

**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 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

Project Title:	Emerson Hospital CHIA Case Mix Data Application 2017
IRBNet Number:	1140451-1
Organization Requesting Data:	Emerson Hospital
Organization Website:	www.emersonhospital.org
Authorized Signatory for Organization:	Christine Gallery
Title:	Senior Vice President Planning & Chief Strategy Officer
E-Mail Address:	cgallery@emersonhosp.org
Address, City/Town, State, Zip Code:	133 Old Rd to 9 Acre Corner Concord, MA 01742
Primary Investigator:	Nancy Douglass
Title:	Manager, Decision Support
E-Mail Address:	ndouglass@emersonhosp.org
Telephone Number:	(978) 287-3328
Names of Co-Investigators:	Krista Kallio
E-Mail Addresses of Co-Investigators:	kkallio@emersonhosp.org

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 checked="" 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) | |

To conduct Massachusetts market analyses.

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

The overall objective of Emerson Hospital's market research is to gain a data-driven understanding of Emerson's market position and the healthcare needs of the service area. The data will also form the foundation for market forecasts allowing Emerson to anticipate future needs. The purpose of gathering the data and performing these analyses is to inform strategic decision-making by Emerson's leadership team and facilitate Emerson's efforts to continuously align clinical, facility, and financial operations with the community's healthcare needs.

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.*

Emerson Hospital will perform analyses to better meet market demand. The data and these analyses will help the hospital offer services and service delivery that improve the quality, access, and cost of care to the surrounding community. For example, are there geographies, demographics, or service lines that Emerson Hospital is not adequately serving? What are Emerson's costs and length of stay compared to other providers? Are there clinical service areas where Emerson Hospital can build capacity to create better access, quality, or cost of care?

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

Describe how your research objectives require Inpatient Discharge data:
 Inpatient discharge data will make it possible to analyze various elements such as discharge trends, acuity, and length-of-stay. These analyses will be conducted over time, relative to other hospitals, and by service line and disease. Findings will be instrumental in informing Emerson's efforts to continuously assess and better meet market demand.

Please note that Emerson Hospital will not house the data. The data will be sent directly to our vendor Sg2. Sg2 works with other MA hospitals and has been approved previously by CHIA.

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

We must use 5-digit zip code to define our market. Within our primary market alone, there are subsets of three 3-digit zip codes. However, these three 3-digit zip codes also extend well beyond our primary market. So to approximate our market, we require 5-digit zip code level data. City/Town would be helpful in defining and identifying the market area.

Demographic Data

Choose one of the following demographic options:

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

Dates

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

<input type="checkbox"/> Year (YYYY)(Standard)	<input checked="" type="checkbox"/> Month (YYYYMM) ***	<input type="checkbox"/> Day (YYYYMMDD)***
***If requested, provide justification for requesting Month or Day. Refer to specifics in your methodology:		
We would like to get a sense of our trends over time and also any seasonal trends. Monthly detail will allow us to assess these trends.		

Practitioner Identifiers (UPN)

Please choose one of the following options for Practitioner Identifier(s):

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

Unique Health Information Number (UHIN)

Please choose one of the following:

<input checked="" type="checkbox"/> Not Requested (Standard)	<input type="checkbox"/> UHIN Requested ***
<p>*** If requested, provide justification for requesting UHIN. Refer to specifics in your methodology:</p>	

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 ***
<p>*** If requested, provide justification for requesting Hashed Mother's SSN. Refer to specifics in your methodology:</p>	

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): Sg2 software which pulls in growth factors to create market forecasts.

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.

The CHIA Data will be supplied to our vendor Sg2. Sg2 will link the data with growth factors to create market forecasts for Service Area, Zip code, Service Line, Disease and Procedure.

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.

To provide market forecasts Sg2 will link to Zip code, Disease, and Procedure data.

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

The CHIA data collected will be delivered directly to Sg2. They have completed a data management plan and have previously received approval from CHIA previously for these linkages. Emerson will continue to meet the patient anonymity conditions stated in the CHIA DUA.

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.

We do not have plans to publish CHIA data. Our analyses will show only summarized data consistent with small cell suppression guidelines and will not be at the patient level. These summarized analyses, could be shared with consultants or state agencies, but will mainly be used internally.

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 we don't anticipate that results will be published or made publically available.

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.)?

