deductible.
oop	Patient pay amount	2011 - 2015	age < 65	needed to measure expenditures, benefit design, and patient cost-sharing	Amount patient paid.
tob	Type of bill	2011 - 2015	age < 65	needed to construct analytic variables from claims file	Code for the type of bill on the UB form. The first digit of bill type encodes facility type (Hospital, Home Health, etc.), the second digit encodes bill classification (Inpatient, outpatient, etc.) and the third encodes claim frequency.
pos	Place of service code	2011 - 2015	age < 65	needed to construct analytic variables from claims file	Industry standard place of service code. i.e. 20 = Urgent Care Facility, 21 = Inpatient Hospital, 34 = Hospice, etc.
revcode	Revenue code	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	The revenue code from facility bills. It is a rollup of hospital services, e.g. 0201= INTENSIVE CARE-SURGICAL, 0280 = ONCOLOGY-GENERAL CLASSIFICATION, 0512 = CLINIC-DENTAL CENTER, etc.
qty	Quantity	2011 - 2015	age < 65	needed to measure utilization	For hospital inpatient services qty is the number of days spent in the facility. For hospital outpatient qty represents the number of unique events at the outpatient facility. For professional and ancillary services qty represents either the number of visits (for office visits, exams, chiro etc) or a number of procedures performed for non-visit professional services. Rx qty represents the number of prescriptions.
hcg	HCG code	2011 - 2015	age < 65	needed to measure utilization	Heath Cost Guideline® MR Line code is the lowest level of the Milliman Health Cost Guideline service grouping system. The MR line groups all services into one of 107 categories, e.g. O12 = HOP Surgery, P14 = PHY Outpatient Surgery, etc.
filldate	Fill date	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Date prescription was filled. This date is from the date of service as supplied on detail claims lines. If this date is NULL the row represents an Incurred But Not Reported (IBNR) complete trends row and not an actual claim line item.
dx1	Principal diagnosis	2011 - 2015	age < 65	needed to adjust for health status	The main or principal diagnosis ICD code associated with the service. ICD is the International Statistical Classification of Diseases and Related Health Problems that classifies diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease, e.g. 95909 = FACE & NECK INJURY, 78652 = PAINFUL RESPIRATION, etc.
dx2	Diagnosis 2	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx3	Diagnosis 3	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx4	Diagnosis 4	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx5	Diagnosis 5	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx6	Diagnosis 6	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx7	Diagnosis 7	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx8	Diagnosis 8	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx9	Diagnosis 9	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx10	Diagnosis 10	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx11	Diagnosis 11	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx12	Diagnosis 12	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
dx13	Diagnosis 13	2011 - 2015	age < 65	needed to adjust for health status	Secondary ICD diagnosis code associated with the service.
poa1	POA code 1	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for Primary diagnosis.
poa2	POA code 2	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 2.
poa3	POA code 3	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 3.
poa4	POA code 4	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 4.
poa5	POA code 5	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 5.
poa6	POA code 6	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 6.
poa7	POA code 7	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 7.
poa8	POA code 8	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 8.
poa9	POA code 9	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 9.
poa10	POA code 10	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 10.
poa11	POA code 11	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 11.
poa12	POA code 12	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 12.
poa13	POA code 13	2011 - 2015	age < 65	needed to adjust for health status	Present on admission flag for diagnosis 13.
px1	Principal inpt procedure	2011 - 2015	age < 65	needed to measure utilization	The main or principal surgery ICD code associated with the service. ICD is the International Statistical Classification of Diseases and Related Health Problems that classifies diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease, e.g. 0331 = SPINAL TAP, 9921 = INJECT ANTIBIOTIC, etc.
px2	Procedure 2	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px3	Procedure 3	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px4	Procedure 4	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px5	Procedure 5	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px6	Procedure 6	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px7	Procedure 7	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px8	Procedure 8	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px9	Procedure 9	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px10	Procedure 10	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px11	Procedure 11	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px12	Procedure 12	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
px13	Procedure 13	2011 - 2015	age < 65	needed to measure utilization	Secondary ICD procedure code associated with the service.
proccode	CPT or HCPCS procedure code	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	The American Medical Association's Current Procedural Terminology (CPT) code or the Healthcare Common Procedure Coding System (HCPCS) code; i.e. 90471 = IMMUNIZATION ADMIN, 80061 = LIPID PANEL, or 74170 = CT ABDOMEN W /O & W /DYE.
mod1	Procedure code modifier 1	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	The American Medical Association's CPT modifier that provides a means to indicate that a service or procedure was altered by specific circumstances, e.g. 2E = MLL (ACUTE LEUKEMIA), 7D = HFE (HEMOCHROMATOSIS), etc.
mod2	Procedure code modifier 2	2011 - 2015	age < 65	needed to measure utilization	2nd modifier associated CPT code on claim.
mod3	Procedure code modifier 3	2011 - 2015	age < 65	needed to measure utilization	3rd modifier associated CPT code on claim.
mod4	Procedure code modifier 4	2011 - 2015	age < 65	needed to measure utilization	4th modifier associated CPT code on claim.
megcode	MEG code	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) episode code. MEG is a proprietary grouping algorithm that creates episodes that describe a patient's complete course of care for a single illness or condition.
megdesc	MEG description	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) episode description.
megbodysys	MEG body system	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) system in the body.
megstage	MEG stage	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) stage of the given episode.
megtype	MEG type of care description	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) type of episode, e.g. Acute, Chronic and Well Care

