

Maine Statewide Health Information Exchange Strategic and Operational Plans

*A Strategy to Create an Infrastructure that
Preserves and Improves the Health of Maine
People*

**Approved by ONC on 8/17/2010
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- Josh Cutler, Executive Director, Maine Quality Forum
- Rick Erb, President and CEO, Maine Healthcare Association
- Karynlee Harrington, Executive Director, Dirigo Health Agency
- Brenda Harvey, Commissioner, Maine DHHS
- Dr. David Howes, Medical Director, Martins Point Healthcare
- Frank Johnson, Employee Health and Benefits, State of Maine
- Kevin Lewis, CEO, Maine Primary Care Association
- Tony Marple, Director, Office of Medicaid Services
- Elizabeth Mitchell, CEO, Maine Health Management Coalition
- Katherine Pelletreau, Maine Association of Health Plans
- Dr. Roderick Prior, Medical Director, Office of Medicaid Services
- Trish Riley, Director, Governor's Office of Health Policy and Finance
- Gordon Smith, Executive Vice President, Maine Medical Association
- Dick Thompson, Chief Information Officer, State of Maine
- Angela Cole Westhoff, Director, Maine Osteopathic Association
- David Winslow, Maine Hospital Association
- Dr. Wendy Wolf, Maine Health Access Foundation

This plan represents the culmination of years of work by many stakeholders across the State that have agreed that Health Information Technology represents a fundamental platform of tools that when fully implemented will serve as the foundation for a value based, cost effective health care system that brings high quality, highly accessible health care services to all Maine residents.

Acronyms

There are many terms and acronyms used throughout this plan. To help the reader, a table representing some of the acronyms used in this document is presented. Appendix A of this plan includes a more extensive glossary of terms used.

Acronym	Definition	Acronym	Definition
ARRA	American Recovery and Reinvestment Act	HRSA	Health Resources and Services Administration
ASP	Application Service Provider	HPSA	Health Professional Shortage Area
BAA	Business Associate Agreement	KVCC	Kennebec Valley Community College
CCR	Continuity of Care Record	LWG	Legal Work Group
CDR	Clinical Data Repository	MCDC	Maine Center for Disease Control
CMS	Centers for Medicare and Medicaid Services	MeHAF	Maine Health Access Foundation
CONNECT ME	Connect Maine Broadband Authority	MEREC	Maine Regional Extension Center
DPC	Data Processing Center	MHDO	Maine Health Data Organization
EHR	Electronic Health Record	MHIC	Maine Health Information Center
EMHS	Eastern Maine Healthcare Systems	MHINT	Maine Health Information Network Technology Project
EMR	Electronic Medical Record	MITA	Medicaid Information Technology Architecture
FOA	Funding Opportunity Announcement	MMIS	Medicaid Management Information System
GOHPF	Governor's Office of Health Policy and Finance	MQF	Maine Quality Forum
HDD	Healthcare Data Dictionary	MTM	Medication Therapy Management
HIN	HealthInfoNet	NAMI	National Alliance on Mental Illness
HIOs	Health Information Organizations	NETC	New England Telehealth Consortium
HIPAA	Health Insurance Portability and Accountability Act	NHIN	Nationwide Health Information Network
HISPC	Health Information Security and Privacy Collaboration	ONC	Office of the National Coordinator for Health Information Technology
HIT	Health Information Technology	PBM	Pharmacy Benefits Manager
HITECH	Health Information Technology for Economic and Clinical Health Act	PCA	Primary Care Association
HITSC	HIT Standards Committee	PCMH	Patient Centered Medical Home
HIV	Human Immunodeficiency Virus	QI	Quality Improvement
HIE	Health Information Exchange	SMCC	Southern Maine Community College
HL7	Health Level 7	TA	Technical Assistance

Executive Summary

The recent enactment of the American Recovery and Reinvestment Act of 2009 (ARRA) and within it the Health Information Technology for Economic and Clinical Health Act (HITECH) has provided a timely opportunity for the State of Maine to expand and support the continued development of a comprehensive statewide strategy for a new health information technology (HIT) and health information exchange (HIE) infrastructure. Maine has made unprecedented investments in supporting the statewide advancement of HIT and HIE in order to improve the quality of health care delivery across the state while reining in unnecessary and duplicative costs. As a critical tool to support ongoing HIE efforts and to assure that HIE is leveraged to improve the health care delivery of all Maine people, this strategic and operational plan was developed in partnership with stakeholders across the entire Maine healthcare community. This plan describes:

- The advanced HIT and HIE efforts currently underway across the state;
- The mature HIE infrastructure currently in operation under the auspices of the private/public non-profit organization, HealthInfoNet;
- The goals and strategies for achieving statewide HIE; and,
- Detailed operational plan outlining the key aspects of advancing HIE operations statewide across five domains – Governance, Finance, Technical Architecture, Business and Operations, and Legal and Policy.

A critical foundation for the future of HIE in Maine must begin with a Vision. Maine’s HIE vision is:

Preserving and improving the health of Maine people requires a transformed patient centered health system that uses highly secure, integrated electronic health information systems to advance access, safety, quality, and cost efficiency in the care of individual patients and populations.

Maine HIT and HIE Strategic Goals

To advance this vision, the Governors Office of Healthcare Policy and Finance (GOHPF) has convened a broad group of stakeholders –The HIT Steering Committee (HITSC) – to develop this strategic and operational plan. The HITSC agreed upon three high-level goals that will guide all statewide HIT and HIE related activities both to assure that federal requirements and needs are met to allow funding to flow, but also to meet the needs of Maine stakeholders and people.

GOAL 1: By 2015, all people in Maine will be cared for by healthcare providers who share electronic health and health related information securely within a connected healthcare system using standards-based technologies that promote high quality individual and population health.

GOAL 2: By 2015, all people in Maine will have access to a flexible comprehensive consumer centric life-long health record – “One Person One Record”

GOAL 3: Electronic healthcare information will be used by the State Coordinator for Health Information Technology to develop appropriate public and private policies throughout the healthcare system to promote evidenced based, clinically effective, and efficient care for all people.

Maine HIT Strategic Objectives

1. ***Enable the transformation:*** In adherence to federal guidelines for meaningful use of HIT, by 2015, all providers in Maine will have an EHR pursuant to National Standards and will be sharing clinical and administrative information through HealthInfoNet, the statewide health information exchange organization, to promote high quality and cost effective healthcare.
2. ***Security and Privacy:*** All healthcare information shared and stored electronically will adhere to strict privacy, security, and confidentiality requirements as defined by the collaborative work of HIN, the State Government (including the Attorney General) and where possible the guidelines provided through the Office of the National Coordinator for HIT (ONC) and federally supported projects such as the Health Information Security and Privacy Collaborative (HISPC).
3. ***Patient focused health:*** By 2015 all people of Maine will have secure electronic access to comprehensive healthcare information and will be assured that if they consent to participate in HIE, their providers will also have comprehensive access to their clinical information to guarantee the most informed decision making at the point of care.
4. ***Improve the quality of care:*** By 2015, all providers serving individuals and populations in Maine will achieve federal meaningful use guidelines, improve performance, and support care processes on key health system outcomes measures.
5. ***Coordination of care:*** Beginning in 2010 and phased in through 2015, the statewide health information organization, HealthInfoNet, will deploy statewide health information exchange services, connecting all providers, payers, laboratories, imaging centers, pharmacies, public agencies and other relevant stakeholders. These services will allow for the appropriate, secure, and private exchange of relevant personal health information to the point of care for all Maine people consenting to participate, assuring that their healthcare is coordinated among all primary care and specialty providers.
6. ***Benefit public and population health:*** HIE activities in Maine will be aligned at every level possible through the Office of the State Coordinator for HIT (OSC) to assure that the data collected, is used to improve population health. Statewide HIE services are critical for required disease reporting, biosurveillance, public health tracking (immunization etc.), as well as population support functions of the Maine Centers for Disease Control (CDC).

7. ***Promote public private cooperation and collaboration:*** All health information technology and exchange activities will be developed and overseen through structures that promote cooperation and collaboration among all public and private stakeholders, building upon existing partnerships developed throughout the history of HIE in Maine and in recognition of the specific public sector regulatory, accountability and fiscal functions.
8. ***Promote efficiency and effectiveness of healthcare delivery:*** Recognizing that HIT and HIE are tools, evaluation metrics will be iteratively developed and promulgated across the healthcare system of Maine to assure that HIT tools are used appropriately to the benefit the people of Maine.

The State of Maine recognizes the need for alignment with other States and the Federal Government. To assure that these activities are coordinated, the State has formed an Office of the State Coordinator for HIT (OSC) that is working in close partnership with the State's designated statewide Health Information Organization – HealthInfoNet - to collaborate with all state and national stakeholders to achieve the goals and objectives set forth in this plan. Moreover, due to the critical intersection between HIT and HIE and broader healthcare system improvement efforts, these strategic and operational plans, upon finalization and including feedback from the public, will be incorporated in the biannual State Health Plan currently under public review.

Introduction

The recent enactment of the American Recovery and Reinvestment Act of 2009 (ARRA) and within it the Health Information Technology for Economic and Clinical Health Act (HITECH) has provided a timely opportunity for the state of Maine to expand and support the continued development of a comprehensive statewide strategy for a health information technology (HIT) and health information exchange (HIE) infrastructure. A comprehensive HIT infrastructure will serve as a critical foundation that, if planned, implemented, and used appropriately, will lead to transformational improvements in statewide population health, healthcare outcomes, patient safety, access, and expanded engagement of consumers in their healthcare management, while reducing the growth of healthcare expenditures. The HITECH Act, incorporated within ARRA, defines significant federal investments within states for the following areas:

- Appropriations for Health Information Technology (HIT) and Health Information Exchange (HIE): \$2 Billion
- Medicare and Medicaid Payment Incentives for HIT Adoption Support: Approximately \$44.7 Billion from 2011 – 2016
- Other Provisions for Broadband and Telehealth and Community Health Center Infrastructure Improvements

The ARRA legislation provides for many grants to states to promote HIE. Organizations in Maine were recipients of four of these grants.

The State Cooperative Agreement for HIE Program is targeted at States and State Designated Entities (SDEs) to advance mechanisms for HIE across the healthcare system. The awards will support efforts to achieve widespread and sustainable HIE within and among states through the “meaningful use” of certified Electronic Health Records (EHR). The goal of meaningful use of EHRs is for healthcare providers to use this technology to improve the quality and efficiency of care. Funds are to be used to establish and implement appropriate governance, policies, and network services within the broader national framework to rapidly build capacity for connectivity between and among healthcare providers. Maine was provided \$6.6 million through this cooperative agreement program beginning on February 8, 2010. The Maine Governor’s Office of Health Policy and Finance (GOHPF) is serving as the fiscal agent for the cooperative agreement through 2014.

The Health Information Technology Extension Program: Regional Centers Cooperative Agreement Program offers technical assistance, guidance and information on best practices to support and accelerate healthcare providers’ efforts to become “meaningful users” of EHRs. Regional Extension Centers (RECs) will furnish assistance, defined as education, outreach, and technical assistance, to help providers in their geographical service areas select, successfully implement, and meaningfully use certified EHR technology to improve the quality and value of healthcare. RECs will also help providers exchange health information in compliance with applicable regulatory requirements. The support for health information exchange provided by Regional Centers must be consistent with the State HIT/HIE Plan.

Each Regional Center will provide federally supported individualized technical assistance to a minimum of 1,000 priority primary care providers in the first two years of the four-year agreement. Priority primary care providers are: individual and small group practices (ten or less practitioners); public and critical access hospitals; community health centers and rural health clinics, and, other settings that serve uninsured, underinsured, and medically underserved. HealthInfoNet, Maine's statewide HIE organization was awarded \$4.7M in April 2010 to serve 1,000 priority primary care providers across the state. HealthInfoNet is working closely with Office of the State Coordinator for HIT (OSC), Quality Counts, and other partners throughout the state to assure alignment of REC with other HIT and HIE activities as well as the health delivery system reform efforts currently underway including the patient centered medical home projects. In addition, discussions are currently underway with New Hampshire on joint service partnerships in relation to the requirements of this program and HIE activities.

The Community College Consortia to Educate Health Information Technology Professionals grant program is a component of the Federal Health IT Workforce Program. Through this program the ONC seeks to rapidly create health IT education and training programs at Community Colleges or expand existing programs. Community Colleges funded under this initiative will establish intensive, non-degree training programs that can be completed in six months or less. The Kennebec Valley and Southern Maine Community Colleges partnered with the Tide Water Community College in Virginia to provide these services in Maine.

Finally, the Beacon Community Cooperative Agreement Program provides communities with funding to build and strengthen their HIT infrastructure and exchange capabilities. These communities are to demonstrate the vision of a future where hospitals, clinicians, and patients are meaningful users of health IT, and together the community achieves measurable improvements in health care quality, safety, efficiency, and population health. The Eastern Maine Healthcare System was awarded a Beacon Community Cooperative agreement and is working in close partnership with stakeholders in the Bangor region of Maine as well as HealthInfoNet to implement this program, leveraging HIE as the fundamental tool being used to achieve the programmatic goals.

The HITECH Act also provides incentive payments under Medicare or Medicaid for eligible providers (EPs) and hospitals that have demonstrated "meaningful use" of certified EHR technology phased in over three periods with increasingly more robust reporting requirements. The proposed Stage 1 criteria for meaningful use focus on a series of measures that demonstrate capacity to electronically capture health information in a coded format, use of that information to track key clinical conditions, communicating that information for care coordination purposes, and initiating the reporting of clinical quality measures and public health information.

In 2011, the results for the objectives and measures, including clinical quality measures will be reported by EPs and hospitals to CMS, or for Medicaid EPs and hospitals to the states, through attestation. In 2012, CMS is proposing the requirement of direct

submission of clinical quality measures to CMS (or to the states for Medicaid EPs and hospitals) through certified EHR technology.

Stage 2 meaningful use metrics will expand upon the Stage 1 criteria in the areas of disease management, clinical decision support, medication management, support for patient access to their health information, transitions in care, quality measurement and research, and bi-directional communication with public health agencies. Stage 3 will focus on achieving improvements in quality, safety and efficiency, focusing on decision support for national high priority conditions, patient access to self management tools, access to comprehensive patient data, and improving population health outcomes.

Funds to support meaningful use payment incentives will become available under Medicare as early as October 1, 2010 for hospitals, and starting January 1, 2011 for other providers. Medicaid payments may begin sooner. Medicaid payments could be combined with loans and other public or private sources, but providers will not be allowed to receive both Medicaid and Medicare payment incentives. States will not be required to match any of the federal incentive payments, and CMS will provide states with 90 percent of their costs for related administration and oversight. States may have to alter their Medicaid Management Information Systems (MMIS) to track and administer these payments to providers.

Eligible Medicaid providers will be reimbursed up to 85 percent of allowable costs for EHR technology and support services, not to exceed a capped maximum amount (per provider) over five years. This reimbursement would defray the costs of purchase and implementation. Those eligible include non-hospital-based providers, federally qualified health centers, rural health clinics, children's hospitals, and some acute care hospitals. Other hospitals would likely fall under the Medicare incentive payment program, whereby incentive payments are made upon meeting meaningful use objectives.

Maine must develop mechanisms for ensuring that providers pass threshold eligibility requirements and that they meet meaningful use stages. The State of Maine, working with HealthInfoNet as the REC and the Medicaid Program – MaineCare - are creating a means to track the use of the funds, to ensure that only certified technology is purchased, and to make certain that providers do not receive both Medicare and Medicaid incentives. These activities are currently taking place as MaineCare develops its State Medicaid Health Information Technology Plan (A draft version of the “As-Is Assessment” has recently been completed and is currently being edited to reflect HIE alignment – These tasks will take place as HIN, OSC, and Maine Care collaborate on the HIT and HIE Implementation Workgroup).¹

¹ Maine received \$1.3M from CMS through a Planning Advanced Planning Document (PAPD) process. These funds are currently being used to conduct a survey of HIT adoption and use by all providers in the state as well as to develop strategies leverage MMIS and MaineCare administrative systems to both attest, certify, and to pay providers as they meet the meaningful use criteria. Appendix B contains the current DRAFT of Section A of the State Medicaid Health Plan (SMHP) “As Is Assessment”.

Finally, the ARRA provides significant federal funding for broadband infrastructure deployment and community health center infrastructure development. A total of \$7.2 billion is provided for activities such as infrastructure development, mapping of broadband availability, training, and education to spur broadband use in rural, un-served, and under-served communities. In addition \$1.5 billion has been made available through the Health Resources and Services Administration (HRSA) for construction, renovation and equipment, including acquisition of HIT systems. The state, through its many broad band initiatives including the Three Ring Binder Initiative (Connect ME) and the New England States Telehealth Consortium (NETSC) and its primary care association (PCA), is heavily involved in these programs and in assuring linkages with HIE where appropriate.

Maine is well positioned to strategically build upon, leverage, and integrate the activities that already exist in advancing a statewide interoperable HIT infrastructure. The State of Maine intends to build upon its many successes to advance HIT and HIE through successful collaborative initiatives. The following strategic planning document represents the work of a broad number of healthcare stakeholders across the State of Maine. This document represents the first comprehensive HIT and HIE Strategic and Operational Plan for Maine. This plan is meant to be an iterative document that will be continuously refined to meet the goals of the healthcare stakeholders in the state, the needs of Maine residents, and the requirements set fourth by the Office of the National Coordinator for Health Information Technology (ONC) in the ARRA of 2009, Title XIII Subtitle B, Section 3013: State Health Information Exchange Cooperative Agreement Program. In addition, when approved by ONC, this document will become a critical component of the State's bi-annual health plan, required by law to serve as a roadmap to guide and reflect the action underway and the next steps required to make Maine the healthiest state with an efficient and effective, high-performing health system.

Background

In March of 2009 a HIT Steering Committee (HITSC) was identified and convened by the Maine Governor's Office of Health Policy and Finance (GOHPF). This committee was brought together to collaboratively develop a statewide strategic plan for HIE and HIT that both encompasses the successes of the many HIT and HIE initiatives in the state and meets the needs and requirements of the Office of the National Coordinator for HIT (ONC) for ARRA Title XIII Subtitle B, Sections 3012 and 3013 funding, as well as the Centers for Medicare and Medicaid (CMS) requirements that will allow Maine providers to receive Medicaid incentives for electronic medical record (EMR) adoption and "meaningful use" and Medicare incentives for provider "meaningful use". The HITSC consists of the following members:

- Devore Culver, Executive Director, HealthInfoNet
- Josh Cutler, Executive Director, Maine Quality Forum
- Rick Erb, President and CEO, Maine Healthcare Association
- Karynlee Harrington, Executive Director, Dirigo Health Agency
- Brenda Harvey, Commissioner, Maine DHHS
- Dr. David Howes, Medical Director, Martins Point Healthcare
- Frank Johnson, Employee Health and Benefits, State of Maine

- Jim Leonard, Program Coordinator, Maine Quality Forum
- Kevin Lewis, CEO, Maine Primary Care Association
- Tony Marple, Director, Office of Medicaid Services
- Elizabeth Mitchell, CEO, Maine Health Management Coalition
- Katherine Pelletreau, Maine Association of Health Plans
- Dr. Roderick Prior, Medical Director, Office of Medicaid Services
- Trish Riley, Director, Governor’s Office of Health Policy and Finance
- Gordon Smith, Executive Vice President, Maine Medical Association
- Dick Thompson, Chief Information Officer, State of Maine
- Angela Cole Westhoff, Director, Maine Osteopathic Association
- David Winslow, Maine Hospital Association
- Dr. Wendy Wolf, Maine Health Access Foundation

The role of this committee is to inform and develop consensus around the structure of a statewide HIE and HIT strategic plan through members’ attendance at monthly meetings in Augusta, Maine. At these meetings the Steering Committee has been presented with current status updates on the development of the plan, outlines of key sections to be included, and was asked to provide critical feedback and input into the high-level strategies included.

This document is structured at the strategic level to delineate the statewide HIE vision and goals and a realistic set of objectives for the coordination and implementation of HIE and HIT in both the public and private sectors, and the iterative strategic planning processes for the future. Components of the plan include:

1. Background;
2. History, Current Status, and Gaps in HIE Collaboration in Maine;
3. Maine Statewide HIT and HIE Vision, Goals, and Objectives; and
4. Conclusions
5. Statewide HIE Operational Plan

This strategic and operational plan has been developed to address both immediate and longer term investment and implementation targets within the context of a high-level current state gap analysis conducted in 2009, projected impact, the overall priorities defined for Maine and the investment funding opportunities created by ARRA and HITECH. In April 2008, the GOHPF along with the Advisory Council on Health Systems Development, issued Maine’s 2008-2009 State Health Plan. The State Health Plan is the vehicle that is used across State agencies to promote consistency in State health policy and allow for public input. The goals of the plan are to promote the best possible health for all Maine residents, with an efficient, effective and high-performing health delivery system. A highly integrated and comprehensive health information system is critical to achieving these goals. The State Health Plan can be divided into three functional areas that encompass health, healthcare, and systems.

- Accessibility
 - Every person in Maine should have access to comprehensive, affordable, quality healthcare coverage. This includes access to accurate, unbiased information that will allow each individual to make the best possible choices in taking steps toward better health;

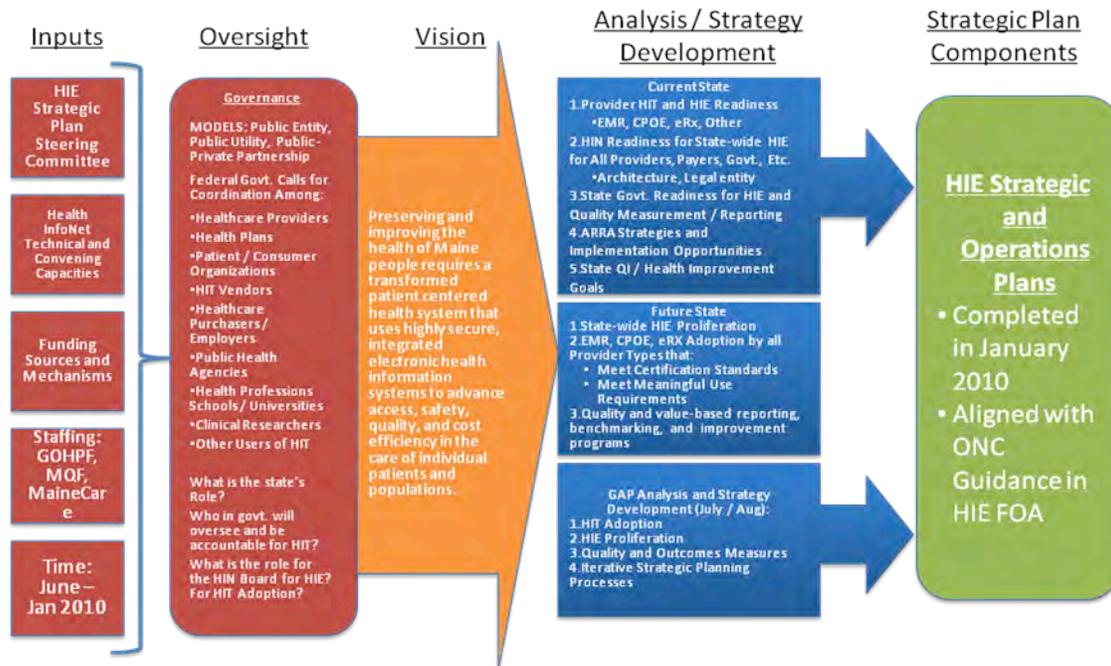
- Needed health services should be reasonably located and available to all residents in a timely manner;
- Health begins in the community and is more than treatment – health begins in our homes and with prevention;
- Every Mainer should have the same opportunity to realize his or her potential. We must work to reduce disparities in health status that are associated with gender, education, age, culture, physical or mental ability, sexual orientation and income.
- Affordability
 - The cost of care must lay within the reach of the resources we have to pay for it;
 - In order to effectively manage costs, we have to understand what we are purchasing. The cost of care, coverage and its administration must be transparent to the public. Outcomes of care must be measurable, measured and publicly reported. Similarly, community and government services must be publicly accountable;
 - Our investment in health must be sustainable over the long run. This means we must strive for the most efficient use of resources possible and to promote affordability over the long run.
- Quality
 - In Maine, the right care will be delivered at the right time and in the right place;
 - Healthcare in Maine will be based on sound research and designed to maximize patient outcomes and patient safety;
 - We will measure the quality of care provided in Maine and will continuously work to improve that care.

A comprehensive health information infrastructure is critical to achieve the goals outlined in Maine’s State Health Plan. As clinical data becomes more robust and widespread adoption of electronic systems is more commonplace, the value of HIE throughout the state will be recognized by increased efficiencies, reductions in errors, and improved patient safety. The system improvements realized through better use of information and information systems include, but are not limited to:

- Expanded access to care for all Maine residents;
- Improved coordination of care across all health delivery systems;
- Dramatic reductions of unnecessary and/or duplicative medical testing;
- Lower costs and greater quality care; and
- Connection to Maine’s public health system for increased public safety, availability of community based public health resources to prevent and/or manage chronic disease at point of care, coordination of immunization efforts, use of clinical data for reducing unwarranted variation in care and to better inform health system planning.

As such this plan has been developed as an adjunct document to the Maine State Health Plan to set the framework for immediate implementation priorities and long term goals for HIE that will allow the State of Maine to leverage all State and Federal investments and support opportunities. Figure 1 presents the Logic Model defining the process by which Maine has developed the HIE strategic and operational plans.

Figure 1: Maine HIE Strategic Plan Logic Model



History, Current Status, and Gaps in HIE Collaboration in Maine

Maine has established a true public-private partnership to achieve the goals of promoting statewide health information exchange. The Office for the State Coordinator for HIT (OSC), established through the Health Information Exchange Cooperative Agreement, provides public oversight, planning, regulation and state government coordination. The OSC was created and HealthInfoNet (HIN) was established as the statewide health information exchange for the State of Maine by Executive Order on April 6, 2010 (see Appendix B for the full text of the Executive Order).

HIN is an independent, nonprofit 501c(3) organization whose mission is to create an integrated statewide clinical data sharing infrastructure that will provide a secure data sharing network for public and private healthcare stakeholders in Maine. The concept of HealthInfoNet began in 2004 when the Maine Health Access Foundation (MeHAF), the MCDC, the Maine Quality Forum (MQF), and the Maine Health Information Center (MHIC) coordinated the Maine Health Information Network Technology (MHINT) project to study the feasibility of a statewide electronic health information exchange (HIE) network. The study found that strong support existed among multiple public and private healthcare stakeholders for such a system.

By 2005, the MHINT project organized a process for bringing together Maine's healthcare stakeholders to explore what it would take to create an electronic HIE network in Maine. An extensive planning and development process ensued. This process resulted in the establishment of HIN as an independent non-profit organization whose mission is to develop a statewide HIE network that will allow healthcare providers rapid access to patient-specific healthcare data at the point of care. Maximizing the effectiveness of available electronic HIE technologies from such vendors as 3M and Orion Networks, HIN is currently providing the necessary tools to ensure that accurate, secure, and current clinical and administrative healthcare data is available to providers across the state. In 2009 HealthInfoNet began rolling out a 24-month HIE demonstration project to connect:

- Central Maine HealthCare;
- Eastern Maine Healthcare Systems;
- Franklin Memorial Hospital;
- Maine Centers for Disease Control and Prevention (CDC);
- Maine General Health;
- MaineHealth; and
- Martin's Point Healthcare.

The demonstration project includes a broad data set including the Continuity of Care Record (CCR). The CCR is a patient health summary standard developed jointly by ASTM International, the Massachusetts Medical Society, the Health Information Management Systems Society (HIMSS), the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), and other health informatics vendors. The CCR standard is an electronic representation of the most relevant and timely components of a patient's medical records that need to be shared between providers to promote quality of care across settings. It contains various standardized data sets including patient demographics, insurance information, diagnosis and problem lists, medications, laboratory results, radiology reports, allergies, and care plans. These represent a "snapshot" of a patient's health data that can be useful or possibly lifesaving, if available at the time of clinical encounter. The data shared by HIN in the demonstration projects provides a broad clinical information set to promote higher quality and more effective healthcare delivery. These data include:

- Registration and encounter data;
- Conditions, diagnoses, and problem lists;
- Allergies and adverse reactions;
- Prescription medications;
- Laboratory and microbiology results;
- Radiology reports; and
- Text based, dictated, and transcribed documents.

The provider organizations participating in the statewide demonstration represent 52 percent of Maine's annual inpatient discharges, 50 percent of annual emergency department visits and 45 percent of annual ambulatory visits. As of June 2010, 735,000 lives were being managed within the HIN Master Person Index. This represents 56 percent of Maine's 1.3 million residents. The number of lives managed has been growing at approximately 10,000 every two weeks.

Insurance provides a comprehensive list of contacts at each of these organizations for providers and practice managers.² Based on the feedback from the community, and the current electronic eligibility and claims processing capabilities of the insurers, clearinghouses, and billing services, HIN focused on the development of statewide clinical HIE as its first operational objective. At the same time, Maine was establishing the first-in-the-nation, all payer all settings claims database. The Maine Health Information Center (MHIC) (Note: the MHIC changed its name to Onpoint Health Data in 2009), an independent private organization, and the Maine Health Data Organization (MHDO), a state agency, formed a legislatively supported partnership to develop data collection rules and regulations. Three types of administrative data are collected: member eligibility data, paid medical claims, and pharmacy claims. Across all file types, encrypted and protected health information provides patient specific information necessary to link data together.

Claims data, while powerful on its own, does have limitations. Claims data does not provide information about the outcome of the services provided, and often the information related to diagnoses and procedures is limited to what the carrier requires to adjudicate the claim. The advantage of an all payer claims database is the availability of data on all services across all healthcare settings. It has been determined that HIN, once fully deployed, will be able to combine the statewide claims database with the clinical information from the HIE. This integrated database will provide detailed clinical utilization data, outcome information, and cost/payment information on a statewide basis. Since February 2010, HIN in partnership with the Office of the State Coordinator for HIT (OSC) have been in discussions with MaineCare and Onpoint Health Data to determine the appropriate single mechanism for provider identification and authentication for MaineCare, the all-payer all-claim database, and statewide clinical HIE efforts. These discussions are building off much of the work currently being conducted by the MaineCare program in the “as-is” assessment for the Medicaid HIT plan as well as the work they have conducted recently, re-enrolling all providers into the new Medicaid Management Information System.

In addition Maine has been an active participant in the convening effort of the New England States Consortium of Systems Organizations (NESCSO) New England States HIE Collaborative. During these convening efforts, Maine, New Hampshire, and Vermont have identified a shared provider index as an activity that would greatly advance inter-state HIE efforts. Currently the Medicaid Agencies in each state are working with their “as-is” assessments to scope out the parameters of Implementation Advanced Planning Documents (IAPDs) that could be developed for a shared provider index across the states.

Electronic Prescribing and Refill Requests

In 2008, SureScripts recognized Maine as having the ninth highest rate of e prescribing in the nation. Due to SureScripts market share, it is believed that these figures are accurate and represent a solid platform by which to build upon to support provider’s ability to

² The Maine Bureau of Insurance Electronic Claims Information can be found at: http://www.maine.gov/pfr/insurance/electronic_claims.htm

demonstrate “meaningful use” for the purposes of the CMS provider incentive payments. The sure scripts ranking includes the following 2009 Maine e prescribing statistics:

- % of patient visits with a prescription benefit request: 6.96%
- % of total prescriptions routed electronically: 5.97%
- % of physicians routing e prescriptions at year end: 12.38%
- % of patients with available prescription benefit information: 65.81%
- % of total community pharmacies in Maine activated for e prescribing: 88.89%

SureScripts specifically recognized HIN and two participating community partners – Martins Point Healthcare and Franklin Memorial Hospital – in 2009 as three organizations in Maine that have contributed significantly to the growth in adoption of e prescribing in the state.

Although these statistics are relatively high, it is recognized by the State of Maine that these numbers need to be much higher. As such, HIN and the OSC have encouraged integrated delivery networks, MaineCare, health plans, rural health centers, and others to advance the implementation of e prescribing in Maine. HealthInfoNet is leveraging its position as the Regional Extension Center to drive e prescribing and standards (NCPDP Script (current and future version updates) for transactions, and RxNorm for vocabulary) into the primary care community through its contract requirements with primary care provider organizations across the state. In addition, HealthInfoNet is currently having discussions with pharmacies and with public sector pharmacy benefits management organizations (PBM) to determine the best strategy to both drive e prescribing and electronic refill requests into the pharmacies but also bring forward the CCD data currently stored in HIN’s clinical data repository for use by pharmacists. It is widely recognized that a successful care team includes the pharmacy and pharmacist. The data stored and exchanged by HIN and partners is very useful to pharmacists for medication therapy management (MTM) as well as other clinical activities. During the summer of 2010, HIN and OSC are meeting with pharmacies, PBMs, and others to both ensure that the meaningful use stage 1 e prescribing and electronic refill requests are met but also to assure that pharmacy is better represented as a critical stakeholder in a consumer’s care team.

