

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

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

*Please note: CHIA is undertaking a number of key measures to help ensure that the processing of MA APCD applications is done as efficiently as possible. As such, we will only be accepting applications from Massachusetts based payers and providers who submit Case Mix and APCD data as well as Massachusetts-based students and researchers. Applications from others will not be accepted from May 13, 2015 to November 1, 2015. All applications received prior to May 13, 2015 will be processed.*

***In order for your application to be processed, you must submit the required application fee. Please consult the fee schedules for APCD 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:	Amresh Hanchate
Title:	Associate Professor
Organization:	Boston University School of Medicine
Project Title:	Patterns in ED Use With and Without Ambulance Use, and Subsequent Healthcare Utilization
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Names of Co-Investigators:	James Feldman, William Baker, Sophia Dyer, Michael Paasche-Orlow,
Email Addresses of Co-Investigators:	<a href="mailto:mpo@bu.edu">mpo@bu.edu</a> , <a href="mailto:james.feldman@bmc.org">james.feldman@bmc.org</a> , <a href="mailto:wbaker@bu.edu">wbaker@bu.edu</a> , <a href="mailto:dyer@bu.edu">dyer@bu.edu</a> .
Original Data Request Submission Date:	9/8/2015
Dates Data Request Revised:	
Project Objectives (240 character limit)	We propose to examine ED and ambulance transport use by clinical and socio-demographic subgroups, and the subsequent healthcare utilization. We will examine several measures: those related to access (transfer to usual care provider, safety-net ED, or nearest ED), outcome (ED and inpatient length of stay), and cost (index visit cost and 30-day costs).
Project Research Questions (if applicable)	Aim 1: Estimate the incidence of ambulance and ED use by medical condition, race/ ethnicity and income. H1.1: Minority and low income patients have higher incidence and reliance on ambulance transport. Aim 2: Examine national differences by race/ethnicity and income in ambulance transport outcome measures. H2.1: Adjusting for residential location, minority and

	poor patients experience higher transfer rates of safety-net ED, and higher index and 30-day costs.

**II. PROJECT SUMMARY**

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

Little is known about pre-hospitalization healthcare use, especially on the use of ambulance transport, at the population level. Virtually all the evidence to date on ambulance use at the national level has been based on the National Hospital Ambulatory Medicare Care Survey (NHAMCS). However, NHAMCS provides a point-in-time snapshot, with little information on the patient context. To better understand ambulance use within the milieu of overall patient care, we will develop a population-level longitudinal database of ambulance use based on Massachusetts All Payer Claims (APC) administrative data. Using longitudinal patient records, the proposed data will be better suited to examine the patient history prior to ambulance use, subsequent healthcare utilization outcomes, and their differences across diverse patients.

Evidence to date suggests the potential for disparities in use of ED, with and without ambulance transport, by insurance coverage, race/ethnicity, and socioeconomic status. Among Medicare-covered older adults, 38% of ED visits are through ambulance transports; the rate of ED visits was 65% higher among Blacks compared to Whites. There is considerable evidence, including from Massachusetts, that minority patients are more likely to be admitted to a safety-net ED, compared to Whites living in the same vicinity; it is unclear how ambulance use affects this pattern. Also, it is unclear if ambulance transport affects whether a patient receives immediate and subsequent (hospitalization) care at the patient’s usual-care provider.

Accordingly, we propose to examine a range of ambulance transport outcomes: those related to access (transfer to usual care provider, safety-net ED, or nearest ED), outcome (ED and inpatient length of stay), and cost (index visit cost and 30-day costs). We will also examine the impact on outcome and cost measures for ED patients not transported by ambulance.

**III. FILES REQUESTED**

Please indicate the databases from which you seek data, and the year(s) of data requested.