Data Element	Name	Years Requested	Filters Applied	Justification	Notes
megcomplete	MEG episode completion	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) indicator that episode is complete.
megnum	MEG episode number	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) unique identifier for a single episode.
megdays	MEG episode duration in days	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) duration of episode in days.
megprorate	MEG prorated episode count	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) prorated episode allowed amount allocation for the given service line. This field allows a user to sum detail lines for an overall episode count. Summing this field over all related service lines for a given episode will yield a result of 1.
megoutlier	MEG outlier indicator	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) indicator for an outlier episode.
meglow	MEG low outlier indicator	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) indicator for low outlier episode.
meghigh	MEG high outlier indicator	2011 - 2015	age < 65	needed to measure utilization	Medical Episode Grouper (MEG) indicator for high outlier episode.
ndc	NDC	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	National Drug Code is a unique product identifier for drugs, e.g. i.e. 00006011731 = SINGULAIR, 00025152531 = CELEBREX, etc. NDCs are assigned by the US Food and Drug Administration.
rxclass	NDC therapeutic class	2011 - 2015	age < 65	needed to measure utilization	A grouping of drugs with the same therapeutic properties as defined by Medi-Span. It is the first 10 characters of Medi-Span's Generic Product Identifier (GPI), e.g. 4927002510 = *ULCER DRUGS* , 0120001010 = *PENICILLINS*, or 2810001010 = *THYROID AGENTS*.
brand	Brand status	2011 - 2015	age < 65	needed to measure utilization	Indicates if the drug is available as a generic, multiple source brand (MSB), single source brand (SSB), or over the counter (OTC).
rxcompound	Compound drug indicator	2011 - 2015	age < 65	needed to measure utilization	Indicates if this is a compound drug.
qtydisp	Quantity dispensed	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	Quantity of the prescription that was dispensed.
rxdays	Days supply	2011 - 2015	age < 65	needed to measure utilization	Number of days that the drug will last if taken at the prescribed dose.
daw	Dispense as written code	2011 - 2015	age < 65	needed to measure utilization	Indicates if the physician has or has not authorized a substitution for the prescribed drug. 'Y' indicates the drug is to be dispensed as written; 'N' indicates a substitution is permissible.
ptstatus	Discharge status	2011 - 2015	age < 65	needed to construct analytic variables from claims file	A two-character code that represents the disposition of the patient upon leaving the facility. If the patient died this event may be indicated here.
los	Length of stay	2011 - 2015	age < 65	needed to measure utilization	Length of stay as reported by data submitter
msdrg	MS-DRG	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	MedInsight Medicare Severity Diagnostic Related Group Code is the MedInsight derived MS-DRG code. The MS DRG is a Medicare grouping system that classifies inpatient hospital services into one of approximately 750 groups. The codes in this column are for MS DRG version 25 and above. i.e. 864 = FEVER.
attid	Attending provider ID	2011 - 2015	age < 65	needed to identify provider switching	ID number that represents the attending, servicing, or rendering provider. This is an internal ID to each payer and therefore cannot be used to track a provider across multiple payers.
spec	Provider specialty	2011 - 2015	age < 65	needed to identify provider switching	Taxonomy code associated with attending provider.
billid	Billing provider ID	2011 - 2015	age < 65	Necessary to properly interpret duplicate claim lines	ID number that represents the billing entity. For medical claims, this is the billing provider ID. For pharmacy claims, this is the billing pharmacy ID. This is an internal ID to each payer and therefore cannot be used to track a provider across multiple payers.
icdver	ICD version	2011 - 2015	age < 65	needed to construct analytic variables from claims file	Indicates whether or not the claimline has ICD 10 (or higher) codes.

