Massachusetts Division of Health Care Finance and Policy Application for All-Payer Claims Database (APCD) Data

Applications for APCD data must meet the requirements set forth in regulation **114.5 CMR 22.00: Health Care Claims Data Release** and any Administrative Bulletins promulgated under this regulation. The regulation and bulletins are available online at
http://www.mass.gov/eohhs/gov/departments/hcf/regulations.html.
Information provided on pages 1-4 of this application will be posted on the internet for public comment.

A. APPLICANT INFORMATION	
Principal Investigator:	Amanda E. Kowalski (primary applicant)
Title:	Assistant Professor of Economics and Faculty Research Fellow
Organization:	Yale University and the National Bureau of Economic Research
Co-Investigator:	Jonathan T. Kolstad
Title:	Assistant Professor of Health Care Management and Faculty Research Fellow
Organization:	University of Pennsylvania and the National Bureau of Economic Research
Co-Investigator:	Norma Padrón
Title:	Doctoral Student
Organization:	Yale University
Project Title:	Maternal and Paternal Health and Children's Healthcare Access and Use
Date of Application:	January, 2013
Date of Revision:	N/A
Brief Description of Project (240 character limit)	This project will investigate how parental patterns of healthcare access and utilization affect children's health and use of healthcare. The main focus will be on identifying whether the effect is differential from mothers/fathers to children.

1. PUBLIC USE									
File	SINGLE USE* '08 – '09 – '10			REPEATED USE* '08 – '09 – '10			MULTIPLE USE* '08 – '09 – '10		
Medical Claims	x	x	x	☐	☐	☐	☐	☐	☐
Pharmacy Claims	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dental Claims	☐	☐	☐	☐	☐	☐	☐	☐	☐
Membership Eligibility	x	x	x	☐	☐	☐	☐	☐	☐
Provider	x	x	x	☐	☐	☐	☐	☐	☐
Product	x	x	x	☐	☐	☐	☐	☐	☐

2. RESTRICTED USE									
File	SINGLE USE* '08 – '09 – '10			REPEATED USE* '08 – '09 – '10			MULTIPLE USE* '08 – '09 – '10		
Medical Claims	x	x	x	☐	☐	☐	☐	☐	☐
Pharmacy Claims	☐	☐	☐	☐	☐	☐	☐	☐	☐
Dental Claims	☐	☐	☐	☐	☐	☐	☐	☐	☐
Membership Eligibility	x	x	x	☐	☐	☐	☐	☐	☐
Provider	☐	☐	☐	☐	☐	☐	☐	☐	☐
Product	x	x	x	☐	☐	☐	☐	☐	☐

* The Division reserves the right to change proposed "use level" after review of this application.

Definitions:

- **Single Use**: Use of the data for a project or study.

- **Repeated Use**: Use of the data as an input to develop a report or product for sale to multiple clients or customers provided that it will NOT disclose APCD data. Examples include: development of a severity index tool, development of a reference tool used to inform multiple consulting engagements where no APCD data is disclosed.

- **Multiple Use**: Use of the data to develop a product or service that will be sold in the marketplace and will disclose APCD data. Examples include: a benchmark report produced by analyzing APCD data, a query tool to ease access to APDC data.

3. **Filters:** If you are requesting data elements from the Restricted Use dataset, 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 products.)

File	Data Element(s)	Range of Values Requested
Medical Claims		
Pharmacy Claims		
Dental Claims		
Membership Eligibility		
Provider		

Product		

4. **Restricted data elements:** If you are requesting Data Elements from the Restricted Use dataset, list each restricted data element you are requesting on the attached Data Element List and explain why you need access to EACH Restricted Use data element for your project. Limit your request to the minimum data elements necessary to complete the project and be specific as to how each element relates to your proposed model/analytic plan. Add rows to this table as needed.

Restricted Data Element Name	Restricted Data Element Description	Data File (Medical, Pharmacy, Dental, Eligibility, Provider, Product)	Justification (reason this data element is necessary for your project)
Payer (MC001)	Carrier Specific Submitter Code as defined by APCD	Medical	Differences in generosity from carriers or implications of how long an individual has been with a specific carrier might impact how their children use/access healthcare.
National Plan ID (MC002)	CMS National Plan Identification Number (PlanID)	Medical	The generosity of the plan (and for how long an individual has had access to it) might influence patterns of healthcare use and/or reflect individual's preferences.
Insurance Type Code/Product (MC003)	Type / Product Identification Code	Medical	For purposes of this study is relevant to characterize the type of product (HMO, PPO)
Payer Claim Control Number (MC004)	Payer Claim Control Identification	Medical	This variable will aid in identifying the use patterns of healthcare.
Individual Relationship Code (MC011)	Member/Patient to Subscriber Relationship Code	Medical	This variable is key as out-of-pocket and total use might differ depending on who is the member/patient to subscriber within the household.

