Request for Proposal

Boston Health Equity Measure Set
Data Hosting, Collecting, Analysis and Reporting Services

Administration
Executive Office

July 06, 2020
## I. Request for Proposal Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Sunday, July 05, 2020</td>
<td>RFP Legal Notice publication in The Boston Globe</td>
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<tr>
<td>Monday, July 06, 2020</td>
<td>RFP available online at <a href="http://www.BPHC.org/RFP">www.BPHC.org/RFP</a> at 10:00 AM EST</td>
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<tr>
<td>Friday, July 17, 2020</td>
<td>Questions due in writing via email by 5:00 PM to:</td>
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<td>Gerry Thomas at <a href="mailto:GThomas@bphc.org">GThomas@bphc.org</a></td>
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<tr>
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<td>Subject: RFP BHEMS Questions</td>
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<tr>
<td>Friday, July 24, 2020</td>
<td>Responses to questions available by 5:00 PM at:</td>
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<td><a href="http://www.BPHC.org/RFP">www.BPHC.org/RFP</a></td>
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<tr>
<td>Monday, August 03, 2020</td>
<td>Proposals due by 5:00 PM</td>
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<td>• Gerry Thomas at <a href="mailto:GThomas@bphc.org">GThomas@bphc.org</a></td>
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<tr>
<td></td>
<td>• Subject line and PDF must be titled: “Proposer’s Name – RFP BHEMS”</td>
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<td></td>
<td>• Do not send hard copies</td>
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<td></td>
<td><strong>NO EXCEPTIONS TO DEADLINE</strong></td>
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<tr>
<td>Monday, August 31, 2020</td>
<td>Notification of Decision</td>
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|                           | Desired date to notify selected vendors however, BPHC has the discretion to extend this date without notice. All proposals shall remain valid and open for a period of one hundred and twenty (120) days from the proposal submission date unless a proposer notifies BPHC of its withdrawal. BPHC reserves the right to accept or reject any or all proposals. BPHC anticipates submitting a Notice of Award to the selected proposer(s) by email provided in the RFP responses. The contract(s) will be awarded to the most responsive and responsible proposer(s) meeting all requirements. BPHC reserves the right to select multiple proposers for award. The contract(s) resulting from this RFP shall be in effect when all necessary contract documentation is fully executed by BPHC and awarded vendor(s).
II. Overview

The mission of the Boston Public Health Commission is to protect, preserve, and promote the health and well-being of all Boston residents, particularly the most vulnerable. We achieve our mission by providing and supporting disease and injury prevention, emergency services, health promotion, and health education services; development of policy and regulations; advocacy; and accessible high-quality community-based health and social services. In fulfillment of its mission, the Commission works collaboratively with area hospitals, community health centers and community-based organizations to foster access to health services for the culturally and economically diverse communities of Boston.

The Boston Public Health Commission promotes the health of the people of Boston by protecting and fostering the three core functions of public health: assessment, assurance, and policy development. It carries out these functions through a wide variety of activities including health promotion and disease prevention initiatives (such as neighborhood outreach and community education); provision of critical health services for vulnerable, under-served and at-risk populations (such as health and wellness clinical and education services for school aged children, emergency shelter and transitional housing and support services for the homeless, and substance abuse treatment for those suffering from addiction); emergency preparedness and response (such as pre-hospital emergency medical care and transport, infectious disease surveillance and outbreak control, and environmental hazards prevention and response); monitoring and reporting on the health status of the city’s residents (such as city wide and disease specific health status reports); and development of public policy approaches that support positive health outcomes (such as tobacco control, banning the use of trans fats in food establishments, regulating biological laboratories, and environmental health regulations).

Eliminating prevailing health care inequities related to race, ethnicity, and socioeconomic factors are key goals of the US Department of Health and Human Services’ Action Plan To Reduce Racial and Ethnic Health Disparities (Disparities Action Plan). According to the Agency for Healthcare Research and Quality’s (AHRQ) 2012 National Healthcare Disparities Report, however, few measures of disparities in health care quality related to race or ethnicity have shown improvement over time, and almost no disparities in access to care have improved. Incomplete data on vulnerable populations limit the ability to identify problems, target resources, and design interventions. Increasing the availability and quality of data collected and reported on racial and ethnic minority populations is a national priority supported by the Affordable Care Act and numerous federal agency standards and recommendations.