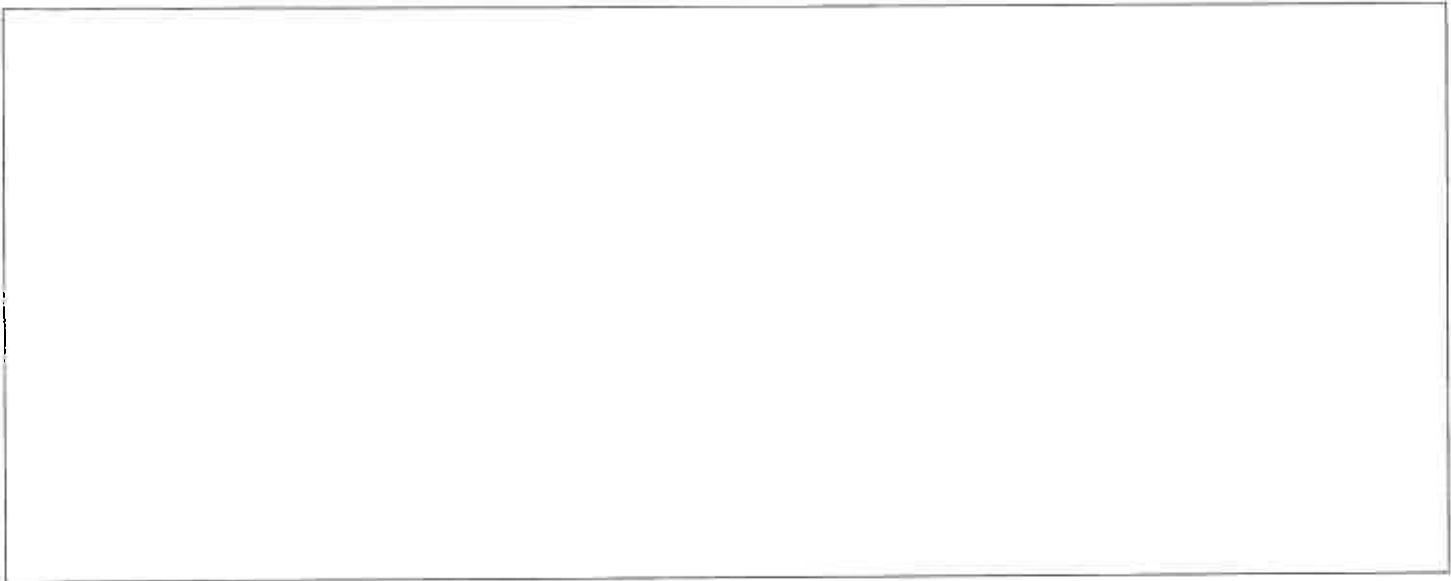
7. If you have answered "yes" to questions 4, 5 or 6, please describe the types of products, services or studies.

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.

Health care market analysis, financial analysis, and data analysis are core skills of the Primary and Co-investigators. This team has the ability to analyze the data, inform key decision makers at Emerson Hospital, and apply the data to improve clinical, facility, and financial planning at Emerson, thus helping to deliver better care to the Emerson Hospital community. We plan to use the data for internal decision making.



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 amendemtn 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.]

AGENT/CONTRACTOR #1 INFORMATION	
Company Name:	SG2
Company Website:	www.sg2.com
Contact Person:	Ashraf Fadel
Title:	AVP of Data Operations
E-mail Address:	AFadel@sg2.com
Address, City/Town, State, Zip Code	5250 Old Orchard Road Skokie, IL 60077
Telephone Number:	847 779 5459
Term of Contract:	Renewed annually.

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

Sg2 will use components of the Inpatient case mix data to report service area, service line, disease, and procedure market data and to develop a 5- and 10-year forecast.

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.

Please see Sg2’s data management plan which details how Sg2 will ensure the security of CHIA data. Sg2 works with other MA hospitals and has been approved previously by CHIA.

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.

AGENT/CONTRACTOR #2 INFORMATION	
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

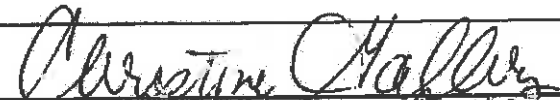
4. If yes, a separate Data Management Plan must be completed by the agent or contractor.

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: (Authorized Signatory for Organization)	
Printed Name :	Christine Ballery

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)

