

**Commonwealth of Massachusetts
Center for Health Information & Analysis (CHIA)
Non-Government Agency Application for Data**

This application is to be used by all applicants, except Government Agencies, as defined in 957 CMR 5.02.

NOTE: In order for your application to be processed, you must submit the required application fee. Please consult the fee schedules for APCD and Case Mix data for the appropriate fee amount. A remittance form with instructions for submitting the application fee is available on the CHIA website.

I. GENERAL INFORMATION

APPLICANT INFORMATION	
Applicant Name:	Patricia A. Robinson
Title:	Ph.D. student
Organization:	Duke University
Co-Investigator:	Frank A. Sloan
Title:	Professor of Economics
Organization:	Duke University
Project Title:	Physician Agency Across Payers
Date of Application:	October 31, 2014
Project Objectives (240 character limit)	To measure the effects of cross-payer variation in payment on physician treatment decisions and patient outcomes and to evaluate the effectiveness of specific policy interventions at reducing healthcare costs and improving patient outcomes.
Project Research Questions (if applicable)	<ol style="list-style-type: none"> 1. To what extent do physicians face variation in payment across patients? 2. Does this variation affect the treatment decisions that physicians make? If so, what characteristics of physicians and payers determine the extent of this effect? 3. For specific conditions, how do these changes in treatment patterns affect patient outcomes? 4. How do non-price interventions affect physician behavior?

I. PROJECT SUMMARY

Briefly describe the purpose of your project and how you will use the requested CHIA data to accomplish your purpose.

I plan to study the extent of cross-payer variation in payment to physicians, its effects on physician treatment decisions and patient outcomes, and the role of price and non-price interventions in changing physician behavior. This requires observing price and treatment decisions at the physician level for patients across multiple payers. The APCD will be the primary data source because it provides the

necessary variation in payers and the ability to link individual physicians across payers.

In the first step of the analysis, I will use the claim-level data from the APCD to investigate utilization responses to variation in price across payers and within specific treatment groups. I will identify patients who are candidates for specific treatments using diagnosis codes and document the variation in reimbursement for these treatments across payers and physicians. I will then estimate a model of physician treatment decisions within a diagnostic group, conditional on patient cost-sharing and taking into account patient health status.

The second step of the analysis will relate physician treatment decisions to patient outcomes in order to quantify the welfare effects of variation in physician payments. I will measure two types of quality: health outcomes and process quality. I will use health outcomes, such as avoidable readmissions and inpatient mortality, to measure quality of care for acute conditions. For preventive care or chronic conditions, I will rely on process measures, such as screenings, that are used as industry benchmarks of quality.

Finally, I will use the model developed in the previous steps to study the effects of price- and non-price interventions on physician behavior and patient outcomes. This will inform policymakers on the role of various mechanisms for reducing healthcare costs and improving patient outcomes. The study will be of particular interest to public payers that are concerned about mispricing leading to barriers to access and worse health outcomes, particularly for low income populations.

II. FILES REQUESTED

Please indicate the databases from which you seek data, the Level(s) and Year(s) of data sought.

ALL PAYER CLAIMS DATABASE	Level 1 ¹ or 2 ²	Single or Multiple Use	Year(s) Of Data Requested Current Yrs. Available 2009 - 2012
<input checked="" type="checkbox"/> Medical Claims	<input type="checkbox"/> Level 1 ³ <input checked="" type="checkbox"/> Level 2	Single	<input checked="" type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012
<input checked="" type="checkbox"/> Pharmacy Claims	<input checked="" type="checkbox"/> Level 2	Single	<input checked="" type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012
<input type="checkbox"/> Dental Claims	<input type="checkbox"/> Level 2	Select...	
<input checked="" type="checkbox"/> Member Eligibility	<input checked="" type="checkbox"/> Level 2	Single	<input checked="" type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012
<input checked="" type="checkbox"/> Provider	<input checked="" type="checkbox"/> Level 2	Single	
<input checked="" type="checkbox"/> Product	<input checked="" type="checkbox"/> Level 2	Single	

CASEMIX	Level 1 - 6	Fiscal Years Requested
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¹ Level 1 Data: De-identified data containing information that does not identify an individual patient and with respect to which there is no reasonable basis to believe the data can be used to identify an individual patient. This data is de-identified using standards and methods required by HIPAA.

² Level 2 (and above) Data: Includes those data elements that pose a risk of re-identification of an individual patient.

³ Please note that Level 1 APCD data is not available as of 4/30/2014. This is scheduled to be available later in 2014.