Electronic Clinical Laboratory Ordering and Results Delivery

Maine’s two private in-state reference laboratories, NorDx and Affiliated Laboratory, Inc., are participating in the HIN demonstration project. Between their hospital and physician practices these two laboratories account for forty percent (40%) of all clinical laboratory testing in Maine. With the other four hospital and hospital laboratory systems already directly connected to HIN, Maine has approximately seventy percent (70%) of all clinical laboratory testing in the state accessible to the statewide health information organization. Interfacing with these labs has required concept mapping of both the laboratory data (including microbiology) and the registration / encounter data from the lab’s independent registration system. Laboratory orders are being coded to the Logical Observation Identifies Names and Codes (LOINC) standard for state required reporting and HIE. Laboratory results are also being standardized using Systemized Nomenclature of Medicine Clinical Terms (SNOMED CT) codes where applicable. Using the LOINC

and SNOMED standards to exchange lab data is allowing for semantic interoperability across Maine and will allow for standardized HIE across state borders and with the Nationwide Health Information Network (NHIN) when appropriate.

By taking advantage of mapping services provided by HIN rather than managing LOINC coding locally, the participating laboratories gain an economic advantage while also ensuring that their legacy data can continue to be useful. Using this approach also relieves the participants of the burden of vocabulary maintenance. Updates and changes to the standards are handled through HIN. The data within HIN has been normalized and stored in a structured format in the centralized data repository, and is viewable in a consistent manner by authorized users.

Both of the private in-state reference laboratories offer their commercial clients online electronic lab ordering and result reporting. The cost of maintaining the many different interfaces to client EHRs is a financial challenge for these two labs. The option of using the statewide health information organization to support laboratory result messaging and delivery going forward is a point of discussion which is gaining strength as HIN installs and maintains connections to an expanding number of these lab client locations across Maine. However, currently all laboratories currently deliver results directly to the ordering provider.

Electronic Public Health Reporting

HIN has a long-standing relationship with the Maine Centers for Disease Control (MCDC). MCDC is a partner in the Demonstration Phase, and automated laboratory result exchange is supported for thirty (30) of the 72 diseases mandated for public reporting by the State of Maine. HIN has delivered the Public Health Information Network Management System (PHINMS) transport standard required by MCDC to communicate automated laboratory test results to the public health information infrastructure. The operational plan calls for the statewide exchange to begin developing a solution for supporting public health syndromic surveillance in the next phase of HIN Development. Furthermore, HIN and OSC are working with the MCDC and the Beacon Community Project Team (Eastern Maine Healthcare) to develop interfacing capability for the current statewide immunization registry Impact II. This capability is a fundamental goal of the grant.

Quality Reporting Capabilities

HealthInfoNet and the OSC are reviewing partnership options with Onpoint Health Data (formerly the Maine Health Information Center) to develop and produce quality and “meaningful use” reporting for participating providers. Though the decision to partner with Onpoint has not yet been formalized, as HIN moves into data access and use, it will be helpful to have a well-known and trusted partner like Onpoint to develop this area of quality reporting. Onpoint staff have worked with a wide range of healthcare data and they program, report, and analyze data on virtually all NCQA HEDIS measures that can be reasonably estimated from administrative claims data without medical chart review. Among the HIT Standards Committee (NQF) endorsed measures, Onpoint has programmed and reported on the relevant denominator populations and in some cases

numerators using administrative data. For non-NCQA HEDIS quality measures, the Onpoint staff have worked on many other projects that include measures closely related to those in the HIT Standards Committee (NQF) list. The regional CMS contractor, Masspro, selected Onpoint to implement and analyze the results of the Doctors Office Quality Information Technology (DOQ-IT) Survey, an early effort at profiling physician practice against nationally recognized standards. Onpoint has a longstanding relationship with Maine hospitals and clinicians.

In addition, there are four public reporting efforts in Maine. The Maine Quality Forum (MQF) is a state agency legislatively created in 2004 to improve healthcare safety and quality. MQF collects data through another state agency, the Maine Health Data Organization (MHDO) and its Data Processing Center (DPC). MHDO maintains the State's healthcare databases. Maine requires all commercial and public payers of healthcare to submit 100% of claims to MHDO. These claims form the hospital and outpatient databases and the all-payer all-claims database. MQF through MHDO analyzes and publicly reports performance of hospitals on CMS core measures, care transition measures, and geographical variation. MQF uses data to inform state policy through the Governor's Office of Health Policy and Finance (GOHPF) Advisory Council on Health Systems Development and for legislative studies, such as hospital-associated infections. MHDO also analyzes cost data and publishes a cost-calculator for consumers to use to inform their choice of healthcare services.

There is also a business coalition that has been successful in its public reporting efforts. The Maine Health Management Coalition (MHMC) was formed to improve healthcare safety and quality issues. The Coalition has over fifty member organizations, representing the largest employers in Maine. MHMC publicly posts performance data on healthcare providers including hospitals. These data are shown in a comparative form to assist the public in making healthcare choices based on quality. Employers also use the data for provider tiering.

Finally, MaineCare currently has a performance based incentive program targeted at unaffiliated primary care Medicaid providers in the state. This program uses HEDIS-like measures for ER diversion, quality and performance generated from claims data to provide additional payments to providers meeting high-quality standards. Integrating these various data into the HIE dataset will provide significant value to the state, health systems, and analysts. A review is currently being conducted by MaineCare as a function of their Medicaid State HIT "as is" planning efforts on how to integrate these systems.

Given Maine's long history of using quality data to inform public policy and as a basis for incenting quality and safety from both public and private perspectives, there is significant potential to leverage existing quality reports along with others to build more comprehensive views of the healthcare system and of provider performance.

Prescription Fill Status and/or Medication Fill History

HIN is currently contracting with DrFirst for prescription medication history and profile information. The data sources accessed by DrFirst to deliver medication history profile

information to HIN include RxHub, SureScripts and the DrFirst e-prescribing repository. These current sources provide access to prescription medication information for approximately 53 percent of the residents of Maine. HIN has finalized negotiations with MaineCare to provide the Medicaid medication history to providers through the statewide exchange and is currently mapping the MaineCare data with a proposed go-live date of June 25th. Once access to the Medicaid prescription data is accomplished, HIN will be able to provide access to medication fill history profiles for approximately 64 percent of Maine residents.

There are limitations with the current approach to managing fill status and medication fill history through HIN that result both from the data sources and decisions that have been made within key programs like MaineCare to address current Maine privacy and security statutes. Reliance on the RxHub data set means that only adjudicated prescription claims are presented for consideration by clinicians at the time of care. Prescriptions that are purchased with cash by consumers who are otherwise included in the RxHub data set are not part of the HIN medication fill history today. Equally challenging is a decision by MaineCare that Maine privacy statutes require the filtering and removal of all drugs associated with psychiatric/behavioral health treatment, HIV treatment, and substance abuse treatment before the MaineCare medication history file may be released to HIN for clinicians to access to support patient treatment. There is currently no treatment exception in Maine statute that allows the release of these important categories of medication to the exchange according to how the statutes are currently interpreted. A legal working group has been formed by the GOHPF to develop recommendations for modifying current Maine statutes in order to define treatment exceptions that would better support clinicians sharing these categories of drug information through the exchange. Meetings have been taking place since the fall of 2009 and will continue with final recommendations presented March 2010. Throughout the summer of 2010, the legal working group OSC and HIN will be developing recommended legislative changes to present to the legal working group when it is reconvened in August 2010 with the expectation that draft legislation will be presented to the Maine State Legislature in January 2011.

Current drug lists and formularies are electronically available to providers for MaineCare and all other payers in the State of Maine. The OSC and HIN are reviewing the value of including these formularies w/in the HIN provider portal.

Clinical Summary Exchange for Care Coordination and Patient Engagement

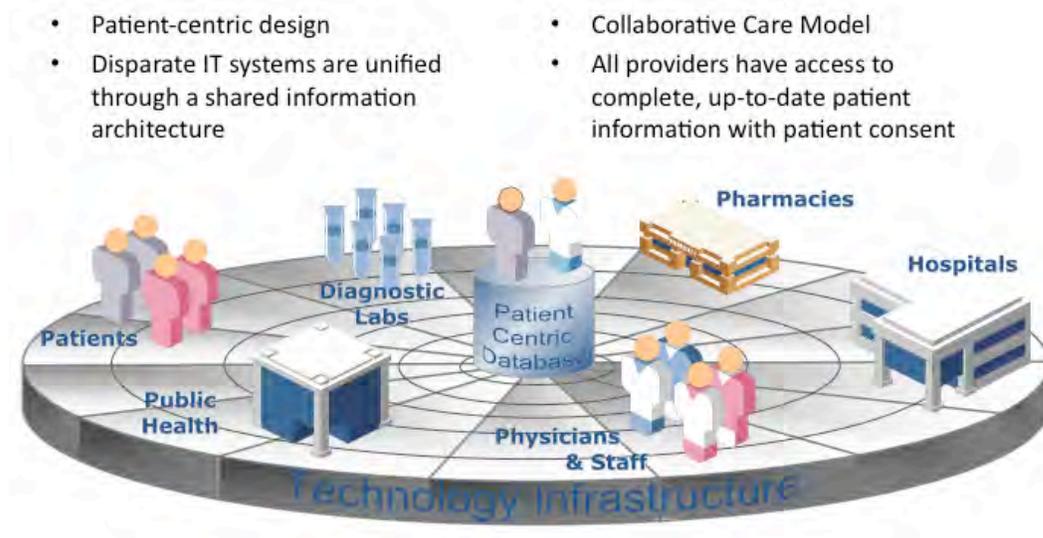
Maine developed technical specifications and design requirements for its statewide HIE demonstration phase operations in 2005. While the technical design for the demonstration phase did not include document/content transfer between provider EMRs, the contract with the technical vendor for the statewide health information organization does include requirements that the vendor demonstrate and maintain the technical capabilities to support the evolving national CCD, CDA and XML exchange standards. These standards will be deployed during the statewide health information exchange implementation that will follow the demonstration phase.

HealthInfoNet has partnered with several of the nation's leading companies in healthcare technology solutions to enable secure, timely and reliable exchange of electronic health information. The use of leading commercial products is allowing HIN to provide an integrated, flexible system that meets the needs of Maine residents and will be capable of interfacing with the Nationwide Health Information Network (NHIN). Currently HIN is renegotiating its architectural contracts with current and new vendors. Within these contracts, HIN is including the requirement to meet NHIN specifications on CCD C-32 documentation. Moreover, in July 2010, HIN and OSC are hosting the Veterans Administration at the Togus VA Medical Center to determine the next steps in developing a HIN-to-VA standardized interface for CCD exchange.

The HIN solution is message-driven and uses a centralized architecture. It is comprised of a clinical data repository (CDR), healthcare data dictionary (HDD) / language engine, and enterprise-wide master patient index (EMPI). An application service provider (ASP) available to HIN through a secure Internet connection hosts the solution remotely. Participants in the exchange generate HL7 messages and send these to the HIE solution via a local interface engine. The HL7 message is received, given correct message structure, and a query is made to the EMPI to ascertain whether the patient is known by the system. If not, a new patient record is created. The incoming message is mapped to pre-defined terminology standards and/or code sets and passed to the CDR for permanent storage. The patient's consent status to restrict access is applied to the record. Once the information is stored in the CDR, physicians are able to log on to the statewide exchange from inside their EMRs in context (the patient they are reviewing in their EMR is the patient that they are automatically directed to within the statewide exchange) to view the patient's record online.

The current HIN vendor renegotiations will result in some vendor and architectural changes. Most notably the current HIN systems promote a uni-directional portal view for providers using the exchange. By early 2011, the HIN CDR and interface engines will be able to support query and export of CCD-C32 via HL-7 directly to provider EMRs.

Figure 3: A Connected Maine HIE Infrastructure



HealthInfoNet has taken an active role in supporting the development of national certification standards for health information exchange through its participation in the CCHIT Health Information Exchange Work Group. HIN also intends to participate in the Nationwide Health Information Network (NHIN) both by promoting the use of NHIN standards and partnering on key projects with the VA (discussed above) and the NHIN Direct program to support point-to-point messaging between providers and leveraging those standards to drive statewide secure messaging between providers. These efforts are currently underway through the Beacon Cooperative Agreement with Eastern Maine Healthcare.

Consumer Engagement in HIE

Consumers have been actively engaged in HIN's work over the past five years. In 2005, a Consumer Stakeholder Group was brought together by HIN to develop a vision for how Maine citizens would benefit from electronic clinical information sharing. This group, which included consumers, consumer advocates and others, developed a vision statement and a set of principles designed to ensure that the consumer voice will be heard as Maine's HIE systems are established. The group's recommendations included the need for strong consumer representation on the HIN Board of Directors, the establishment of a permanent advisory committee, rigorous privacy and security protections and the development of a system to allow consumers to conveniently access their own medical information. The group also called for a public opinion research firm to learn more about how Maine people feel about medical information privacy and security issues.

The current membership of the HIN Consumer Advisory Committee includes citizens, consumer advocates, consumer organizations, legal experts, health educators, privacy officers, public health professionals, and interested parties with experience and expertise in consumer participation and privacy protection in health information technology systems. Some of the organizations represented include the Family Planning Association of Maine, Legal Services for the Elderly, Maine Center for Public Health, Maine Civil Liberties Union, Maine Disability Rights Center, Maine Health Management Coalition, Maine Network for Health, National Alliance For the Mentally Ill and the University of New England Health Literacy Center. The Committee, which is chaired by a member of the HIN Board, has been responsible for reviewing and advising on all policies and procedures related to the confidentiality of the HIN clinical data and the privacy protection for patients. It has addressed HIPAA and State law requirements, as well as other federal and State guidelines and initiatives, and public health data laws. This committee has been instrumental in the development of the opt-out provision for patient participation in HIN.

It has been HIN's goal since inception to allow consumers to both view and communicate information to the HIE. HIN has been in discussions with vendors such as Google Health and Microsoft Amalga (includes Health Vault) and will be incorporating consumer access to the exchange in mid-2011.

Privacy and Security Policies and Procedures

HIN has developed privacy and security policies consistent with federal guidance and specific to Maine State Law, to assure the privacy and security of all patient data being exchanged. HIN and the State Government were participants in the ONC Health Information Security and Privacy Collaborative (HISPC) and have used this participation to review and, where possible, harmonize Maine State Law and Regulations with the goals of HIE. HIN represented Maine in HISPC and managed the delivery of all three scopes of work undertaken by Maine as part of the HISPC initiative. These scopes of work included 1) an assessment and comparison of the differences between Maine and HIPAA privacy and security laws and general privacy and security practices across Maine provider communities, 2) an assessment of the differences between Maine and New Hampshire privacy and security laws specific to the exchange of public health information including mandated disease reporting, and 3) an eleven state comparison of differences in state privacy laws specific to different classes of "sensitive" data, different care delivery locations and requirements for patient consent prior to the release of information to support treatment.

Work generated through involvement in HISPC has had a direct impact on a wide variety of privacy related objectives with implications for HIE in Maine. In addition to the three areas of focus summarized above, out-comes generated by the HISPC engagements included the development of consumer education materials that explain the benefits and risks of HIE, and modification of the State privacy and security laws to specifically address the role of HIE in the management of personal health information. As a result, the security architecture of the statewide HIE includes encryption of personal health

information (PHI) at multiple levels within the CDR and through virtual private network (VPN) connections.

A consumer consent process for participation in the exchange enables consumers to opt out of the exchange. When a consumer opts out, clinical content on the individual is deleted from the clinical data repository and a flag is set in the system blocking the addition of new clinical data for that individual. An audit process is run daily to assure that there is no clinical information associated with any consumer who has elected to opt out of participation in the exchange. Out of 733,965 patient consents sought to date for the HIN Demonstration, only 5,362 (.7%) have chosen to opt out. Maine has also worked closely with New Hampshire to begin addressing differing state laws that may impede appropriate HIE in medical trading areas that cross state borders. As a result of all these efforts, agreements and policies are in place allowing 16 hospitals, a large group practice, MaineCare and the MCDC to actively exchange patient information today.

In addition, the State of Maine has made great strides in developing policies and procedures to support HIE. HIN, working in collaboration with the State Attorney General and its own private/public Board, has assured that data use agreements, business associate agreements, and vendor contracts with its primary vendors (3M, Orion Health, and DrFirst) have been executed in a manner that is appropriate, legal, and in support of the vision of HIE for the State. The Governor's Office of Health Policy, together with the Office of the State Coordinator, has also convened a legal working group with representatives from many stakeholders to review legal issues concerning privacy, security, and the promotion of exchange.

HIE Financing and Sustainability

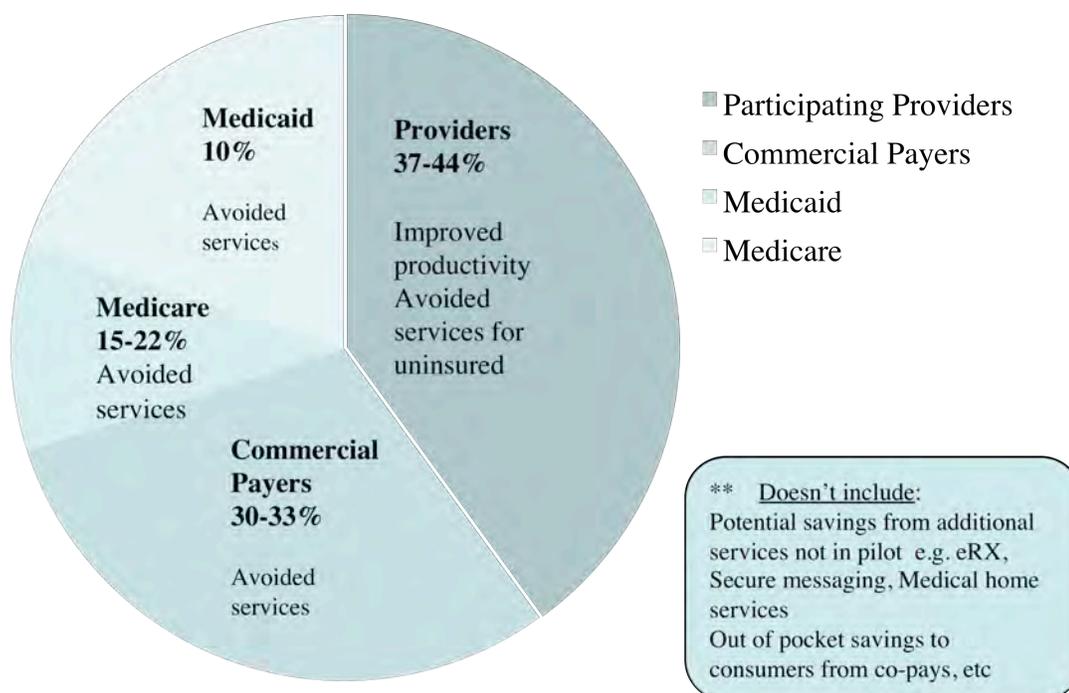
HIE development in Maine has always been a public private partnership, whose financial support was dependent on both public and private sector inputs. In 2008, HealthInfoNet sponsored a study conducted by the University of Massachusetts Medical School that estimated savings associated with the statewide HIE services in HealthInfoNet's demonstration project. This analysis demonstrated potential savings as high as \$52 million per year, distributed almost equally among the public sector, private sector payers, and providers.³

Figure 4: Savings Estimates for HealthInfoNet Services 2009-2011

³ Alfreds, S, and Witter D. The Impact of Electronic Health Information Exchange (HIE) Services in Maine: Avoidable Service and Productivity Savings Estimates Related to HealthInfoNet Services. University of Massachusetts Medical School. November 2008. See: http://www.umassmed.edu/uploadedFiles/CWM_CHPR/Publications/Clinical_Supports/HINValuation19november2008.pdf

Sources of savings: Avoided laboratory testing, avoided imaging studies, provider productivity improvements	
Demonstration Project Estimates of Annual Savings	
Phase 1 (2009)	\$10.6 - \$12.5 million
Phase 2 (2010)	\$13.2 - \$15.6 million
Phase 3 (2011)	\$17.2 - \$20 million
Statewide rollout estimate	\$40 - \$52 million

Figure 5: Distribution of HealthInfoNet Savings Among Stakeholders



This financial analysis served as a basis for the convening of a broad public/private stakeholder group by the Maine Quality Forum (MQF) and HIN, over the Fall of 2008, to review and develop a set of recommendations for the financing of HIT and HIE in the state. Over the course of six meetings and a number of work group sessions, the stakeholder group came to consensus that there were a number of key factors influencing their recommendations for the sustainability for HIE in Maine. These factors include:

1. **Broad Public Benefit:** A statewide Health Information Exchange such as HealthInfoNet should benefit every resident of Maine over time. This is consistent with the State Health Plan's prioritization of HealthInfoNet, EMR, and efforts aimed at strengthening primary care across the state.

HealthInfoNet will generate benefit across Maine's economy by slowing the overall growth in healthcare expenses and by decreasing governmental losses. Lower governmental losses will decrease cost shifting to private payers and self-insured businesses and can result in lower provider prices, which would result in lower health insurance premiums.

For these reasons, it is appropriate for the HIE to receive broad public support in the form of general appropriation and a general obligation bond.

2. **Voluntary Participation:** Participation of providers, payers, and consumers in the HIE will be entirely voluntary.
3. **Substantial Fee-For-Service Funding:** Over the next few years, it is expected that 2/3 of the operating costs of the HIE will be provided by fee-for-service revenues such as user fees, subscriptions and contracts.
4. **Benefits to Accrue Over Time:** Like most infrastructure investments and new ventures, benefits will be realized over a period of years and are expected to multiply over time. While HealthInfoNet should be able to begin to demonstrate a return on investment over the first five years of operation, a full understanding of the ROI will take a much longer period to achieve. Investments should therefore be made for the long-term.
5. **Investment in Electronic Medical Record Systems:** Investment in EMR and e prescribing systems by providers is restrained because only a small portion of the return on investment in these systems currently accrues to the provider. The implementation of these systems is generally a long-term process that is disruptive to the provider practice and frequently a source of near term productivity loss in the practice.
6. **Long Term Optimization of Investing in a Statewide Health Information Exchange:** The long term optimization of the projected quality and cost reduction returns projected to result from the development of a robust statewide HIE is dependent on adoption of EMR and e prescribing systems by providers across the state.
7. **No New Taxes or Fees:** Instituting any new taxes or fees to support the Health Information Exchange is not supported. *This clause (7. No New Taxes or Fees) was agreed upon by a majority of stakeholders but not by all stakeholders. Opinions of those in the minority are expressed in Appendix E of the final document.*

8. **Work in Progress – Need to Address Privacy and Security:** Privacy and security are among HealthInfoNet's highest priorities. This prioritization is recorded in the organization's bylaws (See Appendix C for the HIN By-Laws). While considerable work has been done to design a highly secure Health Information Exchange that safeguards privacy, the HealthInfoNet Board of Directors has pledged to continuously make refinements and improvements in privacy and security policies and procedures as the system moves from its Demonstration Phase to full statewide implementation.

Based on these influencing factors the stakeholder group developed a set of recommendations for presentation to the Legislature's Health and Human Services Committee on the sustainability of HIE.⁴ These recommendations included:

Recommendation 1 - General Obligation Bond - \$24 million: A bond should be used to establish the proposed Health Information Technology (HIT) Fund. Bond funding is appropriate because the HIT Fund will focus on the development of a key element of Maine's healthcare infrastructure, i.e. the acquisition of electronic medical records, electronic prescribing, and the development of a statewide health information exchange designed to support improved quality, better care coordination and efficiencies that will lead to a moderation in the growth of costs.

We envision that \$20 million of the fund will be used to improve information technology infrastructure of providers so they can transform patient care management at the point of care and effectively participate in the health information exchange. Eligible providers will initially include all primary care physicians and nurse practitioners, although it is hoped that in the future other types of providers will be eligible also. An application process will be established that awards or loans necessary start-up funding to those providers most likely to appreciate benefits, most likely to realize operational inter-connectivity, and those who are most likely to serve consumers most in need.

We also envision that \$4 million of the fund will be used to develop infrastructure of the Health Information Exchange itself. These funds would be used to cover a portion of the capital investment projected for building the exchange out as a statewide resource over a five-year period.

Recommendation 2 - General Appropriation - \$2 million Annually in the FY2010 State Budget: We recommend the appropriation of general funds to HealthInfoNet in the amount of \$2 million annually, to be matched by \$4 million in annual funds from other sources. The Legislature should consider appropriations of two types, as follows.

New Appropriation: While we are sensitive to the current political and economic climate, this approach spreads the cost burden most widely and evenly among Maine people. This approach also provides the Legislature the opportunity to evaluate the Health Information Exchange relative to other public needs. Further, a new appropriation in any amount will

⁴ HealthInfoNet Sustainability Stakeholder Process Final Report. Approved by Stakeholders on December 15, 2008. See: http://www.hinonet.org/meetings/HealthInfoNet_FinalReport20081215.pdf

establish a framework for future appropriations in an improved political and economic climate.

Redirect Funds: Because HealthInfoNet is expected to play a key role in supporting specific high-priority, quality-related issues (such as improved management of chronic illnesses, the future sustainability of primary care services, greater focus on disease prevention, further efforts to better coordinate emergency preparedness and e-prescribing), the Legislature should re-direct some portion of funds now spent in these areas to HealthInfoNet. In particular, sources of funds should be from agencies/programs expected to benefit the most from HealthInfoNet. The following is a listing of some of the agencies/programs that may meet this criteria (note: this is not a comprehensive list; others should be considered as legislation takes shape): the Maine Emergency Management Agency, MCDC, MaineCare, the Department of Corrections, the Fund for Healthy Maine, Maine Emergency Medical Services and the Maine State Employee Health Benefits Program. *This clause (A. General Appropriation) is supported by a strong majority of stakeholders but not by all stakeholders. Opinions of those in the minority are expressed in Appendix E of the final document.*

Recommendation 3 - Governance and Administration: The Health Information Exchange and the Health Information Technology Fund should be governed by HealthInfoNet and the administration of the Health Information Technology Fund should be performed by a separate entity, perhaps the Finance Authority of Maine (FAME) or the Maine Health and Higher Educational Facilities Authority.

HealthInfoNet is the appropriate governing entity because the board of directors has significant government representation including ex-officio seats, the group as a whole has considerable expertise in this arena, and they already exist. As the governing entity, HealthInfoNet should take the lead role in planning and budget development, fundraising, policy development, and capacity development. They should also advise the establishment of the Health Information Technology Fund and the distribution of its funds.

The administrative entity should contract with HealthInfoNet to administer the Health Information Technology Fund grant and/or loan program, including refinement of criteria, establishment of an application process, and adjudication of awards.

Recommendation 4 - Federal Support: Given that the Federal Government is expected to benefit considerably from HealthInfoNet (because of cost savings to Medicare), it is appropriate to request federal government contributions to HealthInfoNet. We recommend a strategy aimed at better coordinating efforts by state government and Maine's Congressional Delegation toward the goal of securing substantial new federal funding.

Recommendation 5 - Executive Order and Other Profile-Raising Activities: Several steps should be taken to raise HealthInfoNet's prioritization and visibility and create a greater sense of urgency in Maine state government. For instance, there should be an

Executive Order from the Governor setting a goal for the adoption of electronic health records by a certain date in the future. Further, state agencies that will benefit should be encouraged to participate in HealthInfoNet in preference to other stand-alone information handling options.

Recommendation 6 - Develop and Refine Assessment Methodologies: The Legislature should direct HealthInfoNet to refine its methodology for estimating return on investment. There should be a particular emphasis on how to measure the impact of the inclusion of prescription medication profile history for groups like Medicaid and emphasis on how to assess savings to patients. Further, HealthInfoNet should develop a methodology for measuring the quality and cost impact of HealthInfoNet and shared electronic clinical information.

Although these recommendations were not acted upon, they and the savings analysis conducted by the University of Massachusetts are serving as the foundation for the State's HIE sustainability plan currently being developed.

As HIE in Maine transitions to statewide operations, pricing and financing strategies are critical to the long-term success of the exchange. Building upon the work to date, the OSC and HIN are collaboratively and iteratively developing a business and sustainability plan. On March 4, 2010, HIN convened their Board of Directors for a ½ day retreat on HIE sustainability. At that meeting, the Board agreed on a broad sustainability model developed from the perspective that for, the long term, HIE in Maine would be sustained by equal investment made by the public sector (for the public good and population health benefits), the private payers, and the providers. In the short term it was agreed that HIN would complete its current state technology assessment and present to the Board, on July 21, 2010, sustainability models, leveraging the HIE Cooperative Agreement, the Regional Extension Center, Beacon Community, other grants, provider payments, and MCDC funds.

Statewide Broadband Capacity

As a geographically large state with a small population, Maine has been especially challenged in providing high-quality, cost effective broadband service to communities, businesses and healthcare institutions. Maine has a number of initiatives currently underway or proposed to assure broadband connectivity across the state. The Maine Legislature approved the operation of the Connect ME Authority in 2007, with the goal of expanding broadband access in the most rural, un-served areas of the state that have little prospect of service from a traditional provider. The Authority is to “identify un-served areas of the State; develop proposals for broadband expansion projects, demonstration projects and other initiatives; and administer the process for selecting specific broadband projects and providing funding, resources, and incentives.” The Authority is funded with a 0.25% surcharge on instate retail communications services.

The Authority, with the support of the Governor, and the “Broadband Strategy Council” composed of legislators, a representative of the Maine Public Utility Commission, the Maine Department of Economic and Community Development, the State Office of

Information Technology, Connect ME, the Maine University System, and the School Library Network, is currently supporting proposals for grants from the National Telecommunications and Infrastructure Administration (NTIA) and the Rural Utilities Service (RUS) , for statewide broadband infrastructure for a total of \$38.1 million and sustainable broadband adoption for a total of \$3.4 million.

These last mile and middle mile projects, whether funded or not, represent a coalition of stakeholders across the State of Maine that are collaborating to promote redundant and reliable broadband access to all areas of the state. This broadband infrastructure is critical to the success of the electronic HIE efforts discussed in this plan. The Broadband Strategy Council will be working closely with the State and the OSC on HIT in all HIE infrastructure efforts to assure that rural providers have HIE access and capability and that broadband resources and efforts are integrated into the statewide HIE planning and sustainability activities.

The Directors of Connect Me and OSC have met and agreed to coordination between offices. A first step in this process is for Connect Me to involve OSC in a review of a statewide mapping effort that is currently underway and slated to be completed in the Summer 2010. A GIS map of all systems and improvements to the systems will be used to inform the statewide assessment plan and help direct efforts to achieve greater connectivity between rural providers and HIN.

Another project currently underway in Maine is the New England Telehealth Consortium (NETC). NETC is a non-profit corporation comprised of 480 health care providers and health educators across Maine, New Hampshire and Vermont. NETC was approved to receive up to 85% cost reimbursement funding for Network Design, Services, and Equipment from the FCC Universal Service Fund (USF) Rural Health Care Pilot Program, and to implement a regional dedicated broadband network with Internet2 and Commodity Internet connectivity.

Having received \$24.6 million, the largest RHCPP award in the country, NETC's goals are to: Design and implement a private broadband regional telehealth network with Internet2 and Commodity Internet connectivity; Link regional healthcare providers with urban public practices, research institutions, academic institutions, and medical specialists to provide greater efficiency in the sharing of information relevant to healthcare applications; Provide a shared broadband network with healthcare providers thereby increasing and validating telehealth and telemedicine opportunities in the region; Provide healthcare providers in rural areas with greater and easier access to current research, advances in medicine, expert support and team consults; and Allow healthcare providers in the region access to a common network for provision of electronic health records, remote medical diagnostics, remote imaging, telehealth, telemedicine, population health database, remote surgery, teledentistry, telepsychiatry and behavioral health treatment.

NETC has embraced relationships with state HIEs including HIN to enable NETC participants to connect to their state HIE via NETC's planned Broadband, Quality of

Service network. In Vermont, Vermont Information Technology Leaders, the state HIE for Vermont, is a participant of NETC, with plans to connect Vermont hospitals and clinics to their database via the NETC network. In Maine, there are 280 health care providers that are participants in NETC. Of those, 146 Maine participants have indicated their desire to utilize the NETC network for connectivity to HIN.

At the completion of the formal network design in the summer of 2010, NETC will issue public RFPs for the build of the network, as required by the Rural Health Care Pilot Program. In order to maximize the benefits to the health care providers participating in NETC, the NETC network will be built after vendors are selected and NETC receives FCC/USAC authorization to proceed.

HIT and HIE Adoption Across the State

An environmental assessment of the current HIE implementation and HIE participation is an important component of the process to develop strategic and operations plans for HIT and HIE adoption in Maine. The assessment will provide the answers to “where are we” and will assist in developing responses to “where do we want to be?” The OSC and the Maine Medicaid Agency (MaineCare) are coordinating closely on a statewide assessment strategy leveraging the cooperative agreement between the state and its university system. Deloitte Consulting is the Medicaid project management group. Bi-weekly meetings are held between all parties to coordinate and align work.

The statewide assessment will provide a full view of the healthcare delivery system including long-term care, home health and hospice, and behavioral health (the assessment will be publicly available in July 2010). Information gathered will provide an understanding of payer mix using Maine’s all-claims database. The results of the analysis of claims will help in determining provider eligibility for those participating in the Medicaid incentive program by meeting a 30% or greater Medicaid panel size. All primary care and specialty providers will be assessed through a survey focused on systems and meaningful use, providing a baseline from which we can measure current meaningful use going forward. The assessment will be completed and a comprehensive report generated by end of July 2010. The process involves a close working relationship with the provider community and suppliers of technical assistance and services. Existing networks are being used to gain practitioner and practice information, such as physician hospital organizational leadership, the primary care association, and other organizations like quality improvement groups connected to the delivery system in Maine. Information from this assessment will be the basis of a Medicaid strategy roadmap in the Medicaid Health Information Technology Plan. Data will be used to focus attention in both adoption and connection strategies for quality improvement work planned through the Regional Extension Center.