ALL PAYER CLAIMS DATABASE	Year(s) Of Data Requested
	Current Yrs. Available 2009 – 2013
<input checked="" type="checkbox"/> Medical Claims	<input type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013
<input checked="" type="checkbox"/> Pharmacy Claims	<input type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013
<input type="checkbox"/> Dental Claims	<input type="checkbox"/> 2009 <input type="checkbox"/> 2010 <input type="checkbox"/> 2011 <input type="checkbox"/> 2012 <input type="checkbox"/> 2013
<input checked="" type="checkbox"/> Member Eligibility	<input type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013
<input checked="" type="checkbox"/> Provider	<input type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013
<input type="checkbox"/> Product	<input type="checkbox"/> 2009 <input checked="" type="checkbox"/> 2010 <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013

#### 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. FEE INFORMATION

Please consult the fee schedules for APCD data ) and Case Mix data, available at [http://chiamass.gov/regulations/#957\\_5](http://chiamass.gov/regulations/#957_5), and select from the following options:

##### APCD Applicants Only

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

#### 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.

A primary focus of our study is disparities by income and race/ethnicity. We want to examine how these vulnerable populations receive ED care. How do they differ in use of ambulance services? How often are they transported to the nearest ED or the ED they are previously affiliated with? Are they more likely to be transported to a safety net compared to other residents in the same geographic location? Therefore, examining those on Medicaid and Health Safety Net will be critical for the study.

#### 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	See Worksheet	Ages 18-64
Pharmacy Claims	See Worksheet	Ages 18-64
Dental Claims	--	--
Membership Eligibility	See Worksheet	Ages 18-64
Provider	See Worksheet	Ages 18-64
Product	--	--

**IX. PURPOSE AND INTENDED USE**

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

Little is known about pre-hospitalization healthcare use, especially on the use of ambulance transport, at the population level. Evidence to date suggests the potential for disparities in use of ED, with and without ambulance transport, by insurance coverage, race/ethnicity, and socioeconomic status. There is considerable evidence, including from Massachusetts, that minority patients are more likely to be admitted to a safety-net ED, compared to Whites living in the same vicinity; it is unclear how ambulance use affects this pattern. Also, it is unclear if ambulance transport affects whether a patient receives immediate and subsequent (hospitalization) care at the patient’s usual-care provider. To better understand ambulance use within the milieu of overall patient care, we will develop a population-level longitudinal database of ambulance use based on Massachusetts All Payer Claims (APC) administrative data. Using longitudinal patient records, the proposed data will be better suited to examine the patient history prior to ambulance use, subsequent healthcare utilization outcomes, and their differences across diverse patients.

The Institute of Medicine (IOM) has highlighted the "limited" research and knowledge base of ambulance use practices. Using the uniquely rich APC data, this study will make significant contributions to this evidence base and inform public policy on ambulance use regarding not only its impact on clinical outcomes, but also, its impact on disparities.

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

**X. APPLICANT QUALIFICATIONS**

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

As a PhD economist with long-standing experience in quantitative health services research focused on disparities, I am well qualified to accomplish the goals of this project using CHIA data. I have been a regular user of CHIA data for over 7 years, primarily for NIH-funded research on issues relating to health policy and health disparities. We anticipate receiving NIH funding for a larger project that will include the proposed study using APC data.

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.) **See six CVs attached.**

**XI. DATA LINKAGE AND FURTHER DATA ABSTRACTION**

*Note: Data linkage involves combining CHIA data with other databases to create one extensive database for analysis. Data linkage is typically used to link multiple events or characteristics that refer to a single person in CHIA data within one database.*

1. Do you intend to link or merge CHIA Data to other datasets?  
 Yes  
 No linkage or merger with any other database will occur
2. If yes, will the CHIA Data be linked or merged to other individual patient level data (e.g. disease registries, death data), individual provider level data (e.g., American Medical Association Physician Masterfile), facility level (e.g., American Hospital Association data) or with aggregate data (e.g., Census data)? [check all that apply]

Individual Patient Level Data

What is the purpose of the linkage:

What databases are involved, who owns the data and which specific data elements will be used for linkage:

Individual Provider Level Data

What is the purpose of the linkage:

What databases are involved, who owns the data and which specific data elements will be used for linkage:

Individual Facility Level Data

What is the purpose of the linkage:

To obtain additional information about the hospitals (e.g., bed capacity, # physicians by specialty, # nurse and other support staff); these data will be obtained by merging with American Hospital Association Annual Surveys.