Member Birth Month (MC013)	Member/Patient's date of birth	Medical	Use of care varies across age groups and this variable will also help as a level of aggregation of our analyses.
Member city name (MC014)	City name of the Member/Patient	Medical	Previous academic literature has used distance to hospitals (or type of area, rural/urban) to understand use patterns and individual's preferences.
Member ZIP Code (MC016)	Zip Code of the Member/Patient	Medical	This variable will aid us in understanding whether patient location confounds patterns of utilization of health care.
Admission Date (MC018)	Inpatient Admit Date	Medical	Observing patterns of use of the members and their dependents (children) is crucial to our study. This variable will allow us to observe service dates, frequency and length.
Admission Hour (MC019)	Admission Time	Medical	Observing patterns of use of the members and their dependents (children) is crucial to our study. This variable will allow us to observe service dates, frequency and length of the medical encounter.
Discharge Hour (MC022)	Discharge Time	Medical	Observing patterns of use of the members and their dependents (children) is crucial to our study. This variable will allow us to observe service dates, frequency and length of the medical encounter.
Service Provider Number (MC024)	Service Provider Number	Medical	To the extent that service provider might reflect preferences and these preferences influence children's use of healthcare it is necessary that we are able to identify service providers.

Date of Service - From (MC059)	Date of Service	Medical	The dates of service are necessary to understand patterns healthcare use.
Date of Service - To (MC060)	Date of Service	Medical	The dates of service are necessary to understand patterns healthcare use.
Patient Control Number (MC068)	Patient Control Number	Medical	This variable will allow us to keep track of the number of visits of individuals.
Discharge Date (MC069)	Discharge Date	Medical	Given that multiple discharges might occur within a year, this variable is informative on individuals use interaction with healthcare.
Billing Provider Number (MC076)	Billing Provider Number	Medical	This variable could provide information on the type of providers that are preferred by individuals.
Product ID Number (MC079)	Product Identification Number	Medical	It is relevant to know whether use differs by product.
Allowed amount (MC098)	Allowed Amount	Medical	This variable is very important as it will inform the study on the characteristics of the different plans in which individuals are enrolled.
Referring Provider ID (MC112)	Referring Provider Number	Medical	This variable is relevant as it will provide information on the type of providers that individuals visit more often or to which they are more likely to get referred.
Attending Provider (MC125)	Attending Provider	Medical	This variable is relevant as it will help us understand patterns of use of care.
Plan Rendering Provider Identifier (MC134)	Plan Rendering Number	Medical	Distinguishing among providers is relevant for our study.
Provider Location (MC135)	Location of Provider	Medical	Location of provider captures information on individuals' preferences.

CarrierSpecificUniqueMemberID (MC137)	Member/Patient Carrier Unique Identification	Medical	This variable aids in identifying the members/patients. Given the focus of our study, it is crucial for us to be able to distinguish members.
Former Claim Number (MC139)	Former Claim Number	Medical	This variable is necessary to analyze accurately utilization.
CarrierSpecificUniqueSubscriberID (MC141)	Member/Patient Carrier Unique Identification	Medical	It is critical for our study to distinguish among members in the data.
Payer (ME001)	Carrier Specific Submitter Code as defined by APCD. This must match the Submitter Code reported in HD002.	Eligibility	To the extent that payer might influence provider incentives and indirectly use of care, it is necessary that we include this variable in our analyses.
National Plan ID (ME002)	CMS National Plan Identification Number (PlanID)	Eligibility	This variable will help us identify the plan to which a member belongs.
Insured Group or Policy Number (ME006)	Carriers group or policy number	Eligibility	This variable is necessary given that patient populations may vary across groups, and for our purposes is important to understand the patterns of healthcare use.
Individual Relationship Code (ME012)	Member/Patient to Subscriber Relationship Code	Medical	This variable is key as our study aims to gain an understanding of whether and how individuals covered through other members use care.
Member Birth Month (ME014)	Member's date of birth	Eligibility	Use of care varies across age groups and this variable will also help as a level of aggregation of our analyses.
Member City Name (ME015)	City name of the member	Eligibility	Previous academic literature has used distance to hospitals (or type of area, rural/urban) to understand use patterns and individual's preferences.
Member ZIP Code (ME107)	Zip Code of the	Eligibility	Previous academic literature