In the summer of 2009, HIN conducted a preliminary assessment to provide an overview of the HIT and HIE environment beyond its current partnerships described above. The preliminary assessment focused on state government, hospitals, rural health centers, primary care physician practices, home health agencies and long term care agencies. Due

to the timing and budget constraints, the associations representing their stakeholders completed some surveys. These associations included:

- A state team within the Department of Health and Social Services (DHSS) completed the state survey.
- Surveys were sent to groups of hospitals via a selected lead hospital with a common EHR vendor.
- The Maine Primary Care Practice Survey report was used for information on primary care physician EHR use.
- The Maine Primary Care Association completed a survey of the federally qualified health centers.
- The Home Care & Hospice Alliance of Maine completed a survey for their member home health agencies, and,
- The Maine Healthcare Association completed a survey for long-term care/skilled nursing facilities.

State Agencies HIT and HIE Use:

Preliminary survey results provide input on the status of electronic data exchange among state agencies and with external parties. According to the survey responses, no designated state agency had the responsibility for coordinating the technical and/or administrative work related to exchanging clinical patient data electronically prior to the formation to the Office of the State Coordinator for HIT (OSC).

Some State agencies do collect and/or maintain administrative data for uses other than enrollment or payment. Within the Maine Department of Human Services, departments collecting and maintaining data are MaineCare, MCDC, Adult Mental Health, Elder Services, Office of Integrated Access & Support (ACES program), Office of Child & Family Services, and the Department of Public Safety – Emergency Medical Services. Within State government, the Maine Health Data Organization (MHDO) maintains healthcare utilization data on all patients in an inpatient, outpatient and ER setting. MHDO also maintains the statewide all payer all settings claims database for all services rendered in Maine.

Some State agencies with administrative data do exchange data with other agencies. Within DHHS, the Office of Integrated Access & Supports (ACES program) exchanges data bi-directionally with the Maine Revenue Services, Department of Labor, the Department of Administrative and Financial Services, and the Public Utilities Commission (eligibility data). The Office of Adult Mental Health Services provides data to the Riverview Psychiatric Center, MHDO, the National Association of State Mental Health Directors and Maine General Hospital. The Office of Elder Services provides targeted case management claims to APS (CareConnection), MaineCare, and exchanges care plan information with Elder Independence of Maine.

In addition to administrative data, some State agencies are electronically collecting and/or maintaining patient specific clinical data (with or without identification). These agencies are: the Department of HHS (Maine Care, MCDC, Adult Mental Health, and Elder

Services), Department of Corrections, MHDO, Department of Education, and Department of Public Safety and Emergency Medical Services (EMS).

In addition to the standard uses of electronic patient clinical data collection and use, the State uses clinical data for the following purposes:

- ME CDC Public Health Nursing Program (CareFacts): Syndromic surveillance and blood testing for children as required by law;
- ME CDC Division of Infectious Disease: Immunization Program (IMMPACT): Immunization registry for school aged children: healthcare effectiveness data and information set sent to HMO via secure e-mail;
- Division of Family Health: Nutrition program for Women, Infants, & Children (WIC): Prescription of Supplemental Foods;
- Office of Data Research & Vital Statistics: Electronic Birth Certificate (EBC), and statistical analysis at the state and federal levels.

An important focus of OSC will be the use of standards for data exchange across state agencies. Data on the standards being used by state agencies along with the types of information being shared was also collected in this survey. These data will be used by the State and the OSC to develop a strategy to align all state programs across the healthcare enterprise. The OSC and MaineCare have established a biweekly schedule with the Commissioner of DHHS to review plans and progress on the state health information technology plan pertaining to the MaineCare Planning Advanced Planning Document (PAPD) work. The involvement of the DHHS Commissioner in this process provides the necessary engagement of senior management to promote involvement of state agencies in this work.

Provider EHR Adoption:

Of the ten large hospitals (71% of total) responding, all currently have EHRs implemented. Eight of the EHR systems are certified by the Certification Commission for HIT (CCHIT). Eight medium size hospitals (62% of total) have EHRs implemented and five are CCHIT certified. Seven small hospitals (58% of total) have an EHR implemented and all seven EHRs are CCHIT certified.

There are nineteen (19) federally qualified health centers (FQHCs), and five (5) Indian health centers. All of the centers have an electronic practice management (EPM) system implemented. Of these centers, two have begun exchanging data with the Maine Primary Care Association, one with a pharmacy and two with health plans. In the spring of 2010, five health centers plan to have data exchange with MPCA and their local hospitals.

Fourteen of the nineteen (74%) FQHCs have an EHR implemented. Three of the FQHCs use Centricity, five use NextGen, five use Healthport and seven use other vendors. Of the five FQHCs that do not have an EHR implemented, three are planning to implement within one year, one with NextGen, one with e-Clinical Works, and one with NextGen or Centricity.

The EHRs implemented are being used for the following functions: review chart information; create visit notes; create and use referral forms; update and review problem

lists, allergies, immunizations, and medication lists; enter and review test results, e-prescribing, manage referrals, generate disease management reports and some use their EHR for chronic disease management.

There are thirty home health agencies in Maine, twenty-three are affiliated with hospitals and seven are independent. The Home Care & Hospice of Maine represents 21 of the 30 agencies and of that number 15 (71%) responded to the survey. All of the agencies are submitting bills to payers electronically and all of the responding agencies have an EHR implemented. The vendors used by the agencies are: Cerner/Beyond Now (7), PtCT (6), Meditech (3), CareWatch (1), HealthWyse (1), McKesson (1), and Progesa (1).

Almost all of the agencies are using the EHRs for review of chart information; creating visit notes; updating and reviewing: problem lists, allergies, immunizations, medication lists; and managing referrals. Half of the agencies are using the EHRs for creating and using referral forms, entering and reviewing test results, and generating chronic disease management reports. No agencies are using e prescribing.

The 2009 survey collected data on the perceived barriers and challenges the providers described above in relation to HIT and HIE adoption. The responses to these questions varied across provider group and functionality. These data are currently being analyzed and will be used to design the next phase of the environmental assessment as well as the strategies for supporting providers through both the State Cooperative Agreement for HIE and the Regional Extension Center Activities.

Secure Messaging and Access to Personal Health Records: No hospitals reported access to electronic personal health records (PHR) for their patients. The following summarizes the hospital response to access to and use of secure messaging.

	<u>SECURE MESSAGING</u>	
Large Hospitals	7 - yes	1 - no
Medium Hospitals	2 - yes	6 - no
Small Hospitals	3 - yes	4 - no

Two rural health centers use a secure messaging product and one center is providing access to electronic personal health records (PHR) to their patients. Other types of electronic clinical data reporting are to the MPCA central database (2 participants up currently, more pending), quality initiatives (6 participants), P4P (6 participants) and one unilateral interface with Immpact 2, the MCDC Immunization registry.

Ten home health agencies use secure messaging and two of the agencies provide access to PHRs to their patients. Thirteen participate in quality reporting and chronic disease management tracking and some use the EHR to develop outcomes benchmarking.

HIT in Long Term Care and Skilled Nursing Facilities (SNF): There are fourteen LTC/SNF free standing facilities affiliated with hospitals and ninety-five free standing non-affiliated long term care and SNF facilities. All of the LTC/SNF facilities have

electronic billing systems and all the facilities are submitting bills electronically. It is unknown how many facilities have EHRs but the vendors who have some market share in Maine are HiTech (Skowhegan), Keane, American Data, WI, and Lintech. Of these vendors, only American Data provides the traditional EHR functions such as chart notes, problem lists, allergies, etc.

The barriers for EHR implementation that ranked the most important were funding, lack of reimbursement for EHR use, lack of internal resources, and lack of an HIT strategic plan. Additional barriers to EHR implementation were availability of technology, external technical assistance, and security/privacy concerns. None of the LTC/SNF facilities are using secure messaging.

Representative leadership from Long Term Care, Home Care, and Hospice are represented on the OSC Steering Committee.

Primary Care Practice Survey Results: In June 2009, the Portland Research Group under contract with the Maine Primary Care Association, Quality Counts, and the Maine Quality Forum released the results from a state Primary Care Practice Survey conducted in May and June 2009. There were 144 respondents of 461 contacts (31%) with 38% from primary care, 32% from family practice, 17% from internal medicine, 8% from pediatrics and a small number of others from miscellaneous practices. The majority of responses were from: MMC PHO (26%), Central & Western Maine PHO (14%), MedNet (13%), Maine Network for Health (11%), Maine Primary Care Association (11%), Kennebec Regional Health Alliance (7%), St. Mary's/SOCHS (4%), and others representing 1%. Other responders (11%) were not affiliated and 15% didn't know if they were affiliated.

One of the objectives of the study was to assess the extent to which practices have adopted electronic options for aiding various aspects of the care they provide. This survey, therefore, was consistent with the goals of this environmental assessment to inform the development of an initial HIT strategic plan. Highlights from the primary care practice survey relative to this plan are presented below.

Clinical Recordkeeping Methods

- Half (50%) of the practices responding currently use an EHR with an in-house server, while one-eighth (12%) use an EHR with an Application Service Provider (ASP).
- One-third practices with an EHR use Centricity as the primary vendor, followed by e-ClinicalWorks at 14%.
- More than one third of practices surveyed (37%) maintain their clinical records on paper only.

EHR Utilization

- Most practices (82%) that utilize EHR are using it for all of their patients.
- Most practices use the EHR to record clinical notes (92%), lab results (88%), prescribe electronically (86%), and order labs.

- Three quarters (75%) of practices use EHR to receive data from external systems and order diagnostic tests.

EHR Data Accessibility

- Most practices (82%) say EHR is “always” available to providers during after-hour call coverage. Less than one tenth are unable to access EHR data after hours.
- One third of EHR users allow access to healthcare providers from other practices for after-hours call coverage. Almost half never make their EHR data available to other practices.
- Over one third allow emergency department provider access, at hospitals most often used by their patients. More than two-fifths never allow emergency department provider access.

EMR: Likelihood of Implementation: Among practices that have not yet adopted EHR:

- 38% are likely to implement EHR within one year
- 40% are likely to implement EHR within two years
- 59% are likely to implement EHR within five years

Vendors under Consideration

- One fourth of practices that do not currently have an EHR, but are likely to implement it, listed Centricity as one of the programs being considered.
- One fifth are considering eClinicalWorks, while one-sixth are considering Allscripts/Touchworks or Epic.
- One fifth of practices that do not have an EHR do not know which vendors are being considered.

Factors Influencing EMR Implementation

- 79% feel improved quality of patient care is a key reason to consider implementing EMR.
- 73% are interested in support for e prescribing.
- 68% are influenced by improved ability to track and report clinical outcomes and efficiency gains.

Support for EMR Implementation

- More than 45% of practices that use paper records indicated they would receive support from local hospitals for EHR implementation assistance.
- 34% of paper-only practices have support within their large medial group, while 30% have access to help from their local health system or PHO.
- Only 17% have support resources within their practices.

Importance of Support Sources in EMR Adoption

- 73% of practices that exclusively utilize paper records identified low or no-cost financing as an important factor in helping them adopt EHR.

- Reliable external support services are important to 68% of paper-only practices.
- More than 64% feel technical assistant for implementation would help them adopt EHR.

EMR Barriers to Adoption

- 49% of practices exclusively using paper records cited software/product-licensing costs as a barrier to adoption of EMR.
- 26% consider hardware constraints to be an obstacle.

Computer System Modification Plans

- 34% of practices are planning to purchase or modify their computer systems within one year.
- Of those, 39% are planning EHR implementation, 28% are changing EHR systems, and 4% are upgrading their EHR.

E-Prescribing Systems

- 50% of practices are electronically prescribing all of their prescriptions, 9% are using an e-prescribing system for some prescriptions.
- 49% use their EHR's e-prescription tool, while 23% use SureScripts, 12% use Allscripts/Touchworks, and 11% use DrFirst.

Personal Health Record Usage

- 70% are not currently using a Personal Health Record (PHR).
- Fewer than one in ten uses a PHR associated with their EHR system.
- 19% of respondents do not know whether their practice is using a PHR.

Due to the maturity of HIE development, the coordination and partnerships among healthcare organizations and HIN, Maine has a robust baseline from which to assess its current capacities in light of the requirements of the ONC and the new resources available to build-out HIE services to all Maine residents. According to the current data, just under half of all inpatient and ambulatory records in the state are electronic and can be shared through HIN. There are multiple EMR and other HIT vendors operating in Maine healthcare systems to varying degrees of success. Maine is a leading state in developing electronic administrative data exchange and analysis through its early deployment of an all-payer all-claims database. In addition, through the use of this resource as well as the public and private commitment to quality, multiple data-driven quality improvement efforts are currently underway that can be incorporated and integrated with HIE efforts. Finally, the State of Maine and HIN have consistently made the views of consumers a central pillar in the design and deployment of HIE services. Through education, the creation of a HIN Consumer Committee, and consistent public outreach, the state of Maine has made great strides in assuring that consumers recognize the importance of HIE and are able to input into its design.

Despite these successes, there are many gaps in the current status of HIE across the state. Although there are relatively high EMR adoption rates, many of these systems are legacy based and may be challenged to meet meaningful-use requirements. In addition, 50% of

small primary care practices don't currently have an EMR. These small practices, though the focus of many federal investments through the Regional Extension Center and other initiatives, will require a significant investment from all parties to move from a paper-based record keeping environment to an electronic one with the capacity for HIE. There is virtually no clinical HIE capacity in the long-term care arena in Maine. In addition, there is little data sharing for mental health and behavioral health purposes (note this is related to state personal health information laws more than it is technology). This represents a significant hurdle for HIE moving forward. The high costs of care delivered in these settings (especially those borne by the public sector through Medicaid) in addition to the large degree of medical transitions for persons supported by both the long-term care and mental health systems make these critical areas that need HIE investment. An area of opportunity identified through the surveys conducted to date demonstrate significant HIE capacities in the home health settings. Although the ARRA grants and opportunities exclude long-term care and mental health, Maine intends to invest in this space using all federal, state, and philanthropic resources available to assure that residents in Maine's long-term care and mental health systems are cared for in the most efficient, effective, and equitable manner.

Additional data is currently being analyzed and collected to assess the current state of HIE for all provider populations in Maine including broadband infrastructure capacity through the partnership between OSC, MaineCare and the University of Southern Maine Muskie School of Public Service. Funding from the HIE Cooperative Agreement Program will also be leveraged to support these efforts. As a result, this section of the HIE strategic plan will be iteratively updated throughout the development and deployment of HIE services statewide.

Maine Statewide HIT and HIE Vision, Goals, and Objectives

The HIT Steering Committee has been working since the summer of 2009 to agree upon the process by which the State will utilize its wide breadth of HIT and HIE resources and deployed assets to achieve statewide interoperability and widespread HIT adoption for the purposes of improving quality and assuring that federal investments in these technologies are utilized appropriately in a timely manner. Meeting monthly, the group has reviewed the history of HIT and HIE deployment across the state and the diverse providers and other stakeholders involved. In addition, the Steering Committee has worked with stakeholders and consultants to develop and prepare the deployment of a collaborative governance model for HIE that will sustain the trust, innovation, and buy-in of both the public and private sector stakeholders that are so important to the success of any model. These discussions are by no means final. However, enough input and feedback has been received to allow for the development and finalization of this strategic and operational plan that outlines the critical components of the strategy to realize HIE across the State of Maine, its contiguous borders, and further in conjunction with the NHIN.

A critical foundation to the future of HIE in the state of Maine must begin with a Vision. This vision must not only represent the needs and requirements for HIE, it needs to make the connection between the technology and its effective use as a platform for true health delivery system improvements for all Maine people. As such, a significant amount of discussion and feedback went into Maine's HIE vision presented below.

The Maine HIE Vision: Preserving and improving the health of Maine people requires a transformed patient centered health system that uses highly secure, integrated electronic health information systems to advance access, safety, quality, and cost efficiency in the care of individual patients and populations.

Maine HIT and HIE Strategic Goals

To advance this vision, the HIT Steering Committee agreed upon three high-level goals that will guide all statewide HIT and HIE related activities both to assure that federal requirements and needs are met to allow funding to flow, but also to meet the needs of Maine stakeholders and people.

GOAL 1: By 2015, all people in Maine will be cared for by healthcare providers who share electronic health and health related information securely within a connected healthcare system using standards-based technologies that promote high quality individual and population health.

- a. The technologies and the use of the technologies will be tied to the federal definition of meaningful and will be phased in between 2011 and 2015. Where state or federal funds are used to support the adoption and use of

these technologies, the standards and implementation specifications, as well as certification criteria will be in conformance with 45 CFR Part 170 and the final rule released by ONC.

- b. These technologies will take advantage of Maine’s significant HIE efforts to date and will build upon deployed assets to assure that past and current investments are used appropriately.

GOAL 2: By 2015, all people in Maine will have access to a flexible comprehensive consumer centric life-long health record – “One Person One Record”

- a. A phased in approach will be undertaken to allow both early adopters and new adopters to gain support and reach a level of equity that allows the secure and private electronic flow of information across the healthcare system.
- b. This record will include both a provider-based EMR as well as a personal health record (PHR) that is available to all Maine people.⁵

GOAL 3: Electronic healthcare information will be used by the State Coordinator for Health Information Technology to develop public policy throughout the healthcare system to promote evidenced based, clinically effective, and efficient care for all people.

- a. Current public and private quality measurement and improvement efforts, will be built upon using HIE. For example: the REC will be promoting the use of quality metrics that have been adopted by the patient centered medical home (PCMH) pilots currently underway across 26 practices in the State.
- b. Data from MaineCare and their Medicaid Management Information System (MMIS) will be linked to HIE services to both assure that Medicaid members’ data is used appropriately for treatment purposes, but also to allow MaineCare to utilize this robust dataset to improve its programmatic capacity to promote healthcare effectiveness and efficiency.

Maine HIT Strategic Objectives

The following objectives identify the core areas that the HIT Steering Committee wishes to accomplish through the alignment of all federal funding opportunities including the State Corporative Agreement for HIE, the Regional Extension Center Program, the Beacon Communities Program, the CMS Incentives, HRSA and AHRQ investments

⁵ HealthInfoNet has been in discussions with Google Health and Microsoft to allow for a direct connection between the HIE organization and a PHR. It has been determined that the data mapping between current PHR tools and the HIN CDR and interface engine does not represent a significant investment. HIN has committed to support patient/consumer access to the HIE via a PHR tool by mid 2011.

across the state, Broadband Development, Veterans Administration, DOD and Tri-Care consumers, and other stakeholders in Maine

1. ***Enable the transformation:*** In adherence to federal guidelines for meaningful use, by 2015, all providers in Maine will have an EHR pursuant to National Standards and will be sharing appropriate clinical and administrative information through HealthInfoNet to promote high quality and cost effective healthcare.
 - a. Standardization across Medicare and Medicaid guidelines will be maximized to assure consistency across all Maine providers for both administrative and clinical electronic HIE.
 - b. For the purposes of the Maine HIE Strategic plan, providers include not only providers defined by CMS but also long term care, home health, mental health and behavioral health, and others.
2. ***Security and Privacy:*** All healthcare information shared and stored electronically will adhere to privacy, security, and confidentiality requirements as defined by the collaborative work of HIN, the State Government (including the Attorney General) and the guidelines provided by ONC and through federally supported projects such as the HISPC (discussed above) and NHIN.
3. ***Patient focused health:*** By 2015 all people of Maine will have secure electronic access to comprehensive healthcare information and will be assured that if they consent to participate in HIE, their providers will also have comprehensive access to their clinical information to guarantee the most informed decision making at the point of care.
4. ***Improve the quality of care:*** By 2015, all providers serving individuals and populations in Maine will achieve federal meaningful use guidelines, improve performance, and support care processes on key health system outcomes measures.
 - a. Measures will include meaningful use measures defined by the ONC integrated with those measures already in use across the public and private programs currently collecting (and in some cases paying incentives for) quality data. As the State's integrated HIT strategy is refined additional state specific measures such as the PCMH measures will be added.
5. ***Coordination of care:*** Beginning in 2010 and phased in through 2015, the statewide health information organization, HealthInfoNet, will deploy statewide health information exchange services, connecting all providers, payers, laboratories, imaging centers, pharmacies, public agencies and other relevant stakeholders. These services will allow for the appropriate, secure, and private exchange of relevant personal health information to the point of care for all Maine people consenting to participate, assuring that their healthcare is coordinated among all primary care and specialty providers.

6. ***Benefit public and population health:*** HIE activities in Maine will be aligned at every level possible through the OSC to assure that the data collected is used to improve population health. As discussed above, statewide HIE services are critical for required disease reporting, biosurveillance, public health tracking (immunization Immpact II etc.), as well as population support functions of the MCDC.
7. ***Promote public private cooperation and collaboration:*** All health information technology and exchange activities will be developed and overseen through structures that promote cooperation and collaboration among all public and private stakeholders, building upon existing partnerships developed throughout the history of HIE in Maine and in recognition of the specific public sector regulatory, accountability and fiscal functions.
8. ***Promote efficiency and effectiveness of healthcare delivery:*** Recognizing that HIT and HIE are tools, evaluation metrics will be iteratively developed and promulgated across the healthcare system of Maine to assure that HIT tools are used to the benefit the people of Maine.

As this strategic plan is refined, the State of Maine recognizes the need for alignment with other States and the ONC. To assure that these activities are coordinated, data and information development for the Maine HIE strategy will be organized by the five capacity domains that have already been established by the ONC in the State HIE Cooperative Agreement: 1) HIE Legal and Policy Issues, Governance Capacity, Business and Technical, Technical Infrastructure, and Financial Sustainability.

Legal and Policy HIE Capacity:

The State of Maine has made great strides in developing policies and procedures to support HIE. HealthInfoNet (HIN), working in collaboration with the State Attorney General and its own private/public Board, has assured that data use agreements, business associate agreements, and vendor contracts with its primary vendors have been executed in a manner that is appropriate, legal, and supports the vision of HIE in the State.

HIN has developed privacy and security policies consistent with federal guidance and specific to Maine State Law, to assure the privacy and security of all patient data being exchanged (Appendix D includes HIN's Administrative and Safeguard Policies and Procedures). HIN and the State have been long time participants of the Health Information Security and Privacy Collaborative (HISPC) and have used this participation to review and, where possible, harmonize Maine State Law and Regulations with the goals of HIE. In addition, as a result of the HITECH act and the formation of the legal working group within the OSC, HIN and OSC have been closely collaborating to assure alignment of all HIE polices to the Nationwide Privacy and Security Framework for the Electronic Exchange of Individually Identifiable Health Information⁶ as well as federal

⁶ Nationwide Privacy and Security Framework:
http://healthit.hhs.gov/portal/server.pt?open=512&objID=1173&parentname=CommunityPage&parentid=34&mode=2&in_hi_userid=10732&cached=true

summaries of laws and regulations pertaining to confidentiality, privacy and security⁷. Moreover the changes in the Health Insurance Portability and Accountability Act (HIPAA) have required a revision in policies such as breach notification. The HIN breach Notification Policy in Appendix D represents that change.

A consumer consent process for participation in the statewide HIE enables consumers to opt out of the exchange. When a consumer opts out, clinical content on the individual is deleted from the clinical data repository and a flag is set in the system blocking the addition of new clinical data for that individual.

Finally, as noted above, the OSC and HIN are engaging New Hampshire and the other New England States in interstate HIE planning efforts. Maine has been working closely with New Hampshire to begin addressing differing state laws that may impede appropriate HIE in medical trading areas that cross state borders. Leveraging such work as the “Policy Strategies for Advancing Interstate Health Information Exchange A Report to the State Alliance for e-Health”⁸ released by the National Governors Association in October 2009 as well as the support of the New England States Consortium of Systems Organizations (NESCO), shared project proposals are currently under development across the New England region in collaboration with New York.

As a result of these efforts, agreements and policies are in place in Maine, allowing 16 hospitals, a large group practice, MaineCare and the MCDC to actively exchange patient information today. To achieve statewide HIE scale, the state and HIN must continue to partner in assuring the alignment of state privacy laws and regulations that may impede the electronic sharing of PHI especially for those who need it most. HIN has developed a comprehensive business associate agreement (BAA) for all participants in the statewide HIE. The current HIN BAA is provided in Appendix E.

As discussed above, in the fall of 2009, a Legal Working Group (LWG) was created by the HIT Steering Committee to address the Legal and Policy Domain requirements in the State HIT Plan as required by the ONC. Specifically, the group was charged with addressing: privacy and security issues related to health information exchange within the state, and between states; any plans to analyze and/or modify state laws, as well as communications and negotiations with other states to enable exchange; addressing the development of policies and procedures necessary to enable and foster information exchange within the state and interstate; the use of existing or the development of new trust agreements among parties to the information exchange that enable the secure flow of information; and how the state will address issues of noncompliance with federal and state laws and policies applicable to HIE. The LWG included representatives of NAMI, HIV providers and advocates, the Maine Hospital Association, the Maine Medical

⁷ Summary of Selected Federal Laws and Regulations Addressing Confidentiality, Privacy and Security: http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11113_911059_0_0_18/Federal%20Privacy%20Laws%20Table%20%2026%2010%20Final.pdf

⁸ Policy Strategies for Advancing Interstate Health Information Exchange. A Report to the State Alliance for e-Health. October 2009: <http://www.nga.org/Files/pdf/0910EHEALTHHIEREPOR.PDF>

Association, Maine Family Planning, the Attorney General's Office, HealthInfoNet, the Maine Civil Liberties Union, and private health attorneys, among others.

The LWG met on many occasions over the course of three months, beginning with a review of the work that the Consumer Advisory Committee to HealthInfoNet has completed to date. Like many states, Maine has state laws that provide heightened privacy protection for certain types of health information, specifically for HIV/AIDS and mental health information. The LWG thus undertook a review of laws relevant to the group's charge, including provisions of ARRA/HITECH (including the HIPAA amendments), Maine's General Privacy Law, Maine's HIV Privacy Law, and Maine's Mental Health Privacy Law.

There was not unanimous agreement on the LWG's recommendations, and the group agreed that the review and analysis of existing state law is an on-going process. The group did however begin to coalesce around areas that should be enumerated in this Plan to support the use of HIE, either as possible amendments to Maine's privacy laws or as recommended changes in HealthInfoNet's practices. The following recommendations were highlighted, although many other issues have arisen throughout the process that deserves further consideration. The LWG recommends that the Office of the State Coordinator continue working on these issues together with the HIT Steering Committee, and present legislation in the first month of the 125th Legislature in 2011. Some the areas of general but not unanimous agreement include:

- Allow the disclosure of mental health information to other health care practitioners and facilities for the purposes of facilitating medical treatment and continuity of care without a patient's written authorization. A patient's health information would continue to be protected by the provisions of HIPAA and Maine law;
- Allow the disclosure of mental health information to other health care practitioners and facilities for the purposes of medical treatment and continuity of care, provided there is meaningful opportunity to opt-out of participating in a health information exchange and prohibit a health information exchange from disclosing the individual's health care information to a health care practitioner or health care facility;
- Allow the disclosure HIV tests and infection status to other health care practitioners and facilities for the purposes of facilitating medical treatment and continuity of care without a patient's written authorization. A patient's health information would continue to be protected by the provisions of HIPAA and Maine law;
- Allow the disclosure of HIV tests and infection status to other health care practitioners and facilities for the purposes of medical treatment and continuity of care, provided there is meaningful opportunity to opt-out of participating in a health information exchange and prohibit a health information exchange from

disclosing the individual's health care information to a health care practitioner or health care facility;

- Create a new statute or subsection specifically related to health information exchange (out of the existing 22 MRSA § 1711-C (6)(B)) that would address the right to opt-out, more robust than the current language, and modify the existing subsection to broaden the applicability to include other forms of electronic sharing of information;
- Increase the penalties for breach of Maine's privacy laws to match the heightened penalties in HIPAA as amended by ARRA/HITECH;
- Require the Office of the State Coordinator for HIT to convene a working group to examine and make recommendations regarding the education processes for providers and patients to create a more robust opt-out process for participation in a health information exchange, and report by January 1, 2011, to the Joint Standing Committee on Health and Human Services the findings and recommendations of the working group under section 1, including any necessary implementing legislation;
- Include best practices for opt-out HIE; HIN together with the Office of the State Coordinator for HIT and the Consumer Advisory Committee shall develop a strategy for follow-up consumer education and opportunity to opt-out. In addition OSC will inform consumers about privacy, security, and audit measures currently in place and the risk mitigation strategy that will be implemented;
- HIN through the Regional Extension Center will develop a more comprehensive provider education strategy;
- Granular opt-out of information should be included as a topic in the State HIT Plan as an issue for future deliberations. Continuity of care and future usefulness of the exchange would be compromised with open-ended granular opt-out of information, though certain categories of information would be appropriate for opt-out. The issue should be studied more as technology advances in this area;
- Prohibit discrimination against patients who do not participate in a health information exchange; and
- In any civil action for professional negligence or in any arbitration proceeding related to such civil action, any proof of a health care provider or patient participation or non-participation in a health information exchange is inadmissible as evidence of liability arising out of or in connection with the provision of or failure to provide health care services.

The LWG also recommends that this work continues through the new committee structure constituted under the HIT Steering Committee (HITSC).

Governance Capacity:

Since 2004 the State of Maine has convened public and private stakeholders to determine the appropriate operational governance model for HIE. HIN was founded to serve as the private/public governance organization for the technical and operational infrastructure for HIE in Maine. The current HIN Board includes five State Government representatives, seven healthcare providers, the Executive Director of the National Alliance on Mental Illness, a State Senator, a former State Senator, two business representatives, the COO of a private research laboratory, and a public health consultant. This group provides governance for the development of the technical and operational infrastructure for HIN, and will continue to oversee statewide HIE technical operations efforts, data aggregation, meaningful use reporting, quality reporting, and decision support functionality.

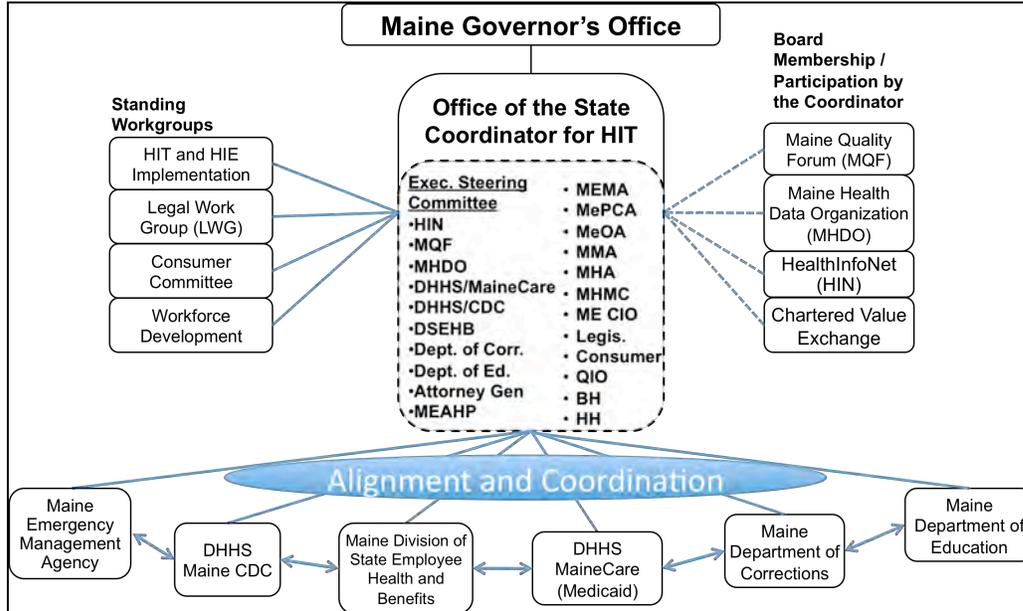
Through stakeholder meetings, and with input from the Health Information Technology Steering Committee, it was agreed that the State would create a public sector ‘public/private’ oversight structure to oversee:

1. Statewide HIT & HIE planning;
2. Alignment efforts with the State Health Plan (updated biannually, next due in 2010);
3. ARRA planning and implementation and;
4. State government agency coordination (across MaineCare, MCDC, the Departments of Education and Corrections, the Division of State Employee Health Benefits, the Maine Emergency Management Association and other appropriate agencies).

This structure, the Maine Office of the State Coordinator for HIT (OSC) will reside⁹ in the Governors’ Office of Health Policy and Finance (GOHPF), which reports directly to the Governor in the short term - with the potential for a legislatively created office that has permanence beyond the current Governor, to be reviewed and proposed in the next legislative session.

⁹ The OSC was officially formed by Executive Order on April 6, 2010. HIN was designated as the statewide HIE organization in this order as well. For the full text of the Executive Order, see Appendix B.