What databases are involved, who owns the data and which specific data elements will be used for linkage:

Aggregate Data

What is the purpose of the linkage:

- Using patient zipcode in census data we will obtain zipcode-level characteristics (median income, poverty rate, educational achievement).
  - The Area Resource File provides county-level data on healthcare resources (# hospital beds, # beds, # physicians by specialties), demographics (population by age, sex and race/ethnicity), and healthcare expenditures (total spending, medicare spending).

What databases are involved, who owns the data and which specific data elements will be used for linkage:

Census—US Government data, linkage by zipcode  
 Area Resource File—US Government data, linkage by county.  
 American Hospital Association Annual Survey—American Hospital Association, linkage by hospital name, ID and location.

3. If yes, for each proposed linkage above, please describe your method or selected algorithm (e.g., deterministic or probabilistic) for linking each dataset. If you intend to develop a unique algorithm, please describe how it will link each dataset .

Linkage will be only by hospital, zip code and county. Matching will be deterministic based on hospital name and location, and zip and county (FIPS) codes.

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

As the linkage is only at a larger unit level (hospital, zip code and county), the merging of the aforementioned fields from linkage will not increase the risk of identification. However, to prevent identification of individual patients, once the data has been linked, all identifiers will be removed from the working database; we will also do the same for dates of hospitalization and ED use. The original database with identifiers will be removed from the network, stored on an off-line hard drive in a locked cabinet in a locked office.

5. If yes, and the data mentioned above is not in the public domain, please attach a letter of agreement or other appropriate documentation on restrictions of use from the data owner corroborating that they agree to have you initiate linkage of their data with CHIA data and include the data owner's website.

Census and Area Health Resource File are in the public domain.

American Hospital Association data is a multi-purpose data source that we have acquired for use with a range of studies. There is no specific data use agreement associated with the data access.

**XII. 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.

- Presentation of research findings at national research meetings.
- Submission for publication in high-impact peer-reviewed medical and health policy journals
- Coordination with our university’s media offices to write and disseminate press releases about our findings.

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.

Results will be presented at professional meetings and published and available to the public through those venues.

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. Will you be reselling the data?

- Yes
- No

If yes, in what format will you be reselling the data (e.g., as a standalone product, incorporated with a software product, with a subscription, etc.)?

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



**XIII. 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:	N/A
Contact Person:	
Title:	
Address:	
Telephone Number:	
E-mail Address:	
Organization Website:	

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

- Yes
- No

If yes, please provide information about the agent/contractor’s data management practices, policies and procedures in your Data Management Plan.

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

N/A
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10. Describe the qualifications of this agent or contractor to perform such tasks or deliver such products.

N/A
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11. Describe your oversight and monitoring of the activity and actions of this agent or subcontractor.

N/A
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**XIV. ASSURANCES**

Applicants requesting and receiving data from CHIA pursuant to 957 CMR 5.00 (“Data Recipients”) will be provided with data following the execution of a data use agreement that requires the Data Recipient to adhere to processes and procedures aimed at preventing unauthorized access, disclosure or use of data, as detailed in the DUA and the applicant’s CHIA-approved Data Management Plan.

Data Recipients are further subject to the requirements and restrictions contained in applicable state and federal laws protecting privacy and data security, and will be required to adopt and implement policies and procedures designed to protect CHIA data in a manner consistent with the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA).

**By my signature below, I attest to: (1) the accuracy of the information provided herein; (2) my organization’s ability to meet CHIA’s minimum data security requirements; and (3) my authority to bind the organization seeking CHIA data for the purposes described herein.**

Signature:	
Printed Name:	Amresh Hanchate
Title	Associate Professor
Original Data Request Submission Date:	09/08/2015
Dates Data Request Revised:	