To address this issue, the Boston Public Health Commission (BPHC) promulgated the Data Collection Regulation on July 1, 2006. This regulation requires all hospitals and community health centers in Boston to collect four fields of self-reported demographic information on all inpatient, outpatient observation, ambulatory, and emergency department visits. The regulation also required the convening of a committee of healthcare providers and other stakeholders to develop a measure set to identify healthcare disparities that may guide quality improvement efforts.

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1 (U.S. Department of Health and Human Services, April 2011)
2 (Agency for Healthcare Research and Quality, May, 2013)
Boston Health Equity Measure Set:

The Health Equity Committee met for 1 year and recommended nineteen measures related to health care quality and utilization in two priority areas, primary care and emergency care. In their process of measure selection, the Committee considered the validity (i.e., soundness) and practicality (i.e., ease of data collection) of candidate measures. Whenever possible, measures were drawn from existing nationally accepted standard measures. Through input from the public review process and with expert technical assistance from the Disparities Solution Center of Massachusetts General Hospital the measure set recommended by the Health Equity Committee were revised and finalized constituting the first Boston Health Equity Measure Set (BHEMS) (ATTACHMENT A). Since the original inception of BHEMS, however, multiple factors have impacted the priorities of the City, Commonwealth, and our healthcare partners. Development of Accountable Care Organizations with specific quality metrics, completion of the first Boston Citywide Community Health Needs Assessment and Community Health Improvement Plan (CHNA/CHIP), and the recognition of racism as a public health crisis have identified other measures that may be more helpful in focusing efforts to combat health inequities based on racism. To this end, the measure set remains fluid based on input from a Clinical Advisory Team and will be revised accordingly.

BHEMS aligns with both federal and state health care quality measurement and improvement initiatives. Six of the nineteen measures in BHEMS are Healthcare Data Effectiveness and Information Set (HEDIS) measures developed by the National Committee for Quality Assurance (NCQA), a private not-for-profit health care quality improvement organization. HEDIS is used by more than ninety percent of American health plans to measure health care provider performance. Nine of the nineteen measures in BHEMS are endorsed by the National Quality Forum (NQF), a non-profit, public-private partnership responsible for developing a portfolio of quality and efficiency measures for the US Department of Health and Human Services. Eight of the nineteen measures in BHEMS are recommended by the Massachusetts Statewide Quality Advisory Committee (SQAC) for the Commonwealth’s first Standard Quality Measure Set (SQMS).

While there is significant overlap in the BHEMS with other quality reporting and improvement initiatives there may be differing priorities and data collection methods used to generate reports. BHEMS will be calculated from individual level demographic and clinical data for all inpatient, outpatient observation, ambulatory and emergency department encounters submitted by all hospitals and community health centers in Boston as required by the BPHC Data Collection Regulation. Measures will be stratified by demographic characteristics in order to identify and address inequities in care utilization and quality. Future BHEMS may include measures related to health care outcomes and patient experiences with care.
III. Scope of Work

Boston Public Health Commission (BPHC) is seeking a Contractor that will provide a secure, cloud-based data aggregation, analysis, and reporting service. The solution will support the Boston Health Equity Measure Set (BHEMS) Quality Data System (QDS). All hospitals and community health centers in the City of Boston, including hospital-based ambulatory clinics, hereafter referred as “BHEMS participants “are required to report data to BPHC in order to identify and eliminate health disparities. The primary responsibility of the Contractor is a turnkey solution including but not limited to assessing BHEMS participant readiness to transmit data; electronically collect all data needed to support the BHEMS including but not limited to electronic health record and administrative data from BHEMS participants daily; validate, cleanse, and normalize data to calculate BHEMS measures in real-time; report BHEMS measures to BPHC and to participants; and provide data extracts to BPHC.

The contractor is responsible for hosting the BHEMS QDS in a secure environment and is responsible for the security of the source data in flight and at rest. BPHC requires that patient identifiers are stored in a separate, linkable, secure database. The contractor shall provide data architecture, analysis, and design; database management; database security; and data quality management services. The contractor shall be able to provide multiple levels of transport and message types to BHEMS participant sites including but not limited to Sftp, Mass Hiway, CCD, CCDA, HL7, XML. The contractor shall also provide data extraction, transport, validation, and user access. The contractor shall also offer an operational data store against which SQL queries may be executed when custom reporting is needed.