Figure 6: Office of the State Coordinator for HIT



Within the OSC Director position has been created, with additional support staff to allow the Director to meet the goals of the office. To assure the appropriate collaboration between the OSC, HIN, the MQF, and the administrative (claims) data collection/distribution organization, the Maine Health Data Organization (MHDO), the Coordinator will participate on the Board of each of these organizations. In addition, HIT Steering Committee (HITSC) has been broadened to offer representation from additional stakeholders. The reconstituted HITSC was officially named on June 1, 2010 (See Appendix F for the Appointment Letter). The designees include the following individuals:

- The Commissioner of Labor, or designee
 - Melanie Arsenault, Director, Bureau of Employment Services, Maine DOL
- The Director of the Office of Information Technology, or designee
 - Jim Lopatosky, Associate CIO-Applications
- The Director of the Dirigo Health Agency/Maine Quality Forum, or designee
 - Karynlee Harrington, Executive Director, DHA
- The Director of DHHS/CDC or designee
 - Steven Sears, MD, State Epidemiologist, Maine CDC
- The Director of DHHS/MaineCare Services, or designee
 - Tony Marple, Director, Office of MaineCare Services
- The Director of the Maine Health Data Organization, or designee
 - Alan Prysunka, Executive Director, MHDO
- The Director of the Office of the State Coordinator for Health Information Technology
 - James Leonard, Director, OSC
- The Executive Director or designee of the State's designated health information exchange organization

- Devore Culver, Chief Executive Officer, HealthInfoNet
- One individual with expertise in health information exchange and/or health information technology
 - Barry Blumenfeld, MD, Chief Information Officer, MaineHealth
- Two individuals representing health care providers
 - Paul Klainer, MD, Internist and Medical Director, Knox County Health Clinic
 - Sandy Putnam, RN, MSN, FNP, Nursing Coordinator, Virology Treatment Center, Maine Medical Center
- One individual representing home health providers
 - Julie Shackley, President/CEO, Androscoggin Home Care & Hospice
- One individual representing hospital systems
 - David Winslow, Vice President, Finance, Maine Hospital Association
- One individual representing federally qualified health care centers
 - Kevin Lewis, Chief Executive Director, Maine Primary Care Association
- One individual with expertise in health care quality
 - Lisa Letourneau, MD, MPH, Executive Director, *Quality Counts*
- One individual representing behavioral health providers
 - John Edwards, Ph.D, Psychologist and IT Projects Manager, Aroostook Mental Health Center
- One representative of consumers
 - Nancy Kelleher, State Director, AARP
- One individual with expertise in the insurance industry
 - Katherine Pelletreau, Executive Director, Maine Association of Health Plans
- One individual representing a business or businesses
 - David Tassoni, Senior Vice President of Operations, Athenahealth, Inc.
- One individual with expertise in health care data information
 - Catherine Bruno, FACHE, Vice President and Chief Information Officer, Eastern Maine Healthcare Systems
- A representative of the university system
 - Tom Hopkins, University of Maine System
- A representative of the community college system
 - Dr. Barbara Woodlee, President, Kennebec Valley Community College

Additional Seats in Amended Executive Order:

- An individual representing the State's racial and ethnic minority communities
 - Perry Ciszewski
- An individual with expertise in health law or health policy
 - Philip Saucier, Esq.

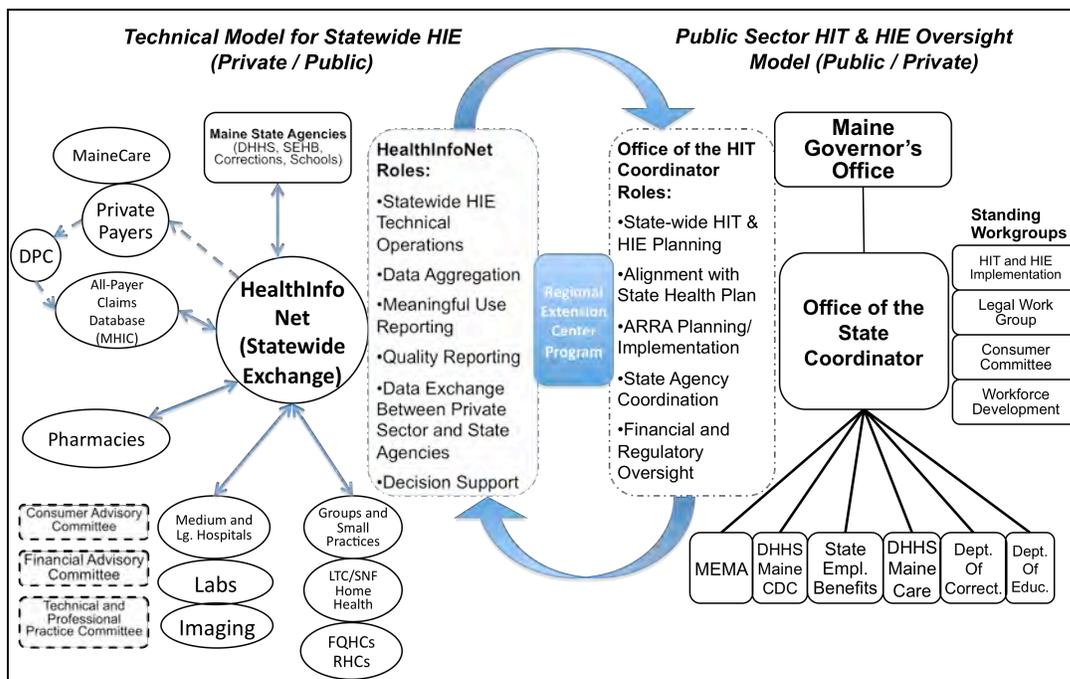
To support the activities of the OSC and HIN and to assure that each organization is effective in addressing the many issues related to an aligned HIE system across all stakeholders in Maine, OSC and HIN have agreed that four standing workgroups would be convened to support the OSC. In some cases these workgroups include representation from the existing three HIN standing committees – Finance, Consumer Advisory, and Technical and Professional Practice Advisory (TPPAC). In other cases these committees

will be established de-novo. The four OSC standing workgroups currently constituted include:

1. HIE and HIT Adoption, Implementation and Evaluation
2. Legal Work Group
3. The Consumer Committee (note this will be the same consumer committee already convened by HIN with a broader scope of activities to include the work of the OSC)
4. Workforce Development

These committees support the OSC in the development of appropriate policies, procedures, guidance, and planning for the office.

Figure 7: Maine’s Vision for HIE Governance and Oversight



Business and Technical Operations Capacity:

To develop and operate the technical services required for implementing the HIE Demonstration Phase, HIN retained, through a competitive process, 3M and Orion Health as technology vendors, and established a high level technical staff to manage - in collaboration with the vendor partners - the day to day operation of the exchange. Working closely with participating providers during the Demonstration Phase, HIN convened a Steering Committee with representation from each site to address the progress of the implementation, challenges and barriers, and potential solutions. This collaborative process created a strong sense of ownership and commitment in HIE participants.

As the Demonstration Phase transitions to an Operations Phase, staff has identified lessons learned, and has renegotiated vendor contracts to improve performance and enhance functionality to better meet the needs of users, the requirements of ONC, the standards promulgated by the NHIN and to work towards meeting the meaningful use criteria. These vendor negotiations resulted in HIN's commitment to serve as the prime contractor and to oversee contracts with Orion Health for the portal and front end view, the interface engine and for the clinical data repository (CDR), Initiate/IBM for the master patient and master provider index, Health Language Inc. (HLI) for updating, mapping, distribution, and access to standard medical vocabularies and administrative codes, and WinexNet for hosting the systems. The transition in vendor relationships is occurring between June and December 2010. The risks and mitigation strategies for this transition are discussed in the operational plan below.

HIN staff provides technical assistance to the participating sites, managing the statewide physician directory, monitoring audit trails, and providing help desk services. Staff also manages change orders, operational issues, and interoperability barriers. Mapping data to standard terminology as it flows to the exchange has been a priority of HIN, and a strong foundation for interoperability. This approach to mapping using nationally recognized standards including those presented by ONC in the interim final rule 45 CFR Part 170, guarantees the value of the data, thereby meeting the meaningful use criteria for exchange. HIN has also developed and implemented the specifications for exchange of laboratory test results with MCDC to support automated reporting of results to address mandated disease reporting, and works closely with MaineCare to provide access to prescription data for Medicaid recipients. Planning is now underway to support the exchange of select clinical data (CCD) between HIN and MaineCare's Medicaid Management Information System (MMIS) as well as building out HIN's connection with MCDC.

Technical Infrastructure Capacity:

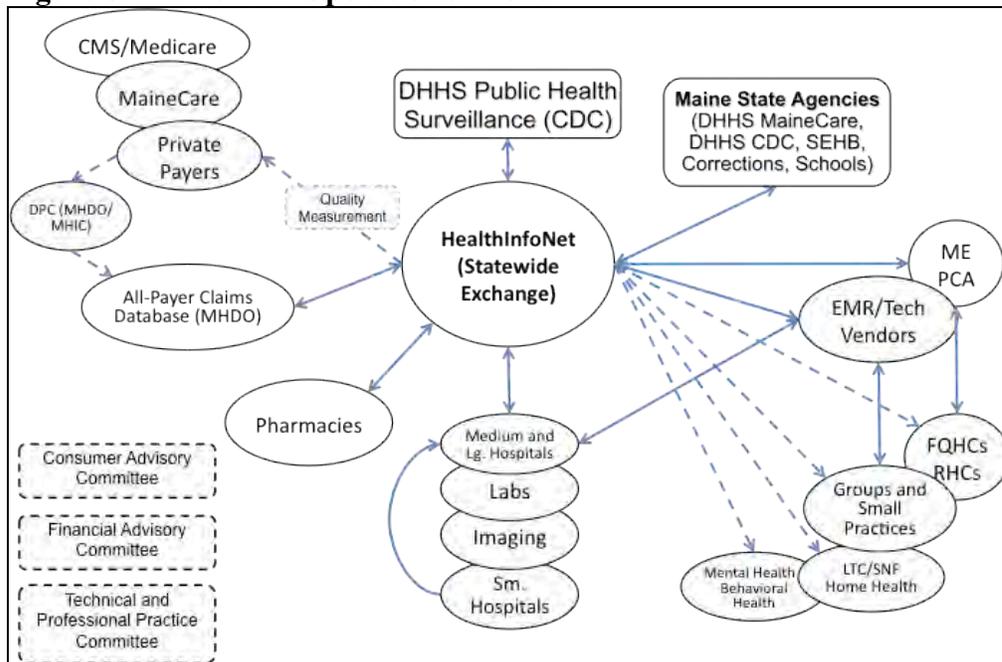
Technical specifications and design requirements for Maine's statewide HIE demonstration pilot were developed in 2005. These specifications outlined a plan for a Demonstration Phase and subsequent statewide Implementation of an HIE, and established objectives for interoperability that included:

1. Adoption of the Continuity of Care Record (CCR) data set as the foundation for HIE content;
2. Semantic data mapping to achieve data standardization for critical categories of clinical content (lab, prescription medication, diagnostic studies);
3. The creation of key statewide registries including a master patient index, a master provider index, and a patient centered clinical data summary;
4. Connection to the state public health information structure to support automated reporting of clinical data for public health surveillance and population management; and,
5. Definition of consumer principles for privacy and security management practices.

While the technical design for the Demonstration Phase did not include document/content transfer between provider EMRs, the new contracts with the technical vendors for the statewide health information exchange rollout does include requirements that the vendor demonstrate and maintain the technical capabilities to support the evolving national CCD (C-32), CDA and XML bi-directional exchange standards. These standards will be deployed during the statewide exchange implementation between June and December 2010. HIN has delivered the Public Health Information Messaging System (PHINMS) transport standard required by MCDC to communicate automated laboratory test results to the public health information infrastructure.

HIN has taken an active role in supporting the development of national certification standards for HIE through its participation in the CCHIT Health Information Exchange Work Group. In addition as national certification programs and accreditation programs such as the Electronic Healthcare Network Accreditation Commission (EHNAC) are adopted nationally, HIN has committed to assuring compliance. HIN is also in negotiations with the Department of Veterans Affairs to prepare for participation Nationwide Health Information Network (NHIN) Connect Project. Finally, HIN is monitoring and participating in the NHIN Direct project. This project comes at an opportune time as HIN has been working with the Beacon Community (Eastern Maine Healthcare) to prepare for the community-wide implementation of a secure messaging platform. As

Figure 8: Maine HIE Operational Model



Finance Capacity:

Building off the 2008 stakeholder group findings and recommendations for the financing of HIT and HIE in the state discussed above, the OSC and HIN are working collaboratively and iteratively develop a business and sustainability plan. These strategic

include leveraging the 1/3, 1/3, 1/3 model of provider, payer, and public participation. Currently providers are assessed a subscription fee for participation in the exchange that is developed based on the provider size and volume of transactions. A pricing schedule has been proposed to new participants participating in the exchange. HIN and the OSC are currently reviewing and developing strategies (legislative and other) for leveraging the current statewide claims assessment for the Dirigo Health Program to cover the payer 1/3 as well as public sector inputs. Finally HIN has been working closely with many organizations to review the value of additional services related to HIE that may support the core HIE operation including secondary use of data, shared EHR services, medication therapy management, administrative data exchange and others. The goal of the OSC and HIN is to have a HIE sustainability plan in place by December 2010 that addresses both public and private sector inputs into HIE and is respective of the public/private governance model discussed above.

Conclusions

This HIE strategic plan lays out the development and deployment of HIE services across the state of Maine, its contiguous borders, and to the NHIN. Due to the recent enactment of the ARRA and the significant investments being made in both HIT adoption and HIE services, the State of Maine has responded by bringing together all interested parties and forming the appropriate public/private and private/public governance bodies to oversee both the HIE planning and implementation activities. There are many gaps in both the current state and the planning decisions that are currently being addressed by the HIT Steering Committee, HIN and other state partners. As Maine moves forward in advancing statewide HIE operations this plan will be further refined. In addition, feedback from the ONC is being solicited through the State HIE cooperative agreement approval process to assure that the State is meeting the needs and requirements of the federal government to assure that all providers in the State as well as other stakeholders can achieve HIE and, where available, receive federal resources to do so.

MAINE'S HEALTH INFORMATION EXCHANGE OPERATIONAL PLAN

To outline the detailed set of tasks to be undertaken to achieve statewide health information exchange (HIE) capacity, the Office of the State Coordinator for HIE (OSC) and HealthInfoNet (HIN) partnered together to develop a comprehensive operational plan to accompany the Statewide HIE Strategic Plan. This final Operational Plan includes the governance and policy solutions necessary to advance HIE statewide throughout Maine, meets the requirements of the Office of the National Coordinator for HIT (ONC) in the State HIE Cooperative Agreement, and serves technological foundation for engaging all potential HIE users in advancing HIE for the purposes of quality improvement and cost containment. It is intended that this plan will provide the basis for a working relationship with all Maine healthcare stakeholders in alignment with the State Health Plan.

This operational plan reflects the significant amount of progress that has taken place in Maine to date. Maine has made great strides in all of the ONC domains identified in the HIE Cooperative Agreement Funding Opportunity Announcement (FOA). The Operational Plan describes and builds on the strong core capacity and HIE systems managed by HIN, the designated statewide health information organization. The Operational Plan also addresses the potential of interstate HIE, Nationwide Health Information Network (NHIN) participation, a strategy for working with the Regional Extension Center (REC) and Beacon Community and an approach to guarantee that the meaningful use criteria are met by all eligible Maine providers.

This Operational Plan serves as the road map for the implementation of the Maine HIE Strategic Plan. The Plan identifies the tasks required to meet the goals and objectives identified in the State Strategic Plan. This Operational Plan addresses both planning and implementation periods incrementally and is organized by the five ONC domains: governance, finance, technical infrastructure, business and technical operations, and legal/policy. Making progress incrementally supports the work that has been done to date, ensures strong collaborative public/private relationships between HIN and the OSC, establishes trust with the stakeholder community, and work towards the statewide implementation. The incremental approach allows Maine to work closely with ONC and available technical assistance, to guarantee Maine's compatibility with the federal approach to building statewide HIE capacity and connectivity with the NHIN. Last, this Plan coordinates with the implementation plan for the REC scope of work and its operational plan for guaranteeing that Maine providers will meet the meaningful use criteria.

Coordination Activities

Coordination with ARRA Programs

Maine is well positioned to optimize the coordination of relevant ARRA programs that will both support and compliment this operational plan for the statewide health information exchange (HIE). HealthInfoNet (HIN) is the not-for-profit grant recipient for the Maine Regional Extension Center (MEREC) that serves Maine and its provider communities in the adoption and optimization of electronic medical record systems that will support attaining demonstrated meaningful use performance.

Additionally, organizations already collaborating on the development of the statewide HIE organization have secured significant Federal Communication Commission (FCC) grant funding for the development of broadband access in rural areas of the State. This FCC broadband effort will now be conjoined with planning for ARRA broadband mapping and access to be managed in conjunction with the Maine State sponsored Connect ME initiative, the University of Maine, the New England Telehealth Consortium (NETC) and the State's CIO office. The State of Maine is committed to the development of joint broadband infrastructure investments to extent affordable and reliable access to the exchange to all Maine communities regardless of their current ability to access high speed connectivity.

There is also close communication and connection with both community college and university systems to coordinate efforts on workforce development. Maine's community college system is a sub-recipient to Tidewater Community Collage on the ONC community based training to develop and support educational programs in health information technology. The OSC is also participating in the planning group of the state university system and the University of Maine Farmington on their bachelors of science program in health informatics. The intent is to have a program developed and operational for incoming freshman in 2012 and to have course offerings in 2010 after a market analysis is completed in the summer of 2010.

The OSC, MaineCare, and the Maine Center for Disease Control (MCDC) are coordinating efforts on a newly awarded Children's Health Insurance Plan Reauthorization Act (CHIPRA) grant in conjunction with Vermont. This grant will provide an opportunity to automate the Bright Futures Early and Periodic Screening Diagnosis and Treatment (EPSDT) data that is currently manually collected on children and adolescents birth through 18. HealthInfoNet is collaborating (within a subcontract from MaineCare) with this group to both automate the Bright Futures forms but also include automated reporting capacity within the HIN exchange reporting tools set to be deployed in 2011. Reporting at the population levels will be of benefit to both the MaineCare and Maternal and Child Health Division of the MCDC.

The OSC is working closely with the Maine Primary Care Association (MPCA) whose membership includes all 19 Federally Qualified Health Centers in the state. Three of the health centers are recipients of ARRA funding to expand their programs with the use of health information technologies. MPCA is providing technological support and

coordination to its member organizations and is extending those services to non-affiliated providers. MPCA has committed to provide technical assistance and practice improvement services through the REC. The MPCA is an active member of the OSC Steering Committee. In addition the MPCA, the Penobscot Community Health Center and HIN are collaborating through the Bangor Region's Beacon Community Cooperative Agreement to develop a bi-directional interface between HIN and a data repository created by MPCA for Centricity, Next Gen and future FQHC sites for federal reporting, immunization exchange and CCD exchange with HIN.

Three communities in Maine have applied to ONC for Beacon Community Program funding. Each of those communities has consulted with the OSC and HIN to plan future coordination and involvement. HIN will be an operational entity of HIE for each community and the OSC will be involved as a direct member of governance.

Coordination with the Maine Regional Extension Center (MEREC)

Over the next 2 years HIN will manage a process of group purchasing, service contracting and support services targeted at implementing and optimizing the use of EMRs in Maine. The objectives will be to drive down the cost of investment in EMR technology, help providers successfully implement EMRs and to optimize the use of EMR technology by providers in conjunction with "meaningful use" criteria that have been defined by the Center for Medicare and Medicaid Services (CMS) and ONC. HealthInfoNet will work as the REC to deliver interoperability between individual EMR implementations and the exchange of treatment information between 1,000 providers across the state to better coordinate care, improve patient safety, improve quality outcomes and manage reductions in duplicate testing and other areas of cost. In addition, the MEREC applied for the REC extension supplement to provide these supports to 22 Critical Access and Rural Hospitals in Maine and 13 Critical Access and Rural Hospitals in New Hampshire.

The MEREC structure builds upon existing partnerships and areas of expertise within Maine's diverse healthcare system to both implement EMRs and use them effectively. HIN in coordination with OSC will leverage HIE and HIE governance structures currently in place to assure that the core activities meet the needs of Maine's priority primary care providers and other providers of health care services statewide, while assuring that the strategy to promote statewide HIE is achieved. All MEREC services will be delivered in a manner that highlights the MEREC core goal – to promote "meaningful improvement" of healthcare delivery by Maine providers through the meaningful use of HIT.

To assure this meaningful improvement, MEREC has partnered with Quality Counts, Maine's independent, multi-stakeholder alliance working to transform health and healthcare. Quality Counts is providing contracted quality improvement consulting services to ensure that the MEREC remains focused on meaningful improvements in healthcare quality in both its core and direct service activities. The following services

represent the core MEREC responsibilities that will be overseen by HIN and the partners discussed above:

- **Provider Outreach and Enrollment:** Surveys were conducted in August of 2009 to assess primary care provider EHR adoption and staging throughout the state. MEREC is working with the MaineCare program that is now conducting a more comprehensive survey of EHR adoption and staging throughout the state through its “As-Is” assessment. MEREC is using this information to support provider enrollment and EMR stage assessment activities. These efforts are being coordinated via the REC Steering Committee, comprised of Maine public (including Medicaid) and private stakeholders. The Steering Committee is establishing enrollment milestones and providing objective review of direct service contracts with vendors.
- **Provider Education Activities:** Enrollment activities are tied to educational offerings for the primary care provider community on topics such as appropriate privacy and security practices, maximizing federal incentives for EMR adoption, meaningful use, healthcare quality improvement using EMR, statewide HIE requirements, public health improvement opportunities related to HIE, etc. These supports are scheduled to be provided as materials, issue-briefs, and informational supports on the HIN/MEREC website. Bi annual educational meetings are being scheduled in four regions of the state to assure that priority providers have access to materials (developed by the MEREC and the Health Information Technology Resource Center supported by ONC) and experts to assist them as they implement EMRs that meet meaningful use criteria.
- **HIT Workforce Integration:** To assure REC activities integration with local workforce programs, the Executive Director of HIN is serving on the Statewide HIT Steering Committee and working in coordination with the OSC and the Maine Community College System to assure that the MEREC participants are aware of the Community College (CC) programs at Kennebec Valley CC and Southern Maine CC. In addition, participants in the CC programs as well as those enrolling in the University of Maine Farmington bachelors degree program in health informatics will be provided materials and contact information for the MEREC. The OSC, HIN and the colleges will be working through the OSC Workforce Work Group to assure alignment of these activities and that placement opportunities are identified.
- **Functional Interoperability and HIE:** MEREC activities are closely aligned with the statewide HIE efforts overseen by HIN. The HIN Technical and Professional Practice Advisory Committee (TPPAC) will assure close alignment of MEREC EHR implementation support activities and the statewide HIE efforts as well as the meaningful use criteria currently described in 45 CFR Part 170. All MEREC participants will be required to interface with HIN.
- **Privacy and Security:** HIN, in partnership with the OSC, has formalized a Consumer Committee and Legal Work Group at the state level to advise on privacy and security issues. These workgroups along with MEREC staff will advise and make recommendations on privacy and security procedures for primary care physicians. Through the contracting process with direct service vendors, the MEREC will hold all

vendors to the standards adopted regarding data security, as well as provider and consumer consent and privacy requirements.

- **Quality Measurement and Improvement Supports:** MEREC has contracted with Quality Counts to provide quality improvement (QI) expertise, guidance, and support to its efforts. Quality Counts is responsible for ensuring that a framework of continuous QI guides the overall efforts of the MEREC and its direct services vendors and for supporting QI efforts of participating primary care providers to ensure achievement of meaningful use. Quality Counts is working in close partnership with direct service providers to promote a consistent approach to embedding QI principles and metrics into EHR implementations. Using a data-driven approach, the MEREC and QC are requiring all enrolled providers to the MEREC to report on adult clinical quality metrics that are used by 26 sites across the States of New Hampshire and Maine in the Patient Centered Medical Home Pilot (PCMH). Figure 1 includes the measures in use currently by the PCMH pilot. Over the month of August 2010, the PCMH team, Quality Counts and HIN will be meeting to streamline the metrics around the Meaningful Use final rule measures adopted and to agree on those measures required by the MEREC.
- **Vendor Selection and Group Purchasing:** MEREC is developing an RFP (to be released in July 2010) to negotiate terms and pricing for enrolled primary care providers and other providers seeking REC services. A portfolio of contracts will be developed with EHR vendors and implementation optimization organizations that respond to requirements for service capability (certified EHR, meaningful use, reporting and HIE). A transparent process of review of the RFP is being developed by the MEREC using the steering committee discussed above to serve as the reviewers of the RFP responses.

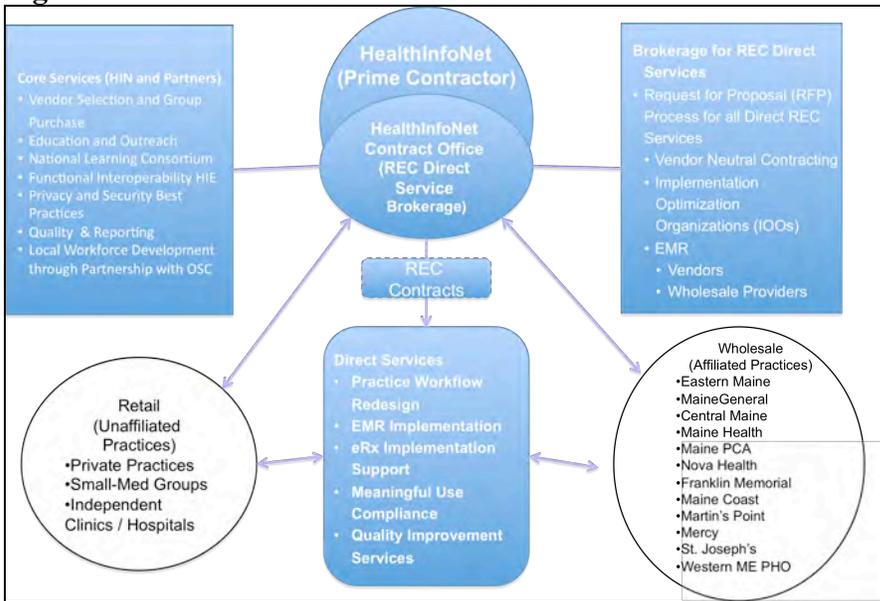
Figure 1: Clinical Quality Metrics used in the ME and NH PCMH Pilot in Maine

PCMH Pilot Clinical Quality Measures	<i>ARRA Meaningful Use</i>	<i>NCQA BTE/PTE</i>	<i>CMS PQRI</i>	<i>MaineC are PIP (Via claims)</i>	<i>Anthem Quality Insights</i>	<i>CMS Group Practice Demo</i>
Diabetes						
1. HbA1c testing (prev 12 mos)		√		√	√	√
2. HbA1c<7%		√			√	√
3. HbA1c<8%	√	√				
4. HbA1c>9%	√	√	√		√	√
5. BP recorded (prev 12 mos)		√				√
6. BP≥140/90		√				√
7. BP<130/80		√				√
8. BP<140/80	√		√			
9. LDL testing (prev 12 mos)		√		√		√
10. LDL <100	√	√	√		√	√
11. LDL ≥130		√			√	√
12. Nephropathy screening (urine protein test prev 12 mos)	√	√	√			√
13. Retinal eye exam (prev 24 mos)	√	√	√	√	√	√
14. Comprehensive foot exam	√	√	√			√

(prev 12 mos)						
15. Smoking status assessed & offered cessation advice or treatment		√				√
CVD						
16. BP recorded (prev 12 mos)		√				√
17. BP<140/90	√	√	√		√	√
18. Complete lipid profile testing (prev 12 mos)	√	√	√		√	√
19. LDL <100	√	√	√		√	
20. Aspirin or other antithrombotic tx	√	√	√			√
21. Smoking status assessed & offered cessation advice or treatment		√				√
Preventive Care						
22. BP recorded (prev 24 mos)	√					√
23. BP<140/90	√					√
24. Influenza immunization (≥50yo, prev 12mo)	√		√			
25. Pneumococcal immunization (≥65yo, ever)	√		√			
26. Breast cancer screening (women 50-69yo, prev 24 mos)	√		√ 40-69y	√		√
27. Cervical cancer screening (women 21-64yo, prev 36 mos)	√		√ 18-64y	√		√
28. Colon cancer screening (50-75yo, q10yrs, or as indicated by previous screening)	√		√			
Behavioral Health						
29. Depression screening for pts with diabetes or CVD (prev 12 mos)					√	

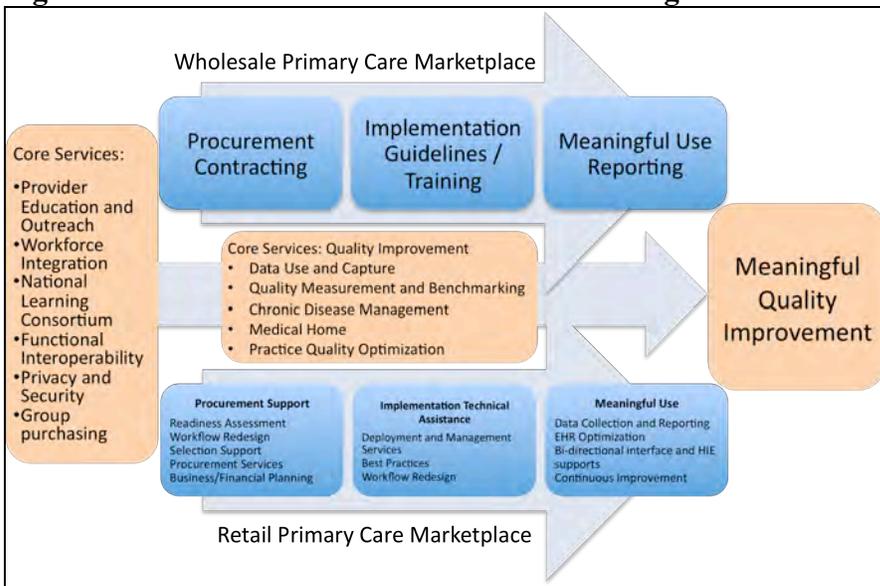
The MEREC direct service model builds off the efforts of large healthcare systems and integrated delivery networks to support EHR implementation within affiliated practices. In planning for the MEREC there was consensus among all stakeholders that due to the large proportion of owned and affiliated primary care practices in the state (approximately 70% of priority primary care providers), the REC model must offer an opportunity for these “wholesale” health care systems to leverage existing EHR implementation efforts and economies of scale. Supports are therefore being provided to these “wholesalers” in the areas of identified need. Offerings include: vendor negotiation, EHR stabilization, meaningful use updates, and QI efforts. Some wholesalers are in a position to provide (or are already providing these) services directly to affiliated practices. In these cases, the MEREC will provide payment to the “wholesale” providers as the meet the REC milestones. Others may need direct supports from the vendors chosen from the RFP review.

Figure 2: The MEREC Services Structure



Stakeholders also agreed that there must be a means to offer technical assistance to unaffiliated providers – the “retail marketplace” - through a transparent model. The RFPs for these services to be provided by EMR vendors and implementation optimization organization organizations is currently being developed to assure TA activities are in close alignment to the meaningful use criteria, as well as the requirements for HIN interfacing and the need for aligned quality metrics with the PCMH Program in Maine and New Hampshire. This model was viewed as acceptable by all HIT and HIE stakeholders for REC direct services.

Figure 3: The MEREC Technical Assistance Program



Coordination with the Beacon Community

Eastern Maine Healthcare System (EMHS) was awarded a Beacon Community Cooperative Agreement in April 2010 to support the Bangor Region of Maine. The objectives of the EMHS Beacon Community Cooperative Agreement are:

- To improve the management of chronic conditions through information exchange, telemedicine, medical home model, and patient self management;
- Collaborate with public health and medical providers, to improve population health, with a focus on immunization compliance through information exchange and patient self management; and,
- To improve cost effectiveness of the provision of care through technology investment and use, resulting in reduced duplicative procedures and decreased unnecessary emergency room visits and admissions.

EMHS has been an HIT leader since 1992, when investments in Genesis resulted in development of Electronic Medical Records as an innovative solution. In 2002 the “Together” project led the industry in connecting multiple hospitals to common clinical, billing, PACS and business systems. In 2009 EMHS became a beta site for the HIN 24 month demonstration phase. EMHS also serves on the HIN Board of Directors. A brief description of the activities currently being undertaken by the Beacon Community for each of the three objectives is described below in regard to their relationship to HIE efforts by HIN and the OSC.

Improve Management of Chronic Conditions through HIE

Currently, providers at Eastern Maine Medical Center (EMMC) are accessing the HIN HIE to support patient care. The intention of this project is to expand the access to HIN to other members of the Bangor Beacon Community. The Bangor Beacon Community includes:

Inpatient sites:

1. Eastern Maine Medical Center (EMMC),
2. Saint Joseph Hospital; and
3. Acadia Hospital;

Outpatient sites:

1. EMMC PCP practices;
2. Penobscot Community Health Center (PCHC) PCP practices;
3. Saint Joseph Hospital PCP practices;
4. Home healthcare agencies (Eastern Maine Home Care, Saint Joseph homecare, Community Health Counseling Services; and
5. Northeast Cardiology Associates;

The purpose of this Beacon Community objective is to increase the number of providers with access to the HIE, describe the HIE infrastructure; describe characteristics of the implementation and technical requirements, and to document the barriers in creating the infrastructure and the barriers or limitations of the providers/staff adoption. This

objective also purposes to demonstrate the HIE adoption in association to the Criteria for Meaningful Use.