<p>Inpatient Discharge</p>	<p><input type="checkbox"/> Level 1 – No Identifiable Data Elements</p> <p><input type="checkbox"/> Level 2 – Unique Physician Number (UPN)</p> <p><input type="checkbox"/> Level 3 – Unique Health Information Number (UHIN)</p> <p><input type="checkbox"/> Level 4 – UHIN and UPN</p> <p><input type="checkbox"/> Level 5 – Date(s) of Admission; Discharge; Significant Procedures</p> <p><input type="checkbox"/> Level 6 – Date of Birth; Medical Record Number; Billing Number</p>	<p>1998-2013 Available (limited data 1989-1997)</p>
<p>Outpatient Observation</p>	<p><input type="checkbox"/> Level 1 – No Identifiable Data Elements</p> <p><input type="checkbox"/> Level 2 – Unique Physician Number (UPN)</p> <p><input type="checkbox"/> Level 3 – Unique Health Information Number (UHIN)</p> <p><input type="checkbox"/> Level 4 – UHIN and UPN</p> <p><input type="checkbox"/> Level 5 – Date(s) of Admission; Discharge; Significant Procedures</p> <p><input type="checkbox"/> Level 6 – Date of Birth; Medical Record Number; Billing Number</p>	<p>2002-2012 Available (2013 available 8/1/14)</p>
<p>Emergency Department</p>	<p><input type="checkbox"/> Level 1 – No Identifiable Data Elements</p> <p><input type="checkbox"/> Level 2 – Unique Physician Number (UPN)</p> <p><input type="checkbox"/> Level 3 – Unique Health Information Number (UHIN)</p> <p><input type="checkbox"/> Level 4 – UHIN and UPN; Stated Reason for Visit</p> <p><input type="checkbox"/> Level 5 – Date(s) of Admission; Discharge; Significant Procedures</p> <p><input type="checkbox"/> Level 6 – Date of Birth; Medical Record Number; Billing Number</p>	<p>2000-2012 Available (2013 available 9/1/14)</p>

III. FEE INFORMATION

Please consult the fee schedules for APCD ([Administrative Bulletin 13-11](#)) and Case Mix data ([Administrative Bulletin 13-09](#)) and select from the following options:

APCD Applicants Only

- Academic Researcher
- Others (Single Use)
- Others (Multiple Use)

Case Mix Applicants Only

- Single Use
- Limited Multiple Use

Multiple Use

Are you requesting a fee waiver?

Yes

No

If yes, please submit a letter stating the basis for your request. Please refer to the fee schedule for qualifications for receiving a fee waiver. If you are requesting a waiver based on the financial hardship provision, please provide documentation of your financial situation. Please note that non-profit status alone isn't sufficient to qualify for a fee waiver.

IV. REQUESTED DATA ELEMENTS [APCD Only]

State and federal privacy laws limit the use of individually identifiable data to the minimum amount of data needed to accomplish a specific project objective. Please use the APCD Data Specification Workbook to identify which data elements you would like to request and attach this document to your application.

V. MEDICAID DATA [APCD Only]

Please indicate here whether you are seeking Medicaid Data:

Yes

No

Federal law (42 USC 1396a(a)7) restricts the use of individually identifiable data of Medicaid recipients to uses that are directly connected with the administration of the Medicaid program. If you are requesting Medicaid data from Level 2 or above, please describe in detail why your use of the data meets this requirement. Applications requesting Medicaid data will be forwarded to MassHealth for a determination as to whether the proposed use of the data is directly connected to the administration of the Medicaid program. MassHealth may impose additional requirements on applicants for Medicaid data as necessary to ensure compliance with federal laws and regulations regarding Medicaid.

The research will study the extent of variation in payments to physicians across payers, the effects of that price variation on physician treatment decisions and patient outcomes, and the role of price and non-price interventions in changing physician behavior. The results of this research will provide evidence of the role that regulated reimbursement rates determined by public payers have in the broader context of the Massachusetts healthcare system. It will reveal the effects of Medicaid reimbursement rates on physician behavior and patient outcomes relative to the rates of private payers. The results will inform MassHealth on how to choose reimbursement strategies for cost containment and quality improvement. One concern is that setting prices too low will result in barriers to access and worse health outcomes for low income people; on the other hand, it is important that reimbursement not be unnecessarily high, given pressures on public budgets. This study will provide evidence to help understand such implications of public reimbursement policies in the context of a multi-payer system.

VI. REQUESTS PURSUANT TO 957 CMR 5.04

If you are a payer, provider, provider organization or researcher seeking access to Level 1 (de-identified) data, please describe how you will use such data for the purposes of lowering total medical expenses, coordinating care, benchmarking, quality analysis or other administrative research purposes. Please provide this information below.

