

## Non-Government Application for Massachusetts All-Payer Claims Data [Exhibit A: Data Application]

### I. INSTRUCTIONS

*This form is required for all Applicants, except Government Agencies as defined in [957 CMR 5.02](#). All Applicants must also complete the [Data Management Plan](#), attached to this Application. The Application and the Data Management Plan must be signed by an authorized signatory of the Organization. This Application and the Data Management Plan will be used by CHIA to determine whether the request meets the criteria for data release, pursuant to 957 CMR 5.00. Please complete the Application documents fully and accurately. Prior to receiving CHIA Data, the Organization must execute CHIA’s [Data Use Agreement](#). Applicants may wish to review that document prior to submitting this Application.*

*Before completing this Application, please review the data request information on CHIA’s website:*

- [Data Availability](#)
- [Fee Schedule](#)
- [Data Request Process](#)

*After reviewing the information on the website and this Application, please contact CHIA at [apcd.data@state.ma.us](mailto:apcd.data@state.ma.us) if you have additional questions about how to complete this form.*

*All attachments must be uploaded to IRBNet with your Application. All Application documents can be found on the [CHIA website](#) in Word and in PDF format or on [IRBNet](#) in Word format. If you submit a PDF document, please also include a Word version in order to facilitate edits that may be needed.*

***Applications will not be reviewed until the Application and all supporting documents are complete and the required application fee is submitted. A [Fee Remittance Form](#) with instructions for submitting the application fee is available on the CHIA website and IRBNet. If you are requesting a fee waiver, a copy of the Fee Remittance Form and any supporting documentation must be uploaded to IRBNet.***

II. ORGANIZATION AND INVESTIGATOR INFORMATION	
<b>Project Title:</b>	Regulation and Competition in Dialysis Industry
IRBNet Number:	1150588-1
<b>Organization Requesting Data:</b>	University of Wisconsin-Madison, PI: Alan Sorensen
Organization Website:	<a href="http://www.ssc.wisc.edu/~sorensen/">http://www.ssc.wisc.edu/~sorensen/</a>
<b>Authorized Signatory for Organization:</b>	Robert Gratzl
Title:	Interim Assistant Director of Contracts
E-mail Address:	<a href="mailto:robert.gratzl@rsp.wisc.edu">robert.gratzl@rsp.wisc.edu</a>
Address, City/Town, State, Zip Code:	21 N. Park Street, Suite 6401 Madison, WI 53715
<b>Primary Investigator:</b>	Alan Sorensen
Title:	Professor of Economics
E-mail Address:	<a href="mailto:sorensen@ssc.wisc.edu">sorensen@ssc.wisc.edu</a>
Telephone Number:	608-263-3867
Names of Co-Investigators:	Yun Ling
E-mail Addresses of Co-Investigators:	<a href="mailto:Yling6@wisc.edu">Yling6@wisc.edu</a>

### III. FEE INFORMATION

1. Consult the [Fee Schedule](#) for All-Payer Claims Database data and select one of the following options:

- Researcher  
 Other  
 Reseller

2. Are you requesting a fee waiver?

- Yes  
 No

3. Complete and submit the [Fee Remittance Form](#). If requesting a fee waiver, submit a letter stating the basis for your request (if required). Please refer to the [Fee Schedule](#) (effective Feb 1, 2017) for fee waiver criteria.

### IV. PROJECT INFORMATION

1. What will be the use of the CHIA Data requested? [Check all that apply]

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Epidemiological        | <input type="checkbox"/> Health planning/resource allocation      | <input checked="" type="checkbox"/> Cost trends                     |
| <input type="checkbox"/> Longitudinal Research  | <input checked="" type="checkbox"/> Quality of care assessment    | <input checked="" type="checkbox"/> Rate setting                    |
| <input type="checkbox"/> Reference tool         | <input checked="" type="checkbox"/> Research studies              | <input type="checkbox"/> Severity index tool                        |
| <input type="checkbox"/> Surveillance           | <input checked="" type="checkbox"/> Student research              | <input checked="" type="checkbox"/> Utilization review of resources |
| <input type="checkbox"/> Inclusion in a product | <input checked="" type="checkbox"/> Other (describe in box below) |   |

2. Provide a summary of the specific purpose and objectives of your Project. This may include research questions and/or business use Projects.