Activities include:

- Obtain and set up appropriate hardware and software;
- Put in place updated information exchange and business associate agreements;
- Map CCD data tables to HIN model;
- Test and troubleshoot HIE;
- Document any barriers or limitations encountered in creating the information exchange infrastructure as well as methods employed to accommodate those barriers or limitations; and
- Reporting: Reports of users, including new users will be developed by HIN. A survey to providers/users describing the adoption will be deployed at year 1, year 2, and year 3.

Risks to the deployment of HIE across the Beacon Community include that have been brought forward to date include:

1. Unforeseen complexities extracting data;
2. The model that will be used to accommodate ambulatory data may not be fully developed or may need to be modified to fit existing data models;
3. HIN vendor change implementation;
4. Capacity of healthcare sites participating to export the data needed to support both the statewide exchange as well as the metrics required of the evaluation;
5. The current state law that does not allow the sharing of mental health, behavioral health, and HIV information across providers except for in the case of an emergency;
6. Low response rate on providers/staff adoption survey; and
7. Disparate systems and standards between inpatient, outpatient, and home care.

To mitigate some of these risks, HIN will work closely with EMMC and Beacon Community participants to develop interface capacity and bi-directional exchange capability (including simple export functionality) to support the Beacon goals and expand the HIN database when needed. Moreover HIN is working with the OSC and the Legal Working group to address current state law that impedes the exchange of high-risk health care information, including mental health records

Improve Population Health through Immunization Compliance and HIE

Providers across the Beacon Community reported that the lack of coordinated care among continuum sites that are not within the same health system promote duplicated efforts. For example, providers report not having adequate ties to patient immunizations administered by the State CDC and/or in hospital or other settings. Some patients do not receive their shots; others may get duplicate immunizations. For this goal EMHS has defined patients as those active adult patients older than 18 year of age from the EMMC, PCHC, and Saint Josephs Healthcare primary care physician practices who had at least one of the following diagnoses: Diabetes mellitus, Congestive Heart failure, Chronic Obstructive Pulmonary Disease, and Asthma.

HIN will support the exchange of immunization data through the statewide HIE by partnering and developing HL-7 interfacing with the Maine CDC (MCDC) on their Impact 2 immunization registry project, as well as hospitals, pharmacies, and other organizations that provide immunization services. Only through including all sources of immunization data can compliance with immunization protocols be guaranteed.

The Beacon Community and HIN have identified risks that include the ability (or lack of ability) of source systems to both export and import immunization data as well as the ability to capture immunization data from all possible providers in the community (i.e. pharmacies, retail clinics, schools etc). To address these risks, HIN will work closely with the Beacon Community Partners to develop interfaces that will allow for the appropriate reporting and import of immunization data for treatment purposes as well as the broader measurement outcomes of this objective. In addition the OSC and HIN are working with the pharmacy associations in the State to develop support for and a viable strategy to promote pharmacies to participate in the HIN HIE efforts. Such strategies are currently under development and include discussions with pharmacy benefits management organizations, pharmacies, and medication therapy management programs at regional medical universities. These discussions are occurring currently to assure that all Beacon Community and statewide eligible providers (EPs) and hospitals meet meaningful use criteria.

Improving Cost Effectiveness:

The Bangor Beacon Community will evaluate the effect of interoperable health information technology, including electronic health records (EHRs), health information exchange (HIE), secured messaging system and tele-homecare capabilities, to support improvements in health care quality, safety, efficiency, outcomes, and the initiatives leading to meaningful use definition. The Bangor Beacon Community will evaluate the integration of homecare services, and mental health care management into the Care Management model in several of the Bangor Beacon Community's primary care practices.

For the purpose of the program evaluation, Bangor Beacon Community patients (BBC patients) are defined as those active adult patients older than 18 year of age from the EMMC, PCHC, and SJH primary care physician practices who had at least one of the following diagnoses: Diabetes mellitus (DM), Congestive Heart failure (CHF), Chronic Obstructive Pulmonary Disease (COPD) and Asthma.

It is expected that the Bangor Beacon Community will improve communication and data flow across the continuum of care and will decrease acute hospitalizations and emergency visits by providing early interventions. This collaborative model is innovative and patient inclusive where the patient is part of the team and is encouraged to be involved in his or her own care. A number of metrics are currently under development to assure that the Beacon Community is meeting this goal.

To improve health care cost effectiveness and efficiency through technology investment and use, HIN will work with the entire Beacon Community to provide bi-directional CCD health information exchange capacity (including interfacing and parameter based launch capacity) as well as secure messaging capabilities that are in alignment with ONC sponsored NHIN Direct Project specifications (currently include: REST, SOAP/IHE, SMTP and XMPP)

Provider sites and estimated users include:

- Eastern Maine Medical Center (EMMC): 700 users;
- EMMC: Practices: 110 users;
- Penobscot Community Health Center (PCHC): 100 users;
- New England Cardiology Associates (NECA): 50 users;
- St. Josephs Hospital: 110 users,
- St. Josephs Healthcare Ambulatory Sites: 90 users for view only in year 1, if capable, increasing to comprehensive in years 2 and 3;
- Acadia Hospital: 150 users view only in year 1, if capable and with the capability as defined by state law, increasing full capacity through years 2-3);
- Three Home Health sites: 30 users view only in year 1 and increasing to comprehensive in years 2 and 3.

This bi-directional health information exchange and secure messaging capacity will allow the information from the HIE to be used to improve treatment (right information at the right time) for all Beacon community providers, while allowing for the secure communication of critical information between providers. Moreover, these HIE activities will allow for discrete data exchange and data capture that will allow for EMMC and the Beacon community to measure and evaluate the effectiveness of all Beacon Community activities on utilization, cost, and quality.

Some risks and potential barriers that have been identified by the Beacon Community include:

1. Patient privacy laws limit the type and amount of patient information disclosed to providers. The current state law does not allow the sharing of mental health, behavioral health, and HIV information across providers except for in the case of an emergency.
2. High volume of patients discharged from a Beacon Community Hospital or referred from a Beacon primary care practice who do not qualify for home care coverage will place financial sustainability of the project at risk
3. Risks include the capacity of healthcare sites participating to export the data needed to support both the statewide exchange as well as the metrics required of the evaluation.
4. Access to Medicare claims data
5. Care Managers are not reimbursed by payers

Risk mitigation efforts and programs are currently being developed and include:

1. Efforts to address sustainability of the program will be discussed among the leadership team and will be disseminated to the Statewide Beacon Community Stakeholder Group.
2. Efforts to coordinate care among mental health patients will be addressed by creating a legal, IT and behavioral health group of experts to analyze state and federal law limitations with a desired outcome to be able to include mental health data in the statewide HIE.

Coordination with Community Collage and Workforce Programs

Kennebec Valley Community College (KVCC) and Southern Maine Community Collage (SMCC) have been selected to participate in the ONC Community College Consortia to Educate Health Information Technology Professionals in Health Care Program. KVCC and SMCC will receive nearly \$400,000 over two-years to offer three new certificate programs in health information technology (HIT), and will be part of a 23-member, 12-state consortium led by Tidewater Community College in Virginia that will receive more than \$16 million overall.

Maine has traditionally faced multiple challenges in regard to standardizing and making electronic medical records proliferate including hospitals that use differing and incompatible records-keeping software, as well as private practices that use outdated technology or even paper files to keep records. In order to improve health record standardization and EMR adoption the consortium will seek to educate students to fill six health information technology roles, and KVCC and SMCC will direct its efforts at the following three:

- Practice Workflow and Information Management Redesign Specialist
- Clinician/Practitioner Consultant
- Implementation Support Specialist

Mobile Adoption Support Positions

These members of the workforce will support implementation at specific locations for a period of time, and when their work is done, will move on to new locations. Workers in these roles might be employed by regional extension centers, providers, vendors, or state/local public health agencies, and would work together in teams.¹⁰ Preparation for this set of roles will typically require six months of intense training for individuals with appropriate backgrounds.

1. Practice Workflow and Information Management Redesign Specialist

General Description

Workers in this role assist in reorganizing the work of a provider to take full advantage of the features of health IT in pursuit of meaningful use of health IT to improve health and care.

Suggested Background

¹⁰ In this document, “practice” is used as a shorthand notation to refer to multiple employment settings, such as regional extension centers, providers, vendors, or state/local public health agencies.

Individuals in this role may have backgrounds in health care (for example, as a practice administrator) or in information technology, but are not licensed clinical professionals.

Competencies

Workers in this role will be able to:

- Document the workflow and information management models of the practice.
- Conduct user requirements analysis to facilitate workflow design.
- Develop revised workflow and information management models for the practice, based on meaningful use of a certified EHR product. Revised models will anticipate implementation of:
 - General practice automation (e.g. appointment scheduling) to the extent not yet implemented
 - Electronic documentation and results review
 - Computerized Provider Order Entry (CPOE)
 - Clinical decision support (CDS)
 - Health information exchange to include:
 - Sending of lab orders and receipt of results using CPOE
 - Quality improvement and reporting
 - E-Prescribing
 - Other EHR functionalities as required by the Stage 1 Meaningful Use definition for 2011 and its evolution into Stage 2 in 2013 and Stage 3 in 2015.
- As the practice implements the EHR, work directly with practice personnel to implement the revised workflow and information management model.
- Working with practice staff, develop a set of plans to keep the practice running if the EHR system fails.
- Working with practice staff, evaluate the new processes as implemented, identify problems and changes that are needed, and implement these changes.
- Design processes and information flows for the practice that accommodate quality improvement and reporting

2. Clinician/Practitioner Consultant

General Description

This role is similar to the “Practice Workflow and Information Management Redesign Specialists” role listed above; in addition to that role’s set of competencies, this role brings to bear the background and experience of a professional licensed to provide clinical care or a public health professional.

Suggested Background

Individuals in this role will be licensed clinical or public health professionals; or in the case of public health, they would bring into the role significant experience in federal, state or local public health agencies.

Competencies

In addition to the activities noted above for the “Practice Workflow and Information Management Redesign Specialist” role, workers in this role will be able to:

- Analyze and recommend solutions for health IT implementation problems in clinical and public health settings, bringing clinical expertise directly to bear.
- Advise and assist clinicians in taking full advantage of technology, enabling them to make best use of data in electronic form, including data in registries, to drive improvement in the quality, safety and efficiency of care.
- Assist in selection of vendors and software by helping practice personnel to ask the right questions and evaluate the answers they receive.
- Advocate for users' needs, acting as a liaison between users, IT staff, and vendors.
- Ensure that the patient/consumer perspective is incorporated into EHR deployments and that full attention is paid in the deployment to critical issues of patient privacy.
- Train practitioners in best use of the EHR system, conforming to the redesigned practice workflow.

3. Implementation Support Specialist

General Description

Workers in this role provide on-site user support for the period of time before and during implementation of health IT systems in clinical and public health settings. These individuals will provide support services, above and beyond what is provided by the vendor, to be sure the technology functions properly and is configured to meet the needs of the redesigned practice workflow.

Suggested Background

Individuals training for this role will have a general background in information technology or health information management.

Competencies

Workers in this role will be able to:

- Execute implementation project plans, by installing hardware (as needed) and configuring software to meet practice needs.
- Incorporate usability principles into software configuration and implementation
- Test the software against performance specifications.
- Interact with the vendors as needed to rectify technical problems that occur during the deployment process.
- Proactively identify software or hardware incompatibilities.
- Assist the practice in identifying a data back-up and recovery solution, and ensure the solution is effective.
- Ensure that the mechanism for hardware/software recovery (e.g., data backup or redundant systems) and related capabilities are appropriately implemented to minimize system downtime.
- Ensure that privacy and security functions are appropriately configured and activated in hardware and software.
- Document IT problems and evaluate the effectiveness of problem resolution.
- Assist end users with the execution of audits.

Certificate programs for each of these roles will be set up, with the first program - Practice Workflow and Information Management Redesign Specialist – due to be offered in Sept. 30 2010. Maine General Medical Center was a key partner in helping the Maine Community Colleges identify a training focus.

Overall goals for KVCC include increasing the HIT skills of at least 235 students by March 30 2012 (SMCC is currently evaluating its student forecast). Many of those accessing this training will be full-time health care workers. Therefore many of the programs will be offered online to improve access.

The OSC and HIN are working in close collaboration with these Community College efforts as well as an effort by the University of Maine Farmington to develop a bachelors degree program in health informatics – through the OSC Workforce Development Workgroup - to assure that MEREC and HIN activities are incorporated into the educational curriculum, MEREC participants have access to these educational supports, and that placement opportunities are identified across HIT and HIE programs.

Coordination with MaineCare (Medicaid)

CMS recognized that it is essential to understand the technology applications that are currently in use to effectively evaluate how those assets could be used to manage, administer, and conduct oversight of the EHR incentive program. An assessment by the MaineCare program and Deloitte Consulting has been conducted since early 2010. This assessment grouped MaineCare’s technology assets into two categories: (1) the Medicaid technology assets that directly support the Medicaid enterprise and (2) the DHHS technology assets that are related to Medicaid.

The technology assets were assessed by reviewing the DHHS application inventory compiled by the Office of Information Technology (OIT). After understanding the main purpose of each asset, the alignment to support the administration and oversight of the Medicaid EHR Incentive Program and the potential to support state-level health information exchange related services were identified. The following assets were reviewed:

- Maine Integrated Health Management Solution (MIHMS), Maine’s MMIS
- Member Management Assets (Eligibility-related Systems)
- Provider Management Assets
- Operations Management Assets
- All-Payer Claims Database and Universal Hospital Discharge Data Set
- Maine Centers for Disease Control (CDC) Assets
- Licensing Status Program Assets
- DHHS Clinical Program Assets such as DSAT and DEEP
- Other State Systems

MIHMS is a powerful tool to leverage to support the EHR incentive program. The system contains many of the business capabilities to administer and conduct oversight of the EHR incentive program, namely program registration, payment, and tracking

expenditures. For example, MIHMS currently performs claims adjudication and payment; the business process to remit payments to eligible providers and hospitals. The Onpoint All-Payer All-Claims database is a valuable tool for verifying eligibility of providers for the EHR incentive program. The All-Payer All-Claims Database collects healthcare claims from all payers throughout the state and could be used to verify that providers meet the patient volume threshold required to qualify for the EHR incentive program. It is important to note that the database excludes the uninsured, which must be measured for the Federally Qualified Health Clinics. The All-Payer All-Claims Database may also be used to enable HIE-related services such as eligibility and claims exchange, care coordination, quality reporting, and clinical portal. HIN and Onpoint are currently reviewing a shared instance of a master provider/patient index software solution (Initiate) that would allow for provider and patient matching to enable the integration of the two datasets. The OSC is currently working with the attorney general to current state laws regarding the All-Payer All-Claims database use for such purposes.

DHHS, specifically the Office of MaineCare Services currently has the organizational structure in place that supports key business processes that will be essential to the management and administration of the EHR incentive program. The Office of MaineCare Services uses business processes to facilitate the processing and payment of claims, manage relationships with providers, and create rules for MaineCare funded programs. These same business processes should be leveraged, but new business processes will likely need to be added to administer and conduct oversight of the EHR incentive program. MaineCare Services staff members will need to be trained on the EHR incentive program processes and additional staff may need to be hired to support the EHR incentive program.

The Medicaid Information Technology Architecture (MITA) is an initiative of CMS and is intended to foster integrated business and IT transformation across the Medicaid enterprise to improve the administration of the Medicaid program. MITA fosters integrated business and technology transformation of the State Medicaid enterprise by providing a new process for States to plan technology investments, and design, develop, enhance or install Medicaid information systems. MITA provides a business-driven architectural framework, process model, and planning guidelines for States to define their strategic business goals and objectives, align their business processes with the MITA framework and assess their current capabilities as a baseline for measuring progress towards their envisioned future.

A key activity within the MITA initiative is performing a MITA State Self Assessment (SS-A). Future requests for FFP for MMIS enhancements and re-procurements must include a formal SS-A that describes the extent to which current MMIS systems reflect MITA and how requested changes will advance their transformation into the new architecture. The MaineCare MITA SS-A represents the findings of the assessment and documents the capability maturity level of the Maine Integrated Health Management Solution (MIHMS) and of the current core business and technical capabilities of the MaineCare Enterprise.

The objectives of MaineCare are to integrate and where possible leverage the HIE activities occurring across the state. The MITA initiative is intended to foster integrated business and IT transformation across the Medicaid enterprise to improve the administration of the Medicaid program. One of the goals of MITA, like HIE, is to develop reusable services that can be shared across multiple programs. The OSC, HIN, and MaineCare (including Deloitte Consulting) are meeting weekly through the OSC HIT and HIE Implementation Workgroup to assure alignment of the Medicaid State HIT Plan with this HIE Plan as well efficient and effective use of resources across organizations to promote appropriate data sharing.

Coordination with Other Federal Programs

The OSC and HIN are committed to coordinate with all federal programs operating throughout the state. HIN and OSC have been meeting with the Veterans Health Administration (VA) Togus Hospital located in Maine since 2008. In July 2010, the Director, Standards & Interoperability of the VA will be coming to Maine to meet with the OSC, HIN, the Beacon Community and the VA Togus to discuss the next steps in developing a CCD C-32 compliant interface with HIN. These activities will be the first step for HIN to incorporate NHIN Connect Specifications. As a result, a review with the current and new vendors is currently underway to assure that the revised HIN architecture, upon go-live in December 2010 will meet all NHIN Connect standards. In addition, as a result of these discussions HIN and its legal council are currently reviewing the Data Use and Reciprocal Service Agreement (DURSA) in regard to current consent policies and business associate agreements in place with HIN participants. The goal is that by early 2011, HIN will be a NHIN Connect HIE.

Although the DOD has a limited presence in the state of Maine, Martins Point Health Care, a HIN Demonstration Phase partner, has significant contracts with the DOD Tri-Care program. The relationships between Martin's Point (as a provider and an insurer) with the DOD and HIN have lead to preliminary discussions of potential collaborative opportunities between HIN and DOD. HIN and OSC will continue discussions with the VA, Martins Point and DOD on collaboration throughout 2010, while developing the HIN operational systems to meet federal (NHIN) and state interoperability standards.

Finally, the OSC is working with MaineCare to help providers; especially those that are active in the Medicaid program understand the incentive programs for both MaineCare and Medicare. In addition, in June 2010, HIN began a project to assess the potential incentive payment available to all hospitals in the state (39) for both the Medicaid and Medicare programs. It is expected that this study will be completed in July 2010.

Coordination with Other States

Northern New England consists of three states that share many similarities in the rural nature of their populations, the tendency for residents to cross state borders to seek medical care at the nearest provider facility and the relatively small populations accounting for just over 3 million people in total. Both Vermont and Maine have active statewide HIE initiatives that are in early operational phases. New Hampshire is still in an exploratory phase of defining what will work best for a statewide HIE strategy.

Through the ONC funded Health Information System Privacy Collaborative (HISPC), all three states have already established a record of working together to investigate and plan for strategies that will enable the electronic exchange of personal health information (PHI) across state borders.

Because of their proximity, similarities in state populations and a growing record of working collaboratively on HIE-related planning, it is a logical next step that Maine, New Hampshire and Vermont develop an interoperability and implementation strategies for connecting HIE infrastructures across state lines. In developing the HIE technical infrastructure plan for Maine, a conscious decision was made to design a solution that was modular and that would support the replication of key HIE functionality across database structures that could support either the separation of clinical content by source or allow for the co-mingling of content across organizations and geopolitical boundaries. At the same time, the Maine technical design supports consistent standardization / mapping of clinical content regardless of how the HIE data repositories are established and managed.

The OSC and HIN, since January 2010, have been participating in the New England States Consortium of Systems Organization (NESCSO) New England HIE Collaboration. This collaboration consists of both organizations participating in monthly calls with all New England states. This collaboration has led to the development of twelve project areas that are currently being pursued through joint discussion and joint planning efforts with the Medicaid Agencies in the states. These project areas are presented below:

Figure 4: New England State Joint HIE Project Areas Under Development:

Project	Potential Benefits	Potential Hurdles	Priority
Regional Master Provider Index	Develop a Plan and Demonstration Project that can be Used as a Benchmark for Linking All-Payer Claims Databases with Clinical HIE Data	Difficult technological project. Requires high degree of expertise and collaboration among New England States Partners	1
Comments on NPRM	Provide a Regional Voice for Comments on Meaningful Use to assure that all issues are heard at the federal level	None	2
Northern NE All Payer Claims Database	Will help to harmonize the administrative data collection across states and could serve as a foundation for Regional MPI and other activities	State specific laws and statutes governing All-payer claims databases, privacy and security issues, etc.	3
Privacy and Security	Support cross-border HIE building off HISPC and other state collaborative efforts	Resources and time of staff with the expertise to develop recommendations for harmonization	4
Policy Harmonization	Promote consistent standards for data access and use.	None	5
Regional Master Patient Index	Will further the development of mutually agreed upon standards and data formats to allow clinical HIE across state borders starting with patient identification algorithms and systems currently in place	Agreement by States and other HIE parties to participate. State laws impeding HIE may prevent uptake. Potential competitive conflicts among vendors	6

HIT Coordination	Leverage efforts and improved communication among REC and other related activities	None	7
Methodology for Determining Medicaid Provider Threshold for EMR Incentives	Leverage efforts and economies to promote state information sharing; Build off of existing state and university expertise	None	8
Improving informatics/ analytics	Warehousing capability; increased analytical capabilities for all states leveraging resources across New England	Secondary use laws and regulations (connecting de-identified data with identified data), political issues of working with other states and universities, procurement rules for contracting with other states and universities	9
Interstate Governance Entity	Promote sustainability and cross state economies of scale. Serve as a governance body that brings together states regularly (much as the January 2010 meeting) to discuss collaboration opportunities, difficulties, and to lay out project and action plans to accomplish goals	Resources and time of state leaders to participate given meeting overload and competing priorities	10
Information Sharing on Public Health	Promote an information sharing environment that supports the appropriate use of information from HIE and administrative data sharing efforts for Public Health purposes	None	11
HIT and Long Term Care	Bring awareness and economies of scale to support LTC HIT efforts across New England	None	12

Currently all the New England States and New York are moving forward with a Memorandum of Understanding (being drafted as of June 18, 2010) to move forward on two projects – a planning project and an implementation project - with the intent to leverage these activities toward future projects. Currently the group is in discussions with NESCSO and CMS on how to move forward and fund these projects through MMIS or 4201 funding mechanisms.

- For the planning activity - all seven states are proposing to engage in a broad HIE architectural planning exercise that is anchored in Medicaid and builds upon the MITA maturity model but also includes HIE related to meaningful use. This was viewed as a long term planning effort that would be beneficial to states no matter where they were on the HIE/MMIS/MITA implementation and maturity stage.
- For the implementation activity - there was consensus by the group that provider identification and authentication across state borders was a critical need today. Therefore a master provider directory service available via the internet that employs standardized data interfaces to all of the major certified EMR systems, operating HIEs (VT, ME, NY, and others as they go live), MMIS systems and All-Payer Claims Database Systems is being proposed. This provider directory

would give Medicaid, HIEs and healthcare providers the ability to look up, reference, send HITSP C-32 CCD documentation, as well as x12 administrative information. The directory will include matching algorithms to assure electronic identification, matching and standardization of such provider information as: name, physical location(s), billing location(s), specialty, business affiliation(s), and electronic routing.

Participation with the NESCSO group builds upon the collaborative HIE work already executed with New Hampshire and Vermont. These efforts, will seek to leverage the experience and lessons learned in all states to support shared infrastructures to achieve the common goals of healthcare quality and population health improvement. Likewise, Maine will look to extend its modular, remote hosted HIE strategy to offer New Hampshire and Vermont options for gaining economies of scale to reduce the shared cost of establishing a working multi-state exchange operation.

Domain Requirements

To meet the requirements of ONC for the State HIE Cooperative Agreement Program, the OSC and HIN organized the statewide HIE operational tasks by domain. The following section describes each operational task in detail.

Governance

Operational Task 1: Establish the Office of the State Coordinator for HIT

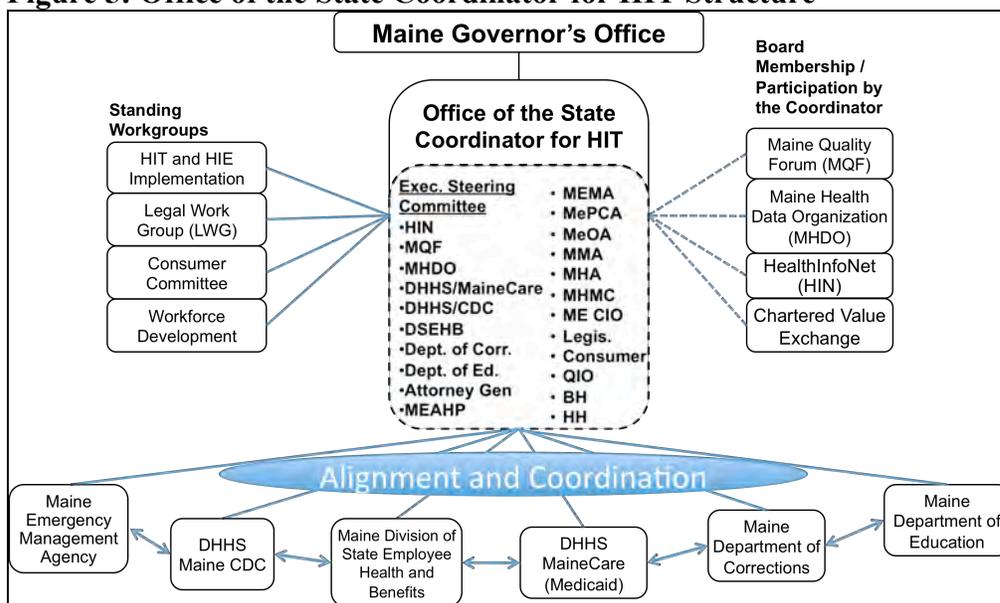
Creation of the Office of the State Coordinator for HIT (OSC): Planning and implementation funds from the HIE Cooperative Agreement are being used to support the Office of the State Coordinator for HIT (OSC), created by Executive Order on April 6, 2010 (see Appendix B). This office is responsible for statewide HIT & HIE planning, aligning the HIT planning efforts with the State Health Plan, ARRA Planning/Implementation, State Agency Coordination on all HIT related efforts, and financial and regulatory oversight of HIT and HIE efforts and initiatives throughout the state. In addition to the Coordinator, funding from ONC will support project management and administrative staffing for the Coordinator in the breadth of activities they will be involved in.

The OSC will be directly charged by the Governor and responsible through its Executive Steering Committee, its four working groups as well as its participation on the board and in alliances, to coordinate public sector HIE activities across public agencies and with the private sector. The OSC is either directly or through the workgroup structure described below, involving the all relevant state agencies in the development and furthering of this plan including but not limited to the following:

- Maine Emergency Management Agency;
- The Maine Department of Health and Human Services including the Centers for Disease Control (MCDC), the MaineCare Program, Bureau of Mental Health and Behavioral Health, and others;
- The Maine Division of State Employee Health and Benefits;

- The Maine Bureau of Employment Services;
- The Maine Department of Corrections;
- The Maine Department of Education;
- The Maine Department of Administrative and Financial Services;
- The Maine Office of Information Technology;
- The Maine State Planning Office;
- The University of Maine System;
- The Maine Community College System; and
- The Governor’s Office of Health Policy and Finance.

Figure 5: Office of the State Coordinator for HIT Structure



Operational Task 2: Establish the OSC Standing Workgroups
Development of a Workgroup Structure for the OSC:

The HIT Steering Committee (HITSC), originally established in 2009, has been broadened to offer representation from additional stakeholders. The reconstituted HITSC was officially named on June 1, 2010 (See Appendix F for the Appointment Letter). The designees include the following individuals:

- The Commissioner of Labor, or designee
 - Melanie Arsenault, Director, Bureau of Employment Services, Maine DOL
- The Director of the Office of Information Technology, or designee
 - Jim Lopatosky, Associate CIO-Applications
- The Director of the Dirigo Health Agency/Maine Quality Forum, or designee
 - Karynlee Harrington, Executive Director, DHA
- The Director of DHHS/CDC or designee
 - Steven Sears, MD, State Epidemiologist, Maine CDC
- The Director of DHHS/MaineCare Services, or designee

- Tony Marple, Director, Office of MaineCare Services
- The Director of the Maine Health Data Organization, or designee
 - Alan Prysunka, Executive Director, MHDO
- The Director of the Office of the State Coordinator for Health Information Technology
 - James Leonard, Director, OSC
- The Executive Director or designee of the State's designated health information exchange organization
 - Devore Culver, Chief Executive Officer, HealthInfoNet
- One individual with expertise in health information exchange and/or health information technology
 - Barry Blumenfeld, MD, Chief Information Officer, MaineHealth
- Two individuals representing health care providers
 - Paul Klainer, MD, Internist and Medical Director, Knox County Health Clinic
 - Sandy Putnam, RN, MSN, FNP, Nursing Coordinator, Virology Treatment Center, Maine Medical Center
- One individual representing home health providers
 - Julie Shackley, President/CEO, Androscoggin Home Care & Hospice
- One individual representing hospital systems
 - David Winslow, Vice President, Finance, Maine Hospital Association
- One individual representing federally qualified health care centers
 - Kevin Lewis, Chief Executive Director, Maine Primary Care Association
- One individual with expertise in health care quality
 - Lisa Letourneau, MD, MPH, Executive Director, *Quality Counts*
- One individual representing behavioral health providers
 - John Edwards, Ph.D, Psychologist and IT Projects Manager, Aroostook Mental Health Center
- One representative of consumers
 - Nancy Kelleher, State Director, AARP
- One individual with expertise in the insurance industry
 - Katherine Pelletreau, Executive Director, Maine Association of Health Plans
- One individual representing a business or businesses
 - David Tassoni, Senior Vice President of Operations, Athenahealth, Inc.
- One individual with expertise in health care data information
 - Catherine Bruno, FACHE, Vice President and Chief Information Officer, Eastern Maine Healthcare Systems
- A representative of the university system
 - Tom Hopkins, University of Maine System
- A representative of the community college system
 - Dr. Barbara Woodlee, President, Kennebec Valley Community College

Additional Seats in Amended Executive Order:

- An individual representing the State's racial and ethnic minority communities
 - Perry Ciszewski
- An individual with expertise in health law or health policy
 - Philip Saucier, Esq.

The HITSC will serve as the oversight committee guiding the policies and direction of the OSC as it addresses the alignment of the requirements of the ONC through the many grants and contracts awarded to the State of Maine, as well as the intersections with the State Health Plan, Dirigo Health and the upcoming national health reform dialogue. The HITSC meetings are open to the public. Meeting times and locations are posted online on the GOHPF website 7 days prior to each meeting. There is a portion of every HITSC meeting dedicated to public input, and minutes, presentations and materials from the meetings are posted on the GOHPF website after the meetings.

To support the OSC and to provide a direct venue for other stakeholders to advise and assure that the OSC is representative of the breadth of interests across the state; four standing workgroups are currently being convened to support the OSC. Each committee will have representatives appointed by the Coordinator in alignment with the Executive Steering Committee. These committees include:

- ***HIT and HIE Adoption and Implementation Workgroup***- This committee consists of the Director of the OSC, the MaineCare Medical Director, the Executive Director of HIN and the COO of HIN. This workgroup has been meeting weekly since 2009 to assure implementation and adoption issues are addressed to promote alignment across HIE Cooperative Agreement activities, the Medicaid and Medicare incentives, the MEREC, and other federal and state projects and initiatives.
- ***The Legal Workgroup*** –This workgroup was officially formed in the fall of 2009 and is specifically addressing state and federal laws and regulations that relate to both HIT implementation and electronic sharing of that information with appropriate parties. This committee is working closely with HIN leadership and legal council and the State Attorney General to rapidly address State laws that impede providers from appropriately sharing health information. Over time it is expected that this committee will take on additional regulatory roles as HIE activities proliferate statewide.
- ***Consumer Committee / Workgroup*** – This committee, already convened by HealthInfoNet, will now serve both the OSC and HealthInfoNet in addressing consumer safety, privacy, and security concerns. Initially the Consumer Committee will be reviewing reports from the Privacy Security and Regulatory Committee and determining a course of action on the issues outlined in that report. The Committee has established a schedule of five meetings for 2010 to address issues of consumer safety, privacy, and safety. Additional meetings will be scheduled if the need arises.
- ***Workforce Development*** – This workgroup, formed in March 2010 is chaired by associate Director of the Department of Labor and includes the President of Kennebec Valley Community College that was the primary applicant of a community college consortia application to ONC. There are also members from the state university system, specifically the University of Maine Farmington that is introducing a bachelor's of health informatics within its college of health

sciences. Other members of the workgroup include local business, hospital IT, and planners from the department of labor. Both the chair and president of the community college are active members of the OSC Steering Committee.

These workgroups are currently meeting and are informing both the OSC and HIN as they implement HIE and meaningful use functionality across the state. There was recognition that there also needed to be additional focus on health care quality and health care delivery systems improvement efforts on the HIE and HIT plans for Maine. Rather than create another workgroup, it was agreed upon by the HITSC that a member from OSC should be represented on the Chartered Value Exchange team to promote this alignment.

