

# Maine Health Information Exchange: Statement of Work

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Very well done! Included all the required sections and esp liked the weaving of your political climate throughout the Background section...masterfully done. Inclusion and exclusions were thoughtful. Would you consider a cloud application from a vendor? Think about that for the RFP and why/why not. Grade 40/40

## **Document Control Sheet**

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#### **Background**

Health Information Exchanges (HIE's) "automate the transfer of health-related information that is typically stored in multiple organizations, while maintaining the context and integrity of the information being exchanged" (HIMSS, 2009). The goals of HIE 's align clearly with the Institute of Medicines 2001 report *Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century*. The six aims for patient care outlined in the report are to provide Safe, Timely, Efficient, Effective, Equitable and Patient Centered Care (IOM, 2001).

With assistance in funding from the Office of the National Coordinator and as a complement to the organization already completing planning for a statewide HIE, there is a need to acquire information system services to support the HIE's mission. The system will be statewide, with the capability of seamlessly exchanging healthcare information between both public and private medical facilities and practitioners. Special considerations beyond planning and implementation include infrastructure development, marketing of HIE to statewide providers, financing, capturing specific individual needs for any entity in the statewide group, stakeholder identification and requirements, gathering and seamless exchange of usable information among providers within the state.

With the rising cost of healthcare and multiple disparate healthcare systems in place, an HIE provides a unique platform in the efforts to contain costs while improving the quality of care. The time and expense incurred by healthcare providers to obtain patient records is staggering. When health records are transferred from one organization to another they often arrive in a format that is unusable and many times faxed reports are of such poor quality they are impossible to decipher. Diagnostic images may be sent on a computer disc that does not integrate with the providers software system, resulting in costly and untimely repetition of diagnostic

radiographs. Much of this could be avoided if a robust HIE were in operation. Essential to this process is the capability to employ nationally recognized standards as they are established incrementally, further enabling interoperability, security and confidentiality of the information as well as authorization of those who access the information (Alliance, 2008).

Both independent organizations and governmental agencies are emerging as leaders in the development of HIE's. The 2009 American Reinvestment and Recovery Act legislated that via the HITECH Act, grants be available to support statewide HIE's.

Improving the quality of care, increasing patient safety and improving efficiency of the healthcare system are anticipated result of the Health Information Exchange. Key stakeholders in the clinical sector include physician, nurses, pharmacy, laboratories, Indian Health Service, consumers, payers, and buy-in from these stakeholders is essential for the system to be successful. As the project develops, these key opinion leaders will be intimately involved in development of the clinical sectors of the exchange. From the providers perspective there are certain expectations from the exchange including bi-directional real-time exchange of information that is pushed into the health records. Intuitive navigation of the software is essential for the providers, and they have expressed concerns that the system will disrupt work flow patterns requiring additional time transferring information between the patients record and the HIE. Their goal is that the data will ultimately integrate directly into the patients Electronic Medical Record (EMR). Concerns regarding accurate patient matching are evident along with the uncertainty regarding patient privacy and security. The patients are interested in exploring a feature that will allow them to filter information to particular providers at their request.

The data the healthcare providers desire in the system include Continuity of Care Documents (CCD), patient demographics, allergies, medication histories that allow reconciliation, immunization records, radiology reports, discharge summaries and clinical

notes. Patients are looking for a user-friendly portal that will enable them to request prescription refills, and communicate with their provider.

The HIE has completed planning and has hired several staff members including a CEO, two project managers and an administrative assistant. Additional structure will be provided with the positions of Chief Financial Officer (CFO), Chief Clinical Officer (CCO) and Chief Information Office (CIO) and will position Maine Health Information Exchange to meet the state's current and future needs.

Maine Health Information Exchange is an independent organization. Initial funding came from the current state administration with additional funds provided in round two of the funding from the Office of the National Coordinator (ONC). The CEO has ties to the governor and has been on his staff for several years working on health care policy. The Governor is up for re-election and the actions of the HIE are closely monitored. This information may impact both the government and public perception of the project, as well as its success and will be shared with any potential vendors. This focus may be seen as an asset or a liability to the implementation of the HIE and the organization will need to consider minimizing any potential negative impacts. It is not known whether the election results will impact the HIE in the future.