Appendix C – Staff checklist and Minimum Necessary Review (MNR) for limited, custom or Business Associate requests

Staff Reviewer: Mary Ann Evans

Agreement Number: 4529

Purpose

The purpose of the staff checklist for limited, custom or Business Associate requests is to:

1. Assess whether applicant completely and adequately filled out the APAC-3
2. Complete the Minimum Necessary Review to:
    a. Assess whether OHA is disclosing no more than a limited data set
    b. Provide criteria for assessing if the organization's data request is the minimum necessary to accomplish the purposes stated in the application or amendment.

Instructions

Complete all sections. If you check "no" on any question, please detail in the "notes" section why you checked "no" and what applicant must do in order to receive a "yes". If there are tasks in which the applicant receives a "yes", but staff reviewer has concerns, please describe concern in the "notes" section and be sure to pass along that concern to DRC in the DRC review form. For the Minimum Necessary Review, provide the rationale for the response in the "notes" section.

Task	Yes	No	N/A	Notes
Section 1 complete and responses adequate?	x			
Section 2 complete and responses adequate?	x			
Section 3 complete?	x			
Only chose one box in question 3.1?	x			
Only chose one box in question 3.3a?	x			
Adequately justified in 3.3b how project falls into category chosen in question 3.3a?	x			
If IRB review is required for this project, (IRB is required for all research requests or requests for Medicare FFS data) is IRB protocol and approval memo attached? (OHA may use DRC as a "Privacy Board" for Business Associates that don't have an IRB, but need Medicare FFS data. Please talk to Program Manager if this is the case.)	x			
IRB registered with US Department of Human Services, Office of Human Research Protections? (Write IRB number and expiration in "notes")	x			FWA 00003425

Task	Yes	No	N/A	Notes
IRB accredited? (Write accrediting agency in notes)	X			https://www.hhs.gov/ohrp/register-irbs-and-obtain-fwas/irb-and-fwa-status/index.html
IRB's approval has been verified?	X			
IRB disclosed and mitigated all actual conflicts of interest with the approval research or the IRB has no actual conflicts of interest	X			
If actual conflict of interest exists, is documentation attached?			x	
May DRC rely on IRB's review?	x			
Adequately justified in 3.4b how the project is within the scope of the current IRB approval?	x			
Adequately described in 3.4c why the approving IRB has jurisdiction over this project?	x			
Adequately described in 3.4d why the project could not be conducted without a waiver of individual authorization?	x			
Does IRB have more than 3 months left on the approval memo, as outlined in 3.3e?	x			
Section 4 complete?				
Data Element Workbook attached?	x			
Do all requested elements have a year requested, filters applied and justification response in Data Element Workbook?	x			
If requesting a limited data set, does Data Element Workbook align with response in 4.1b-c?			x	
If requesting a custom data set, is it clear what elements are being requested?	x			
Is the Payers tab completed in the Data Element Workbook?	x			
If requesting Medicare FFS data, is the project at least partially funded and directed by OHA? (Per our DUA with CMS, Medicare FFS data may be shared outside of OHA for research **if** OHA is partially funding and directing the project.)			x	

Task	Yes	No	N/A	Notes
If requesting a limited data set, does Payers tab align with response in 4.1b?			x	
If requesting a custom data set, is it clear what payers are being requested?	x			
Passes Minimum Necessary Review?				
Adequately justified each data element requested (provide rationale and list any data elements not adequately justified in notes)?	x			
Adequately described filters and algorithms for including and excluding claim lines (provide rationale and list strengths and weaknesses of algorithms in notes)?	x			
Consider the elements requested and whether additional elements can be excluded, redacted, or additionally filtered without unreasonably impairing the ability to accomplish the project purposes. Is data requested the minimum necessary? (If no, identify data elements that may be excluded, redacted, or additionally filtered in notes.)	x			
Section 5 complete?				
Techniques described are adequate to prevent re-identification in 5.1?	x			
If project requires linkage to another data source, does PI adequately justify necessary linkages in 5.2c?	x			
If project requires linkage to another data source, does PI propose adequate steps to prevent re-identification in 5.2d?	x			
Organization's data privacy and security policies attached?	x			
If any third parties are identified in Section 2, are third party data privacy and security policies attached?			x	
Adequately described data management plans in 5.3b?	x			

