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:	Eric Roberts
Title:	Ph.D Candidate
Organization:	Johns Hopkins University, Bloomberg School of Public Health
Project Title:	Do Commercial MCOs Influence Physicians' Incentives to Accept Medicaid Patients?
Date of Application:	January 19, 2014 (amended); August 30, 2013 (original)
Project Objectives (240 character limit)	This project aims to understand office-based physicians' incentives to participate in Medicaid, in light of the widespread use of MCOs to administer Medicaid programs. I hypothesize that an insurer with Medicaid and private insurance plans is able to exercise its market power by inducing physicians to take more Medicaid patients in their practices, compared to Medicaid-only insurers. I hypothesize that this is one policy avenue—other than increasing provider payments—that could increase the availability of medical providers serving the adult Medicaid population. Using Massachusetts' all-payor claims dataset, I will empirically test an economic model for this behavior, separately for primary care and specialist physicians. The main contribution of this project will be the development of a model that revises the classic economic framework used to analyze Medicaid participation (Sloan et al, 1978). This model continues to inform Medicaid policy analysis, but it does not account for the modern configuration of the program, where Medicaid plans are now frequently administered by large insurance companies. This research will address several policy questions relevant to the 2014 Medicaid expansion: (1) What effect does an insurer's composition (i.e., exclusively Medicaid, or mixed Medicaid and private) have on Medicaid enrollees' access to providers?; (2) Is there an economic rationale to support the claim that Medicaid MCOs are better able to obtain access to "mainstream" providers for their enrollees?; (3) What is the predicted effect on physician participation if a Medicaid-only MCO were to be

	replaced with a mixed Medicaid and private insurer?; (4) How do fee schedules interact with the organization of a Medicaid MCO to influence participation? Will the effect of fee increases differ by type of Medicaid MCO?
Project Research Questions (if applicable)	1. Does the composition of a Medicaid managed care insurer (i.e., whether the insurer also operates private insurance plans in the physician's market, and the penetration of these private plans) influence physicians' decisions to participate in Medicaid? 2. Which types of physicians (e.g., primary care physicians versus different subspecialties) are most responsive to the above-referenced contracting model? 3. What are the expected effects of physician participation (in both primary care and specialties) due to changes in physician fee schedules, for different configurations of Medicaid MCOs?

Please indicate if you are a Researcher, Payer, Provider, Provider Organization or Other entity and whether you are seeking data pursuant to 957 CMR 5.04 (De-Identified Data), 957 CMR 5.05 (Direct Patient Identifiers for Treatment or Coordination of Care), or 957 CMR 5.06 (Discretionary Release).

☐X	Researcher	☐X	957 CMR 5.04 (De-identified Data)
☐	Payer	☐	957 CMR 5.05 (Direct Patient Identifiers)
☐	Provider / Provider Organization	☐	957 CMR 5.06 (Discretionary Release)
☐	Other		

II. PROJECT SUMMARY

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

This project will revisit the traditional economic model that has been used by researchers and policymakers to explain physicians' rationale to accept Medicaid patients. Briefly, that model assumes Medicaid is a relatively small payer, with fixed physician payments set by state program administrators. Given the present scale of Medicaid, and the growing use of managed care organizations (MCOs) to administer Medicaid programs, this existing model may no longer be well-suited to inform policy analysis about providing professional medical resources to the Medicaid population.

Most research in this area has focused on the level of physician payments as the primary inducement to Medicaid participation. However, other incentives for doctors to see Medicaid patients may exist. For example, preliminary research indicates that the size and composition of Medicaid MCOs plays a role in the extent of physicians' Medicaid participation. Using the Community Tracking Study, Adams and Herring (2007) found that physicians were more likely to report that they accepted Medicaid patients in markets where so-called "commercial-dominant" (i.e., Medicaid MCOs with at least 25% of privately insured patients within the same health insurer) had greater market power. Similar findings were uncovered by Greene et al. (2007). Based on this market-level evidence, there is a need to revisit how

plan characteristics, and in particular whether the existence of insurers that run both Medicaid and private insurance plans with in a given market, may influence physicians' decisions to see Medicaid patients.