The HIE has no formal infrastructure and receives its current IT services (Internet, e-mail and Web services) from a local start up company. This company will not be able to meet the infrastructure needs long-term. Maine HIE is looking to partner with a company that can not only provide those basic services reliably, but also provide additional services to support the various functions of the HIE, including future growth in size and functionality.

The Governor is under a great deal of pressure to reduce the states contribution to

Medicaid and aims to leverage the HIE as a mechanism to achieve cost reductions. He envisions
the Exchange having ultimately the capacity to do population health initiatives using its registry

capability. He feels that providers can then leverage that ability to steer high risk, high cost Medicaid patients into medical homes with an overarching accountable care structure that includes both quality and cost-driven evidence based medicine.

A major source of the Governor's campaign contributions comes from five of the largest health plans. With the death of the federal healthcare plan they are quickly scrambling to provide health insurance exchanges that use the infrastructure of the Health Information Exchanges in States that have a robust Exchange. This saves them time and money in development of a stand alone product. In light of this interest in the health plans the Governor is very keen on developing and deploying an Exchange as soon as possible. He feels that the health plans will jump off his ship if this project falters.

The Governor's wife is a nurse and conducts town hall sessions regarding the state of healthcare in Maine. She feels very strongly that this project will benefit the citizens of the State especially those in the lower socioeconomic demographic. The Governor recognizes that she is very well thought of as his representative on this issue. He wants to ensure the success of the Exchange in light of the need for this project that she has conveyed to him.

The Penobscot Indians of Maine, although a minority population in the State, are an economic force to be reckoned with in light of their gaming enterprises and significant land holdings in Maine. It is no secret that native American Indians, and the Penobscot in particular, have important health needs with regard to chronic diseases. The tribe supports the Governor in his re-election bid yet are demanding he take an active role in supporting new health initiatives that will lead to an improved quality of life for it's members. This HIE is tailor-made for this purpose and lends itself nicely as a showcase for interoperability with a federal health system, the Indian Health Service. The Governor has his eye on a cabinet position in the administration

of the next President and this HIE project involving a federal health system will help establish his credibility as a forward thinking health plan strategist.

#### **Project Objectives**

The global objective of this project is to develop and implement a robust, sustainable value driven HIE. The HIE will exchange patient information in a secure encrypted fashion while maintaining patient privacy. An expected outcome of this project is that the HIE will serve as a means to assist health care providers to become eligible for Meaningful Use (MU) financial incentives. Stage 2 MU criteria such as medication reconciliation, allergies, immunizations, diagnostic test results, and CCD/CCR exchanges will be readily available in the HIE.

The HIE will maintain transparency and openness in that policies will be available to the public. A clear easy to use opt-out model will be developed and offered to the patient by their primary care physician, or other provider. Patients will have the ability to request, review and verify their personal health care information and make corrections if necessary.

In order to make the exchange an effective tool, the physicians recommend an "all or none" patient participation model since fragmented information may be more harmful than helpful. Clinical data will be presented in a format that is easy to navigate for users at all levels of computer literacy. The data will be structured in a manner that restricts the flow of extraneous information thus ensuring an efficient patient-provider encounter.

The project will be implemented in phases: Phase 1 will include planning and data collecting from stakeholders and key opinion leaders. Included in their feedback are individual objectives, concerns, funding, and overall interests associated with the HIE and include some combination of the following motivators:

 Improving quality of healthcare and patient safety by ensuring the right information for care at the right time and the right place

- Overcoming inefficiencies experienced by providers who need better information to support patient car
- Public health surveillance needs (Bates)
- Reducing health care cost of duplicate test and diagnostics, ensure continuity of care by facilitating communication between providers

Increased attention on Health
 Information Technology (HIT) and HIE
 and the national level

Not all of this need to be addressed in the initial stage of the statewide HIE deployment, but will serve to focus and define our objectives and direct subsequent stages.

