

February 13, 2012

TO: Potential consulting partner  
FROM: Darby Buroker, Director, Beacon Program Management  
RE: Request for proposal for healthcare informatics/analytics program development consulting services

The Rhode Island Quality Institute (RIQI) is seeking interested and qualified organizations to submit proposals for consulting services to assist with the development of a healthcare informatics analytics program to support the Rhode Island Beacon Community Program.

Healthcare informatics is the discipline at the intersection of information science, computer science, and healthcare that deals with optimizing the acquisition, storage, retrieval, analysis and use of healthcare information. The healthcare analytics program involves resources with the knowledge, skills, and tools to enable healthcare data to be collected, validated, managed, used and shared to foster the support of the delivery and evaluation of health care and the promotion of health. RIQI and the Beacon Program are pursuing the development of this increasingly important capability to provide actionable insights for managing the care of individual patients and populations to improve health, healthcare, and to lower the cost of care.

Office of the National Coordinator's (ONC) Beacon Program goals – at a National level:

- To demonstrate that health Information Technology (IT) -enabled quality, cost/efficiency, and population health improvements are possible in diverse communities, within the program period;
- To support lasting “innovation networks” through which a wide range of stakeholders can collaborate, design, and implement new technology-enabled ideas that improve health and health care beyond the program period; and
- To provide lessons, implementation insights, and best practices for other communities eager to improve health, health care, and cost-efficiency in their communities.

The Rhode Island Beacon Program seeks to leverage healthcare information technology investments, including the statewide health information exchange, currentcare, and Regional Extension Center (RI REC) initiatives in order to:

- Support RI's transition to the Patient-Centered Medical Home (PCMH) model for delivering healthcare by developing needed foundational capabilities through health IT
- Improve RI's ability to see and act on the quality and efficacy of the health care system by providing foundational capabilities in quality and utilization reporting

The RI Beacon Program is designed to produce measurable improvements in health care quality, utilization, and population health through the implementation of IT coupled with PCMH activities and processes. The RI community is comprised of 28 PCMH practices across 49 sites of care, involving approximately 220 providers and an estimated 250,000 patients. Our Program aims are to:

1. Enhance the quality of care provided to patients with diabetes
2. Reduce the impact of tobacco use on the health of the population of Rhode Island
3. Reduce the impact of undiagnosed and untreated depression through increased screening
4. Decrease overall healthcare costs by reducing preventable hospital and emergency department use

The timeline, response, and evaluation section below describes the timeline for evaluation of proposals, the expected duration of the engagement, type of information sought in our request for proposal, and how we will select our consulting partner.

**Description of the Healthcare Analytics Engagement:**

Consultants will recommend processes and technologies used to obtain timely, valuable insights into RIQI and Beacon program business, clinical, and ancillary data, including claims data available through RI health plans.

Program ideas will include the following levels of analytics and their development over time:

1. Descriptive – what happened?
2. Opportunistic – where are the gaps in care?
3. Predictive – what might happen?
4. Correlative – what are the relationships between process and outcome?
5. Prescriptive – what should we do?

Considerations of analytics program architecture to include:

- Data modeling and governance
- Master reference and vocabulary data
- Data and metadata repository
- Analytics interface
- Access control, security, and auditing
- Servers, storage, database, and tools infrastructure
- Governance strategy, prioritization, and policy

Engagement will also identify and recommend ways of cultivating, procuring (including outsourcing), and aligning the following skills:

- Data integration
- Source and data mapping
- Logical and physical data design
- Dimensional modeling
- Interface standards
- Data standards
- Statistics
- Subject matter expertise of business and clinical operations
- Data governance
- Data visualization
- Metadata management
- Metrics development and governance

Likely deliverables will include:

1. Description of analytics program objectives
2. Evaluation of technical resources
3. High level data model schematic and plan
4. Evaluation of analytic and visualization tools
5. Human resource plan and timeline

**Organization of the Analytics Program Development Project and Reporting Relationship for Consultants:**

1. The work of the analytics program development consultants will be coordinated by members of the RIQI Beacon team, the Data and Evaluation Committee, and the Practice Reporting Workgroup. Darby Buroker, Director, Beacon Program Management, will provide programmatic oversight and leadership.
2. The consultants will manage the development of industry best practice recommendations and deliverables describing key aspects of and timeline for the proposed analytics program activities and ensure the effective implementation of initial activities.
3. The consultants will also regularly participate in Beacon Program Management Status and Beacon Team meetings.