I examine dialysis firms' capacities, prices charged to patients, quality choices in relationship to competition nearby, Medicare's reimbursement rates, and patients' demand. My project aims to answer the following questions: (1) is the current Medicare reimbursement rate efficient; (2) what can be done to increase the patients' welfare in this market? The policy instruments I will explore include an entry subsidy to include dialysis firms' entry, and different Medicare reimbursement schemes.

3. Has an Institutional Review Board (IRB) reviewed your Project?

- Yes [If yes, a copy of the approval letter and protocol must be included with the Application package on IRBNet.]  
 No, this Project is not human subject research and does not require IRB review.

4. **Research Methodology:** Applicants must provide either the IRB protocol or a written description of the Project methodology (typically 1-2 pages), which should state the Project objectives and/or identify relevant research questions.

This document must be included with the Application package on IRBNet and must provide sufficient detail to allow CHIA to understand how the Data will be used to meet objectives or address research questions.

## V. PUBLIC INTEREST

1. Briefly explain why completing your Project is in the public interest. *Uses that serve the public interest under CHIA regulations include, but are not limited to: health cost and utilization analysis to formulate public policy; studies that promote improvement in population health, health care quality or access; and health planning tied to evaluation or improvement of Massachusetts state government initiatives.*

My research aims to find out if there are feasible ways to increase producer surplus and consumer surplus in the highly regulated market for dialysis treatments. I believe my results will meaningfully contribute to ongoing debate about whether or not Medicare should change reimbursement rates to dialysis providers. In addition, results from my simulations will help policymakers make informed decisions, as incidence rate of End Stage Renal Disease continues to increase.

## VI. DATASETS REQUESTED

1. Specify below the dataset(s) and year(s) of data requested for this Project, and provide your justification for requesting each dataset.

### Medical Claims

2011 2012 2013 2014 2015

Medical Claims data will allow me to understand the real prices patients face, which is one of the key factors in patients' decisions on where to receive treatment. With Medical Claims data, I will be able to understand patients' willingness to pay for quality.

### Pharmacy Claims

2011 2012 2013 2014 2015

Pharmacy Claims data, combined with Medical Claims data will allow me to estimate the *total* costs of treating dialysis and dialysis-related diseases.

### Dental Claims

2011 2012 2013 2014 2015

N/A

### Member Eligibility

2011 2012 2013 2014 2015

I need the Member Eligibility file to understand why they make different provider choices. This data also allows me to extrapolate the demand estimates (such as price sensitivity) obtained from MA patients to a nationally representative sample.

### Provider

2011 2012 2013 2014 2015

I need the decrypted Provider file because I need to link the providers chosen by patients to facility-level quality measures published by CMS. This allows me to understand how patients value prices paid, quality of care, and distance travelled to providers.

<input checked="" type="checkbox"/> <b>Product</b> <input checked="" type="checkbox"/> 2011 <input checked="" type="checkbox"/> 2012 <input checked="" type="checkbox"/> 2013 <input checked="" type="checkbox"/> 2014 <input checked="" type="checkbox"/> 2015
I need the product file to be able to link the claims to insurance plans. For instance, I need to infer how much a plan pays in reimbursement terms to dialysis providers, and how the payments depend on plan coverage.

2. All-Payer Claims Database data are refreshed and updated periodically and made available in Release Versions that contain the most recent five calendar years of data. As certain Project objectives may require future years of data not yet available, CHIA will consider requests for additional Release Versions of the *same data (i.e., same elements and files)* without the need to submit a new application. Please note that approved requests will be subject to applicable terms in the Data Use Agreement and fees for additional data. Please indicate below whether this is a one-time request, or if the described Project will require future Release Versions of data and if so, which Versions

One-Time **OR**  2016  2017  2018  2019  2020

**VII. DATA ELEMENTS REQUESTED**

State and federal privacy laws limit the release and use of Data to the minimum amount of data needed to accomplish a specific Project objective.