Maine is one of fourteen communities around the country designated as a Chartered Value Exchange (CVE) by the U.S. Department of Health & Human Services and the Agency for Healthcare Research and Quality. A “Value Exchange” is a multi-stakeholder collaborative that has taken clear action in its community to convene community purchasers, health plans, providers, and consumers to advance the four cornerstones of Value-Driven Health Care.

The Maine Chartered Value Exchange Alliance, as the initiative is officially known, is a partnership of the Maine Health Management Coalition, the Maine Quality Forum, Quality Counts, and HealthInfoNet. Being designated as a CVE enables Maine to act as a pilot community for future healthcare improvement projects such as HIE. The CVE therefore is charged with assuring that the HIT and HIE activities of the OSC and HIN are aligned and support broad health systems improvement initiatives, and that HIT tools are being used in a manner that improves the health of all Maine citizens.

Operational Task 3: Secure public approval of the HIT Strategic Plan

Finalization of the Statewide HIE Strategic and Operational Plans: The HIT Steering Committee has continued to meet monthly to discuss and make critical decisions on the HIE Strategic and Operational Plans. This plan represents the 2nd iteration of the statewide HIE Strategic and Operational Plans incorporating feedback from ONC and the public.

Publicly Vetting Strategic and Operational Plans: When the Strategic and Operational Plans for HIE for Maine were submitted to ONC in March 2010, the state shared the plans with the public by posting the plans on the GOHPF website, distributing to the HIT Steering Committee members, the legislative health and human services committee and other relevant parties. In addition the GOHPF convened public town-hall type meetings to solicit public comment in April 2010. The state also incorporated a 30-day review and comment period. These comments are included in this revised plan that will be submitted to ONC on June 18, 2010. The revised plan will be made public on the GOHPF website after it is submitted to ONC.

Operational Task 4: Through Executive Order, formally recognize HIN as the Statewide HIE

HIN is a private/public partnership serving as Maine’s statewide Health Information Organization (HIO). HIN has a long history of working closely with a wide variety of stakeholders throughout the state to ensure that the HIN system addresses the needs and concerns of the entire healthcare community. These inclusive efforts have resulted in an organization whose governance structure and technical vision meets the current ONC goals for HIE deployment nationally. HIN’s staff and partner vendors offer a thorough understanding of healthcare data, systems and processes required for a feasible, scalable, and secure solution to the challenge of a statewide HIE and inter-state interoperability including connectivity with the NHIN. On April 6, 2010, HIN was designated as the statewide HIE organization. See Appendix B for the full text of the Executive Order.

In addition to MCDC and MaineCare, state government is represented on the HIN's Board of Directors by the Director of the Governor’s Office of Health Finance and Policy, the Commissioner of the Maine Department of Health and Human Services, and, as of January 2010, the Director of the OSC.

Operational Task 5: Establish a Contract between the OSC and HIN

It is a natural progression for OSC and HIN to work together to establish a statewide vision, goals, operational functions, and prioritization areas for advancing HIT and HIE across the state and iteratively update the statewide HIT/HIE Plan that will become part of the biannual State Health Plan.

While the HIN has partnered with OSC to develop the strategic and operational plans for statewide implementation, the HIN Board of Directors will continue to oversee the mission and operation of HIN. Figure 6 categorizes the current Board membership by the ARRA and ONC Partnership Requirements. The board reflects the interests of small and large organizations in both rural and urban settings located in every geographic region of Maine. In addition to senior leaders from competing provider organizations, including the state’s three largest integrated delivery networks (IDN’s), the Board includes senior government officials, consumers, employers and others. HIN Board meetings are open to the public. Dates, times and locations are posted 7 days prior to each meeting on the HIN website; minutes and presentations from the meetings are also posted.

Figure 6: HealthInfoNet Board Representation

	HIN Board Representatives
State Government	1) Maine DHHS: Commissioner
	2) Maine DHHS/Medicaid: Medical Director
	3) Governor's Office of Health Policy & Finance: Director of the Office of the State Coordinator for HIT
Healthcare Providers	1) Small Rural Hospital: President/CEO
	2) Southern Maine Integrated Delivery Network: CIO
	3) Rehab/Home Health: President
	4) Northern Maine Integrated Delivery Network: Executive Vice President

	5) Family Medical Clinic: President & CMO
	6) Western Maine Integrated Delivery Network: CMO
	7) Practicing Physician
Health Plans	Cigna Healthcare: Market Service Leader
Patient/Consumer Organizations	1) National Alliance for the Mentally Ill: Executive Director
	2) State Senator
HealthCare Purchasers/Employers	1) Private Research Laboratory: COO
	2) Former State Senator/Businessman
	3) Large Northern Business: Retired Director
Public Health Agencies	1) Maine Center for Disease Control: Director
	2) Private Public Health Consultant
Health Professions Schools/Universities	Not represented at this time
Clinical Researchers	Not represented at this time
Other Users of HIT	IT Venture Investment Company: Director
HIT Vendors	Represented through contractual relationships

Appendix G includes the final contract and associated attachments between OSC and HIN for the HIE Cooperative Agreement. This contract includes within it the specific reporting and accountability requirements of HIN to the OSC. These include:

1. Privacy and Security of PHI in the Health Information Exchange
 - a. HIN shall develop and maintain comprehensive privacy and security policies that comply with applicable federal and Maine law, including HIPAA, as supplemented by the HITECH Act; Maine Privacy Law; and Maine’s Notice of Risk to Personal Health Data Act. HIN shall operate the HIE in compliance with all applicable federal and Maine laws and regulations.
 - b. HIN shall make PHI available to Users for the purpose of Treatment and Health Care Operations.
 - c. HIN shall comply with the participant agreement in effect at the time. HIN shall take reasonable measures to enforce the terms of the participant agreement that obligates each Participant to enforce the privacy and other provisions of the participant agreement with respect to its Users and any other Workforce Member.
 - d. HIN shall develop, manage and maintain business associate agreements with the Participants. HIN shall abide by its HIPAA Business Associate Agreement, the current form of which is attached hereto. Further, in the event of a Breach involving PHI in its possession or under its control, HIN will abide by the breach notification requirements under all applicable federal and state laws and regulations, including 42 U.S.C. §17932 and any regulations promulgated by the Secretary of the U.S. Department of Health and Human Services thereunder. The parties acknowledge and agree that, an incident involving a person who intentionally acquires, accesses or uses Protected Health Information in a manner that violates the

Privacy Rule which compromises the privacy or security of the PHI pursuant to the HITECH Act or the regulations promulgated thereunder, constitutes a Breach.

- e. HIN shall conduct regular internal audits for compliance with applicable Maine and federal privacy and security laws and regulations. HIN shall obtain an annual external security audit of the health information exchange system from a recognized, independent technology audit firm.
- f. HIN shall maintain User authorization, authentication and audit processes/functionality to manage, validate and document system access by Users.

2. Technical Design

- a. By or before December 31, 2010, HIN shall develop and implement a technical design for the Health Information Exchange that is scalable and will support statewide participation by all residents and health care providers in the State of Maine. Notwithstanding the foregoing, HIN shall have no obligation to provide a health care provider with access to the Network until the health care provider signs a written participant agreement with HealthInfoNet. HIN shall develop and execute participant agreements with health care providers to support and expand participation in the Health Information Exchange.
- b. HIN shall develop, implement, and maintain physical connections and technical interfaces to the Health Information Exchange that allow all Participants access the Health Information Exchange.
- c. HIN shall develop and maintain redundant data centers that allow real-time replication of clinical data content received by HIN from the Participants.
- d. HIN shall maintain business associate agreements with the Participants.
- e. HIN shall review and revise its security model for managing secure data transfer and User access in order to maintain the security of HIE.
- f. HIN shall maintain an explicit mechanism to ensure review and adoption of the U.S. Department of Health and Human Services' interoperability standards as well as engagement with ONC and participation in the National Health Information Network, if HealthInfoNet is ready and desires such engagement and participation.³

3. Governance of the Health Information Exchange

- a. HIN's Board of Directors shall include public and private stakeholders including, but not limited to, stakeholders representing state government, public health agencies, hospitals, employers, health care providers, payers and consumers. HIN's Board of Directors shall include a representative from the OSC, and no less than three (3) other public members appointed by the Governor.

4. Financial Responsibilities

- a. HIN shall provide its Board of Directors with bi-monthly financial reports including a balance sheet and a projected budget/actual expense report.

- b. Consistent with the requirements of the HIE Cooperative Agreement and grant, HIN will provide a ten (10) percent match of those federal funds requiring such match in accordance with the outline approved by ONC and document and report that match in a manner necessary to satisfy federal reporting requirements.
 - c. Consistent with the requirements of the HIE Cooperative Agreement, HIN shall allocate forty (40) percent of the amount paid to HIN pursuant to this Agreement to its interstate tasks and sixty (60) percent of the amount paid to HIN pursuant to this Agreement to its intrastate tasks. HIN shall track, document and report that allocation to the OSC in a manner necessary to satisfy the OSC's federal reporting requirements.
 - d. HIN shall conduct its business in accordance with standard accounting procedures and shall obtain an annual external financial audit from an independent accounting firm.
5. Collaboration with the OSC and Other State Agencies
- a. HIN and the OSC each shall collaborate with the other and with the Office of National Coordinator to facilitate the statewide exchange of electronic health information. This collaboration shall include the participation of the HIN CEO and/or his representative as a member of the State HIT Committee, as a resource to the OSC's standing committee(s), and upon the reasonable request of the OSC, in such other activities agreed to by the parties.
 - b. HIN and the OSC each shall collaborate with the other to promote public awareness and education about the State HIT plan by the participation of the HIN CEO or his/her representative with the OSC in activities such as panels, town hall meetings and speaker presentations, as reasonably requested by the OSC and upon reasonable notice, provided such activities occur no more frequently than once a month. Notwithstanding the foregoing, the parties may mutually agree to participate in additional public education activities.
 - c. HIN shall work closely with MaineCare as HIN executes its information system planning and implementation activities in order to coordinate HIN's connectivity with MaineCare. The HIN CEO and/or his representative shall participate in HIT meetings with representatives from MaineCare as agreed to by the parties.
 - d. HIN shall coordinate with the Maine Office of Information Technology to facilitate the compatibility of data of the HIE system with related state data systems.
 - e. HIN shall collaborate with the Adoption and Implementation Committee established by OSC to support alignment across HIE Cooperative Agreement activities.
 - f. HIN shall collaborate with the Privacy Security and Regulatory Committee established by the OSC to analyze state laws regarding the exchange of clinical health information.

- g. HIN shall collaborate with the Consumer Committee established by the OSC to address consumer safety and privacy and security concerns.
 - h. HIN shall collaborate with the Financial Planning and Sustainability Committee established by the OSC to develop a business and sustainability plan for continuing its statewide operations and provides the OSC with a copy of such plan.
 - i. HIN shall collaborate with the Quality and Systems Improvement Committee to support initiatives for broad health systems improvements.
 - j. HIN shall collaborate with the OSC to answer question from consumers about the HIE, including information about the opt-out process.
6. Further Development of the Health Information Exchange
- a. HIN shall develop a comprehensive schedule for the implementation of HealthInfoNet's Operation Phase. HIN shall review the schedule with the OSC Director and present such schedule to the HIT Steering Committee on a bi-annual basis. HealthInfoNet shall provide the OSC with an updated schedule of the Operation Phase on a quarterly basis.
 - b. HIN shall convene a group of interested parties to share applications, directories, and data sources for the Health Information Exchange and shall invite the OSC to participate as a member of such group.
 - c. By January 1, 2011, HIN shall develop a marketing and communication plan to expand participation in the Health Information Exchange and provide a copy of such plan to the OSC.
 - d. HIN shall develop the HIE operations to:
 - i. Include the Continuity of Care Record data set, excluding advance directives, as the initial scope of clinical data content in the HIE;
 - ii. Provide semantic data mapping to achieve data standardization for critical categories of clinical content;
 - iii. Create key statewide registries including a master patient index, a master provider index and a patient-centered clinical data summary;
 - iv. Connect to the state public health information structure of the Maine Centers for Disease Control to support automated reporting of clinical data for public health surveillance and population management; and
 - v. Define consumer principles for privacy and security management practices. The standardized statewide master patient index maintained by HIN will support the integration and aggregation of person-centric clinical content received from Participants. In developing the HIE operations, HIN will coordinate with the Maine Department of Health and Human Services (DHHS) to identify opportunities for mutual benefit consistent with strategic and operational informatics plans, such as data-sharing for population management and service and program planning.
 - e. HIN will conduct regular maintenance of the clinical database.

- f. In collaboration with the OSC and upon the recommendation of the HIN Technical and Professional Practice Advisory Committee, the HIN Board of Directors shall review and consider expanding the data content in the HIE to include insurance information and radiology images; provided however, the addition of such data content is technically feasible and financially sustainable and consistent with the State HIT Plan.
- g. HIN shall develop a statewide, secure messaging capability in the HIE.
- h. HIN shall coordinate with Participants to support the development of inter-organizational clinical decision support rules.
- i. HIN shall review the need for the HIE system to be capable of exporting documents and/or reports to in-state clients.
- j. HIN shall standardize the data content it receives from Participants in compliance with existing national standards, including the meaningful use criteria; as such standards evolve from time to time.
- k. HIN shall exchange clinical data in a manner that supports the Participants' achievement of the "meaningful use" criteria including the quality reporting standards.
- l. HIN shall apply for health information exchange certification within one year after such certification process becomes available and provide the OSC with a copy of its application for certification. Notwithstanding the foregoing, if the HIN Board of Directors determines that HIN should not apply for such certification, HIN will not be required to apply for the certification unless: (i) the terms of a federal grant or agreement condition the receipt of federal financial incentives upon such certification; or (ii) such certification is required by applicable law. If HIN fails to obtain or maintain such certification when it is required, HIN will take prompt action to address any and all deficiencies identified in the certification process within the time frame prescribed by the certifying body.
- m. HIN shall support and promote e prescribing by including medication history profiles in the HIE.
- n. HIN shall manage the opt-out process in the Health Information Exchange. HIN shall not display or otherwise make available to Participants PHI, other than demographic information, about Individuals who have opted-out of the Network.
- o. HIN shall encourage Participants to communicate with their patients about the operation of the Network and their right to opt-out of the Network. HIN shall make available to Participants its educational materials about the Network.
- p. HIN shall encourage Participants to train Users and other Workforce Members to answer questions from consumers about the HIE, including information about the opt-out process.
- q. HIN shall maintain a toll-free telephone number in order to allow consumers to opt-out of participation in the HIE by telephone. HIN's website, <http://www.hinonet.org>, shall also allow consumers to opt-out on-line.

7. Performance Standards

- a. HIN shall keep the master patient index and master provider index up to date as of the last recorded registration event.
- b. HIN shall provide Participants with a secure data connection.
- c. HIN shall provide health care Participants with access to the HIE twenty-four (24) hours a day, seven (7) days a week with certain exceptions for maintenance and other disruptions. Such access will be available at a reliability rate consistent with the participant agreement in effect at the time. Time spent on scheduled system upgrades/preventative maintenance time and widespread general internet outages beyond the control of HIN shall not be included in the calculation of the reliability rate.
- d. HIN shall provide Participants with Help Desk support service twenty-four (24) hours a day, seven (7) days a week. HIN, or its subcontractor, shall log all Help Desk calls/requests and their resolution.
- e. HIN shall provide Individuals with customer service support eight (8) hours (normal business hours) a day, Monday through Friday with the exception of state and federal holidays.
- f. HIN shall provide Participants and Users of the health information exchange with a send/receipt response time of six (6) seconds or less 99.98% of the time with certain exceptions consistent with the participant agreement in effect at the time.
- g. HIN shall provide appropriate content intake turn time for clinical data content with and without errors consistent with the terms of the participant agreement in effect at the time.

8. Consumer Education

- a. HIN shall organize and engage in an expanded and ongoing program of consumer education about the HIE, including the advantages and risks of participation by consumers in the HIE and the options and process for consumers to opt-out of participation in the HIE. HIN shall coordinate with the OSC, provider organizations, consumer advocacy organizations, business and payer organizations, state agencies and state departments involved in health care and health care delivery.
- b. HIN shall create and make available to the OSC and to the public educational materials designed to inform consumers about HIN and to enable them to make a decision as to whether to participate in the HIE. HIN shall maintain consumer opt-out policies that comply with all applicable federal and Maine law. Any modification to HIN's consumer opt-out policies and procedures may occur only after approval by the HIN Board of Directors upon its review of a recommendation by HIN's Consumer Advisory Committee. The Board of Directors' authority to accept or reject the Committee's recommendation is not limited by this provision. HIN shall use reasonable efforts to comply with such policies. A copy of HIN's opt-out policies and procedures is attached hereto.
- c. HIN's education materials shall expressly include the following information:

- i. reference the right of the consumer to determine whether to participate in HIN;
- ii. inform the consumer about the purpose and operation and of the HIE, the types of PHI in the HIE and the risks and benefits of participating in HIN;
- iii. inform the consumer that he/she can receive medical treatment without participating in HIN;
- iv. provide the contact information to report errors in the clinical data content to HIN; and
- v. outline the process for opting-out of participation in HIN.

9. Reporting Responsibilities:

- a. HIN shall provide such programmatic and financial information as is necessary for the OSC to timely comply with its ARRA reporting responsibilities, and to meet ARRA requirements for transparency and accountability as the OSC may reasonably request.
- b. HIN shall provide the OSC with a copy of its annual financial audit of the HIE system as is necessary for the OSC to timely comply with the Office of Management and Budget's auditing requirements.
- c. HIN shall provide a financial status report to the OSC on an annual basis in order to allow the OSC to timely submit its annual State financial status report to the Office of National Coordinator.
- d. HIN shall provide the OSC with the minutes of any and all HIN Board retreats and meetings, which minutes shall include an attendance report.
- e. HIN shall provide the OSC with copies of any or all participant agreements, at the written request of the OSC, within thirty (30) days of its receipt of such request. HIN shall provide the OSC with a copy of any Subcontractor agreement for services provided by HIN under the terms of this Agreement within thirty (30) days after entering into such agreement, provided, however, that HIN may reasonably redact in its judgment proprietary technical information and detailed pricing schedules, provided that the Subcontractor agreement, or information from HIN accompanying the copy of said agreement, provides to the OSC the real or estimated cost of the contract to HIN per quarter each fiscal year of the agreement.
- f. HIN shall monitor service and system performance and provide the OSC with service level progress reports on a quarterly basis.
- g. HIN shall timely provide the OSC with monthly activity reports addressing the volume of access to the HIE and the percentage of health care providers in Maine who are participating in HIN. Such reports will include a financial expenditure report such as that which HIN provides to the HIN Board of Directors that supports the development of a statewide governance and policy structure and the development of the State's health information exchange capacity, except that the financial information provided to the OSC shall be updated monthly.
- h. HIN will timely provide to the OSC documentation to evidence that it has met the state match requirements in the HIE Cooperative Agreement.

- i. HIN will provide its Board of Directors with a copy of its annual security audit for review and develop an action plan for response to any issues that may be highlighted in the security audit. Within 30 days of the review of the annual security audit by the HIN Board of Directors, HIN will provide a written summary of both the findings of the audit and the action plan that has been authorized by the HIN Board.
10. Contingency Plan for Use and Disclosure of Participant Information: By or before January 1, 2011, HIN shall establish a contingency plan approved by its Board of Directors that provides for: i) the continued use of the data content in the HIE for a defined period of time consistent with the terms of the existing participant agreement upon the occurrence of the contingencies specified in this Paragraph; and ii) the return or destruction of the data content in the HIE after the expiration of the period of time for continued use of the data upon the occurrence of the contingencies specified in this Paragraph, provided there is no successor entity to operate the HIE. Such contingency plan shall become effective in the event of: (i) the bankruptcy of HIN; (ii) the merger or consolidation of HIN; (iii) the dissolution of HIN; or (iv) HIN ceases to conduct its operations in the ordinary course.

Operational Task 6: Introduce the Statewide HIE Plan to HIN Standing Committees and Broaden Scope of Activities

The OSC and HIN workgroup structures are meant to be complimentary. In some instances, the membership from the HIN committees has become the membership of the OSC committees with an expanded focus on policy/regulation and operational issues.

HIN's bylaws are a direct result of a multi-stakeholder process. The bylaws (provided in Appendix C) require meetings to be open to the public and for consumer representatives to be an integral part of the Board of Directors. The bylaws also state that medical information privacy and system security are the organization's highest priority and that consumer involvement in the HIE shall be institutionalized through the establishment of a standing Consumer Advisory Committee. The following committees are identified in the HIN bylaws and have been guiding HIN operations since inception.

- **HIN Finance Committee**

This committee is comprised of members with experience and expertise in financial matters, chaired by the HIN Treasurer and with the HIN Chief Executive Officer as an ex-officio member. This Committee has been responsible for developing the HIN's financial policies, assisting the Chief Executive Officer in developing annual budgets, and reviewing the HIN's financial statements and for other related duties as may be prescribed by the Board from time to time.

This Committee will continue to serve as a HIN standing committee but members will be asked to also review and address the budget requirements for the statewide HIE, respond to and provide input for a sustainability plan for long term

financing, and coordinate the funding of the HIE with monies awarded to other ARRA programs.

- **Consumer Advisory Committee**

Consumers have been actively engaged in HIN's work over the past four years. In 2005, a Consumer Stakeholder Group was brought together by HIN to develop a vision for how Maine citizens would benefit from electronic clinical information sharing. This group, which included about one dozen consumer advocates and others, developed a vision statement and a set of principles designed to ensure that the consumer voice would be heard as the HIN system was established. The group's recommendations included the need for strong consumer representation on the HIN Board of Directors, the establishment of a permanent advisory committee, rigorous privacy and security protections and the development of a system to allow consumers to conveniently access their own medical information. The group also called for public opinion research to learn more about how Maine people feel about medical information privacy and security issues.

Much of the Committee's work has been guided by the findings of extensive statewide public opinion research that took place in late 2006. Based on eight focus group sessions across Maine as well as 600 telephone interviews, the research found substantial concern about what the public sees as poor coordination of care among doctors, hospitals and other providers. Maine people told researchers that they believe that ineffective medical information sharing is contributing to poor coordination of care, often resulting in medical errors. They also made it clear that they want greater access to their own medical information so they can work with their primary care physicians to address incorrect, incomplete or outdated information. Maine people voiced strong support for new systems that would improve information sharing among their providers. This research has been presented to legislators and to Maine's Congressional Delegation for their use as state and federal legislation is developed to promote electronic information sharing.

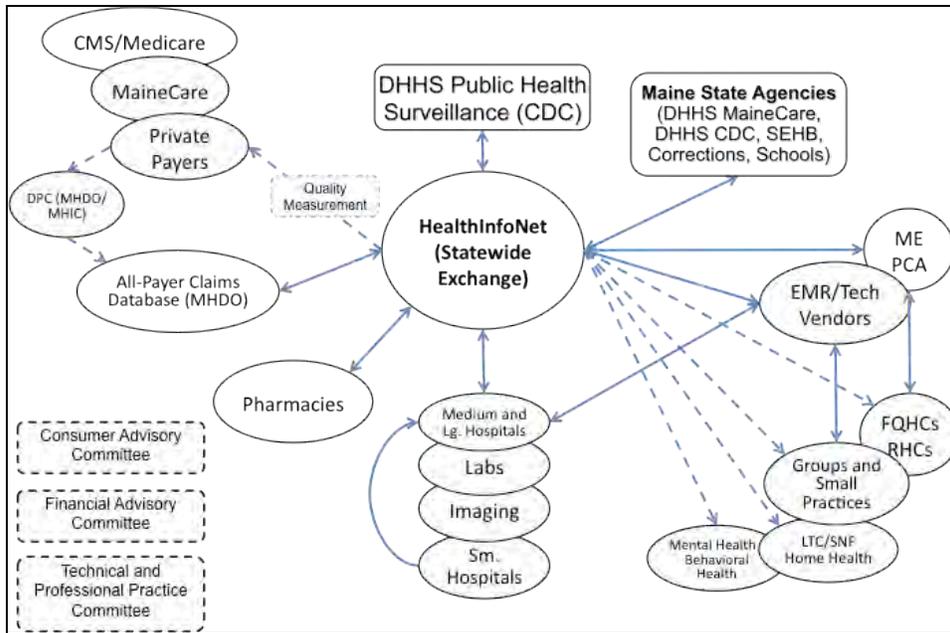
The membership of the HIN Consumer Advisory Committee is comprised of citizens, consumer advocates, consumer organizations, legal experts, health educators, privacy officers, public health professionals, and interested parties with experience and expertise in consumer participation and privacy protection in health information technology systems. A member of the HIN Board chairs the Committee. The Committee has been responsible for reviewing and advising on all policies and procedures related to the confidentiality of the HIN clinical data and the privacy protection for patients. The Committee has addressed HIPAA, State law requirements as well as other federal and State guidelines and initiatives, and public health data laws. This committee has been instrumental in the development of the opt-out provision for patient consent for participation in HIN.

Today, a number of key consumer advocacy organizations represent the interests of their respective constituencies on the HIN Consumer Advisory Committee. These organizations include the Family Planning Association of Maine, Legal Services for the Elderly, Maine Center for Public Health, the Maine Civil Liberties Union, Maine Disability Rights Center, the Maine Health Management Coalition, the Maine Network for Health, the National Alliance For the Mentally Ill and the and the University of New England Health Literacy Center.

The OSC and the HITSC identified the need for a legal workgroup that would be responsible for addressing the legal and regulatory issues for the statewide HIE, support the harmonization of state and federal law, draft legislative recommendations as needed and where appropriate develop/recommend regulatory roles for OSC and the Governor's Office in regard to the sustainable business functions to support HIE statewide. Therefore, the Consumer Committee will be a shared function of both OSC and HIN with a focus on advising both the policy and operational areas and working closely with the Privacy, Security, and Regulatory Committee.

- **Technical and Professional Practice Advisory Committee (TPPAC)**
The membership of this committee is comprised of Chief Information Officers, Chief Medical Directors, IT experts, and practicing clinicians. All members have experience and expertise in the implementation and use of health information technology, clinical data sets, and/or public health information systems. Committee members also represent providers and clinical practices with varying degrees of electronic medical record system use including non-users. This Committee serves as the technical advisory body to the HIN Board and works closely with the HIN staff to manage the statewide HIE deployment. This committee will remain as a standing committee of the HIN with a working relationship with the OSC broadening their focus on Public Information Technology interoperability with HIN.

Figure 7: HealthInfoNet Operational and Organizational Structure:



Finance

Operational Task 7: Develop a Sustainable Business Plan model for Maine HIE

Considerable work has been done by HIN in partnership with the OSC to develop a sustainable business plan for HIE in Maine (for more information see above in the Maine Strategic Plan for HIE). This work has continued with HITSC reviewing past recommendations from the Maine HIE Stakeholder Group in 2008 (see reference to findings from this group and a study conducted by the University of Massachusetts Medical School discussed in the HIE Strategic Plan). On March 4, 2010, HIN convened their Board of Directors for a ½ day retreat on HIE sustainability. At that meeting, the Board agreed on a broad sustainability model developed from the perspective that for, the long term, HIE in Maine would be sustained by equal investment made by the public sector (for the public good and population health benefits), the private payers, and the providers. In the short term it was agreed that HIN would complete its current state technology assessment and present to the Board, on July 21, 2010, sustainability models, leveraging the HIE Cooperative Agreement, the Regional Extension Center, Beacon Community, other grants, provider payments, and MCDC funds.

Revenue Sources

In order to maintain current operations and continue to enroll providers HIN has developed a subscription fee model to address revenue needs in the short-term for providers participating in the exchange. Note these figures are being continuously updated as the HIE planning efforts continue, scopes and requirements for the HIE Cooperative Agreement, REC, and Beacon are being refined, and as HIN finalizes the revised technology architecture and vendor platforms. Figure 8 shows the subscription fees being presented to Maine hospitals and providers for participation in HIN currently.

Figure 8: HIN Subscription Fees Spring 2010

HealthInfoNet Hospital and Provider Subscription Pricing Projections					
Hospitals (By Bed Size)		Annual Subscription	Potential Statewide Annual Total (In the absence of other funding)	2010 Current Sites	2010 Revenue
Beds	Sites				
500+	1	\$200,000	\$200,000	1	\$200,000
400-499	1	\$175,000	\$175,000	0	\$-
300-399	1	\$150,000	\$150,000	1	\$150,000
200-299	3	\$125,000	\$375,000	1	\$125,000
100-199	8	\$90,000	\$720,000	1	\$90,000
20-99	17	\$50,000	\$850,000	6	\$250,000
< 20	8	\$25,000	\$200,000	4	\$125,000
			\$2,670,000		\$940,000
Physician Practice (By Number of Physicians)					
Physicians	Sites				
30 +	4	\$50,000	\$200,000	1	\$50,000
11 -29	50	\$25,000	\$1,250,000		
			\$1,450,000		
TOTAL			\$4,120,000	15	\$990,000

As the planning for developing a sustainable revenue structure has continued by HIN and OSC, it has become clear that the State of Maine needs to focus on a tiered approach to HIE that addresses the requirements of ONC and CMS to allow the maximum number of providers in the state of Maine to receive incentive payments, but also allows providers to begin to share data incrementally in a manner that brings value to their practice. As a result HIN has been working with current and new vendors to assure that as the service oriented architecture is updated, HIE services can be provided in modular bundles that represent the needs of the providers and provider types participating. Figure 9 shows the proposed service bundles currently under review by HIN and OSC for HIE services in Maine that were developed with feedback from the provider community taking into account a series of assumptions about the services that participants will be willing to pay for. As HIN finalizes its architectural update, it is anticipated that a revised version of this service bundle-pricing model will be available in early 2011.

Figure 9: HIN Proposed Service Bundle Offerings 2011

HIN HIE Service Bundles Proposed for 2011		
Service Bundle	Meaningful Use Stage Support	Services
Bundle 1 (View)	N/A	HIN Portal View Only (Time limited to prepare for additional HIE functionality)
Bundle 2 (Basic HIE)	Stage 1 (NHIN Direct)	Master Patient and Provider Index (MPI) (Demographics including: Provider identification and authorization and patient registration and encounter data (Patient identification, Encounter history))
		Laboratory Results Viewing (Ordering and Result Delivery under development for 2011)
		Secure Messaging
Bundle 3 (Core HIE)	Stage 1 + 2 (CCD (HITSP/C32)	Secure Messaging, MPI including Provider identification and authorization; Registration and encounter data (Patient identification, Encounter history); CORE Clinical HIE: Conditions, diagnoses, and problem lists; Allergies and adverse reactions; Prescription medications; Laboratory and microbiology results; Immunization data (IMPACT 2 and data from pharmacies and clinics planned for 2011); Radiology reports; and Text based, dictated, and transcribed documents.
Bundle 4 (Core HIE + QM)	Stage 1, 2, 3	Quality Reporting - Meaningful Use (Stage specific)
		Quality Reporting - PQRI
		Pay for Performance Reporting (MaineCare PCIP and other DHHS Reporting)
		Other Services as defined by the OSC/HITSC and required to meet MU.

The OSC and HIN have set the goal of having a sustainable business and sustainability plan in place and operating by the early 2011 and intend to work closely with the ONC program officer on the HIE Cooperative Agreement to integrate their perspectives and considerations.

Cost Estimates and Staffing Plans

As discussed above, HIN is currently finalizing its architectural vendor negotiations and the OSC is in the process of forming all sub-committees. The cost estimates presented below reflect the current state of planning and implementation for HIE services in Maine. It is expected that as vendor, consultant, and OSC/HIN contracts are developed, these budgets will be adjusted accordingly with the approval of ONC project officers working with the OSC.

Operational Task 8: A comprehensive budget for OSC and HIN will be finalized for the four years 2010 - 2013 and long term.

A specific planning budget has been developed by the OSC to support finalization of this HIE Strategic and Operational Plan, support HIN in the finalization and assessment of the

statewide demonstration project, to supplement a contract to the University of Southern Maine Muskie School of Public Service on a statewide EHR/HIT survey and assessment, and for other related activities. The budget for these activities is shown in Figure 10. The full cost estimate for statewide HIE in Maine between 2010 and 2013 is provided in Figure 11. These costs reflect the projected costs associated with the OSC and HIN, related vendor contract estimates (as described here, some have not yet been finalized), and other expenses. This cost estimate also shows the expected funds from the ONC HIE Cooperative Agreement and the Beacon Community Cooperative Agreement.