Phase 2 "goes live" with the first level of information exchange including the Stage 2 MU criteria defined by medication reconciliation, allergies, immunizations, diagnostic test results, and CCD/CCR exchanges. The goal is to have Phase 2 operational so that providers can meet the timeline for Stage 2 Meaningful Use attestations and also supporting those still working toward Stage 1. In order for this to be achievable, it is necessary to start the design in a smaller phase and deploy to the larger group as time progresses. The main reason for this is the reduction of risk and capability to work out problems on a smaller scale is more cost and time efficient. The system will be setup with a test group including 10 different unique providers at 10 different locations. This initial launch will increase testing capabilities, and allow for troubleshooting while keeping expenses at a minimum. This type of process will also allow necessary correction and updates to be made for a controlled group, instead of having to spend a significant amount of funding on fixes over a statewide network.

Phase 3 will include more advanced features such as data aggregation with a registry function, bio-surveillance, Clinical Decision Support System (CDSS) and

radiographic image delivery. This phase will only be initiated after the financial viability and stability as well as the value attestation of the HIE has been attained.

A solid partnership to support the organization's infrastructure will ensure the success of the Maine HIE. It will allow the development of a reliable and scalable infrastructure to meet the immediate needs of a statewide HIE and the expansion into a regional structure thus addressing the rapidly increasing needs in the current healthcare climate. The following objectives are important to attaining this goal:

- Develop strong infrastructure with web services, intranet and email
- Availability of patient data at the point of care with minimal downtime (either planned or unplanned)
- Maintain the privacy and security of patient data
- Maintain data integrity and interoperability including backup and storage solutions
- Ability to respond to future data needs and data types
- Eventual expansion from a statewide HIE to a regional HIE
- Transparent
   accountability to the
   governor, state citizens,
   patients, healthcare
   providers, other users
   and stakeholders
- Ability to expand services to include quality reporting, directory services, consent repository and vocabulary services

#### Scope

In order to achieve success in the implementation of a statewide HIE, a clear definition of expectations is necessary. The scope must be defined and able to be accomplished at or under budget, producing the required results in the time allotted. Particular to the clinical aspect of the project the "current state" will be researched and evaluated. Feedback from the key stakeholders in each discipline will provide data, indicating which modules are available, if they are functional and delivering the desired attributes. Stakeholder representatives from nursing, medicine, pharmacy, laboratory, Indian Health Service, payers and consumers will be established and a needs assessment from this group will provide recommendations that will be employed in the actual development of flow processes the providers will navigate when using the exchange.

We will obtain information on the state of the existing infrastructure, which will provide a baseline and framework to build upon. The infrastructure will be set up to allow for the exchange of health care information conforming to the Nationwide Health Information Network (NwHIN) standards. This will allow the scalability necessary to expand the HIE into a regional network. Once the information network is created, a unique patient identifier must be included in the HIE, and this new numeric identifier must be assigned to all patients entered into the exchange.

#### Included

Requirement	Agreed Solution
Provide basic services to build and support organizational infrastructure	<ul> <li>Provide high speed Internet services</li> <li>Provide e-mail services</li> <li>Provide additional web services</li> <li>Provide remote access solutions such as VPN or secured web portal</li> <li>Provide and maintain network structure</li> <li>Provide support to all services including break-fix, maintenance and enhancement</li> </ul>