All-Payer Claims Database data is released in Limited Data Sets (LDS). All applicants receive the “Core” LDS, but may also request additional elements listed below for inclusion in their analyses. Requests for additional elements will be reviewed by CHIA to determine whether each represents the minimum data necessary to complete the specific Project objective.

For a full list of elements in the release (i.e., the core elements and additional elements), please refer to [release layouts](#), [data dictionaries](#) and similar documentation included on CHIA’s website.

1. Specify below which elements you are requesting in addition to the “Core” LDS, provide your justification for requesting each element.

**Geographic Data**

The geographic sub-divisions listed below are available for Massachusetts residents and providers only. Choose one of the following geographic options.

<input type="checkbox"/> 3-Digit Zip Code (standard)	<input checked="" type="checkbox"/> 5-Digit Zip Code***
When patients make decisions about where to receive dialysis treatment, distance is one of the most important factors, because they need to visit dialysis facilities 3 times a week. In order to correctly capture the tradeoffs between distance travelled, prices paid, and quality of care, I need to have the 5-digit zipcode of patients’ residence.  3-digit zipcode map into areas too geographically broad, and may result in incorrect estimation of patient’s demand.	

**Dates**

Choose one option from the following options for dates.

<input type="checkbox"/> Year (YYYY) (Standard)	<input type="checkbox"/> Month (YYYYMM) ***	<input checked="" type="checkbox"/> Day (YYYYMMDD) *** [for selected data elements only]
It's important to know the patients' search process. If the patients visited clinic A first, and then moved to clinic B, with dates of services data, I am able to make valuable inference about patient's preferences.		
Also, for the purpose of estimating how patients benefit from higher quality, it's necessary to see if a patient visits a dialysis facility, and immediately after visits an emergency department or be admitted to hospital.		

**National Provider Identifier (NPI)**

Choose one of the following options for National Provider Identifier(s):

<input type="checkbox"/> Encrypted National Provider Identifier(s) (standard)	<input checked="" type="checkbox"/> Decrypted National Provider Identifier(s)***
One of the key steps in my research is to utilize the cost reports and Dialysis Facility Reports, both publicly available data provided by Centers for Medicare & Medicaid Services (CMS), and have measures of each facilities' facility-level infection rates, and mortality rates. With Decrypted National Provider Identifier, I can correctly estimate patients' willingness to pay for quality, because I can obtain quality measures from the said datasets from CMS.	

**VIII. MEDICAID DATA**

1. Please indicate whether you are seeking Medicaid Data:

- Yes  
 No

2. Federal law (42 USC 1396a(a)7) restricts the use of individually identifiable data of Medicaid recipients to uses that are directly connected to the administration of the Medicaid program. If you are requesting Medicaid Data, please describe, in the space below, why your use of the Data meets this requirement. Requests for 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. CHIA cannot release Medicaid Data without approval from MassHealth. This may introduce significant delays in the receipt of Medicaid Data.

N/A

**IX. DATA LINKAGE**

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

1. Do you intend to link or merge CHIA Data to other data?

- Yes  
 No linkage or merger with any other data will occur

2. If yes, please indicate below the types of data to which CHIA Data will be linked. [Check all that apply]

- Individual Patient Level Data (e.g. disease registries, death data)

- Individual Provider Level Data (e.g., American Medical Association Physician Masterfile)
- Individual Facility Level Data (e.g., American Hospital Association data)
- Aggregate Data (e.g., Census data)
- Other (please describe):

3. If yes, describe the dataset(s) to which the CHIA Data will be linked, indicate which CHIA Data elements will be linked and the purpose for each linkage.

Provider file will be linked to Cost Reports and Dialysis Facility Compare, and Dialysis Facility Reports, made freely available by CMS.