Figure 10: OSC Planning Budget 2/08/10 – 6/30/10

Planning Budget for the Office of the State Coordinator for Health Information Technology		
2/8/10 - 6/30/10		
Total 5 Month Budget	\$ 659,940.00	
Category		Costs based on the annual salaries and fringe of 3 staff totaling \$230,180/12 = 19,182 * 5 = \$95,908.
Personnel	\$ 95,908.00	
Contracts	\$ 517,595.00	This study was estimated at \$75,000. Estimated at 50% in 5 months = \$37,500
Workforce Study	\$ 37,500.00	
State Health Plan	\$ 25,000.00	HIT section of State health Plan = \$25,000
Assessment	\$45,000	USM Muskie Statewide EMR/HIT Assessment = \$45,000
Program Consultation	\$ 20,000.00	~50% of consultation = \$20,000
Legal Consultation	\$ 60,000.00	~50% of legal consultation = \$60,000
Health Info Net	\$ 330,095.00	
Other	\$ 38,065.00	Other costs include overhead and administrative budget allocations.
Travel	\$ 8,372.00	
instate	\$ 6,372.00	
out of state	\$ 2,000.00	

Figure 11: Proposed Cost Estimate for Maine Statewide HIE

OSC AND HealthInfoNet Cost Estimates 2010-2013					
	2010	2011	2012	2013	Total
Personnel					
OSC					
Director	\$82,077	84539	87075	89688	\$343,379
Coordinator	\$40,981	56281	57969	59708	\$214,939
Administrative Assistant	\$25,445	29952	30851	31777	\$118,025
HIN					
CEO					
COO					
Director of PM / REC					
Applications Analysts I & II					
Database Analyst/Manager I & II					
Security Analyst I & II					
Communications Coordinator					
Financial Manager					
Help Desk Tech					
Administrative Assistant					
REC Service Reps					
OSC	\$148,503	\$170,772	\$175,895	\$181,173	\$676,343
HIN	\$766,277	\$1,058,514	\$1,111,440	\$1,167,012	\$4,103,243
Fringe Benefits					
OSC	\$81,677	\$93,925	\$96,742	\$99,645	\$371,989
HIN	\$199,232	\$275,214	\$288,974	\$303,423	\$1,066,843
Travel					
OSC	\$20,087	\$20,087	\$20,087	\$20,087	\$80,348
HIN	\$13,675	\$13,675	\$13,675	\$13,675	\$54,700
Equipment					
OSC	\$22,575	\$0	\$0	\$0	\$22,575
HIN	\$0	\$0	\$0	\$0	\$0
Supplies					
OSC	\$9,985	\$3,235	\$8,635	\$3,235	\$25,090
HIN	\$19,700	\$11,700	\$12,000	\$12,000	\$55,400
Contractual					
OSC	\$250,195	\$193,925	\$154,395	\$126,453	\$724,967
3M, Orion					
WinXnet					
HLI					
Dr. First					
Interface Mapping					
24/7 Support					
Initiate					
HIN	\$3,995,253	\$4,400,000	\$1,770,907	\$1,641,892	\$11,808,052
Other/Consultants					
OSC	\$117,285	\$43,110	\$43,110	\$41,529	\$245,035
HIN	\$452,925	\$406,091	\$347,716	\$328,864	\$1,535,596
OSC Expense Subtotal	\$650,307	525,054	498,864	472,122	\$2,146,347
HIN Expense Subtotal	\$5,447,062	6,165,194	3,544,712	3,466,866	\$18,623,834
Indirect Charges	\$132,980	\$150,080	\$151,118	\$162,775	\$596,953
TOTAL OSC HIN EXPENSES	\$5,580,042	\$6,315,274	\$3,695,830	\$3,629,641	\$19,220,787
Subtotal ONC HIN Award	\$2,876,675	1,015,254	\$283,989	277,136	\$4,453,054
Subtotal ONC OSC Award	\$650,307	525,054	\$498,864	472,122	\$2,146,347
Total ONC Awarded	\$3,526,982	\$1,540,308	\$782,853	\$749,258	\$6,599,401
REC Funding	\$630,633	\$596,850	\$629,408	\$619,516	\$2,476,407
Beacon Award	\$1,406,200	\$833,900	\$820,200		\$3,060,300
Proposed Subscription Revenue*	\$990,000	\$1,825,000	\$2,075,000	\$2,250,000	\$7,140,000
Other Funding**	\$1,542,930	\$750,000	\$750,000	\$750,000	\$3,792,930
Total Funding	\$8,096,745	\$5,546,058	\$5,057,461	\$4,368,774	\$23,069,038
Revenue/Expenses	\$2,516,703	(\$769,216)	\$1,361,631	\$739,133	\$3,848,251
*Note: Subscription revenue reflects proposed subscription pricing based on providers only. Should the State of Maine develop strategies for public financing, these numbers would be reduced.					
**Note: Other funding includes revenue from grants and contracts with the MCDC for disease reporting and estimates of other grant monies supporting the HIN operation					

Figure 11 includes the current costs associated with statewide HIE as described in this plan and as reflected in the current vendor cost negotiations currently taking place in June 2010 with Orion Health (Portal, Interface Engine, Notification and Retrieval (CCD) Tool, Patient Privacy and Consent, Monitoring and Audit, CDR), Initiate (Master Patient and Master Provider Index (MPI)), Health Language Incorporated (Terminology Language Engine), WinexNet (Hosting Service). This vendor mix replaces the current vendor 3M for the CDR, HDD, and MPI with Orion Health (CDR), Initiate (MPI), and HLI (HDD/language interface engine).

As is discussed in the strategic plan, HIN is working closely with OSC to develop a sustainable business model not wholly dependent on subscription fees from providers. Figure 11 only includes revenue from providers as described in the implementation schedule in Figure 15 below and the current contracts with MECDC and a small amount for grants and contracts to develop new services. This does not include revenue for the HIE core services from sources such as the claims assessment, the public sector for population health services, or from payers and other stakeholders. HIN and OSC are currently reviewing revenue streams that include quality measurement and reporting, EMR and other HIT hosting services, pay for performance reporting, provider and patient identification services for MaineCare and private payer eligibility and administrative systems and other services. During the summer of 2010 these strategies will be further refined into a sustainability plan that will be finalized by the end of 2010 and deployed in early 2011.

Operational Task 9: A comprehensive work plan will be developed for the planning and implementation periods.

Below is a high-level work plan for the statewide HIE Cooperative Agreement for the planning and implementation Periods through 2013. This work plan represents the integrated activities (and work plans) of the OSC and HIN. As is described in the governance section above, the OSC and HIN have clearly defined responsibilities for oversight and operations respectively. The OSC and HIN are refining their organizational work plans as the activities and decisions laid out in this operational plan are taken up and accomplished.

Figure 12: Integrated OSC and HIN Work Plan: 2010 - 2014

Maine Statewide HIE/HIT Project Plan 2010 - 2014					
ID	Category	Task Name	Start	Finish	Resource Names
1		Maine Health Information Technology Plan	Tue 2/6/07	Thu 2/6/14	
2		OSC for HIT	Mon 2/22/10	Fri 5/7/10 Jim Leonard	
3	Governance	Establish the Office of the State Coordinator for HIT	Tue 3/9/10	Mon 4/19/10 Phil Saucier,Trish Riley,Jim Leonard,I	
4	Governance	Executive order	Tue 3/9/10	Mon 4/19/10 Phil Saucier,Trish Riley	
5	Governance	HHS Update	Tue 3/16/10	Fri 4/2/10 Trish Riley,Jim Leonard	
6	Governance	OSC Operations Plan	Tue 3/23/10	Fri 5/7/10 Jim Leonard	
7	Governance	Staffing	Tue 3/23/10	Fri 5/7/10 Jim Leonard,Phil Saucier,Trish Riley	
8	Governance	Finalize staffing plan for OSC	Tue 3/23/10	Mon 3/29/10 Jim Leonard,Phil Saucier,Trish Riley	
9	Governance	GOHPF Mtg	Tue 3/23/10	Mon 3/29/10 Phil Saucier,Trish Riley,Jim Leonard	
10	Governance	Approval to hire	Mon 3/29/10	Fri 5/7/10 Human Resources	
11	Governance	Justification and revenue plan to leadership	Mon 3/29/10	Fri 5/7/10 Phil Saucier,Jim Leonard	
12	Governance	Positions posted on Me.Gov website	Mon 4/5/10	Fri 4/16/10 Jim Leonard,Human Resources	
13	Governance	Establish systems to manage financial and control compliance	Mon 2/22/10	Tue 4/13/10 Jim Leonard,Department of Financial Services	
14	Governance	Meet with state comptroller and establish reporting and systems	Tue 3/23/10	Tue 4/13/10 Jim Leonard,Department of Financial Services	
15	Governance	Meet with ARRA Coordinator, establish systems	Mon 2/22/10	Mon 2/22/10 Jim Leonard,ARRA Coordinator,Department of Financial Services	
333		HIN Scope of Work	Tue 2/6/07	Thu 2/6/14	
338	Governance	HIE (HIN) Governance	Mon 5/7/07	Mon 1/20/14	
339	Governance	HIN Board of Directors	Mon 2/8/10	Thu 1/2/14 HIN Board	
340	Governance	Oversee the mission and operation of HIN	Mon 2/8/10	Thu 1/2/14 HIN Board	
341	Governance	Continue to serve as State Designated Entity	Mon 2/8/10	Thu 1/2/14 HIN Board	
342	Governance	Operate as contractor and partner with OSC	Mon 2/8/10	Thu 1/2/14 HIN Board	
343	Governance	Manages HIE support for MU	Mon 2/8/10	Thu 1/2/14 HIN Board	
344	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC Technical Committee	
345	Governance	HIN Finance Committee	Mon 5/7/07	Mon 1/20/14 HIN Board,HIN Finance Committee	
346	Governance	Responsible for reporting finances to HIN Boarc	Mon 2/8/10	Fri 1/20/12 HIN Board,HIN Finance Committee	
347	Governance	Responsible for managing HIN's financial policies	Mon 2/8/10	Mon 1/20/14 HIN Board,HIN Finance Committee	
348	Governance	Assist the CEO in developing annual budgets	Mon 2/8/10	Mon 1/20/14 HIN Board,HIN Finance Committee	
349	Governance	Review HIN's financial statements	Mon 2/8/10	Thu 1/2/14 HIN Board,HIN Finance Committee	
350	Governance	Address the budget requirements for the statewide HIE	Mon 2/8/10	Thu 1/2/14 Sustainability Committee,HIN Finance Committee	
351	Governance	Develop a sustainability plan for long term financinç	Mon 5/7/07	Thu 3/31/11 HIN Finance Committee,Sustainability Committee	
352	Governance	Coordinate HIE funding w/ other ARRA funding	Mon 2/8/10	Thu 1/2/14 HIN Board,HIN Finance Committee	
353	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC Technical Committee	
354	Governance	HIN Consumer Advisory Committee	Mon 2/8/10	Thu 1/2/14 HIN Consumer Advisory Committee,HIN Board	
355	Governance	Review and advise on all policies and procedures	Mon 2/8/10	Thu 1/2/14 HIN Consumer Advisory Committee,HIN Board	
356	Governance	Coordinate with OSC Committee	Mon 2/8/10	Thu 1/2/14 HIN Consumer Advisory Committee,HIN Boarc	
357	Governance	Support the harmonization of state and federal law	Mon 2/8/10	Thu 1/2/14 HIN Consumer Advisory Committee,HIN Boarc	
358	Governance	Assist with draft legislative recommendations as needed	Mon 2/8/10	Thu 1/2/14 HIN Consumer Advisory Committee,HIN Board	
359	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC Technical Committee	
360	Technical	HIN Technical Professional Practice Activity Committee	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members	
365	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC Technical Committee	
361	Technical	Serve as the technical advisory body to the HIN CEO and Boarc	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members	
362	Technical	Develop annual SOW and objectives	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,HIN Board	
363	Technical	Collaborate with OSC TA Committee	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC HIT and Adoption Committee	
364	Technical	Assure compatibility between state systems and HIN	Mon 2/8/10	Thu 1/2/14 HIN TPPAC Members,OSC Technical Committee	
427	Governance	State HIT/HIE ONC Reporting	Thu 4/1/10	Thu 1/30/14 HIN Team	
428	Governance	HIN ARRA Reporting	Thu 4/1/10	Thu 1/30/14 OSC	
429	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 4/1/10	Thu 4/29/10 HIN Team	
430	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 7/1/10	Thu 7/29/10 HIN Team	
431	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 10/1/10	Tue 10/26/10 HIN Team	
432	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/4/11	Thu 1/27/11 HIN Team	
433	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 4/1/11	Tue 4/26/11 HIN Team	
434	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 7/1/11	Tue 7/26/11 HIN Team	
435	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 10/4/11	Thu 10/27/11 HIN Team	
436	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/3/12	Thu 1/26/12 HIN Team	
437	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 4/3/12	Thu 4/26/12 HIN Team	
438	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 7/3/12	Thu 7/26/12 HIN Team	
439	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Mon 10/1/12	Thu 11/1/12 HIN Team	
440	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/1/13	Fri 2/1/13 HIN Team	
441	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Mon 4/1/13	Thu 5/2/13 HIN Team	
442	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 7/2/13	Tue 7/30/13 HIN Team	
443	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Mon 9/9/13	Thu 10/10/13 HIN Team	
444	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 1/2/14	Thu 1/30/14 HIN Team	

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ID	Category	Task Name	Start	Finish	Resource Names
445	Governance	Financial Status Reports	Thu 4/1/10	Thu 1/30/14	HIN Team
446	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 4/1/10	Thu 4/29/10	HIN Team
447	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 7/1/10	Thu 7/29/10	HIN Team
448	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 10/1/10	Fri 10/29/10	HIN Team
449	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/4/11	Tue 2/1/11	HIN Team
450	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 4/1/11	Fri 4/29/11	HIN Team
451	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 7/1/11	Fri 7/29/11	HIN Team
452	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 10/4/11	Tue 11/1/11	HIN Team
453	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/3/12	Tue 1/31/12	HIN Team
454	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 4/3/12	Tue 5/1/12	HIN Team
455	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 7/3/12	Tue 7/31/12	HIN Team
456	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Mon 10/1/12	Mon 10/29/12	HIN Team
457	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/1/13	Tue 1/29/13	HIN Team
458	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Mon 4/1/13	Mon 4/29/13	HIN Team
459	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 7/2/13	Tue 7/30/13	HIN Team
460	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 10/1/13	Tue 10/29/13	HIN Team
461	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 1/2/14	Thu 1/30/14	HIN Team
334	Operations	Finalize Demo Phase Evaluation	Mon 2/8/10	Fri 12/31/10	
335	Operations	Review findings with TPPAC, HIN Board	Mon 2/8/10	Fri 12/31/10	HIN Team
336	Operations	Finalize recommendations for exchange modifications	Mon 2/8/10	Fri 12/31/10	HIN Team
337	Operations	Identify milestones for statewide expansion plan	Mon 2/8/10	Fri 12/31/10	HIN Team
366	Technical	Develop an implementation plan	Tue 2/6/07	Thu 2/6/14	HIN Team
402	Operations	Implement a statewide plan for new user participation	Mon 2/8/10	Thu 1/2/14	HIN Team
403	Operations	Implement any modifications identified in Demo Phase	Mon 2/8/10	Thu 1/2/14	HIN Team
404	Operations	Negotiate operational contracts with all vendors	Thu 4/1/10	Fri 12/31/10	HIN Team
405	Operations	Develop a plan for quality reporting	Thu 4/1/10	Mon 12/30/13	HIN Team
406	Operations	Identify HINs role in Quality Reporting	Thu 4/1/10	Mon 12/30/13	HIN Team
407	Operations	Address provisions of data use in existing BA's	Thu 4/1/10	Mon 12/30/13	HIN Team
408	Operations	Compare required quality data set to HIN data	Thu 4/1/10	Mon 12/30/13	HIN Team
409	Operations	Develop recommendations for data collection	Thu 4/1/10	Mon 12/30/13	HIN Team
410	Operations	Deploy HIN Clinical Data Exchange Statewide	Thu 4/1/10	Tue 12/31/13	HIN Team
411	Operations	Renew Participation Agreements	Thu 4/1/10	Mon 12/30/13	HIN Team
412	Operations	Identify modifications required for the transition to operations	Thu 4/1/10	Mon 12/30/13	HIN Team
415	Operations	Implement interfaces	Thu 4/1/10	Mon 12/30/13	HIN Team
416	Operations	Set up end users	Thu 4/1/10	Mon 12/30/13	HIN Team
417	Operations	Conduct training including security & privacy procedures	Fri 10/1/10	Tue 12/31/13	HIN Team
418	Operations	Conduct test run	Wed 12/1/10	Tue 12/31/13	HIN Team
413	Technical	Identify interface requirements	Thu 4/1/10	Mon 12/30/13	HIN Team
414	Technical	Conduct mapping of data content	Thu 4/1/10	Mon 12/30/13	HIN Team
423	Operations	Convene a group of interested parties	Thu 4/1/10	Thu 2/6/14	HIN Team
424	Operations	Address the sharing of MPis	Thu 4/1/10	Fri 12/31/10	HIN Team
425	Operations	Work closely with all payer claims database managers	Thu 4/1/10	Thu 2/6/14	HIN Team
426	Operations	Explore opportunities to share with New Hampshire	Thu 4/1/10	Thu 2/6/14	HIN Team
367	Technical	Work closely with the vendors and participating providers	Tue 2/6/07	Fri 12/31/10	HIN Team
368		Develop a detailed action plan for evaluating the current Demonstration Phase	Mon 2/8/10	Wed 9/1/10	HIN Team
370		Identify milestones for implementation schedule	Mon 2/8/10	Fri 12/31/10	HIN Team
369	Technical	Planning for expansion to a statewide system	Tue 2/6/07	Fri 12/31/10	HIN Team
371	Technical	Implement Risk Management	Mon 2/8/10	Thu 1/2/14	HIN Team
374		Implement and monitor solutions	Mon 2/8/10	Thu 1/2/14	
372	Technical	Use existing HIN risk management system	Mon 2/8/10	Thu 1/2/14	HIN Team
373	Technical	Identify risks and follow communication protocols	Mon 2/8/10	Thu 1/2/14	HIN Team
375	Technical	Monitor all HIE standards and certification requirements	Mon 2/8/10	Thu 1/2/14	HIN Team
376	Technical	Participate in national committees and work groups	Mon 2/8/10	Thu 1/2/14	HIN Team
377	Technical	Monitor all national work and proposed regulations	Mon 2/8/10	Thu 1/2/14	HIN Team
378	Technical	Require compliance by all vendors and participants	Mon 2/8/10	Thu 1/2/14	HIN Team
379	Technical	Develop a deployment schedule for statewide implementation	Mon 2/8/10	Thu 1/2/14	HIN Team
380	Technical	Coordinate implementation schedule with business plan milestones	Mon 2/8/10	Thu 1/2/14	HIN Team
381	Technical	Develop a marketing plan	Mon 2/8/10	Thu 1/2/14	HIN Team
382	Technical	Modify existing procedure manual for data security	Mon 2/8/10	Thu 1/2/14	HIN Team
383	Technical	Update manual with new regulations and recommendations	Mon 2/8/10	Thu 1/2/14	HIN Team
384	Technical	Share the manual with TPPAC for review and comment	Mon 2/8/10	Thu 1/2/14	HIN Team
385	Technical	Conduct regular reviews of the procedure manual	Mon 2/8/10	Thu 1/2/14	HIN Team

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ID	Category	Task Name	Start	Finish	Resource Names
386	Technical	Finalize procedures for inter-operability compliance	Mon 2/8/10	Thu 1/2/14	HIN Team
387	Technical	Identify and contact EHR vendors in Maine	Mon 2/8/10	Thu 1/2/14	HIN Team
388	Technical	Finalize the procedures for guaranteeing connectivity	Mon 2/8/10	Thu 1/2/14	HIN Team
389	Technical	Share the inter-operability plan with the TPPAC	Mon 2/8/10	Thu 1/2/14	HIN Team
390	Technical	Update plan annually	Mon 1/3/11	Thu 1/2/14	HIN Team
391	Technical	Develop a meaningful user certification plan	Mon 2/8/10	Thu 1/2/14	HIN Team
392	Technical	Support the certification process with REC	Mon 2/8/10	Thu 1/2/14	HIN Team
393	Technical	Identify the role for HIN to support the meaningful use	Mon 2/8/10	Thu 1/2/14	HIN Team
394	Technical	Communicate the proposed HIN role to the Maine health care commu	Fri 10/1/10	Mon 12/31/12	HIN Team
395	Technical	Develop a statewide HIE solution plan to incorporate non-EHR provic	Tue 6/1/10	Thu 1/2/14	HIN Team
396	Technical	Coordinate with results of assessment for implementation schedule	Tue 6/1/10	Thu 1/2/14	HIN Team
397	Technical	Explore options for connectivity	Tue 6/1/10	Thu 1/2/14	HIN Team
398	Technical	Apply for HIE Certification when available	Mon 2/8/10	Thu 1/2/14	HIN Team
399	Technical	Continue to monitor the HIE certification requirements	Mon 2/8/10	Thu 1/2/14	HIN Team
400	Technical	Evaluate HIN readiness	Mon 2/8/10	Thu 1/2/14	HIN Team
401	Technical	Involve vendors in preparing application	Mon 2/8/10	Thu 1/2/14	HIN Team
419	Technical	Coordinate HIN connectivity with Maine Care	Mon 3/1/10	Thu 2/6/14	HIN Team
420	Technical	Identify functionality and interface requirements	Mon 3/1/10	Thu 2/6/14	HIN Team
421	Technical	Address feasibility of reporting RX data directly to HIN	Mon 3/1/10	Fri 12/30/11	HIN Team
422	Technical	Support required legislative changes to provide reporting to HIN	Thu 4/1/10	Thu 1/2/14	HIN Team
16	Governance	State HIE Reporting	Mon 8/10/09	Fri 1/31/14	OSC
155		Alignment of Plans	Fri 1/15/10	Thu 12/1/11	
162	Assessment	System "As Is" survey	Fri 1/15/10	Fri 4/30/10	OSC,Maine Care Team,Andy Coburn,Catherine McQuire
163	Assessment	Muskie School design survey	Fri 1/15/10	Fri 1/15/10	USM Muskie Team
164	Assessment	Implement Survey	Fri 1/15/10	Fri 1/15/10	USM Muskie Team
165	Assessment	Multistakeholder meeting with input by PHOs and Primary Care Assoc	Thu 4/1/10	Fri 4/30/10	USM Muskie Team,Maine Care Team,OSC
174	Assessment	Statewide HIT assessment	Fri 1/15/10	Fri 12/31/10	
175	Assessment	Design Study with USM and Maine Care	Wed 2/10/10	Wed 3/31/10	USM Muskie Team,OSC,Maine Care Team
176	Assessment	Approved framework	Fri 1/15/10	Fri 1/29/10	USM Muskie Team,OSC,Maine Care Team
177	Assessment	100% of Provider Community Surveyed	Mon 3/22/10	Fri 12/31/10	USM Muskie Team
178	Assessment	MU Assessed	Mon 3/22/10	Fri 12/31/10	USM Muskie Team
179	Assessment	implement survey through PHO and other channels	Mon 4/5/10	Mon 5/31/10	USM Muskie Team
180	Assessment	Compile preliminary results	Tue 6/1/10	Wed 6/30/10	USM Muskie Team
181	Assessment	Results inform IAPD, REC, and HIT Plans	Mon 7/5/10	Tue 8/31/10	Maine Care Team
182	Assessment	Coordinate and share results with REC	Mon 7/5/10	Tue 8/31/10	USM Muskie Team,Deloitte Consulting,Maine Care Team,HIN Team,Jim Leonard
183	Assessment	GIS Map of Providers + Systems	Fri 1/15/10	Fri 12/31/10	
184	Assessment	Coordinate activity with ConnectMe Broadband Project	Tue 6/1/10	Tue 8/31/10	OSC
185	Assessment	Develop plan with Maine Care Team	Fri 1/15/10	Fri 1/15/10	OSC,Maine Care Team
186	Assessment	Coordinate and Share Assessment Results with REC	Thu 7/1/10	Fri 12/31/10	OSC,Maine Care Team
187	Assessment	GIS tracking of data	Fri 1/15/10	Fri 1/15/10	OSC,ConnectMe
156	Governance	Align State HIT and Maine Care Plans	Mon 2/1/10	Fri 12/31/10	OSC,Maine Care Team
157	Governance	Maine Care PAPD Coordination	Mon 2/1/10	Fri 12/31/10	OSC,Maine Care Team
158	Governance	Weekly mtgs w/Rod to review Maine Care Plan	Mon 2/1/10	Fri 12/31/10	Jim Leonard,Rod Prior
159	Technical	Administration of enhanced payment plan	Mon 3/8/10	Fri 12/31/10	Maine Care Team
160	Technical	System modifications to track and administer provider payme	Mon 3/8/10	Fri 10/29/10	Maine Care Team
161	Technical	Operational system for payment of Medicaid providers	Fri 10/1/10	Fri 12/31/10	Maine Care Team
166	Governance	Maine Care Future State Vision	Mon 3/1/10	Fri 12/31/10	Maine Care Team
167	Governance	Weekly mtg with Maine Care team	Mon 3/1/10	Thu 4/29/10	OSC,Maine Care Team
168	Governance	Develop 2011 plan in Maine Care Planning Group	Wed 12/1/10	Fri 12/31/10	OSC,Maine Care Team
169	Governance	Align Public Health Programs with State HIT	Mon 3/1/10	Thu 12/1/11	OSC,ME CDC
170	Governance	Coordinate with Family Health and Immunization Programs	Thu 4/1/10	Fri 12/31/10	OSC,ME CDC
171	Governance	Coordinate with OIT on PH Systems Connecting with HIN	Mon 3/1/10	Fri 12/31/10	OSC,ME CDC
172	Governance	Coordinate on CHIPRA Grant	Tue 6/1/10	Thu 12/1/11	Jim Leonard,Andy Coburn,Rod Prior,Maine CDC
173	Quality	Establish Quality Goals	Thu 4/1/10	Wed 6/30/10	OSC,ME CDC
188	Assessment	HIE/HIT Evaluation	Mon 3/29/10	Wed 8/24/11	OSC,Dev Culver,Shaun Alfreds,Rod Prior
189	Assessment	AS IS Assessment Completed	Mon 3/29/10	Wed 8/24/11	OSC,Dev Culver,Shaun Alfreds,Rod Prior
190	Assessment	Baseline measures established	Mon 3/29/10	Wed 6/30/10	OSC,Dev Culver,Shaun Alfreds,Rod Prior
191	Assessment	HIT Infrastructure detailed and enumerated	Mon 3/29/10	Wed 6/30/10	OSC,Dev Culver,Shaun Alfreds,Rod Prior
192	Assessment	Year 1 Assessment	Thu 4/1/10	Wed 8/24/11	
193	Assessment	% of Users Aligned to MU Phase 1(Yr 1)	Thu 4/1/10	Wed 8/24/11	
194	Assessment	% of ME Hospitals Participating in HIN (Yr1)	Thu 4/1/10	Wed 8/24/11	
195	Assessment	% of Priority Provider Population Connected to HIN	Thu 4/1/10	Wed 8/24/11	

Maine Statewide HIE/HIT Project Plan
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ID	Category	Task Name	Start	Finish	Resource Names
151	Finance	Develop a Sustainable Business Plan Model for Maine HIE	Fri 1/15/10	Fri 12/31/10	Finance Committee
152	Finance	HITSC reviews past recommendations from the HIE Stakeholder Group	Mon 4/5/10	Fri 5/28/10	Finance Committee
153	Finance	Plan in place by end of 2010	Fri 12/31/10	Fri 12/31/10	Finance Committee
154	Finance	Develop a comprehensive budget for OSC and HIN finalized for 2010-2011	Fri 1/15/10	Fri 1/15/10	Finance Committee
17	Governance	State HIE ARRA Reporting	Thu 4/1/10	Fri 1/10/14	OSC
18	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 4/1/10	Fri 4/9/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
19	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 7/1/10	Fri 7/9/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
20	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 10/1/10	Fri 10/8/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
21	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/4/11	Tue 1/11/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
22	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 4/1/11	Fri 4/8/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
23	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Fri 7/1/11	Fri 7/8/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
24	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 10/4/11	Tue 10/11/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
25	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/3/12	Tue 1/10/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
26	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 4/3/12	Tue 4/10/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
27	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 7/3/12	Tue 7/10/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
28	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Mon 10/1/12	Wed 10/10/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
29	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 1/1/13	Thu 1/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
30	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Mon 4/1/13	Wed 4/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
31	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 7/2/13	Wed 7/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
32	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Tue 10/1/13	Thu 10/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
33	Governance	Submit ARRA Reports Quarterly at federalreporting.gov	Thu 1/2/14	Fri 1/10/14	Jim Leonard,State ARRA Coordinator,Department of Financial Services
34	Governance	State HIT/HIE OSC Reporting	Thu 4/1/10	Fri 1/10/14	OSC
35	Governance	Financial Status Reports	Thu 4/1/10	Fri 1/10/14	Jim Leonard,State ARRA Coordinator,Department of Financial Services
36	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 4/1/10	Fri 4/9/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
37	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 7/1/10	Fri 7/9/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
38	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 10/1/10	Mon 10/11/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
39	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/4/11	Wed 1/12/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
40	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 4/1/11	Mon 4/11/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
41	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Fri 7/1/11	Mon 7/11/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
42	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 10/4/11	Wed 10/12/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
43	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/3/12	Wed 1/11/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
44	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 4/3/12	Wed 4/11/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
45	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 7/3/12	Wed 7/11/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
46	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Mon 10/1/12	Tue 10/9/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
47	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 1/1/13	Wed 1/9/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
48	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Mon 4/1/13	Tue 4/9/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
49	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 7/2/13	Wed 7/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
50	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Tue 10/1/13	Wed 10/9/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
51	Governance	Submit financial status reports quarterly to ONCGrants@hhs.gov	Thu 1/2/14	Fri 1/10/14	Jim Leonard,State ARRA Coordinator,Department of Financial Services
52	Governance	Program Progress Reports	Thu 7/1/10	Fri 1/10/14	OSC
53	Governance	Submit ONC Program Progress Reports Semi-Annually	Thu 7/1/10	Fri 7/9/10	Jim Leonard,State ARRA Coordinator,Department of Financial Services
54	Governance	Submit ONC Program Progress Reports Semi-Annually	Mon 1/3/11	Mon 1/10/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
55	Governance	Submit ONC Program Progress Reports Semi-Annually	Mon 7/4/11	Fri 7/8/11	Jim Leonard,State ARRA Coordinator,Department of Financial Services
56	Governance	Submit ONC Program Progress Reports Semi-Annually	Mon 1/2/12	Tue 1/10/12	Jim Leonard,State ARRA Coordinator,Department of Financial Services
57	Governance	Submit ONC Program Progress Reports Semi-Annually	Tue 7/2/13	Wed 7/10/13	Jim Leonard,State ARRA Coordinator,Department of Financial Services
58	Governance	Submit ONC Program Progress Reports Semi-Annually	Thu 1/2/14	Fri 1/10/14	Jim Leonard,State ARRA Coordinator,Department of Financial Services
59	Governance	Justification for sole-source contracts	Mon 2/1/10	Fri 4/30/10	Jane Gregory,Dawn Gallagher,Thom Bradley,Phil Saucier,Jim Leonard
60	Governance	USM Coop Contract	Mon 2/1/10	Fri 4/2/10	Jane Gregory,Dawn Gallagher,Thom Bradley,Phil Saucier,Jim Leonard
61	Governance	Attorney General Office reviews materials	Mon 2/1/10	Fri 2/5/10	Jane Gregory,Thom Bradley
62	Governance	Coordinate with Maine Care Program	Wed 3/17/10	Tue 3/23/10	Jim Leonard,Dawn Gallagher,Jane Gregory,Thom Bradley
63	Governance	Prepare case for review with Purchases	Tue 3/23/10	Fri 3/26/10	Jim Leonard,Dawn Gallagher,Jane Gregory,Thom Bradley
64	Governance	USM prepares justification on mutual benefit	Mon 3/22/10	Fri 4/2/10	Andy Coburn
65	Governance	Present to Purchases	Tue 3/23/10	Wed 3/31/10	Jane Gregory,Dawn Gallagher
66	Governance	Decision on sole source request	Tue 3/23/10	Wed 3/31/10	Maine Purchase Dept
67	Governance	HIN Contract	Mon 2/1/10	Fri 4/30/10	Jane Gregory,Thom Bradley
68	Governance	Attorney General Office reviews materials	Mon 2/1/10	Fri 4/30/10	Jane Gregory,Thom Bradley
69	Governance	Prepare information for rationale to Purchases	Mon 3/1/10	Fri 4/30/10	Jim Leonard,Jane Gregory,Thom Bradley,HIN Legal Counsel,Dev Culver,Alice C
70	Governance	Discuss with HIN Exec Dir & attorney	Mon 3/1/10	Fri 4/30/10	Jim Leonard,Phil Saucier,Dev Culver,Jane Gregory,HIN Legal Counsel
71	Governance	Review with OSC Director	Mon 3/1/10	Fri 4/30/10	Jim Leonard,Phil Saucier,Jane Gregory,Thom Bradley
72	Governance	Present to Purchases for decision	Mon 3/29/10	Fri 4/30/10	Jim Leonard,Jane Gregory,Maine Purchase Dep
73	Governance	Purchases decides on sole-source request	Thu 4/1/10	Fri 4/30/10	Maine Purchase Dept
74	Governance	Contract between State and HIN	Tue 3/9/10	Wed 6/30/10	Jim Leonard,Phil Saucier,Dev Culver,Jane Gregory,Thom Bradley,HIN Boa