Maintain privacy and security of patient information	<ul> <li>Provide data encryption</li> <li>Establish strong password protected logon requirements and security policies with defined periodic and ad hoc auditing</li> </ul>		
Maintain data integrity and interoperability	<ul> <li>Provide off site data storage options</li> <li>Provide defined, periodic data back up</li> <li>Real-time data collection and transfer</li> </ul>		
Provide interface solutions and assistance	<ul> <li>Maintain current interfaces including translation tables where appropriate</li> <li>Have services available to assist with any future interface needs</li> </ul>		
Provide reporting tools on current HIE activity and audit tools	Provide tools to define usage and data transfer as well as HIE participation		
Provide additional analytics and reporting capabilities	<ul> <li>Provide solutions for:</li> <li>Quality reporting</li> <li>Establishing directory services</li> <li>Developing a consent repository</li> <li>Providing vocabulary services</li> </ul>		
Provide strong Service Level Agreement to ensure robust System functionality	<ul> <li>Provide assurances of 99.9% uptime</li> <li>Not including scheduled update and maintenance downtimes</li> <li>Not to exceed 2 hours in length with</li> <li>Advance notification at least 1 week in advance</li> </ul>		
Develop metrics to evaluate effectiveness in compliance with phase 2 Meaningful Use criteria.	<ul> <li>Data collected will include: patient demographics, medication reconciliation, allergies, immunizations, diagnostic tests, and laboratory results, Continuity of Care Document (CCD).</li> </ul>		
Patient matching systems.	• Evaluate three patient matching interfaces to determine best practice.		
Clean and Upstanding Financial Background	<ul> <li>Each vendor is subject to a full background check/screen by a third-party vendor if our choice</li> <li>Vendors must submit financial statements for the last 3 years to show a consistent, solid foundation</li> <li>Vendors must contribute all political contributions made on behalf of the company, or by the executive leadership team over the past 5 years</li> </ul>		

#### **Excluded**

There are several features that we would like to explore as possible additions to the HIE, however they are considered out of the scope for this project. Modules include bio-surveillance, epidemic identification and cross referencing with immunization records along with demographics to identify areas of outbreaks. CDSS is included within the EMR therefore out of scope for this project. Although the patients desire to have communication with their providers via the system, this is out of the scope and best left to the individual providers, excluding prescription refills, which will be routed via the

pharmacy. It is imperative to understand this project does not contain EMR/EHR implementation for practitioners that participate.

The EHR will be the responsibility of the individual providers who sign up to be associated with the statewide HIE. The vendors will provide training to the providers. This project will also exclude a Computerized Provider Order Entry (CPOE) system. Although CPOE is a necessary component with the HITECH Act and closely related to a HIE, it is not a part of the scope of this project. A financial exchange, including billing and claims adjudication, is out of scope. The scope of the HIE will also maintain scalability of being statewide, and not necessarily a regional exchange at this time, but will be designed to expand in the future.

#### **Deliverables**

Deliverables	Responsible	Acceptance Criteria	Due Date	Approver
Mission statement for Maine HIE	CEO	To include mission statement and vision for the HIE along with project goals	6/1/2012	Team
Timeline	CEO/project manager	A timeline illustrating chronological order of requirements and goals for HIE project	6/1/2012	CEO
Due diligence report for top three vendors	CEO	Report to include name of organization, company ownership, background information (years in business, number of employees, and experience in HIT). Include regulatory compliance issues, previous or pending litigation or arbitration. Three references from each vendor for projects similar in scope and size. Information to include: name, title, contact number, address, name of project, contract type, contract amount, duration of contract	7/1/2012	CEO/CFO/Legal

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Confidentiality agreement	CEO/Legal	Signed vendor confidentiality agreement	7/1/2012	CEO/Legal
Financial report	CEO/CFO	To include financial state of the organization include submitting a budget for approval	8/1/12	CFO/CEO
Current state of HIE including user satisfaction report	ссо	To include current state of HIE usage, name each discipline and what systems are in place along with user satisfaction report	8/1/12	cco
Stakeholder needs assessment and analysis	CCO/IT	1.Survey analysis including data interpretation from statistician or data analyst. 2.Detailed report including interpretation from the CCO.	8/1/12	CCO/IT
Master List of Providers	Project Manager	Provide a database including all potential providers in the HIE	9/1/12	CIO
Patient locator system evaluation and recommendations	CCO/IT	Report to include evaluation of three distinct patient matching systems; include recommendations.	9/1/12	CCO/IT
Infrastructure/Architecture Design; Document; Document/Interoperability standard	Vendor	Report to include standards for interoperability, network infrastructure design including network diagram	8/1/2012	CIO
SLA Agreement	Team	Report to included negotiated service agreement	8/1/2012	Legal
Infrastructure Development: Install e-mail software on 9 company PC's (1 each for CEO, CFO, CCO and CIO, 2 consultants, 1 administrative assistant and 2 shared PC's) and 6 company laptops; Install modem and create wired and wireless LAN; Establish internet access/connectivity via local internet connection as well as via VPN or Web Portal; Provide business hours phone support and after hours support with turn-around of 30 minutes for critical issues and 60 minutes for	CIO/ Vendor	Successful deployment of e-mail software and internet connectivity and timely response to support needs	9/1/2012	CIO