I will develop an economic model which allows for the possibility that large insurers, administering benefits to private and Medicaid beneficiaries, negotiate contracts with physicians that cover *both* sets of patient panels. While the contracting process between physicians and insurers is not well understood, and is considered proprietary knowledge of insurers, I argue that the assumption of independently established contracts covering Medicand and private payments from the same insurer imposes unrealistic assumptions on this market. My aim, therefore, is to evaluate whether my proposed model is better suited to explaining Medicaid participation than the currently-accepted model.

I will use the APCD to obtain information about the volume and shares of non-elderly adults for each insurer represented in physician practices. I will abstract similar information about the market shares of insurers (and plans within insurers) at the county level. To capture attributes of practices that may affect patients' choices of which physicians to use, I will include practice characteristics from the all-payor database's provider file. I will also control for patients' health and socioeconomic status using information from the member eligibility and medical claims files. I will also use area-level data from HRSA's Area Health Resource File, InterStudy, Medicaid's Managed Care Enrollment Reports, and the American Community Survey/Census to control for market characteristics other than the composition of insurers that may affect physicians' Medicaid participation.

The APCD data is unique and important to this project because: (1) Massachusetts has both mixed and Medicaid-only MCOs operating in several large markets (Worcester county and parts of Boston's suburbs), (2) the extent of these MCOs' shares of the private and Medicaid markets differs by county, and (3) because the database will allow me to observe a complete set of physician encounters for Medicaid MCOs and private insurers.

Finally, to assess the quality of care offered by primary care providers, I will construct measures of inpatient hospital admissions for ambulatory care sensitive conditions (e.g., a hospitalization for uncontrolled blood pressure which theoretically could be managed in an outpatient center) using the APCD's inpatient admissions file for 2011 and 2012. These indicators for ambulatory care sensitive admissions were created by the Agency for Healthcare Research and Quality (AHRQ) and are validated measures of care quality. Because the concept behind these measures is that poor ambulatory care results in hospitalizations for certain conditions, I will be able to assess whether providers serving Medicaid patients provide an equal *standard of care*, in addition to simply providing access to Medicaid enrollees. This last component will enable me to check whether providers serving relatively more Medicaid patients are (or are not) trading off quality for patient volume.

III. 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
☑ Medical Claims	☑ Level 1 ☑ Level 2	Single	☐ 2009 ☐ 2010 ☑ 2011 ☑ 2012
☐ Pharmacy Claims	☐ Level 1 ☐ Level 2		☐ 2009 ☐ 2010 ☐ 2011 ☐ 2012
☐ Dental Claims ☑ Member Eligibility ☑ Provider ☑ Product	☐ Level 2 ☑ Level 2 ☑ Level 2 ☑ Level 2	Select... Single Single Single	☐ 2009 ☐ 2010 ☑ 2011 ☑ 2012

CASEMIX	Level 1 - 6	Fiscal Years Requested
Inpatient Discharge	☐ Level 1 – No Identifiable Data Elements ☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN ☑ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	1998-2012 Available (limited data 1989-1997) Requesting 2011-2012 data
Outpatient Observation	☐ Level 1 – No Identifiable Data Elements ☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN ☐ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	2002-2012 Available
Emergency	☐ Level 1 – No Identifiable Data Elements	2000-2012 Available

[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.

Department	☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN; Stated Reason for Visit ☐ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	

IV. 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 see enclosed letter.

V. 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.

Please see attached.

VI. 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.

I am requesting some Level 2 Medicaid data for this project, which will provide important information about the characteristics of insurance plans and providers serving adult Medicaid enrollees.

This project will address important policy questions related to provider access for the adult Medicaid population. The ACA's expansion of the Medicaid program is projected to insure an additional 10-16 million US adults, on top of enrollment growth projected under pre-ACA eligibility thresholds. Many of the program's new enrollees live in disadvantaged communities where provider capacity, particularly in primary care specialties, is strained. While the ACA funded investments in community health centers to expand capacity, office-based physicians remain an important part of the provider network for Medicaid; about 80% of office-based physicians see some Medicaid patients. Thus, there is a need to understand these providers' incentives to accept Medicad patients.