	Member		has used distance to hospitals (or type of area, rural/urban) to understand use patterns and individual's preferences.
Special Coverage (ME031)	Special Coverage Code	Eligibility	The relevance of this variable is that it will allow us to understand how differential use of care is characterized (if through special coverage, generosity or other).
Health Care Home Number (ME036)	Health Care Home Number	Eligibility	Health care home might be reflective of having a usual source of care that as has been noted in the literature, might leads to better patterns of adequate healthcare use. Understanding whether health care home of the mother versus the father has a higher influence (benefit) on their children is an important aspect of our study.
Product ID Number (ME040)	Product Identification Number	Eligibility	Members incentives might vary by product and this may in turn affect other aspects of use.
Product Enrollment Start Date (ME041)	the date the member was enrolled in the product	Eligibility	This variable will inform when a member is or is not covered by a product (which may have an effect on use of care patterns).
Product Enrollment End Date (ME042)	Enrollment Date	Eligibility	This variable will inform when a member is or is not covered by a product (which may have an effect on use of care patterns).
NewMMISID (ME075)	NewMMIS Identification Number	Eligibility	The focus of the study is on the use by different types of patients (member, covered through member) so identifying patients is key to our analyses.
Member rating category (ME076)	Member Rating	Eligibility	This variable is relevant to

	Category Code		gain an understanding of patient's choices.
Recipient Identification Number (ME079)	MassHealth RID Number	Eligibility	The focus of the study is on the use by different types of patients (member, covered through member) so identifying patients is key to our analyses.
Recipient Historical Number (ME080)	MassHealth RHN Number	Eligibility	The focus of the study is on the use by different types of patients (member, covered through member) so identifying patients is key to our analyses.
CarrierSpecificUniqueMemberID (ME107)	Member/Patient Carrier Unique Identification	Eligibility	The focus of the study is on the use by different types of patients (member, covered through member) so identifying patients is key to our analyses.
Subscriber City Name (ME108)	City name of the Subscriber	Eligibility	Previous academic literature has used distance to hospitals (or type of area, rural/urban) to understand use patterns and individual's preferences.
Subscriber ZIP Code (ME110)	Zip Code of the Subscriber	Eligibility	Previous academic literature has used distance to hospitals (or type of area, rural/urban) to understand use patterns and individual's preferences.
CarrierSpecificUniqueSubscriberID (ME117)	Subscriber Carrier Unique Identification	Eligibility	It is important for our study to distinguish among subscribers in the data.
Product ID number (PR001)	Product Identification Number	Product	It is possible that patterns of use of care vary by product. It is important for us to be able to distinguish among different products.
Carrier License Type (PR003)	Carrier License Type	Product	It is important to distinguish payers by license type, as patient characteristics may vary systematically with license type.
Product Line of Business Model	The Line of	Product	It is important to distinguish

(PR004)	Business / Insurance Models the Product relates to		to what insurance model the product relates to, as patient characteristics may vary systematically with it.
Insurance Plan Market (PR005)	Insurance Plan Market Code	Product	Insurance plan market may be associated systematically with specific populations, so it is important that we use this variable in our analyses.
Other Product Benefit Description (PR007)	Benefit Description	Product	Product benefits might vary systematically and indirectly affect children's health access and use.
Product Start Date (PR009)	Product Start Date	Product	The timing of enrollment may be associated with employment/unemployment as well as other characteristics (such as risk and/or preferences), hence this variable is relevant to our study.
Product End Date (PR010)	Last date on which members could be enrolled in this product	Product	The timing of enrollment may be associated with employment/unemployment as well as other characteristics (such as risk and/or preferences), hence this variable is relevant to our study.

C. PURPOSE AND INTENDED USE

1. Please describe the purpose of your project and how you will use the APCD.

> The main goal of this study will be to investigate how parental health insurance and healthcare utilization affects children's health and healthcare utilization. In particular, children of parents who experience a health shock might experience changes in their utilization and access to healthcare. The MA APCD provides an opportunity to observe healthcare utilization and use patterns for the members of the household covered under one insurance policy. At the same time, there are characteristics unique to the state of Massachusetts that will prove useful to understand how the expected increase in access to healthcare will affect children's health and healthcare use at the national level.