high issues				
Maintain Privacy and Security of Patient Information: Provide data encryption for all patient data transferred across the HIE; Provide explicit policies and procedures outlining privacy and security practices, including accountability and notification for any breach and audit practices for routine and adhoc inquiries	CEO	Review of encryption software and successful testing on sample data Review and approval of policy	10/1/2012	CEO
Sample Templates	CCO/IT/Stakeholders	For each discipline provide three sample templates showing process flow. Include information on sample screens demonstrating process flow that provider will use to navigate the software.	1/1/13	CCO/IT/ Focus group
Meaningful Use requirements	ссо	A report including the requirements for stage 2 MU. Recommendations that specify data thatwhich must be included in the exchange to assist providers in attaining MU.	1/1/13	CCO
Provide Interface Solutions and Assistance: Maintain and troubleshoot any error messages received across existing HL7 interfaces Provide staff to work with Maine HIE on any future interface needs	CIO	Successful testing of interfaces using sample data and error log on resolution on sample data and day to day data.  Monitoring of interface errors on production data	11/1/2012	CIO
Provide Reporting Tools on Current HIE Activity and Audit Tools: Provide reports on usage and amount of patient data transferred and user information along with monthly trending information	CIO	Sample report output based on large sample data	11/1/2102	CIO
Status reports	Team	Each department will submit a status report on the 1st day of the month. Weekly status to Governor's Office Biweekly report to steering committee. Monthly report to stakeholders	Monthly	Team

# **Major Milestones**

Milestone	Responsible	Target Begin Date	Target End Date
Provide proposal for Maine HIE review including Service Level Agreement with assurances of uptime and support and background requirements	Vendor	11/1/12	12/1/12
Respond to proposal with any questions, additional information needed or concerns	CEO, CFO, CCO, CIO	9/1/12	10/1/12
Contract acceptance after all above questions resolved	Vendor/ CEO, CFO, CCO, CIO	11/1/1	12/1/12
Overall planning, build and implementation list and timeline provided to Maine HIE	Vendor	12/1/1	1/1/13
Negotiation of build elements and dates if needed; acceptance of contract	Vendor/ CEO, CFO, CCO, CIO	9/1/12	10/1/12
Establish basic IT Infrastructure (e-mail, Internet and web services, VPN)	Vendor	11/1/1	12/1/12
Data encryption, secure logons and access services and policy review  Implementation date  Post implementation monitoring of updates as needed	Vendor/Project Managers Vendor, CEO, CFO, CCO, CIO, Project Managers Vendor	1/1/13	2/1/13
Interface needs:  Gap analysis, including patient matching systems  Implementation date for any interface updates  Post implementation monitoring and any updates	Vendor/ CEO, CFO, CCO, CIO/Project Managers Vendor, Project Managers Vendor	1/1/13	2/1/13
Off site data storage options and back up plans including real time data collection and transfer:  Provision of sample data Testing Implementation Post implementation and monitoring and any updates	Project Managers Project Managers, Vendor Vendor, Project Managers  Vendor	1/1/13	2/1/13

Reporting Tools and Meaningful Use Metrics  Provision of sample data  Run sample reports  Review of sample reports  Any modifications needed  Acceptance of final report formats	Project Managers Vendor CEO, CFO, CCO, CIO, Project Managers Vendor CEO, CFO, CCO, CIO	2/1/13	3/1/13
Full HIE roll out to targeted pilot group of providers and organizations  Implementation  Post implementation monitoring and issue response  Modifications for issues identified during pilot	All	3/1/13	5/1/13