Specific measures and targets have been defined for the RI Beacon Community Program and participating PCMH programs (see Attachment 1). Processes are already in place for regularly assessing and reporting on quality measures and data analysis and reporting capabilities are under development for hospital and ED utilization measures. We wish to extend these capabilities to other data and measures, and to expand the scope of measurement across the State of RI, including the application of these tools and resources to the comprehensive data which may be available through RI's HIE, currentcare.

**Resources and Expected Timeframe:**

It is expected that the requirements for analytics program development consultants will likely best be met by a resource (or equivalent resources) working approximately two-days per week for the three months commencing in approximately March 2012. Additional periodic part-time supporting resources, e.g. highly technical database modeling and/or Extraction, Transformation, and Load (ETL) resources may be appropriate. This work will be completed by the consulting partner through a combination of on-site and remote efforts.

**Timeline, Response, and Evaluation:**

Please respond with your interest to

Darby Buroker  
Director, Beacon Program Management  
Rhode Island Quality Institute

care of Joe Russell at [jrussell@riqi.org](mailto:jrussell@riqi.org), 401-276-9141 extension 296 by February 22, 2012, 5:00 pm and include the following information, in a response no longer than 3 pages, that will be used to evaluate and select the consulting partner:

1. Brief summary of your organization (please include number of employees, recent annual revenue, and how long you have been in business) and primary contact information for the person coordinating your response, please also describe experience with similar engagements
2. Proposed consultant(s) qualifications and resumes of specific resources as able, please explain your team's experience providing the services required

3. Projected costs for a time and materials engagement, we will evaluate the degree to which proposals sufficiently respond to the requirements of the request and are cost competitive with other proposals and market rates for these services
4. Proposed approach and high level work plan for meeting the objectives
5. Recommended timeline for the work and any suggested risk mitigation strategies
6. Two client references, our selected consulting partner will have references that effectively describe their ability to deliver the services requested

Attachment 1

RI Beacon Community Program Quality and Hospital and ED Utilization Measures

Measure	Target
The percentage of patients age 18+ in Beacon population screened annually for depression, using a standardized screening tool (PHQ-2 or PHQ-9)	Increase to 60%
The percentage of diabetic patients (Type 1 or 2) age 18-75 in Beacon population with poorly controlled disease (having an A1C value >9.0)	Reduce to below 20%
The percentage of diabetic patients (Type 1 or 2) age 18-75 in Beacon population with well controlled blood pressure (having a BP value <130/80)	Increase to over 40%
The percentage of diabetic patients (Type 1 or 2) age 18-75 in Beacon target population with well controlled LDL cholesterol (having LDL-C value <100 mg/dL)	Increase to over 50%
The hospital admission rate for ambulatory sensitive conditions (ASC)*in adults age 18+ in the Beacon population	Reduce by 12%
The hospital admission rate for ambulatory sensitive conditions (ASC)*in adults age 18+ statewide	Reduce by 3%
All hospital admissions for adults age 18+in Beacon population	Reduce by 6%
All hospital admissions for adults age 18+ statewide	Reduce by 1.5%
Ambulatory Care Sensitive (ACS)* emergency department visits for adults age 18+ in the Beacon population	Reduce by 12%
Ambulatory Care Sensitive (ACS)* emergency department visits for adults age 18+ statewide	Reduce by 3%
Overall Emergency Department visits for adults age 18+ in the Beacon population	Reduce by 6%
Overall Emergency Department visits for adults age 18+ statewide	Reduce by 1.5%
Overall 30 day readmission rate for adults age 18+ in the Beacon population	Reduce by 12%
Overall 30 day readmission rate for adults age 18+ statewide	Reduce by 3%
The percentage of adult smokers age 18+ in the Beacon population who received a smoking cessation intervention	Increase to 75%
Ambulatory sensitive conditions are those "for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease" (AHRQ 2004).	