Cost Reports: Cost Reports are annual reports filed by dialysis clinics that receive Medicare patients. They provide information such as chain affiliation, number of machines, number of nurses employed, number of physicians employed, number of patients treated, number of treatment sessions provided, total salaries paid to staff, compensation to medical directors, total expenses on drugs, total expenses on capital maintenance, total payments from Medicare, and total revenues from all patients. These data elements will provide information about the resource utilizations in dialysis facilities, and help me assess the costs of providing high-quality treatment.

Dialysis Facility Compare: I obtain the the hours of shifts, county code, addresses of providers from the Dialysis Facility Compare, and then obtain the travel distance in miles and travel time in minutes from Google Maps API, using patients zipcodes and clinics' addresses. Google Maps API provides more reliable commuting time patterns than simple great-circle distance calculations.

Dialysis Facility Reports: I obtain the quality measures such as facility-average urea reduction rates and infection rates from Dialysis Facility Reports, and use those quality measure to understand how patients perceive the quality of care received.

4. 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.

I plan to link providers to Cost Reports and Dialysis Facility Compare, and Dialysis Facility Reports, made freely available by CMS. The basis of this linkage is the unique National Provider ID.

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

I will not reveal data elements, unless they are aggregated up to  $\geq 12$  patients.

## X. PUBLICATION / DISSEMINATION / RE-RELEASE

1. Describe your plans to publish or otherwise disclose CHIA Data, or any data derived or extracted from CHIA Data, in any paper, report, website, statistical tabulation, seminar, conference, or other setting. Any and all publication of CHIA Data must comply with CHIA's cell size suppression policy, as set forth in the Data Use Agreement. Please explain how you will ensure that any publications will not disclose a cell less than 11, and percentages or other mathematical formulas that in the display of a cell less than 11.

I plan to submit the paper as the main chapter of my doctoral dissertation, and also to peer-reviewed academic journals for publication.

2. Do you anticipate that the results of your analysis will be published and/or made publically available? If yes, describe how an interested party will obtain your analysis and, if applicable, the amount of the fee, that the third party must pay.

Yes, I anticipate making the results of my analysis publicly available next year (Fall 2018). Only aggregated statistics (with greater than 12 observations) such as means and regresison estimates will be displayed in my results. There will be links to my paper on the internet through UW-Madison Economics Department's website (<https://econ.wisc.edu/>).

3. Will you use CHIA Data for consulting purposes?

- Yes  
 No

4. Will you be selling standard report products using CHIA Data?

- Yes  
 No

5. Will you be selling a software product using CHIA Data?

- Yes  
 No

6. Will you be reselling CHIA Data in any format?

- Yes  
 No

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

N/A

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

N/A

8. If you have answered "yes" to questions 4, 5, or 6, what is the fee you will charge for such products, services or studies?

N/A

**XI. APPLICANT QUALIFICATIONS**

1. Describe your previous experience using claims data. This question should be answered by the primary investigator and any co-investigators who will be using the Data.

Alan Sorensen, PI of the project is John and Tashia Morgridge Chair Professor of Economics at University of Wisconsin-Madison. He was the Editor of Journal of Industrial Economics in 2011-2015, and an associate editor of American Economic Journal: Applied Economics. He has published extensively in top journals of Economics, such as American Economic Review, Review of Economic Studies, Journal of Political Economy, RAND Journal of Economics, Marketing Science, American Economic Journal: Microeconomics, Journal of Health Economics, Journal of Industrial Economics.

Yun Ling, CO-PI of the project is a 5-th year student at Economics Department of University of Wisconsin-Madison. She has been working on a project utilizing Medicare 5% Claims database, and will present findings from this research at American Public Health Association 2017.

2. **Resumes/CVs:** When submitting your Application package on IRBNet, include résumés or curricula vitae of the principal investigator and co-investigators. (These attachments will not be posted on the internet.)

