Commonwealth of Massachusetts
Center for Health Information & Analysis (CHIA)
Non-Government Agency Application for Data

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

***NOTE:* In order for your application to be processed, you must submit the required application fee. Please consult the fee schedules for APCD and Case Mix data for the appropriate fee amount. A remittance form with instructions for submitting the application fee is available on the CHIA website.**

I. GENERAL INFORMATION

APPLICANT INFORMATION	
Applicant Name:	John C. Powers, MBA
Title:	Chief Administrative Information Officer
Organization:	Beth Israel Deaconess Medical Center
Project Title:	Readmissions, Coding Quality, Market and Other Patterns of Care Analyses
Date of Application:	12/9/2014
Project Objectives (240 character limit)	Assist in analyses related to clinical and facility planning, benchmarking, quality of care, avoidable readmissions, medical coding validation, and related purposes.
Project Research Questions (if applicable)	1. What is the relationship between inpatient, ED, and observation utilization? 2. Are there medical coding patterns that are inconsistent with peer group providers that warrant validation? 3. Where are our patients coming from? What areas of the state do patients travel for health care the most? Where should we allocate/reallocate health care resources? 4. How do Accountable Care Organizations, patient-centered medical homes, and other innovations impact practice patterns? 5. In which clinical areas is there a need to build capacity to create better access for patients? 6. Are there patterns to where high rates of potentially avoidable admissions and re-admissions exist? 7. Are our lengths of stay and use of critical care days consistent with other area providers?

I. PROJECT SUMMARY

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

Beth Israel Deaconess Medical Center would like to utilize the Case Mix Data to help us understand reasons for readmission, medical coding patterns to aid in validation reviews, marketplace studies to determine patterns of clinical care in Massachusetts, and other health care related analyses. These analyses have two primary goals, both of which are in the Public's interest – 1. Improving the quality of care delivered to our patients and 2. Identifying more efficient ways to health care resources.

Lacking an internal data warehouse that includes both the main BIDMC campus as well as our three community hospitals (Needham, Plymouth, and Milton), the CHIA data set will also allow us to track care patterns across all four BIDMC owned and operated hospitals.

For Business planning, the CHIA case mix data will help us evaluate patient origin and market position so that we can make determinations on the quantity and location of where to allocate additional resources. For our service lines and our facilities planning it will allow us to see the service mix, intensity of services and demographic profile of patient populations.

Here are some examples of the ways we may use the data

- Analyzing utilization of services by geography to understand what types of services and to what locations would benefit our patient population
- Analyze ED usage and determine if and what location an urgent care center could be opened to provide timely care at a more cost effective setting
- To compare our LOS, preventable admissions, readmissions, etc. to other hospitals.
- Ability to look at quality and monitor it with more specificity
- Understanding tertiary vs. secondary mix at various hospitals so as to understand how to best get complex patients to use higher-acuity settings and lower complexity patietns to use lower-cost settings.
- Understand physician practice patterns and patient needs
- Evaluate patterns over time
- Analyze payer mix by service, hospitals, specialists, geography.
- Analyze associations between chronic illness conditions and other medical codes.
- Evaluate areas where our resource use of inpatient, emergency or observation care is atypical.

II. FILES REQUESTED

Please indicate the databases from which you seek data, the Level(s) and Year(s) of data sought.

ALL PAYER CLAIMS DATABASE	Level 1[1] or 2[2]	Single or Multiple Use	Year(s) Of Data Requested Current Yrs. Available 2009 - 2012

[1] Level 1 Data: De-identified data containing information that does not identify an individual patient and with respect to which there is no reasonable basis to believe the data can be used to identify an individual patient. This data is de-identified using standards and methods required by HIPAA.

[2] Level 2 (and above) Data: Includes those data elements that pose a risk of re-identification of an individual patient.

☐ Medical Claims	☐ Level 1[3] ☐ Level 2	Select..	☐ 2009 ☐ 2010 ☐ 2011 ☐ 2012
☐ Pharmacy Claims	☐ Level 2	Select..	☐ 2009 ☐ 2010 ☐ 2011 ☐ 2012
☐ Dental Claims	☐ Level 2	Select..	☐ 2009 ☐ 2010 ☐ 2011 ☐ 2012
☐ Member Eligibility	☐ Level 2	Select..	
☐ Provider	☐ Level 2	Select..	
☐ Product	☐ Level 2	Select..	

CASEMIX	Level 1 - 6	Fiscal Years Requested
Inpatient Discharge	☐ Level 1 – No Identifiable Data Elements ☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN ☑ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	1998-2013 Available (limited data 1989-1997) 2013 only
Outpatient Observation	☐ Level 1 – No Identifiable Data Elements ☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN ☑ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	2002-2012 Available (2013 available 8/1/14) 2013 only
Emergency Department	☐ Level 1 – No Identifiable Data Elements ☐ Level 2 – Unique Physician Number (UPN) ☐ Level 3 – Unique Health Information Number (UHIN) ☐ Level 4 – UHIN and UPN; Stated Reason for Visit ☑ Level 5 – Date(s) of Admission; Discharge; Significant Procedures ☐ Level 6 – Date of Birth; Medical Record Number; Billing Number	2000-2012 Available (2013 available 9/1/14) 2013 only

[3] Please note that Level 1 APCD data is not available as of 4/30/2014. This is scheduled to be available later in 2014.

III. FEE INFORMATION

Please consult the fee schedules for APCD (Administrative Bulletin 13-11) and Case Mix data (Administrative Bulletin 13-09) and select from the following options:

APCD Applicants Only

☐ Academic Researcher
☐ Others (Single Use)
☐ Others (Multiple Uses)

Case Mix Applicants Only

☐ Single Use
☒ Limited Multiple Use
☐ Multiple Use

Are you requesting a fee waiver?

☐ Yes
☒ No

If yes, please submit a letter stating the basis for your request. Please refer to the fee schedule for qualifications for receiving a fee waiver. If you are requesting a waiver based on the financial hardship provision, please provide documentation of your financial situation. Please note that non-profit status alone isn't sufficient to qualify for a fee waiver.

IV. REQUESTED DATA ELEMENTS [APCD Only]

State and federal privacy laws limit the use of individually identifiable data to the minimum amount of data needed to accomplish a specific project objective. Please use the APCD Data Specification Workbook to identify which data elements you would like to request and attach this document to your application.

V. MEDICAID DATA [APCD Only]

Please indicate here whether you are seeking Medicaid Data:

☐ Yes
☒ No

Federal law (42 USC 1396a(a)7) restricts the use of individually identifiable data of Medicaid recipients to uses that are directly connected with the administration of the Medicaid program. If you are requesting Medicaid data from Level 2 or above, please describe in detail why your use of the data meets this requirement. Applications requesting Medicaid data will be forwarded to MassHealth for a determination as to whether the proposed use of the data is directly connected to the administration of the Medicaid program. MassHealth may impose additional requirements on applicants for Medicaid data as necessary to ensure compliance with federal laws and regulations regarding Medicaid.

Not applicable.

VI. REQUESTS PURSUANT TO 957 CMR 5.04

If you are a payer, provider, provider organization or researcher seeking access to Level 1 (de-identified) data, please describe how you will use such data for the purposes of lowering total medical expenses, coordinating care, benchmarking, quality analysis or other administrative research purposes. Please provide this information below.

Not applicable.

VII. FILTERS

If you are requesting APCD elements from Level 2 or above, describe any filters you are requesting to use in order to limit your request to the minimum set of records necessary to complete your project. (For example, you may only need individuals whose age is less than 21, claims for hospital services only, or only claims from small group projects.)

APCD FILE	DATA ELEMENT(S) FOR WHICH FILTERS ARE REQUESTED	RANGE OF VALUES REQUESTED
Medical Claims		
Pharmacy Claims		
Dental Claims		
Membership Eligibility		
Provider		
Product		

VIII. PURPOSE AND INTENDED USE

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

Beth Israel Deaconess Medical Center would use the Case Mix Data to better understand patterns of care within Massachusetts and among the four hospitals BIDMC owns and operates. As an institution and a network we are committed to delivering the highest value health care in the market place across our network. Having access to length of stay, readmission, clinical service use, and medical codes provides opportunity for comparative analyses that will improve the quality of care delivered, accuracy of clinical documentation and coding, and efficiency with which our health care resources are deployed.

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

   There is no one study that is intended, but rather a variety of analyses that serve to make our medical center more efficient and effective. The data will be used in routine and adhoc ways. Routine use includes examining trends in utilization such as inpatient discharges, observation stays, and ED visits by service, geographical location, payers, age, gender and the like. Adhoc analyses include studying readmission patterns, incidence of preventable conditions, length of stay and service consumption trends by DRG, diagnosis and/or procedure, profiling the use of medical coding patterns to identify areas where further

validation may be needed, comparing resource use with peer groups to discover opportunities for improving program efficiency, and other like analyses.

Level 5 data (admit date, discharge date, and significant procedures) is needed to examine readmission patterns including recently discharged patients who require emergency department or observation treatment. The procedures data also allows us to differentiate readmission patterns that may be more highly associated with a particular surgical procedure. We also use procedure data to compare medical coding patterns with peer groups to identify anomalies that serve to focus our clinical documentation improvement efforts. Procedure data is also needed to do comparative analyses of AHRQ developed quality indicators across BIDMC-owned hospitals and our peer group.

3. Has your project received approval from your organization's Institutional Review Board (IRB)? Please note that CHIA will not review your application until IRB documentation has been received (if applicable).

- ☐ Yes, and a copy of the approval letter is attached to this application.
- ☐ No, the IRB will review the project on ____________________.
- ☑ No, this project is not subject to IRB review.
- ☐ No, my organization does not have an IRB.

IX. APPLICANT QUALIFICATIONS

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

Healthcare data analytics and utilization analysis is a core skill set of the individuals who will utilize this data. Individuals from Decision support, Health Information Management,and Strategic Planning and Business Development have the education and experience to process the data and work with clinicians and administrators to use the analysis to help drive better care into the communities that we serve.