The economic model that continues to be used by researchers and policy analysts to evaluate the determinants of Medicaid participation pre-dates the introduction of managed care in Medicaid. Medicaid Managed Care Organization (MCOs) have argued that they benefit the Medicaid program on two grounds: (1) they provide states with more predictable program budgets by using risk-based capitation contracts, and (2) they offer patients increased access to mainstream providers. A formalization of this second argument, in terms of physician incentives to contract with Medicaid MCOs, has not yet been developed

VII. MEDICARE DATA

Please indicate here whether you are seeking Medicare Data:

☐X Yes

☐ No

Medicare data may only be disseminated to state agencies and/or entities conducting research projects that are directed and partially funded by the state if such research projects would allow for a Privacy Board or an IRB to make the findings listed at 45 CFR 164.512(i)(2)(ii) if the anticipated data recipient were to apply for the data from CMS directly. If you are requesting Medicare data, please explain how your research project is directed and partially funded by the state and describe in detail why your proposed project meets the criteria set forth in 45 CFR 164.512(i)(2)(ii). Applicants must describe how they will use the data and inform CHIA where the data will be housed. CHIA must be informed if the data has been physically moved, transmitted, or disclosed.

Applicants approved to receive Medicare data will be required to execute an Addendum to CHIA's standard data use agreement, containing terms and conditions required by CHIA's data use agreement with CMS.

Physician participation in Medicare is not the outcome of interest for this project. However, given that most practices have patients from three principal payor groups—private insurance, Medicaid and Medicare—I will want to know the number of Medicare encounters in a practice, and the number of unique patients to which these encounters correspond. This will enable me to estimate the share of all patients and visits in a practice that come from Medicaid, by permitting accurate construction of the count "denominator." Therefore, I would like to obtain Medicare encounter records with the dataset I receive.

I understand that, as a condition of receiving Medicare data, I will need to execute an Addendum to

CHIA's standard data use agreement, covering provisisons related to Medicare data.

VIII. DIRECT PATIENT IDENTIFIERS[3]

State and federal privacy laws may require the consent of Data Subjects prior to the release of any Direct Patient Identifiers. If you are requesting data that includes Direct Patient Identifiers, please provide documentation of patient consent or your basis for asserting that patient consent is not required.

We are not requesting direct patient identifiers.

IX. REQUESTS PURSUANT TO 957 CMR 5.04

Payers, providers, provider organizations and researchers seeking access to Level 1 (de-identified) data are required to describe how they 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.

Part of this request encompasses a proposal to use Level 1 data.

As described herein, these data will be used in a project that studies physicians' incentives to participate in the Medicaid program, and considers predictors of participation other than reimbursement levels (traditionally the focus of policy and health economics research). In particular, I will study the characteristics of insurers that may cause physicians to be more likely to accept Medicaid beneficiaries covered by a particular MCO. My results can inform policymakers about which types of Medicaid MCOs are best able to maximize beneficiaries' access to primary care providers, given limited program budgets. Because access to primary care has been found to be associated with both improved health and lower total health care spending, there are potential downstream health and financial benefits to improving primary care access in the adult Medicaid population. Thus, this study can potentially contribute to the Commonwealth's and policymakers' understanding of access to care and financing the Medicaid program.

X. 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	**Age constructed from Member Birth Year (ME014)**	**Adults age 18 and older**
Provider		
Product		

[3] Direct Patient Identifiers. Personal information, such as name, social security number, and date of birth, that uniquely identifies an individual or that can be combined with other readily available information to uniquely identify an individual.

XI. PURPOSE AND INTENDED USE

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

My project addresses several policy-related questions with potentially important implications for the Medicaid population. First, I will examine why providers participate in Medicaid. Given the large expansion of the Medicaid program scheduled for 2014, there is keen interest among policymakers and stakeholders in how enrollees will obtain access to providers. Understanding providers' incentives to accept Medicaid patients, despite Medicaid's lower reimbursement of providers relative to Medicare and private insurance, can help policymakers design Medicaid programs to improve access to care. My analysis will also help policymakers compare the potential effects on access of contracting with a Medicaid-only MCO, versus a mixed Medicaid MCO, to administer Medicaid benefits. Finally, I aim to clarify the impact that proposed fee increases for primary care physicians servicing Medicaid beneficiaries will have on access. The fee increases—which will set Medicaid reimbursements equal to equal those for Medicare for primary care practitioners in 2013 and 2014—may have different effects on physician participation, depending on whether the MCO administering a state's Medicaid program is Medicaid-only or mixed (i.e., also having some privately-insured patients).