IV. Qualifications

The respondent shall meet the following criteria in order to be considered for the project:

Experience:

a. The successful respondent is required to have a minimum of four years’ experience working in the health care market and have documented experience in quality data management services. The respondent shall provide references from a minimum of three clients documenting the respondent’s data management experience.

b. The successful respondent must demonstrate experience securing PHI. The contractor shall host or contract with a PCI/DDS certified data center and demonstrate its ability to meet the requirement by providing the most recent SOC 2 report as well as the most recent HIPAA Security Audit.

c. The successful respondent is required to have minimum of four years’ experience with data mining, data marts, and data extraction and have completed at least ten successful data migration projects. The successful respondent is required to provide three references from prior work with data mining, data marts, and data extraction, data warehouse design and implementation.

d. The successful respondent is required to have minimum of four years’ experience with data warehouse design and implementation.

e. In the reference check provided by the respondent, the reference shall indicate that it has firsthand experience that the respondent has the capacity to deliver services that meet BPHC’s requirements.

f. Provide design, implementation, and support documentation from prior projects

g. Provide resumes of staff who will be assigned to this project
Contractor and Contractor Personnel:

a. The successful Offeror awarded the Contract.

b. Employees and agents and subcontractor employees and agents performing work at the direction of the Contractor under the terms of the Contract awarded from this RFP.

Subcontractor:

a. An agent, service provider, supplier, or vendor selected by the Contractor to provide subcontracted services or products under the direction of the Contractor or other Subcontractors and including any direct or indirect Subcontractors of a Subcontractor. Subcontractors are subject to the same terms and conditions as the Contractor.

Project Management:

a. The successful contractor shall provide a Project Plan that includes a high level scope of the project that illustrates the contractor’s understanding of the project, a Gantt chart with activity durations and dependencies, a risk analysis, a scope management plan, and a quality management plan.

b. The successful contractor shall understand that the contractor is representing BPHC in its dealings with BHEMS participants and agrees to in all cases to ensure that the contractor employees conduct themselves in a clear, efficient, and professional manner at all times.

c. The successful contractor shall provide a dedicated Project Manager throughout the term of the project.

d. The successful contractor shall submit a comprehensive timeline for the remaining participants.

Infrastructure Management:

a. The successful contractor will be expected to comply with any updates to policy and security standards.

b. The successful respondent shall provide for separate production, staging and development environments.

c. The successful respondent will be expected to isolate BHEMS participant data from other data that the contractor may host. BHEMS data shall not be collocated with other data that the contractor may be hosting.


d. Under no circumstances may BHEMS data be relocated, transmitted, hosted, or stored outside of Massachusetts. A back-up plan should be described in the response.

e. The successful contractor will be expected to provide a service interruption plan detailing system continuity in the event of a service outage.

Data Management Services:

The successful contractor shall perform all information management, integration, and analytics for the BHEMS QDS. The BHEMS QDS shall accept and integrate information from diverse ambulatory and hospital electronic health records (EHR) in a variety of standardized formats including but not limited to (HL7, CCDA, etc.) and remove patient identifiers to be stored in a separate, linkable, secure database.

a. Data Integration: Data shall be normalized, with both the raw and normalized values retained. The process of integrating data from BHEMS participants must include but not be limited to the following examples:

   I. Normalizing the use of capitalizations
   II. Ensuring that abbreviations are used consistently
   III. Examining workflows within each contributing data stream to learn about unsuspected “workarounds,” which limit the data’s truthfulness
IV. Ensuring consistent naming conventions
V. Scheduling prospective clean-up dates
VI. Conducting regular system assessments
VII. De-duplicating records within datasets
VIII. Maintaining an accurate data dictionary including field mapping relationships between submitting providers and the contractor’s database.

b. Data Validation may be tested by a combination of the following strategies:
   I. Comparing data reporting volumes by submitter over time to show unexpected increases or decreases in participant submissions
   II. Comparing data queries to similar results generated using a gold standard – a dataset drawn from another source
   III. Comparing elements within an EHR system to determine whether they report compatible information
   IV. Determining whether expected data elements are included in the dataset
   V. Determining whether summary statistics are consistent with expectations of the dataset
   VI. Reviewing how data is entered into the system at point of care

c. Data Reporting and Extracts: The successful contractor shall provide data reporting and extracts that include but are not be limited to the following:
   I. Data frequencies and proportions for all BHEMS variables and demographic variables reported by hospital and ambulatory care setting
   II. Composite BHEMS measures reported by hospital and ambulatory care setting
   III. BHEMS measures reported by hospital and ambulatory care setting stratified by demographic variables
   IV. Additionally, BPHC requires data marts, which can generate the identical reports as listed above for purposes of generating deeper hypotheses and queries. These data marts must be able to link clinical records to demographic variables and be able to be exported in a .CSV format. A data dictionary and entity relationship diagram must be available for the data mart.