Task	Yes	No	N/A	Notes
Adequately described personnel, technical, physical and administrative safeguards in 5.3c-e?	x			
Adequately described plans for destruction of data in 5.3g?	x			
Adequately described procedures implemented to prevent future breach if staff working on the project have a history of security breach in 5.3h?			x	
Section 6 complete?				
If limited data is being requested, is payment included?			x	
Does question 4.1 correspond with files selected and number of years input in row c of payment table?	x			
Is cost calculated correctly?			x	
If payment is not included, are one of the boxes (found below the cost chart in 6.1) checked?			x	
If payment is not included for "another reason", is there an explanation?			x	
Does explanation make sense and, if needed, have you discussed explanation with APAC Program Manager?			x	
Section 7 complete?	x			
All checklist boxes checked?	x			
Application signed?	x			
Using your professional opinion, does this application fall into one of the categories below. If yes, please write the category in the "notes". If no, please explain in the "notes" section if the applicant did not adequately explain their application and any follow-up questions you may have OR if the purpose described in the application simply does not fall into one of the categories below.	x			

Allowed Purposes for Sharing APAC Data

Limited Data Sets

1. Limited data sets may ONLY be shared for research, public health activities or health care operations. 45 CFR 164.514(e)
    - *Per DOJ: We CAN share limited data sets for health care operations of requesting entity.*
2. We may share a limited data set with a Business Associate if a limited data set will meet the Business Associate's needs.
    - *Per DOJ: Execute a modified BAA and DOJ's preference is that the BAA is attached to the contract*

Notes

- Limited data sets may be shared with covered and non-covered entities if a DUA is executed.
- Research requests for limited data sets must have IRB approval.
    - Per Stacy on 11/23/15

Data with Direct Identifiers

1. Direct Identifiers may be shared with Business Associates for work done on OHA's behalf. 45 CFR 164.502(e)
    - *Per DOJ: Execute a modified BAA and DOJ's preference is that the BAA is attached to the contract*
2. Direct Identifiers may be shared with another covered entity for the purposes of OHA's own treatment, payment or health care operations. 45 CFR 164.506(c)(1)
    - *Per DOJ: Execute a modified BAA, instead of DUA, with non-covered entity component of OHA*
3. Direct Identifiers may be shared with a health care provider for treatment. 45 CFR 164.506(c)(2)
4. Direct Identifiers may be shared with another covered entity or health care provider for payment activities of the entity that receives the information. 45 CFR 164.506(c)(3)
5. Direct Identifiers may be shared with another covered entity for health care operation activities of the entity receiving the data IF both entities have had a relationship with the individual who is subject to the PHI being requested and the PHI pertains to such relationship and the disclosure is for quality assurance and similar activities or for the purpose of health care fraud and abuse detection or compliance. 45 CFR 164.506(c)(4)
6. Direct Identifies may be shared with a public health authority for the purposes of preventing or controlling disease, injury, disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions; or at the direction of a public health authority, to an official of a foreign government agency that is acting in collaboration with a public health authority. 45 CFR 164.512(b)
7. Direct Identifiers may be shared with researchers that have an IRB approval. 45 CFR 164.512(i)(1)(i)
8. Direct Identifiers may be shared with researchers if research participant authorizes the use or disclosure of information about him or herself. 45 CFR 164.508. Authorization must include elements in 45 CFR 164.508(c)(1)-(2).

Notes:

- Direct Identifiers can be shared with covered entities for TPO as described above.

- Direct Identifiers can be shared with Business Associates, Public Health and researchers, if guidelines above are met. In these instances, the requesting organization does not necessarily have to be a covered entity

Medicare FFS Data

1. Per our DUA with CMS, Medicare FFS data may be used for Oregon's Health System Transformation efforts as described in our DUA with CMS.
2. Furthermore, Medicare FFS data may be shared outside of OHA for research **if** OHA is partially funding and directing the project and a privacy board or IRB have given approval.
3. Any document creation from this data must adhere to CMS cell suppression policy: No cell 10 or less may be displayed.

Revised 7.18.17

Appendix D—Staff review for DRC (standardized for all Health Analytics' data requests)

Office of Health Analytics Application Number: 4529

Staff Review Checklist

Staff Name:

1. Data Source(s) Requested:

MMIS	APAC	CPMS/MOTS
Hospital Discharge Data	OPRCS	
Student Wellness Survey	CAHPS	Physician Workforce Survey
BRFSS	MHSIP	YSS-F
OHIS	Workforce Licensing Data	ASC
Other		

2. Application materials included:

Application	Y
Payment	N/A
Data Elements Worksheet	Y
IRB Approval	Y
DUA	N/A

3. Has the requestor provided an overview of the project and adequately explained the need for the data? Y

   Notes:

4. Has the requestor adequately justified the need for the specific data files and elements requested? Y

   Notes:

5. Has the requestor asked for the minimum necessary data to accomplish the stated purpose? Y

   Notes:

6. Has the requestor adequately described safeguards in place to protect the data and comply with privacy and security requirements? Y

   Notes:

7. Recommendation for request: Approve
   Notes: