

RI APCD Data Application



Section 2: Project Timeline

Project Timeline: Describe the project timeline and any critical dates or milestones to achieve project goals.	
Project Start Date:	11/01/2025
Project End Date:	06/30/2027
Request Needed By:	11/30/2025
Other Deadlines or Milestone Date(s):	*All dates are approximate and subject to change: Presentation of interim progress to Economics faculty and students in internal seminars: 03/01/2026, 05/01/2026, 08/01/2026, 09/15/2026, 10/01/2026



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	Begin submitting draft paper to potential employers: 11/01/2026 Presenting project to potential employers: 01/01/2027- 04/01/2027
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Funding: Is there a current or planned source of funding?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Funding Source:	Economics Department Data Funding (decision/award amount TBD)
Funding Deadline:	Deadline for funding application: 10/1/2025

Section 3: Project Methodology

Please provide a **detailed description** of each of the following project components (include additional information where identified below as needed).

Project Methodology: Describe methodology, project design, and plan for analysis.	
Project Purpose	This project studies the effect of step therapy policies in health insurance coverage on drug utilization, drug spending, provider reimbursements, and patient health outcomes. A step therapy policy requires an enrollee to try and fail one or more lower-cost (“preferred”) drugs before receiving coverage for a higher-cost (“non-preferred”) drug. The project will study this in the context of Medicare Advantage, where insurers were allowed to implement step therapy policies for drugs covered under Medicare Part B (i.e., physician-administered drugs) beginning in 2019.
Research questions (if applicable)	<ol style="list-style-type: none"> (1) How do step therapy policies affect Part B drug utilization within Medicare Advantage? <ol style="list-style-type: none"> (1.a) Do step therapy policies reduce utilization of targeted, “non-preferred” drugs? If so, do patients substitute to “preferred” drugs in the same drug class, or do they discontinue treatment? (1.b) How do step therapy policies influence how physicians and patients learn which drug(s) are most effective for a given diagnosis? (2) How do step therapy policies affect Part B drug spending within Medicare Advantage? (3) How do step therapy policies affect Part B drug prices and provider reimbursement rates? (4) How do step therapy policies affect patient health outcomes? (5) How would banning step therapy for specific drug classes affect equilibrium drug utilization and spending in Medicare Advantage?



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	<p>(6) How would implementing step therapy in Traditional Medicare affect drug utilization and manufacturers' drug pricing decisions?</p>
<p>Why is the data you are requesting necessary to accomplish the project's purpose?</p>	<p>I am requesting access to Medical Claims (with exact date of service); Pharmacy Claims (with exact date of service); and the Submitter, Provider, Alternative Payment Model, and CurrentCare Race/Ethnicity tables, for data years 2014-2024, limited to Medicare Advantage enrollees. These data elements are necessary to identify which patients are exposed to step therapy restrictions, and to measure the project's outcomes of interest—drug utilization, drug spending, provider reimbursements, and patient health.</p> <p>The member information in the claims data (combined with the Provider table) would allow me to identify which patients are exposed to step therapy requirements, based on their insurer, diagnosis code(s), and the time at which they began treatment. Because step therapy policies often change throughout the calendar year, I am requesting exact dates of service so that I can accurately identify exposure to step therapy at a point in time.</p> <p>The Medical Claims data would capture utilization and spending for physician-administered drugs covered under Medicare Part B, including allowed amounts that may reflect negotiated provider-insurer-specific reimbursement rates. The Medical Claims data would also capture medical events that could serve as proxies for negative patient outcomes, such as emergency room visits. The Pharmacy Claims data would capture utilization for outpatient pharmacy drugs covered under Medicare Part D; capturing this may be important, since some Part B step therapy policies require patients to try a Part D drug before covering a Part B drug. The Alternative Payment Model table would give me a more complete picture of the spending associated with a given medical condition and help me characterize the financial incentives that providers face. Finally, the CurrentCare Race/Ethnicity and Provider tables would help me control for patient- and provider-specific factors that may affect the outcomes of interest.</p> <p>I am requesting the years 2014-2024 so that I will have sufficient data before and after the 2019 policy change that I am studying: Medicare Advantage insurers were not allowed to use step therapy for Part B drugs until 2019.</p>
<p>Sample or population of interest:</p>	<p>Medicare Advantage enrollees in 2014-2024.</p>
<p>Comparison group: <i>(if applicable)</i></p>	<p>N/A</p>
<p>Design:</p>	<p>Longitudinal (difference-in-differences)</p>



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<p>Any Definitions or Methodology Required to Fulfill this Request:</p>	<p><i>(e.g., CPT Codes, CPT Modifiers, ICD 9/10, Lines of Business, Program Indicators)</i></p> <p>This request requires limiting all datasets to Medicare Advantage enrollees.</p>
<p>Data analysis plan: <i>(specify statistical techniques)</i></p>	<p>To identify the causal effect of exposure to step therapy on the outcomes of interest, I plan to use a difference-in-differences regression design. This design compares outcomes for units who were exposed to step therapy to those who were not, before and after the exposure began. In some analyses, the unit of observation will be a drug-diagnosis-insurer; in others, it will be an individual patient. I will use modern difference-in-differences regression techniques that allow for variable treatment timing and treatments that switch on and off (e.g., de Chaisemartin and D’Hautefoeuille 2024).</p> <p>To simulate the effects of alternative policies—such as banning step therapy for specific drug classes—I plan to estimate an economic model of provider drug prescribing and drug price-setting. The details of the model will be informed by the difference-in-differences results. However, the model may capture how patients and providers choose drugs in response to prices and step therapy restrictions; how drug manufacturers set prices; and how provider reimbursement rates are determined.</p>
<p>Please provide shell tables that summarize your anticipated aggregated results. A table shell, also known as a dummy table, is titled and fully labeled but contains no data.</p>	<p>Please see attached document: “JKroah_APCD_Request_Shell_Tables.pdf”</p>

Data Management Plan*

- **Include a completed Data Management Plan template. The Data Management Plan Template can be found at www.health.ri.gov/data/healthfactsri.**
- **Include your organization's standard Data Privacy and Security Policies and Procedures.**
- **Include additional organizational Data Privacy and Security documents (if applicable)**

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<p>Distribution of Project Findings: All findings/results that will be publicly distributed must be submitted to the RI Department of Health for review at least 30 days before any release to ensure that the conditions of the Data Use Agreement (e.g., cell suppression) are being met.</p>	
<p>Describe how project findings/results will be disseminated.</p>	<p>The final results will be disseminated to the public in a peer-reviewed academic journal. I will also present interim progress to my faculty advisors in individual meetings, and to Economics faculty and students in internal seminars at my university. Beginning in the fall of 2026, I will submit a draft manuscript to potential employers, and in the winter/spring of 2027, I plan to discuss and present my project at job interviews.</p>
<p>Who will the results be shared with? (e.g., peer-reviewed publications, organization newsletters, program evaluation reports, etc.)</p>	<p>The results will be shared with Economics faculty and students at my university for feedback. They will also be shared with potential employers while I am on the Economics job market in the fall of 2026 through the spring of 2027. I plan to submit the final results to peer-reviewed academic publications.</p>

Section 4: Data Request

There are three types of APCD Data Requests: Standard, Cohort, and Custom. A Standard Request is a pre-built researcher-friendly set of claims-line level data tables with individual member details that may be used for statistical and other complex analyses. Standard extracts are large files, and users will need a robust database infrastructure (e.g., SQL Service, Oracle, with 1–2 TB storage) in which analytic files can be prepared for use with statistical software, such as SAS or R. Standard extracts are delivered to users as flat text files via SFTP with PGP encryption.



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The Standard Request offers two levels of detail: Core and Extended. Both levels contain member-level demographic information, claim line details (medical or pharmacy), and provider details. The Core contains member 3-digit zip codes and service year. The Extended includes member city, 5-digit zip codes, and service date.

Available years of data can be seen here: [APCD Snapshot - Rhode Island State APCD | Tableau Public](#)
(See Data Availability Tab)

For details on available project licenses and to determine which data and value-added elements are available in each extract, visit the RIDOH HealthFacts RI webpage (www.health.ri.gov/data/healthfactsri)

Medicare FFS data can only be released to projects directed and funded (partially okay) by the State of Rhode Island.

Standard Request	
Data Requested	<input type="checkbox"/> Core Extract Medical Claims <input type="checkbox"/> Core Extract Pharmacy Claims <input type="checkbox"/> Extended Extract Medical Claims <input type="checkbox"/> Extended Extract Pharmacy Claims <input type="checkbox"/> Medicare Fee-for-Service** <input type="checkbox"/> Submitter Table <input type="checkbox"/> Provider Table <input type="checkbox"/> Dental Table <input type="checkbox"/> Alternative Payment Model Table <input type="checkbox"/> CurrentCare Race and Ethnicity Table
If you are requesting the Extended Extract, please justify why the service date and 5-digit zip codes are required for the project.	
Years of Data requested	
Type of license requested	<input type="checkbox"/> Single-use, single agency <input type="checkbox"/> Multi-use, single agency <input type="checkbox"/> Multi-use, multi-agency <input type="checkbox"/> This is a single project under a multi-use license
If requesting a multi-project license, how many projects do you anticipate?	
Will you need new years of data as they become available?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please provide a detailed description of your team's experience working with APCDs or other claims data sources.	



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Custom Request offers the flexibility to request a subset of the database, a data report, or a data dashboard created by a state APCD developer to meet your project's needs.

Custom Request	
Type of Data requested	<input type="checkbox"/> Aggregate data (e.g., counts, percentages, sums, etc.) <input checked="" type="checkbox"/> Individual claims data
Please indicate the years of data requested and how often the data is requested to be updated.	<input checked="" type="checkbox"/> One time request <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Annually <input type="checkbox"/> Ad hoc
Please specify the data elements requested and describe in detail why the data elements are necessary for this project.	<p>I am requesting the following elements for the years 2014-2024, limited to Medicare Advantage enrollees:</p> <ul style="list-style-type: none"> - Medical Claims (with date of service); - Pharmacy Claims (with date of service); - Submitter Table - Provider Table - Alternative Payment Model Table - CurrentCare Race and Ethnicity Table <p>I am requesting Medical and Pharmacy claims to observe drug utilization, drug spending, and health outcomes. The Submitter table is needed to identify payer names, so that the APCD can be linked with data on insurers' step therapy policies. The Provider table is needed to observe details about providers and control for provider characteristics. The Alternative Payment Model table is needed to test whether my measures of drug spending from the Medical claims data are affected by alternative payment schemes such as capitation. The CurrentCare table is needed to control for patients' race/ethnicity in patient-level analyses.</p> <p>I am requesting exact dates of service because the step therapy policies I am studying often change throughout the calendar year; therefore, year of service would be too coarse and would cause me to lose useful within-year policy variation.</p>
If requesting aggregate data, how should the data be stratified (e.g., by gender, age group, county, etc.)?	N/A
Are custom analytics required? (e.g., applying attribution methodologies, calculating quality metrics, applying custom groupers, etc.)	No



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Please include shell tables that summarize your Custom Request’s anticipated results, data specifications, explanations of methodology, and/or report templates that may be used to develop the custom extract here:

Please see attached document (“JKroah_APCD_Request_Shell_Tables.pdf”).

Cohort Request	
Does this request track a specific population (i.e., an evaluation cohort)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If tracking a specific population, please specify the number of individuals included in the cohort.	N/A
If a cohort is required, please explain why tracking this specific population is necessary for the study.	N/A
If a cohort is required, please list any researcher-supplied fields (a Maximum of 20) requested to be matched to the APCD. No variables can be matched, including Personal Identifiers or Protected Health Information.	N/A

By submitting this Application and signing the RI APCD Data Use Agreement, the requestor attests that they understand the following requirements:

1. No RI APCD user shall attempt to identify an individual member using RI APCD data or data outputs derived from RI APCD data.
2. RI APCD data shall not be linked with any other data source or information from another data source that could re-identify a member or patient.
3. Cohort request specifications must follow the Researcher File Layout detailed in the RI Researcher Extract Request Specifications document and may include no more than 20 researcher-supplied data fields.
4. Researcher-supplied data fields may not include Personal Health Information (PHI) or information enabling the researcher to re-identify.
5. If multiple Cohort IDs are required for research, no fewer than 11 members may be assigned to a single Cohort ID.