2. Attach résumés or curricula vitae of the applicant/principal investigator, key contributors, and of all individuals who will have access to the data. (These attachments will not be posted on the internet.)

In granting access to the data, BIDMC will apply the "least privilege" policy that we apply to our other, internal sensitive data bases. Under this policy, we limit access to only those data fields necessary to perform one's role and responsibilities. Our intent is to create separate SQL "VIEWS" of the Casemix data set that will limit what an individual can access to that needed for their analysis. For example, staff provided the Level 2 or below would not see admit date, discharge date, or significant procedure data. The categories and names of individuals who will be granted access to specific views are as follows –

a. Strategic Planning and Business Development Analysts – Level 3

Analyses would focus on marketplace studies to identify areas of need and more optimally deploy BIDMC clinical resources. This category includes –

- Sherman Zemler Wu

b. Decision Support Specialist – Level 5

Analyses would include readmission patterns, risk of mortality reviews, health care quality measures such as hospital acquired conditions and patient safety indicators, emergency room usage, and patterns of care across the BIDMC owned medical centers. This category includes –

- Elizabeth Wood

c. Health Information Management – Level 5

Analyses by this group would support the creation of medical coding validation screening tools. These include present on admission usage patterns, frequency of use of special diagnostic and procedure codes, and associations between length of stay, critical care use, and other resource related variables. This category includes –

- John Powers

JEP 1/29/15

X. DATA LINKAGE AND FURTHER DATA ABSTRACTION[i]

1. Does your project require linking the CHIA Data to another dataset?

☒ **Yes**
☐ **No**

2. If yes, will the CHIA Data be linked to other patient level data or with aggregate data (e.g. Census data)?

☐ **Patient Level Data**

☒ **Aggregate Data**

3. If yes, please identify all linkages proposed and explain the reason(s) that the linkage is necessary to accomplish the purpose of the project. Please be specific in describing which data elements will be linked to outside datasets and how this will be accomplished.

Aggregate data will be used, in combination with...

- **Prior year, casemix data obtained from MHDC and,**
- **Internal, current year BIDMC casemix data**

This will be done at the aggregate level, not the patient or provider level. No attempt to "re-identify" patients or physicians will be done. Examples of how we would integrate the CHIA data include...

a. Aggregate FY13 CHIA data will be compared to prior year, MHDC data to discern patterns and trends. For example, total discharge, emergency room, and observation encounter volume will be compared by hospital and/or payer. Similar comparisons to prior year MHDC data will be done by diagnostic code, and DRG, zipcode.

b. The incidence of procedure and diagnostic codes for FY13 for "peer group" medical centers will be used to establish medical coding validation benchmarks.

These benchmarks will be used to supplement the CMS PEPPER report which does not provide peer group comparisons. The peer group benchmarks established with FY13 CHIA data will be compared to FY15, internal BIDMC data.

Admission and re-admission pattern analysis will be based on the CHIA data set exclusively. For example, we DO NOT intend to couple the CHIA data set with BIDMC data to re-identify patients who have been seen at BIDMC. The only comparison will be done at the aggregate level and will not be done in a manner that identifies patients or physicians.

To emphasize this point, no data linkage using "non-deniable" data elements such admission or discharge date will be done. The analyses we contemplate using CHIA data will not require the use of data that is traceable to an individual patient or physician.

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

No disclosure or publication of data will occur that exposes individual identifiable data. Data disclosures and publication will abide strictly by the requirements of 114.5 CMR 2.04 (1), (2) and (3) including minimum record aggregation requirements.

We would welcome regular and recurring dialogue between a designated CHIA representative and our investigators to observe and advise on best practices in use of the CHIA data.

XI. PUBLICATION/DISSEMINATION/RE-RELEASE

1. Describe your plans to publish or otherwise disclose CHIA Data, or any data derived or extracted from such data, in any paper, report, website, statistical tabulation, seminar, conference, or other setting.

We currently do not plan to use the data for publication. It is an internal data source to assist us in making operational and strategic decisions.

[i] SECTION X – DATA LINKAGE AND FURTHER DATA ABSTRACTION was replaced in its entirety based on the review of the CHIA Privacy Committee. All other data in the Application remain as presented in the 12/15/14 submission.

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

No the analysis will not be available publically nor provided for a fee.

3. Will you use the data for consulting purposes?

☐ Yes
☒ No

4. Will you be selling standard report products using the data?

☐ Yes
☒ No

5. Will you be selling a software product using the data?

☐ Yes
☒ No

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

N/A

XII. USE OF AGENTS AND/OR CONTRACTORS

Third-Party Vendors. Provide the following information for all agents and contractors who will work with the CHIA Data.

Company Name:	None
Contact Person:	
Title:	
Address:	
Telephone Number:	
E-mail Address:	
Organization Website:	

7. 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

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

Not Applicable – Neither Agents or Contractors will be used.

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