## **Company Commitments**

Commitment	Responsible	Target Begin Date	Target end Date
Application for funding from grants and supplemental funding from the Office of the National Coordinator	CFO	7/1/12	8/1/12
Hire office staff including administrative assistant and Project Manager (evaluate current staff)	CCO	6/1/12	6/15/12
Secure office space	ССО	6/15/12	6/30/12
Purchase and install personal computers, laptops, printers and other devices to establish an internal office network	PM Administrative assistant/CIO	7/1/12	7/1/12
Task force to identify key stakeholders from the following disciplines: Medicine, Nursing, Pharmacy, Laboratory, healthcare ancillary staff, and consumers.	CCO	7/1/12	7/15/12
IT support in developing clinical utilization queries and templates along with workflow patterns which are user friendly.	CCO/CIO	11/1/12	12/15/12
Provision of sample data to the vendor as a means to evaluate the system via testing and validation plan.	CIO	2/1/13	3/1/13
Provide vendor support from internal project managers.	CIO PM	7/1/12	8/1/12

# **Change Management**

As the SOW is written, no single stakeholder has the capability to amend for the benefit of their own priorities. A Change Control Board (CCB) will be established

including stakeholders from all realms, specifically the CEO, CFO, CIO, CCO, the project manager, and a representative from the Governor's office. This will allow representation from all areas including the company itself, along with the governor's staff to keep everyone's interest in mind. If these members are not available, an individual appointed by seat-holder for the specific meeting will stand in their place and vote in their absence. The meetings will occur weekly, and any stakeholder may bring issues of contention forth. The proposed change must be presented to the CCB, after which a discussion will take place regarding impact (both political and company-wide), resources, etc. Immediately following the discussion, all members of the CCB will vocally vote to approve the requested change. Unanimous approval must be given in order to implement the change. Once approved, the project manager is responsible for updating the current document control sheet indicating effective date and change description. Once a new SOW has been approved, the SOW will be officially adopted and emailed to all stakeholders with highlighted changes.

#### **Project Reporting and Communication**

There will be multiple reporting mechanisms in place to ensure all stakeholders are aware of the current path and progress of the establishment of the HIE. Because there is a large political component to the implementation, it is necessary to keep the Governor's office updated on a weekly basis. The Project Manager (PM) will construct progress reports including agreed upon information determined by the Governor and report by email on a weekly basis. A steering committee will be established including key stakeholders which will allow the PM to update the company internally on a bi-weekly basis. If any issues are impeding progress, this committee is the appropriate place

to escalate. To keep all providers involved, a monthly stakeholders update will be distributed by email. This email will be drafted by the PM, but reviewed by the Governor's office to ensure any message being sent out is not hampering political advancement, and if the data contained within the report could be seen in a negative light, the PR office of the Governor is ahead of the issue. A quarterly all-hands meeting will be started with all stakeholders invited. At this meeting, key stakeholders will provide updates, and feedback will be requested. The open forum will be an opportunity for any stakeholder to voice their concerns or comments on the progress of the HIE. Alternatively, if the provider wishes to remain anonymous, or an all-hands meeting it too long to wait, a comment portal will be set up and all stakeholders will have access. This portal will include documentation (SOW, Weekly Reports, etc.) and an area for submitting comments to be reviewed initially by the PM, and also by the Governor's staff. These questions/comments will be responded to in a timely manner from one of the key stakeholders. Issues here can be raised to the Steering Committee and possibly the CCB as necessary.

#### **Roles and Responsibilities**

Role	Name	Responsibilities	Time to the Project
			Entire
Officer (CEO)		project. In doing this he/she provides a map and compass thus allowing both the route and the location to the final destination. All along the journey the CEO is	project
		supportive of the	
		individual members of the group and creates an atmosphere that fosters best practice and a strong desire for the team to succeed.	
Chief Financial	Jarrod	Responsible for overseeing all financial aspects of the implementation of an HIE.	Entire
Officer (CFO)		This includes financials relationships associated with all included providers, all stakeholders, along with any and all selected vendors. The CFO has the final approval from a funding standpoint on all things associated with the HIE. The Chief	
		Financial Officer is a main contributor to negotiations and hold a significant voice to	

		the CEO in supporting/opposing his ideas. The CFO must ensure the project meets all monetary goals and standards and is in the best interest of the company	
		financially.	
	Sharon Perelman		
Chief Informatics Officer (CIO)	Chris Beuning	tachnology and computer systems with the organizational goals and objectives by	Entire project

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