

## CHIA Non-Governmental Application for Massachusetts Case Mix 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 [casemix.data@state.ma.us](mailto:casemix.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>                         | AHRQ Measure Calculation   |
| IRBNet Number:                                |  |
| <b>Organization Requesting Data:</b>          | Blue Cross Blue Shield of MA                                       |
| Organization Website:                         | <a href="http://www.bcbsma.com">www.bcbsma.com</a>                 |
| <b>Authorized Signatory for Organization:</b> | <b>Marcy Carty</b>   |
| Title:  | Vice President Network Performance and Innovation                  |
| E-Mail Address:                               | <a href="mailto:Marcy.Carty@bcbsma.com">Marcy.Carty@bcbsma.com</a> |
| Address, City/Town, State, Zip Code:          | 101 Huntington Avenue, Suite 1300<br>Boston, MA 02199-7611         |
| <b>Primary Investigator:</b>                  | John Dawson  |
| Title:  | Director Network Performance Incentive Reporting                   |
| E-Mail Address:                               | <a href="mailto:John.Dawson@bcbsma.com">John.Dawson@bcbsma.com</a> |
| Telephone Number:                             | 617 246-3984   |
| Names of Co-Investigators:                    |  |
| E-Mail Addresses of Co-Investigators:         |  |

### III. FEE INFORMATION

1. Consult the [Fee Schedule](#) for Case Mix and Charge 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 type="checkbox"/> Cost trends                     |
| <input type="checkbox"/> Longitudinal Research  | <input type="checkbox"/> Quality of care assessment               | <input type="checkbox"/> Rate setting                    |
| <input type="checkbox"/> Reference tool         | <input type="checkbox"/> Research studies                         | <input type="checkbox"/> Severity index tool             |
| <input type="checkbox"/> Surveillance           | <input type="checkbox"/> Student research                         | <input type="checkbox"/> Utilization review of resources |
| <input type="checkbox"/> Inclusion in a product | <input checked="" type="checkbox"/> Other (describe in box below) |  |

- 1) Calculate hospital performance on the Agency for Healthcare Research and Quality (AHRQ) Quality indicators.  
 2) Calculate Hospital performance on the National Quality Forum (NQF) endorsed Hospital 30 Day All Cause Unplanned Readmission measure

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

- 1) Calculate hospital performance on the Agency for Healthcare Research and Quality (AHRQ) Quality indicators.  
 2) Calculate Hospital performance on the National Quality Forum (NQF) endorsed Hospital 30 Day All Cause Unplanned Readmission measure

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.*

BCBSMA uses this information to work with providers to:

- 1) improve their performance on important patient safety indicators
- 2) improve performance on unplanned re-admissions

We believe our work with providers on these important measures improves patient safety across Massachusetts by encouraging providers to implement processes and procedures to reduce potential complications and adverse events following various surgeries and procedures and after hospitalizations.

## VI. DATASETS REQUESTED

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

**Hospital Inpatient Discharge Data**

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

**Describe how your research objectives require Inpatient Discharge data:**

*BCBSMA utilizes the CHIA inpatient discharge data to determine performance on the AHRQ Patient Safety Indicator (PSI) and the AHRQ Inpatient Quality Indicator (IQI) measure results. The Inpatient data is needed to run the AHRQ quality measures and for calculating re-admission rates. Without the inpatient Discharge data we would not produce these important Patient Safety measurements.*

**Outpatient Observation Data**

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

**Describe how your research objectives require Outpatient Observation data:**

**Emergency Department Data**

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

**Describe how your research objectives require Emergency Department data:**

2. Case Mix and Charge Data are updated each fiscal year. As certain Project objectives may require future years of data not yet available, CHIA will consider requests for additional fiscal years 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 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 years of Data and if so, which years.

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.

Case Mix and Charge Data are grouped into six “Levels” or Limited Data Sets (LDS) for release, depending on the fiscal year. Data for FY 2004 – 2014 are organized into Levels. Level 6 Data will be released to Government Applicants only. CHIA staff will use the information provided in this section to determine the appropriate Level of Data justified for release.

Data for FY 2015 and later are organized into LDS’s. 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. CHIA will use this information to determine what Level of data is needed for pre-FY 2015 data requests.

### Geographic Data

The geographic sub-divisions listed below are available for CT, MA, ME, NH, RI, VT, and NY residents only for FY 2015 and after. Fiscal years 2004 – 2014 will contain the geographic sub-divisions listed below for all states. Choose one of the following geographic options.

|   |   |   |   |
|---|---|---|---|
| <input checked="" type="checkbox"/> 3-Digit Zip Code (Standard)   | <input type="checkbox"/> 3-Digit Zip Code & City/Town *** | <input type="checkbox"/> 5-Digit Zip Code *** | <input type="checkbox"/> 5-Digit Zip Code & City/Town *** |
| <b>***If requested, provide justification for requesting 5-Digit Zip Code or City/Town. Refer to specifics in your methodology:</b> |   |   |   |