User Access:
   a. Access to results shall be provided to BPHC and in a variety of formats including but not limited to a web-enabled portal for BPHC staff to run ad-hoc reports. Each health care partner should also have user access and ability to create personalized dashboard. BPHC also requires a dashboard that provides views of BHEMS measures.

Other:
   a. Data Ownership
      I. The Contractor shall at all times recognize BPHC as sole owner of the BHEMS QDS system and all data stored there, including but not limited to information which is subject to any Massachusetts or federal data confidentiality or security law. As the sole owner BPHC shall at all times have complete control over the access, use, disclosure and disposition of the information. All requests for data outside of the routine reporting established here must be approved by the BPHC General Council.

   b. Source Code Ownership
      I. The source code for the installed systems is available in the event it becomes necessary for the Boston Public Health Commission to take over the support of the system. To achieve this, the Contractor(s) shall provide source code and source code documentation.
c. System Source Materials
   I. Those materials necessary to wholly reproduce and fully operate the most current deployed
      version of the System in a manner equivalent to the original System including, but not
      limited to:
      a) The executable instructions in their high level, human readable form and a version that
         is in turn interpreted, parsed and or compiled to be executed as part of the computing
         system ("source code"). This includes source code created by the Contractor or
         Subcontractor(s) and source code that is leveraged or extended by the Contractor for
         use in the project.
      b) All associated rules, reports, forms, templates, scripts, data dictionaries and database
         functionality.
      c) All associated configuration file details needed to duplicate the run time environment as
         deployed in the current deployed version of the system.
      d) All associated design details, flow charts, algorithms, processes, formulas, pseudo-code,
         procedures, instructions, help files, programmer's notes, and other documentation.
      e) A complete list of third party, open source, or commercial software components and
         detailed configuration notes for each component necessary to reproduce the system
         (e.g., operating system, relational database, and rules engine software).

d. Technical Safeguards
   I. The technology and the policy and procedures for its use that protect Sensitive Data and
      control access to it.

e. Audit
   I. The successful Contractor must agree to permit BPHC to audit their facility for compliance at
      any time with no notice and no restrictions other than any unreasonable interference with
      Hosting Contractor’s business processes. In addition, if required by BPHC and at BPHC’s sole
      discretion, the successful Contractor must agree to submit to security and privacy audits
      prior to the start of any contract and thereafter annually, to be conducted by auditors of
      BPHC’s choice to ensure compliance with the privacy and security requirements of the
      BHEMS DQS Project.

f. Data Storage/Access
   I. The successful Contractor must maintain at least 2 years of prospective storage licensing in
      the event of a sudden Contractor restructuring, merger, acquisition, or bankruptcy.
   II. The Contractor should transfer data storage to BPHC after the term or termination of the
       contract.

g. Service Level Agreement (SLA)
   I. Measurable levels governing Contractor performance and establishing associated liquidated
      damages for failure to meet those performance standards.

h. SLA Activation Date
   I. The date on which SLA charges commence under this RFP, which may include, but is not
      limited to, the date of (a) completion of Transition In, (b) a delivery, or (c) releases of work.
**V. Proposal Requirements**

Respondents must provide the following within their proposal:

1. A written description of how respondent would approach each task described above and how they would carry out these functions
2. A full description of the qualifications of each team member who would likely be involved in fulfilling the tasks, as well as information regarding any prior work for similar agencies or entities
3. At the responder’s discretion, suggestions for additional related tasks
4. Budget and narrative describing the cost associated with the Scope of Work including hourly rate with an approximate number of hours the recommended project would take to complete
5. Complete submission documents in Arial or Calibri font and size 12 point.

*Proposal responses should not exceed 10 pages*

**VI. Period of Performance**

The effective date of providing services is expected to commence by the vendor on or about September 30, 2020 to June 30, 2021 (“Initial Term”) with an annual renewal option for 2 years under the same terms and conditions. The decision to exercise the option terms will be at BPHC’s sole discretion. No services shall commence until all necessary contract documentation is fully executed by BPHC and awarded vendor(s).

**VII. Submission Instructions**

Proposals must be submitted via email in PDF format to Interim Deputy Director, Gerry Thomas at [GThomas@bphc.org](mailto:GThomas@bphc.org) by 5:00 PM on Monday, August 03, 2020 with subject line titled: *Proposer’s Name - RFP BHEMS.*

*NO EXCEPTIONS TO THIS DEADLINE*