**XII. USE OF AGENTS AND/OR CONTRACTORS**

**By signing this Application, the Agency assumes all responsibility for the use, security and maintenance of the CHIA Data by its agents, including but not limited to contractors. The Agency must have a written agreement with the agent of contractor limiting the use of CHIA Data to the use approved under this Application as well as the privacy and security standards set forth in the Data Use Agreement. CHIA Data may not be shared with any third party without prior written consent from CHIA, or an amendment to this Application. CHIA may audit any entity with access to CHIA Data.**

Provide the following information for **all** agents and contractors who will have access to the CHIA Data. *[Add agents or contractors as needed.]*

AGENT/CONTRACTOR #1 INFORMATION	
Company Name:	
Company Website	
Contact Person:	
Title:	
E-mail Address:	
Address, City/Town, State, Zip Code:	
Telephone Number:	
Term of Contract:	

1. Describe the tasks and products assigned to the agent or contractor for this Project and their qualifications for completing the tasks.



2. Describe the Organization’s oversight and monitoring of the activities and actions of the agent or contractor for this Project, including how the Organization will ensure the security of the CHIA Data to which the agent or contractor has access.

3. Will the agent or contractor have access to or store the CHIA Data at a location other than the Organization’s location, off-site server and/or database?

- Yes
- No

4. If yes, a separate Data Management Plan **must** be completed by the agent or contractor.

<b>AGENT/CONTRACTOR #2 INFORMATION</b>	
Company Name:	
Company Website:	
Contact Person:	
Title:	
E-mail Address:	
Address, City/Town, State, Zip Code:	
Telephone Number:	
Term of Contract:	

1. Describe the tasks and products assigned to the agent or contractor for this Project and their qualifications for completing the tasks.

2. Describe the Organization's oversight and monitoring of the activities and actions of the agent or contractor for this Project, including how the Organization will ensure the security of the CHIA Data to which the agent or contractor has access.

3. Will the agent or contractor have access to or store the CHIA Data at a location other than the Organization's location, off-site server and/or database?

- Yes  
 No

4. If yes, a separate Data Management Plan **must** be completed by the agent or contractor.

### XIII. ATTESTATION

By submitting this Application, the Organization attests that it is aware of its data use, privacy and security obligations imposed by state and federal law *and* confirms that it is compliant with such use, privacy and security standards. The Organization further agrees and understands that it is solely responsible for any breaches or unauthorized access, disclosure or use of CHIA Data, including, but not limited to, any breach or unauthorized access, disclosure or use by any third party to which it grants access.

Applicants approved to receive CHIA Data will be provided with Data following the payment of applicable fees and upon the execution of a Data Use Agreement requiring the Organization to adhere to processes and procedures designed to prevent unauthorized access, disclosure or use of data.

**By my signature below, I attest: (1) to the accuracy of the information provided herein; (2) that the requested Data is the minimum necessary to accomplish the purposes described herein; (3) that the Organization will meet the data privacy and security requirements described in this Application and supporting documents, and will ensure that any third party with access to the Data meets the data use, privacy and security requirements; and (4) to my authority to bind the Organization.**

Signature: (Authorized Signatory for Organization)	
Printed Name:	Robert Gratzl, Managing Officer, RSP

#### Attachments

A completed Application must have the following documents attached to the Application:

- 1. IRB approval letter and protocol (if applicable)
- 2. Research Methodology (if protocol is not attached)
- 3. CVs of Investigators
- 4. Data Management Plan (including one for each agent or contractor that will have access to or store the CHIA Data at a location other than the Organization's location, off-site server and/or database)

**Applications will not be reviewed until they are complete, including all attachments.**

<b>TRACKING TABLE (to be completed by CHIA staff only)</b>	
Complete Application Received	
Application Fee Received	
Data Privacy Committee Review	
Data Release Committee Review	
Linkages Approved (as described)	
Approved for additional Release Versions	
Executive Director Approval	
Data Fee Received	
Date of First Audit	
Extract Number:	

**Attachment #1 – IRB Approval Letter & Protocol or Research Methodology**

**Attachment #2 – Data Management Plan(s)**

**Attachment #3 – CV(s)**