### Demographic Data

Choose one of the following demographic options:

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Not Requested (Standard)   | <input type="checkbox"/> Race & Ethnicity*** |
| <b>** If requested, provide justification for requesting Race and Ethnicity. Refer to specifics in your methodology:</b> |  |

### Dates

Choose one option from the following options for dates of admissions, discharges, and significant procedures:

|   |   |   |
|---|---|---|
| <input type="checkbox"/> Year (YYYY)(Standard)  | <input type="checkbox"/> Month (YYYYMM) *** | <input checked="" type="checkbox"/> Day (YYYYMMDD)*** |
| <b>***If requested, provide justification for requesting Month or Day. Refer to specifics in your methodology:</b>  |   |   |
| <i>The full date is needed when calculating AHRQ measure results for patient Safety measures that measure number of days from admission to procedure and without it we cannot produce accurate rates.</i> |   |   |
| <i>We also need the full date when calculating Hospital Performance on the Hospital 30 day All Cause Unplanned Re-admission measure.</i>  |   |   |

**Practioner Identifiers (UPN)**Please choose one of the following options for Practioner Identifier(s):

|   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Not Requested (Standard)  | <input type="checkbox"/> Hashed ID *** | <input type="checkbox"/> Board of Registration in Medicine Number(BORIM) *** |
| <b>***If requested, provide justification for requesting Hashed ID or BORIM Number. Refer to specifics in your methodology:</b> |  |  |

**Unique Health Information Number (UHIN)**Please choose one of the following:

|  |  |
|--|--|
| <input type="checkbox"/> Not Requested (Standard)  | <input checked="" type="checkbox"/> UHIN Requested *** |
| <b>*** If requested, provide justification for requesting UHIN. Refer to specifics in your methodology:</b>  |  |
| <i>A unique individual identifier is needed to calculate hospital performance on the Hospital 30 day All Cause Unplanned Re-admission measure. This is also needed when processing the AHRQ pateient safety measures</i> |  |

**Hashed Mother's Social Security Number**Please choose one of the following:

|  |  |
|--|--|
| <input checked="" type="checkbox"/> Not Requested (Standard)   | <input type="checkbox"/> Hashed Mother's SSN Requested *** |
| <b>*** If requested, provide justification for requesting Hashed Mother's SSN. Refer to specifics in your methodology:</b> |  |

**VIII. 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):

The AHRQ QI risk adjustment models adjust for age-group proportions by gender and optionally for poverty. The models include age (in 5 year groups), gender and if statistically significant, the model include interaction between age and gender.

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

When calculating risk-adjusted rates for the AHRQ Quality Indicators, the AHRQ software incorporates information about a reference population that is not part of the input dataset (Casemix Discharge Data). This helps to answer what rate would be observed if the level of care observed in the users dataset (CHIA Casemix Discharge Data) were applied to a mix of patients with demographics and comorbidities distributed like the reference population.

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.

The AHRQ QI use indirect standardization to calculate the risk adjusted rate. The risk adjusted rate equals the reference population rate multiplied by the ratio of observed rate divided by the expected rate.

Risk Adjusted Rate = Reference Population Rate x (Observed Rate / Expected Rate)

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

The AHRQ reference population is not at the individual patient level. It is a reference population at the age gender level.

## IX. 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 result in the display of a cell less than 11.

*BCBSMA utilizes the CHIA data to determine performance on the AHRQ Patient Safety Indicator (PSI) and the AHRQ Inpatient Quality Indicator (IQI) measure results. The measure results are created at the aggregate Hospital level and each Hospital receives a report listing their rate's for the PSI and IQI measures.*

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.

No

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.)?

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

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?

## X. INVESTIGATOR QUALIFICATIONS

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

BCBSMA has been using the Discharge Data provided by CHIA for the past 6+ years to calculate the rates for AHRQ Quality measures. See attached for resumes of the BCBSMA staff that will be accessing the data.

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.)

## XI. 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 amendmtn to this Application. CHIA may audit any entity with access to CHIA Data.**

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

| <b>AGENT/CONTRACTOR #1<br/>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.

| <b>AGENT/CONTRACTOR #2<br/>INFORMATION</b> |  |
|--|--|
| Company Name:                              |  |
| Company Website:                           |  |
| Contact Person:                            |  |
| Title:                                     |  |
| E-mail Address:                            |  |
| Address, City/Town, 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.

**XII. 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:<br>(Authorized Signatory for Organization) |  |
| Printed Name :  | Dr. Marcy Carty   |

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.**

| TRACKING TABLE (to be completed by CHIA staff only) |  |
|---|--|
| Complete Application Received                       |  |

|                                       |  |
|---------------------------------------|--|
| Application Fee Received              |  |
| Data Privacy Committee Review         |  |
| Data Release Committee Review         |  |
| Linkages Approved (as described)      |  |
| Approved for additional years of data |  |
| Executive Director Approval           |  |
| Data Fee Received                     |  |
| Date of First Audit                   |  |
| IT Extract #                          |  |

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

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