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Section 5: Data Linkages

If this project requests linkage to another data source (e.g., Census data), the applicant must justify why this linkage is necessary.	
Will RI-APCD data be linked to another data source?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, will the data be linked to patient-level data, individual provider-level data, facility-level data, or aggregate-level data? (Check all that apply.)	<input checked="" type="checkbox"/> Individual patient data <input type="checkbox"/> Individual provider data <input type="checkbox"/> Facility level data <input checked="" type="checkbox"/> Aggregate level data
If yes, provide a justification for each linkage indicated above and the steps you will take to prevent the identification of individual members.	<p>I plan to link the following data, all of which are publicly available (or derived from publicly available sources). To my knowledge, none of these datasets could help identify individual members, and I will not attempt to do so.</p> <ul style="list-style-type: none"> - Medicare Advantage Part B step therapy data: This data describes each Medicare Advantage insurer’s step therapy policies for Part B drugs, including which drugs are “preferred” and “non-preferred” for a given medical condition. I am hand-collecting this data from Medicare Advantage plan documents. The data will be linked to the <u>individual patient data</u> on insurer name, diagnosis code(s), and date of service. This will identify which patients/drugs were exposed to step therapy restrictions. - Medicare Advantage Part B utilization management policy data: This data describes each Medicare Advantage insurer’s other utilization management policies (such as prior authorization) for Part B drugs. I am hand-collecting this data from Medicare Advantage plan documents. The data will be linked to the <u>individual patient data</u> on insurer name, diagnosis code(s), and date of service. - CMS ASP Pricing Data: This reports the Medicare FFS Part B payment limit by drug (HCPCS code) and quarter. I will link this to <u>individual patient data</u> and <u>aggregated data</u> on HCPCS code and date; I will use it to infer the Average Sales Price (ASP) of a drug and benchmark Medicare Advantage payments against Medicare FFS payments/ASP. - CMS Part B Spending by Drug Data: This reports Medicare FFS Part B utilization, spending, and beneficiary counts, by drug (HCPCS code) and year. I will use this data to benchmark utilization and spending in Medicare FFS versus Medicare Advantage. I will merge this with <u>aggregated data</u> at the HCPCS code and year level. - CMS Provider Summary by Type of Service: This reports Medicare FFS Part B utilization, spending, and beneficiary



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	<p>counts at two levels of aggregation: (1) state, HCPCS code, and year; (2) provider NPI, HCPCS code, and year. I will use this data to benchmark utilization and spending in Medicare FFS versus Medicare Advantage, within the entire state and within individual providers. I will merge dataset (1) on <u>aggregated data</u> by HCPCS code and year, and dataset (2) on <u>provider-level data</u> by provider NPI, HCPCS code, and year.</p> <ul style="list-style-type: none">- Data on drug characteristics (from FDA and other sources): This data reports drug approval/launch dates, generic/biosimilar competition, drug ATC classes, and FDA labeling information, by HCPCS code and date. I am collecting this data from publicly available sources, including the FDA Orange Book; FDA Purple Book; FDALabel database; and press/trade publications. I will link this to <u>individual patient data</u> (on HCPCS code and year) and <u>aggregated</u> drug-level data. I will use this to control for drug characteristics in some analyses.- Bureau of Labor Statistics, Consumer Price Index: This is an annual data series that I will use to inflation-adjust dollar amounts in the APCD. I will merge this with the APCD on year.- Census Demographic Data: I will use county-level demographic information from the Census to control for local demographics. I will merge this with the APCD on county (FIPS) and year.
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