2. **Attach** a brief (1-2 pages) description of your research methodology. (This description will not be posted on the internet.)

*Please see **Attachment A**.*

3. Has your project received approval from your organization's Institutional Review Board (IRB)?

- ☑ Yes, and a copy of the approval letter is attached to this application. (Please see **Attachment B**.)
- ☐ 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.

XII. APPLICANT QUALIFICATIONS

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

I am a Ph.D candidate in the Department of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health. My training has focused on health economics and econometrics, and has included the following core coursework: health economics, economic evaluation, econometrics and microeconometrics, game theory, industrial organization and biostatistics. I have worked on several projects involving large datasets, ranging from health insurer data to public hospital quality-reporting data (please see my CV for a list of published and working papers). I am also working with Medicaid-only data for a housing opportunity study.

I will be supervised by my advisor, Darrell Gaskin, Associate Professor of Health Economics and Deputy Director of the Center for Health Disparities Solutions at the Bloomberg School of Public Health. Dr. Gaskin's CV is enclosed with this application, as well. CVs are enclosed as **Attachment C** to this application.

2. Attach résumés or curriculum 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.)

   Please see attached.

XIII. DATA LINKAGE AND FURTHER DATA ABSTRACTION

1. Does your project require linking the CHIA Data to another dataset?
   ☐X 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
   ☐X 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.

I will link Massachusetts' all-payor data to four other data sources:
- **HRSA's Area Health Resource File (AHRF)**. This file contains information about county-level enrollmentin Medicare, the number of physicians per capita (by speciality), indicators for physician shortage areas, proportions of uninsured individuals, and hospital beds per capita. These will be control variables in my model.
- **InterStudy Health Insurance Data.** This file will allow me to observe the market shares, in the private insurance market of Medicaid MCOs that also have private patient panels.
- **Medicaid Managed Care Enrollment Reports.** These are public-use reports summarizing aggregate enrollment in Medicaid managed care plans offered in each state and County. The reports are issued annually on the CMS website (http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Data-and-Systems/Medicaid-Managed-Care/Medicaid-Managed-Care-Enrollment-Report.html)
- **American Community Survey/Census Data.** I will obtain counts of large employers per county from this data. Having that data will allow me to control for characteristics of insurance markets that may differ when there are large, group-based insurers.

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

I will only link members in the APCD dataset to area-level information from the Census, AHRF, InterStudy and Medicaid Managed Care enrollment reports. Linking will be done at the county-level for all files. The AHRF, InterStudy and Medicaid Managed Care Enrollment report data is provided only at the county-level, and cannot be dissagregated further to smaller responding units that could identify individuals in the APCD dataset.

Likewise, the ACS/Census data is aggregated to provide area-level summary measures, and linking it to APCD dataset should not aid in identifying individual patients. Nevertheless, I will make no attempt to identify individual patients in the linked dataset. If any sample size in my analysis contains fewer than 15 patients, I will not report that summary statistic in any publication or other summary of my research. I will also follow all of Johns Hopkins University's rules regarding the protection of patient information to ensure the confidentiality of the patients in the APCD dataset.

XIV. 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.

This research will be conducted for my dissertation. I plan to ultimately publish several papers related to this project in economics, health economics or health policy journals.

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.

Publications will be available to all subscribers of the journals to which they are accepted. I will not charge a fee for any report or analysis generated from APCD data.

3. Will you use the data for consulting purposes?

☐ Yes
☐X No

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

☐ Yes
☐X No

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

☐ Yes
☐X No

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

Not applicable.

XV. 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.

10. Describe your oversight and monitoring of the activity and actions of this agent or subcontractor.