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

> Recent demographic, social and economic shifts have affected health care access and delivery to children, and ultimately might have a lasting effect on their health. Some of these changes have been positive, such as the increase in health insurance coverage availability (through programs such as CHIP, SCHIP, and CHIPRA). However, other social and demographic trends, such as increased divorce rates and single-parent headed households, as well as economic circumstances like job-loss and high unemployment rates, which were exacerbated by the "great recession" beginning in 2008, have meant that as of 2011 there were nearly 15 million American children—21% of all American children—in families with incomes below the federal poverty level[1]. The federal poverty level is currently defined as $22,350 for a family of four. These socio-demographic trends can undermine broadened eligibility for coverage and take-up of available insurance: in 2008, an estimated 7.3 million children were uninsured, of whom 4.7 million (65 percent) were eligible for Medicaid or SCHIP but not enrolled. More broadly, children's health care access and use is contingent on an array of parental decisions and the choices available to them.
>
> The imminent change in the landscape of American health care, and in particular, the implementation of various sections of the Patient Protection and Affordable Care Act (PPACA), which mandates expansions of Medicaid and private insurance, will likely have effects on children's use and access to adequate health care. However, the effectiveness and impact of these policies will depend crucially on the households' response.
>
> The goal of this study is to analyze the choices available to parents as well as their previous coverage, access and utilization and how these histories and patterns affect children's use of care and ultimately, their health.
>
> [1]According to the National Center for Children in Poverty

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

4. 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
   - **X** No, the IRB will review the project on February 5th, 2012
   - ☐ No, this project is not subject to IRB review
   - ☐ No, my organization does not have an IRB

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

> Amanda E. Kowalski holds a PhD in Economics from the Massachusetts Institute of Technology and an AB in Economics from Harvard University. She is an Assistant Professor of Economics at Yale University, teaching courses in public finance and health economics. From June 2011 to August 2012 she served as the Okun Model Early Career Fellow at the Brookings Institution, a think tank in Washington, DC. She is also a faculty research fellow at the National Bureau of Economic Research.
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> Jonathan T. Kolstad holds a PhD in Health Policy (Economics) from Harvard University and a BA in Economics from Stanford University. He is an Assistant Professor of Health Care Management at The Wharton School of the University of Pennsylvania, teaching courses in health economics. He is also a faculty research fellow at the National Bureau of Economic Research.
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> Norma Padrón holds a Master of Arts in Economics from Duke University and a Master of Public Health from Universitat Pompeu Fabra in Barcelona and a BA in Economics from the University of Texas-Pan American. She is a Doctoral student in the Department of Health Policy and Management at Yale University in the track of Health Economics.

2. Describe the software you plan to use to analyze the data and the experience that the applicant's team members have in using that software.

> The main statistical software to be used will be STATA 12.0. The researchers have extensive experience with this software. Results from analyzing these data will be submitted for publication at peer-reviewed journals in the fields of Health Policy and health economics.

3. 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.)

> Curricula vitae of the applicants are attached. Research assistants may be hired as the project progresses and they will be required to submit signed confidentiality statements before they can access the data.

E. DATA LINKAGE AND FURTHER DATA ABSTRACTION

1. Does your project require linking the APCD to another dataset?
   YES ☐   NO   X

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

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.

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

F. RE-RELEASE OF DATA

Applicants must obtain prior approval from the Division to publish reports that use APCD files. Applicants must provide the Division with a copy of any report at least 30 days prior to release to outside parties, including peer review and prepublication analysis by anyone other than the individuals named in this Application. The Division will review the report to ensure that the publication will not permit identification of an individual patient or permit identification of a specific payment by individual payer. The Division may prohibit release of reports that may permit identification of individual patients or specific payment by individual payer.

1. Describe your plans to publish or otherwise disclose any APCD data elements, or any data derived or extracted from such data, in any paper, report, website, statistical tabulation, or similar document.

   The results of our study will be submitted for academic publication. We expect to discuss summary statistics and other general description of the data. In particular, we are interested in observing whether differential parental access/coverage affects children's use of care. However, no identification of patients will be possible as the data will be aggregated in sub-groups or 'types of households'.

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

   The results will be available at no fee at the researchers' websites.

3. Will you use the data for consulting purposes?
   YES ☐   NO **X**

4. Will you be selling standard report products using the data?
   YES ☐   NO **X**

5. Will you be selling a software product using the data?
   YES ☐   NO **X**

6. If you have answered "yes" to questions 3, 4 or 5, please (i) describe the types of products, services or studies; (ii) estimate the number and types of clients for which the data will be used and (iii) describe any rerelease of data by your clients.

G. USE OF AGENTS OR CONTRACTORS

<u>Third-Party Vendors</u>. Provide the following information for all agents and contractors who will work with the APCD data.

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

1. 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 ☐

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

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

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