N/A

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VII. FILTERS

If you are requesting APCD elements from Level 2 or above, describe any filters you are requesting to use in order to limit your request to the minimum set of records necessary to complete your project. (For example, you may only need individuals whose age is less than 21, claims for hospital services only, or only claims from small group projects.)

APCD FILE	DATA ELEMENT(S) FOR WHICH FILTERS ARE REQUESTED	RANGE OF VALUES REQUESTED
Medical Claims		
Pharmacy Claims		
Dental Claims		
Membership Eligibility		
Provider		
Product		

VIII. PURPOSE AND INTENDED USE

1. Please explain why completing your project is in the public interest.

In its 2013 report Best Care at Lower Cost, the Institute of Medicine notes that there is still not enough evidence for which payment strategies will best improve quality of care at a lower cost (IOM, 2013). Implicit in this statement is the belief that physicians respond to financial incentives. The relative response of physicians to payment variation across payers provides important information for policy. If payment variation does not affect physician behavior, then payers may need to invest in other strategies in order to reduce costs, such as more intensive case management or information campaigns. On the other hand, if payment variation does lead to differential levels of care and health outcomes, then there may be scope for government intervention in the market for healthcare services to improve social welfare. In either case, the results are expected to inform the discussions about how to achieve higher quality care and cost containment in healthcare.

2. **Attach** a brief (1-2 pages) description of your research methodology. (This description will not be posted on the internet.)
3. Has your project received approval from your organization’s Institutional Review Board (IRB)? Please note that CHIA will not review your application until IRB documentation has been received (if applicable).
 - Yes, and a copy of the approval letter is attached to this application.
 - No, the IRB will review the project on _____.
 - No, this project is not subject to IRB review.
 - No, my organization does not have an IRB.

IX. APPLICANT QUALIFICATIONS

1. Describe your qualifications to perform the research described or accomplish the intended use of CHIA data.

I am an Economics Ph.D. student at Duke University and am pursuing this project for my dissertation on the economics of healthcare and insurance markets. I have completed extensive course work in health economics, industrial organization, and econometrics and have research and programming experience with Stata, Matlab, SAS, and SQL. I have experience analyzing healthcare claims data from a large relational database in a prior position as an actuarial analyst assistant at a large health insurance company. I have co-authored academic articles that use sensitive survey data to analyze the relationship between insurance, private information, and precautionary behaviors in the automobile insurance market (under review) and to measure the welfare effects of policy interventions in the automobile insurance market.

2. Attach résumés or curricula vitae of the applicant/principal investigator, key contributors, and of all individuals who will have access to the data. (These attachments will not be posted on the internet.)

X. DATA LINKAGE AND FURTHER DATA ABSTRACTION

1. Does your project require linking the CHIA Data to another dataset?
 - Yes
 - No

2. If yes, will the CHIA Data be linked to other patient level data or with aggregate data (e.g. Census data)?
 - Patient Level Data
 - Aggregate Data

3. If yes, please identify all linkages proposed and explain the reasons(s) that the linkage is necessary to accomplish the purpose of the project. Please be specific in describing vvhich data elements will be linked to outside datasets and how this will be accomplished.

4. If yes, please identify the specific steps you will take to prevent the identification of individual patients in the linked dataset.

XI. PUBLICATION / DISSEMINATION / RE-RELEASE

1. Describe your plans to publish or otherwise disclose CHIA Data, or any data derived or extracted from such data, in any paper, report, website, statistical tabulation, seminar, conference, or other setting.

I intend to use this research for my dissertation in Economics at Duke University, and subsequently to submit my findings for publication in peer-reviewed economics journals. I also expect to report findings in working papers, academic seminars, and conferences. The results will be aggregated so that it is impossible to identify individual members from the results.

2. Will the results of your analysis be publicly available to any interested party? Please describe how an interested party will obtain your analysis and, if applicable, the amount of the fee.

The dissertation will be freely available online through Duke University Libraries. Subsequent publication of the findings will be available through peer-reviewed academic journals.

3. Will you use the data for consulting purposes?

- Yes
 No

4. Will you be selling standard report products using the data?

- Yes
 No

5. Will you be selling a software product using the data?

- Yes
 No

6. If you have answered “yes” to questions 3, 4 or 5, please describe the types of products, services or studies.

XII. USE OF AGENTS AND/OR CONTRACTORS

Third-Party Vendors. Provide the following information for all agents and contractors who will work with the CHIA Data.

Company Name:	
Contact Person:	
Title:	
Address:	
Telephone Number:	
E-mail Address:	
Organization Website:	

7. Will the agent/contractor have access to the data at a location other than your location or in an off-site server and/or database?

- Yes
 No

8. Describe the tasks and products assigned to this agent or contractor for this project.

9. Describe the qualifications of this agent or contractor to perform such tasks or deliver such products.