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ID	Category	Task Name	Start	Finish	Resource Names
75	Governance	Finalize contractual scope of work to be completed by HIN	Mon 3/15/10	Tue 3/30/10	Dev Culver,Alice Chapin
76	Governance	HIN and State develop a SOW together	Tue 3/9/10	Fri 4/2/10	Jim Leonard,Phil Saucier,Dev Culver,Jane Gregory,Thom Bradley,HIN Board,HI
77	Governance	Legal review by HIN	Tue 3/30/10	Fri 4/30/10	HIN Legal Counsel
78	Governance	Legal review by State	Mon 3/29/10	Fri 4/30/10	Jane Gregory,Thom Bradley
79	Governance	Purchases reviews contract	Mon 4/12/10	Fri 5/7/10	Maine Purchase Dept
80	Governance	Contract approval	Mon 4/12/10	Wed 6/30/10	Maine Purchase Dept
81	Governance	Finalize payment schedule for planning and operational phases	Mon 3/15/10	Tue 3/30/10	Dev Culver,Alice Chapin
82	Governance	Funds flow from State to HIN	Mon 4/12/10	Wed 6/30/10	Jim Leonard,Dev Culver,Alice Chapin,Maine Purchase Dep
83	Governance	Execute final contract	Tue 3/30/10	Fri 4/30/10	Dev Culver
84	Governance	Establish and Coordinate Committees	Mon 1/4/10	Thu 1/2/14	OSC,HIN Team,HIN Board,Steering Committee,Stakeholders
113	Consumer	OSC Consumer Committee	Mon 2/1/10	Thu 1/2/14	HIN Consumer Committee,Dev Culver,Jim Leonard
115	Consumer	Determine issues to be focused from LGW	Mon 2/15/10	Mon 5/31/10	HIN Consumer Committee,Dev Culver,Jim Leonard
116	Consumer	Coordinate with LWG	Mon 4/19/10	Fri 10/29/10	HIN Consumer Committee,Dev Culver,Jim Leonard
117	Consumer	Strategy to address privacy laws with legislation	Wed 9/1/10	Fri 12/31/10	HIN Consumer Committee,Dev Culver,Jim Leonard
114	Governance	Make decision on using existing HIN Consumer Committee	Mon 2/1/10	Wed 3/31/10	HIN Consumer Committee,Dev Culver,Jim Leonard
118	Governance	Decide upon 2011 agenda	Wed 12/1/10	Fri 12/31/10	HIN Consumer Committee,Dev Culver,Jim Leonard
119	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee
120	Finance	OSC-HIN Financial Planning and Sustainability Committee	Mon 3/22/10	Mon 6/18/12	Jim Leonard,Phil Saucier,Dev Culver,Shaun Alfreds,Jane Gregory,Alice Ch
121	Finance	Select committee members + Chair	Mon 3/22/10	Mon 4/5/10	Jim Leonard,Dev Culver
122	Finance	Hire a meeting facilitator	Mon 3/22/10	Fri 5/28/10	Jim Leonard
123	Finance	Establish goals, timeline, meeting frequency	Mon 3/22/10	Mon 4/12/10	Sustainability Committee
124	Finance	Legal research into sustainability models	Mon 4/5/10	Wed 6/30/10	Jane Gregory,Thom Bradley
125	Finance	Review past work of HIN	Mon 4/5/10	Fri 4/30/10	Sustainability Committee
126	Finance	Review national models for sustainability	Mon 4/5/10	Wed 6/30/10	Sustainability Committee
127	Finance	RFP consultant for cost-benefit analysis	Mon 4/5/10	Wed 6/30/10	Jim Leonard,Phil Saucier,Dev Culver,Shaun Alfreds
128	Finance	Current Cost Benefit Analysis	Mon 5/3/10	Tue 8/31/10	Consultant TBD
129	Finance	Recommendations from committee	Wed 9/1/10	Fri 9/10/10	Sustainability Committee
130	Finance	Sustainability Strategy Session	Thu 9/30/10	Fri 10/29/10	Sustainability Committee
131	Finance	Report for legislature	Fri 10/1/10	Fri 10/29/10	Sustainability Committee
132	Finance	Secure legislative sponsor	Wed 9/1/10	Tue 11/30/10	Jim Leonard,Dev Culver
133	Finance	Present to legislature	Mon 1/3/11	Fri 4/29/11	Jim Leonard,Dev Culver
134	Finance	Legislation resulting in sustainability funding	Thu 3/31/11	Mon 6/18/12	
135	Finance	HIN Receives Funding to Sustain Operations	Thu 6/30/11	Mon 1/2/12	
85	Governance	Review purposes of OSC/HIN Committees	Mon 3/1/10	Fri 11/5/10	Steering Committee,HIN Board,HIN Team,OSC,Stakeholders
86	Governance	Identify missions of each committee	Mon 3/1/10	Mon 4/19/10	Steering Committee,HIN Board,HIN Team,OSC,Stakeholders
87	Governance	Identify committees and operational activities to remain with HIN	Mon 3/1/10	Mon 4/19/10	Steering Committee,HIN Board,HIN Team,OSC,Stakeholders
88	Governance	Revise HIN by-laws as necessary	Mon 3/1/10	Fri 11/5/10	HIN Board
97	Privacy/Security	OSC Privacy, Security and Regulatory Committee	Mon 1/4/10	Thu 1/2/14	Jim Leonard,Phil Saucier,Dev Culver,Jane Gregory,HIN Legal Counsel,HIN
98	Governance	Select committee members + Chair	Mon 1/4/10	Fri 1/29/10	Phil Saucier,HIN Legal Counsel
105	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee
99	Privacy/Security	Review legal and policy issues	Fri 1/15/10	Fri 3/12/10	Phil Saucier,HIN Legal Counsel
100	Privacy/Security	Recommendations from Legal Working Group Reviewec	Mon 4/19/10	Fri 5/28/10	Phil Saucier,HIN Legal Counsel
101	Privacy/Security	Extend analysis of privacy, security, and legal issues	Thu 4/1/10	Thu 9/30/10	Phil Saucier,HIN Legal Counsel
102	Privacy/Security	Prepare legislative changes if any for January session	Fri 10/1/10	Fri 12/31/10	Phil Saucier,HIN Legal Counsel
103	Privacy/Security	Legislative sponsor and presentation	Mon 1/3/11	Thu 3/31/11	Phil Saucier,HIN Legal Counsel
104	Privacy/Security	Legislative changes to healthcare laws	Tue 2/1/11	Mon 5/2/11	Phil Saucier,HIN Legal Counsel
136	Quality	OSC Quality and Systems Improvement Committee	Mon 2/8/10	Thu 1/2/14	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfr
137	Governance	Select committee members + Chair	Thu 4/1/10	Mon 5/31/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
138	Governance	Coordinate with REC plan	Fri 4/30/10	Fri 12/31/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
142	Governance	Review progress in 2010 and Develop course for 2011	Wed 12/1/10	Fri 12/31/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
143	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee
139	Quality	Review data on quality and performance in Maine	Thu 4/1/10	Wed 6/30/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
140	Quality	Define opportunities for improving quality	Mon 5/3/10	Wed 6/30/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
141	Quality	Engage systems in effort	Thu 4/1/10	Fri 12/31/10	Lisa Letourneau,Rod Prior,Josh Cutler,Jim Leonard,Dev Culver,Shaun Alfreds
89	Technical	OSC HIT and HIE Adoption and Implementation Committee	Mon 2/8/10	Thu 1/2/14	Jim Leonard,Phil Saucier,Dev Culver,Alice Chapin,Josh Cutler,Rod Prior
90	Governance	Select committee members + Chair	Thu 4/1/10	Fri 4/30/10	Jim Leonard,Dev Culver,Shaun Alfreds
91	Governance	Coordinate with REC plan	Thu 4/1/10	Fri 5/28/10	Jim Leonard,Phil Saucier,Rod Prior,Shaun Alfreds,Alice Chapin
92	Governance	Monitor HIN Operations Plan to Expand Statewide	Thu 4/1/10	Thu 1/2/14	Jim Leonard,Phil Saucier,Rod Prior,Shaun Alfreds,Alice Chapin
93	Governance	Coordinate with Technology Committee	Thu 4/1/10	Mon 1/2/12	Jim Leonard,Phil Saucier,Rod Prior,Shaun Alfreds,Alice Chapin
94	Governance	Review adoption statistics monthly	Mon 4/5/10	Mon 1/2/12	Jim Leonard,Phil Saucier,Rod Prior,Shaun Alfreds,Alice Chapin
95	Governance	Review 2010 HIE/HIT Baseline Assessment	Thu 7/1/10	Tue 8/31/10	Jim Leonard,Phil Saucier,Rod Prior,Shaun Alfreds,Alice Chapin
96	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee

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ID	Category	Task Name	Start	Finish	Resource Names
144	Technical	OSC Technical Architecture	Mon 2/8/10	Thu 1/2/14	Jim Leonard,Jim Loprosky, OIT,Dick Thompson,Rod Prior, Maine Care
145	Governance	Jim Laporosky (sp) chair	Tue 3/9/10	Fri 4/30/10	Jim Loprosky
146	Governance	Form committee	Tue 3/9/10	Fri 4/30/10	
149	Governance	Review of committee work and recommendations	Wed 12/1/10	Fri 12/31/10	
150	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee
147	Technical	Review state and HIN systems	Fri 4/30/10	Fri 7/30/10	
148	Technical	Assure compatibility between state systems and HIN	Mon 8/2/10	Fri 12/31/10	
106	Workforce	OSC Workforce Committee	Mon 2/8/10	Thu 1/2/14	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard,UMF
112	Governance	Annually review/revise committee work	Mon 2/8/10	Thu 1/2/14	HIN TPPAC Members,OSC Technical Committee
107	Workforce	Select committee members + Chair	Thu 4/1/10	Wed 5/12/10	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard
108	Workforce	Monthly Mtgs of Committee	Mon 5/3/10	Fri 12/31/10	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard
109	Workforce	Review workforce data	Mon 5/3/10	Wed 6/30/10	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard
110	Workforce	Outline workforce study domains	Mon 5/3/10	Fri 5/28/10	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard
111	Workforce	Develop RFP for Study	Wed 5/19/10	Tue 6/1/10	Mel Arsenault,Barbara Woodlee,Phil Saucier,Jim Leonard
196	Governance	Coordination with other programs	Mon 8/10/09	Wed 1/16/13	OSC
197	Governance	ARRA Broadband	Mon 8/10/09	Fri 12/31/10	Jim Leonard,Phil Lindley
200	Assessment	GIS mapping of practices	Mon 6/14/10	Wed 9/1/10	Phil Lindley,Jim Leonard
198	Governance	Coordinate with ConnectMe Authority	Mon 8/10/09	Fri 12/31/10	Phil Lindley,Jim Leonard
199	Governance	Participate with ConnectMe on planning functions	Mon 8/10/09	Fri 12/31/10	Phil Lindley
201	Governance	Develop 2011 plan in SC	Wed 12/1/10	Wed 12/22/10	Phil Lindley,Jim Leonard,Steering Committee
202	Governance	Telemedicine	Mon 2/8/10	Fri 7/22/11	Jim Leonard,Charles Dwyer
203	Governance	Coordinate with Office of rural health	Mon 3/1/10	Fri 7/22/11	Jim Leonard,Charles Dwyer
204	Governance	Director presents at SC	Thu 3/11/10	Thu 3/11/10	Charles Dwyer
206	Governance	OSC Director participates with Telemedicine Group	Mon 2/8/10	Fri 12/31/10	Jim Leonard
207	Governance	Develop plans for 2011through SC	Wed 12/1/10	Fri 12/31/10	Steering Committee
205	Privacy/Security	Monitor Telemedicine Group for opportunities	Mon 2/8/10	Mon 1/31/11	Jim Leonard
216	Governance	Coordinate with Prescription Monitoring Program (PMP)	Thu 4/1/10	Wed 6/30/10	Dev Culver,Shaun Alfreds,OSC,Maine Care Team
217	Finance	HIN and State Explore PMP Partnership	Thu 4/1/10	Wed 6/30/10	Dev Culver,Shaun Alfreds,OSC,Maine Care Team
218	Privacy/Security	Security and Privacy Laws Examined for PMF	Thu 4/1/10	Mon 5/17/10	HIN Legal Counsel,Jane Gregory
219	Governance	REC Coordination Between OSC and HIN	Mon 2/1/10	Fri 12/31/10	Dev Culver,Shaun Alfreds,Alice Chapin,OSC,Maine Care Team
220	Governance	Weekly coordinating meetings to measure progress and plan	Mon 4/5/10	Fri 12/31/10	Dev Culver,Shaun Alfreds,Alice Chapin,OSC,Maine Care Team
221	Governance	Relationship to Maine Care PAPD and IAPC	Thu 4/1/10	Fri 12/31/10	Dev Culver,Shaun Alfreds,Alice Chapin,OSC,Maine Care Team
222	Governance	Participate in the New England Collaborative	Thu 4/1/10	Wed 6/30/10	Dev Culver,Shaun Alfreds,Alice Chapin,OSC,Maine Care Team
223	Governance	Incorporate As Is Analysis into Planning	Fri 7/2/10	Wed 9/1/10	Dev Culver,Shaun Alfreds,Alice Chapin,OSC,Maine Care Team
227	Governance	Develop 2011 plan	Wed 12/1/10	Thu 12/16/10	HIN Board,Dev Culver,OSC,Maine Care Team
224	Operations	Identify wholesale technical resources	Mon 2/1/10	Fri 4/30/10	Dev Culver,Shaun Alfreds,Alice Chapin,HIN Board
225	Operations	Identify retail technical resources	Mon 2/1/10	Fri 4/30/10	Dev Culver,Shaun Alfreds,Alice Chapin,HIN Board
226	Operations	Contract with resources	Mon 2/1/10	Fri 12/31/10	HIN Board,Dev Culver
208	Workforce	Workforce Development	Fri 1/15/10	Wed 1/16/13	Workforce Committee
209	Workforce	UMF committee	Thu 4/1/10	Wed 9/1/10	Workforce Committee
210	Workforce	Baccalaureate track with HIT Focus	Thu 4/1/10	Wed 9/1/10	Workforce Committee
211	Workforce	KVC Planning	Fri 1/15/10	Tue 5/18/10	Barbara Woodlee,Jim Leonard,Phil Saucier
212	Workforce	KCC offers HIT Courses	Fri 1/15/10	Tue 5/18/10	Workforce Committee
213	Workforce	Workforce Capacity Study	Fri 1/15/10	Wed 1/16/13	Department of Labor,Barbara Woodlee,Jim Leonard,Phil Saucier,Stakehold
214	Workforce	Estimate the HIT workforce needs in the state	Mon 5/3/10	Mon 1/31/11	Workforce Committee
215	Workforce	Develop programs with Dept. of labor	Fri 1/15/10	Wed 1/16/13	Workforce Committee
228	Governance	Strategic Planning	Mon 2/8/10	Fri 1/31/14	
229	Governance	Finalization of 2010 HIT Strategic Plan	Mon 3/8/10	Fri 4/23/10	
230	Governance	Incorporate feedback from ONC into plan	Mon 3/8/10	Fri 3/19/10	Jim Leonard,Phil Saucier,Dev Culver,Shaun Alfreds,Alice Chapin
231	Governance	Discuss finalization of plan with SC	Thu 3/11/10	Thu 3/11/10	Jim Leonard,Dev Culver,Shaun Alfreds
232	Governance	Distribute plan for feedback to stakeholder groups	Tue 3/23/10	Fri 3/26/10	Jim Leonard,Shaun Alfreds
233	Governance	Feedback from stakeholder groups on plan	Tue 3/23/10	Fri 4/16/10	OSC,Steering Committee,Stakeholders,Dev Culver,Shaun Alfreds
234	Governance	Adjustments to plan from feedback from ONC	Mon 3/29/10	Fri 4/23/10	
235	Governance	Adjustments to plan from stakeholder feedback	Tue 3/23/10	Fri 4/16/10	
236	Governance	ONC approved strategic plan	Mon 3/29/10	Fri 4/23/10	
237	Governance	Annual Review of Strategic Plans	Wed 12/1/10	Fri 1/31/14	Stakeholders,Steering Committee,Jim Leonard,Dev Culver
238	Governance	2011 Update Strategic Plan	Wed 12/1/10	Mon 1/31/11	Stakeholders,Steering Committee,Jim Leonard,Dev Culver
239	Governance	2012 Update Strategic Plan	Thu 12/1/11	Tue 1/31/12	Stakeholders,Steering Committee,Jim Leonard,Dev Culver
240	Governance	2013 Update Strategic Plan	Mon 12/3/12	Thu 1/31/13	Stakeholders,Steering Committee,Jim Leonard,Dev Culver
241	Governance	2014 Update Strategic Plan	Mon 12/2/13	Fri 1/31/14	Stakeholders,Steering Committee,Jim Leonard,Dev Culver
242	Governance	Strategic Plan Informs State Health Plan	Thu 4/1/10	Fri 7/30/10	

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ID	Category	Task Name	Start	Finish	Resource Names
243	Governance	Strategic Plan used to Inform HIT Section of SHP	Thu 4/1/10	Wed 6/30/10	OSC
244	Governance	Assessment Planning Informs SHP	Thu 4/1/10	Wed 6/30/10	OSC
245	Governance	Steering Committee Reviews DRAFT HIT SHP Section	Tue 6/1/10	Thu 6/10/10	OSC, Steering Committee, Stakeholders
246	Governance	Finalized HIT Section of SHP	Wed 6/30/10	Fri 7/30/10	OSC
247	Governance	State HIE/HIT Meetings	Mon 2/8/10	Thu 1/2/14	
248	Governance	Maine Medical Association Quality Mtg	Wed 5/19/10	Wed 5/19/10	OSC
249	Governance	MHA, MMA, MOA Annual Quality Mtg	Thu 6/10/10	Thu 6/10/10	OSC
250	Governance	HIN Board Meetings	Mon 2/8/10	Thu 1/2/14	OSC
251	Governance	OSCHIT Steering Committee Mtgs	Mon 2/8/10	Thu 1/2/14	OSC
252	Governance	Quality Counts Annual Mtg	Fri 4/16/10	Fri 4/16/10	OSC
253	Governance	Annual OSC Mtg	Fri 7/2/10	Tue 3/29/11	
254	Governance	OSC Annual Mtg Planning	Fri 7/2/10	Fri 10/29/10	OSC, Steering Committee, Stakeholders
255	Governance	OSC Mtg planned	Mon 11/1/10	Wed 12/1/10	OSC, Steering Committee, Stakeholders
256	Governance	OSC Mtg Held	Wed 12/1/10	Tue 3/29/11	OSC, Steering Committee, Stakeholders
257	Governance	State OSC and ONC Coordination	Mon 1/4/10	Thu 1/2/14	
258	Governance	Bi-weekly mtgs with ONC Project Officer	Thu 2/25/10	Fri 12/31/10	Jim Leonard, ONC Project Officer
259	Governance	Establish future schedule	Wed 12/1/10	Fri 12/31/10	Jim Leonard, ONC Project Officer
260	Governance	Required Mtgs with ONC	Mon 2/8/10	Thu 1/2/14	Jim Leonard, ONC Project Officer
261	Governance	Expand HIN Operation to Meet ONC Award Deliverables	Mon 3/1/10	Wed 6/30/10	HIN Team
262	Governance	Recruit and Hire Additional Staff	Mon 3/1/10	Wed 6/30/10	Dev Culver
263	Governance	Expand Office and Admin Capacity	Mon 3/1/10	Fri 4/30/10	Dev Culver, Alice Chapin, Dawkins
264	Technical	Deployment Schedule for Statewide Implementation	Mon 1/4/10	Tue 12/31/13	
265	Technical	79 Percent of hospital beds in exchange	Mon 1/4/10	Fri 12/31/10	HIN Team
266	Technical	90 percent of hospital beds in exchange	Mon 1/3/11	Fri 12/30/11	HIN Team
267	Technical	95 percent of hospital beds in exchange	Mon 1/2/12	Mon 12/31/12	HIN Team
268	Technical	99 percent of hospital beds in exchange	Wed 1/2/13	Tue 12/31/13	HIN Team
269	Technical	100 percent of hospital beds in exchange	Fri 1/15/10	Mon 10/18/10	HIN Team
270	Technical	2010 Hospital implementations	Thu 4/1/10	Fri 12/31/10	
271	Technical	Waldo Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
272	Technical	St. Josephs Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
273	Technical	Southern Maine Medical Center	Thu 4/1/10	Fri 12/31/10	HIN Team
274	Technical	Mercy Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
275	Technical	St. Mary's Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
276	Technical	Penobscot Bay Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
277	Technical	Mid-Coast Hospital	Thu 4/1/10	Fri 12/31/10	HIN Team
278	Technical	2011 Hospital implementations	Mon 1/3/11	Fri 12/30/11	
279	Technical	Cary Hospital	Mon 1/3/11	Fri 12/30/11	HIN Team
280	Technical	Redington Hospital	Mon 1/3/11	Fri 12/30/11	HIN Team
281	Technical	Fairview Hospital	Mon 1/3/11	Fri 12/30/11	HIN Team
282	Technical	Maine Coast Hospital	Mon 1/3/11	Fri 12/30/11	HIN Team
283	Technical	2012 Hospital implementations	Fri 1/15/10	Thu 1/10/13	
284	Technical	York Hospital	Fri 1/13/12	Thu 1/10/13	HIN Team
285	Technical	Northern Maine Medical Center Hospita	Fri 1/14/11	Thu 1/12/12	HIN Team
286	Technical	H.D. Goodall Hospital	Fri 1/15/10	Thu 1/13/11	HIN Team
287	Technical	2013 Hospital implementations	Thu 1/3/13	Tue 12/31/13	
288	Technical	Houlton Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
289	Technical	Mayo Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
290	Technical	Down East Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
291	Technical	Mt. Desert Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
292	Technical	2014 Hospital implementations	Thu 1/3/13	Tue 12/31/13	
293	Technical	Calais Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
294	Technical	Millinocket Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
295	Technical	Pen Valley Hospital	Thu 1/3/13	Tue 12/31/13	HIN Team
296	Technical	Federally Qualified Health Centers Implementations	Mon 1/3/11	Fri 12/30/11	
297	Technical	2011 FQHC Implementation Schedule	Mon 1/3/11	Fri 12/30/11	HIN Team
298	Technical	Bucksport Regional Health Center	Mon 1/3/11	Fri 12/30/11	HIN Team
299	Technical	Community Clinical Services	Mon 1/3/11	Fri 12/30/11	HIN Team
300	Technical	DFD Russel Medical Ctr (3 sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
301	Technical	East Grand Health Center	Mon 1/3/11	Fri 12/30/11	HIN Team
302	Technical	Eastport Health Center (3 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
303	Technical	Fish River Rural Health Center (2 sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
304	Technical	Harrington Family Health Center	Mon 1/3/11	Fri 12/30/11	HIN Team

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305	Technical	Health Access Network (4 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
306	Technical	Islands Community Medical Center	Mon 1/3/11	Fri 12/30/11	HIN Team
307	Technical	Katahdin Valley Health Center (4 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
308	Technical	Penobscot Community Health Center (5 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
309	Technical	Pines Health Center (4 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
310	Technical	Regional Medical Center at Lubec (2 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
311	Technical	Sacopee Valley Health Center	Mon 1/3/11	Fri 12/30/11	HIN Team
312	Technical	Sebasticook Family Doctors (6 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
313	Technical	St. Croix Regional Health Center (2 Sites)	Mon 1/3/11	Fri 12/30/11	HIN Team
314	Technical	York County Community Health Center	Mon 1/3/11	Fri 12/30/11	HIN Team
315	Technical	2012 FQHC Implementation Schedule	Tue 1/3/12	Fri 12/28/12	HIN Team
316	Technical	Health Reach Community Health Centers (11 Sites)	Tue 1/3/12	Fri 12/28/12	HIN Team
317	Technical	City of Portland Health Center	Tue 1/3/12	Fri 12/28/12	HIN Team
318	Technical	Large Affiliated Practices Implementation Schedule	Mon 1/4/10	Mon 12/31/12	
319	Technical	2010 Large Affiliated Practices Implementation Schedule	Mon 1/4/10	Fri 12/31/10	HIN Team
320	Technical	Martins Point (Demo Phase)	Mon 1/4/10	Fri 12/31/10	HIN Team
321	Technical	Intermed	Mon 1/4/10	Fri 12/31/10	HIN Team
322	Technical	2011 Large Affiliated Practices Implementation Schedule	Fri 1/15/10	Thu 1/12/12	HIN Team
323	Technical	Prime Care	Fri 1/14/11	Thu 1/12/12	HIN Team
324	Technical	Bowdoin Medical Group	Fri 1/15/10	Thu 1/13/11	HIN Team
325	Technical	2012 Large Affiliated Practices Implementation Schedule	Mon 1/2/12	Mon 12/31/12	HIN Team
326	Technical	Central Maine Heart Associates	Mon 1/2/12	Mon 12/31/12	HIN Team
327	Technical	Central Maine Heart Internal Medicine	Mon 1/2/12	Mon 12/31/12	HIN Team
328	Technical	Central Maine Pediatrics	Mon 1/2/12	Mon 12/31/12	HIN Team
329	Technical	Central Maine OB/GYN	Mon 1/2/12	Mon 12/31/12	HIN Team
330	Technical	Northeast Cardiology Associates	Mon 1/2/12	Mon 12/31/12	HIN Team
331	Technical	Norumbega Medical Associates	Mon 1/2/12	Mon 12/31/12	HIN Team
332	Technical	Sunbury Medical Associates	Mon 1/2/12	Mon 12/31/12	HIN Team

Operational Task 10: Staffing Plans for OSC and the HIN will be finalized and scheduled for 2010 – 2013 and after.

Planning and implementation funds from the HIE Cooperative Agreement are being used to support the Office of the State Coordinator for HIT (OSC). This office is responsible for statewide HIT & HIE planning, aligning the HIT planning efforts with the State Health Plan, ARRA Planning/Implementation, State Agency Coordination on all HIT related efforts, and financial and regulatory oversight of HIT and HIE efforts and initiatives throughout the state. To support these efforts three positions have been created: Director of the OSC (“The Coordinator”), a Project Manager, and an Administrative Assistant. The Project Manger has not yet been hired and is targeted for hire the fall of 2010. The existing HIN staff will continue to manage the HIN operation and oversee the transition from the Demonstration Phase to a statewide HIE operation. They each individually have extensive experience in technical and business management combining to provide a superior team with the qualifications and experience necessary to successfully deploy a statewide system.

Figure 13: HealthInfoNet Positions and Responsibilities

HIN Positions	Responsibilities	Commitment
Chief Executive Officer	The CEO provides high level management of the HIN program development and technology roll out on a statewide basis. The CEO is responsible for representing the HIN statewide and nationally and working closely with the OSC staff to maintain a collaborative liaison between the policy/regulation activity and the HIN operation.	.15 FTE
Chief Operating Officer	The COO coordinates the development, refinement and implementation of the operations’ project management methodology and project management tools. Plans, directs, and coordinates activities of HIN Demonstration Phase and transition to a statewide HIE. The COO is also responsible for the day-to-day operations of the HIN.	0.6 FTE
Director of Project Management	Project Manager is responsible for the overall project progress including working with HIN staff, vendors, and users. The Manager is responsible for all aspects of the IT operation and ensures that project goals are accomplished within the prescribed time frame and funding parameters.	0.4 FTE
Database Administrator (1)	Maintains data content and data quality in core HIN databases including the clinical data set, statewide master person index, and provider index.	1.0 FTE
Application Analyst (2)	Manages day-to-day operations of the applications in use by HIN including the MPI, the Health Language Engine, the CDR, and the interfaces with provider EMR systems. Safeguards information and information system assets against unauthorized use, disclosure, modification, and damage or loss. Manages the use, authorization of access by end users to the HIN clinical data repository and supports routine system audit and review. Supports the development and maintenance of security related policies and procedures.	(2) 1.0 FTEs
Administrative Assistant	Provides the clerical support for managing all staff meetings with the vendors and users. Maintains logs and documentation files for contracts and scope of work changes and correspondence. Manages all e-mail correspondence with users and provides support for the	1.0 FTE

HIN Positions	Responsibilities	Commitment
	CEO and COO.	

In addition to the above staff, one help desk technician will be added in the second year of the project. They will assume the help desk functions currently provided by the HIN vendor. A group of consultants will continue to provide support to the HIN operation. These consultants have been with the HIN project since its inception in 2004. Their areas of expertise are: 1) project development, budgeting and contract negotiations, 2) IT implementation and program management, and 3) communications strategies and consumer involvement. These consultants provide support on an as needed basis.

The vendors also provide extensive staffing support. These staff are proven managers with strong performance credentials in program and stakeholder management, architecture and engineering, healthcare informatics, information security, health data standards, healthcare studies and revenue and cost modeling. With this award, the HIN team will continue to provide the existing services and expand their work to meet the needs of adding more HIE users on an annual basis.

Controls and Reporting

Operational Task 11: Systems will be set in place to manage all financial and control compliance requirements and support of OMB and Federal Reporting Requirements.

For the State, the GOHPF and the new OSC, in coordination with the State’s Director of Recovery Initiatives, are responsible for Section 1512 reporting requirements and the ARRA transparency and accountability provisions. Pursuant to Section 1512 of ARRA agencies of the State of Maine as recipients of funding under that act are subject to additional reporting over and above that which is normally required of federally funded initiatives. Owing to the sheer scale of the funds made available under the act, the complexity of the reporting requirements as well as the unprecedented level of assurances required and provided by the State. The Department of Administration and Financial Services (DAFS) has been ordered by the Governor to administer the State’s participation in the act as well as create a website that demonstrates the Act’s impact and proper administration. To that end the DAFS Commissioner, Ryan Low, has assembled a team composed of the State Budget Officer, the Office of the Controller, the Service Centers and the Office of Information Technology whose goal is the proper administration of the resources provided under the Act with particular attention to satisfying its reporting requirements.

A Recovery Steering Group has been formed and has sponsored the development of a number of computer applications to support the collection of the information needed to support the efforts dual reporting requirements. These applications include a data entry application, a dynamic web site driven by the collected data and a number of utilities that validated generated reports and formally submit them to federalreporting.gov.

On a quarterly basis State Agencies (prime recipients) will submit Section 1512 recovery reports to the Consolidated SOM Recovery Reporting Environment (RRE) which will be used to drive

quarterly federal reporting. The data will be periodically used to refresh data published at maine.gov/recovery. On an ongoing basis the State (prime recipient) will publish supporting information to their agency recovery websites. On a quarterly basis monthly reports will be rolled up at the RRE for submission to federalreporting.gov.

With assistance of staff from the Office of Information Technology, the Office of the State Controller's (Controller) Internal Audit Division is responsible for coordination, oversight and quality assurance over the quarterly 1512 reporting process as follows:

- 1) Agency completes data entry of an individual award or group of awards
- 2) Agency notifies the Controller's 1512 reporting liaison by email with a copy to Paul Sandlin and or Ruth Quirion that data entry is complete and agency reviewer begins quality assurance review of the 1512 report. Review should be conducted using OSC QA Checklist.
- 3) OIT submits agency report to federalreporting.gov for validation (files must pass all validation edits before being accepted through the federalreporting.gov batch submission process) - If the file validates with no errors, skip to step 6
- 4) If validation errors occur, OIT will email the Agency contact and Controller with a copy of the validation error list
- 5) Agency makes corrections to address errors noted in validation report and notifies reporting liaison by email, with a copy to Paul Sandlin and or Ruth Quirion, that data entry is complete, and agency reviewer continues quality assurance review of the 1512 report. Steps 3 through 5 are repeated until all validation errors are corrected.
- 6) Agency completes quality assurance review of an individual or group of awards
- 7) Agency notifies OSC 1512 reporting liaison (copy Ruth Quirion) that quality review of the award or group of awards is complete. At this point, agency should refrain from making any changes to the award before consulting with the OSC liaison
- 8) Controller liaison begins QA review using 1512 reporting QA checklist.
- 9) If Controller reviews award and finds no errors or questions skip to step 12
- 10) If the Controller reviews awards and finds errors or has questions, Controller liaison will notify agency of the question or concern
- 11) Agency will respond and make corrections or changes to data as necessary until all Controller comments are addressed (award will need to be submitted again for validation testing by repeating steps 3 – 5 above)
- 12) OSC completes QA review process and downloads award xml and 1512 final report from database
- 13) OSC sends email notification to Agency (copy to Paul Sandlin) containing the following attachments:
 - Xml file and 1512 report for each award passing QA review
 - Certification letter to be signed by the Agency Commissioner or Designee
- 14) Agency performs final review of files received from Controller
- 15) Agency returns signed Certification Letter to Controller (fax or email) acknowledging reports have been reviewed and are complete and accurate

- 16) Controller forwards a copy of the final award xml files to Paul Sandlin indicating the agency has certified the reports to be submitted to federalreporting.gov
- 17) OIT submits xml files to federalreporting.gov
- 18) OIT receives notification from federalreporting.gov that report has been accepted as submitted and notifies OSC
- 19) Controller verifies report has been received on federalreporting.gov and checks to ensure file appears correct
- 20) Controller notifies agency that award has been accepted by federalreporting.gov

HIN has two standing committees identified in the HIN bylaws that provide financial and auditing oversight. The first is the Finance Committee chaired by the Treasurer with the Chief Executive Officer as an ex officio member. The Committee is responsible for developing the Corporation's financial policies and assisting the Chief Executive Officer in developing annual budgets, and reviewing the HIN's financial statements and for other related duties as may be prescribed by the Board from time to time. The second committee, Audit and Compliance, is chaired by a member of the HIN Board with the Chief Executive Officer as an ex officio member. The Committee is responsible for developing the Corporation's audit and compliance policies and for reviewing the HIN's audited financial statements.

The HIN subcontracts with another non-profit firm for accounting and financial management services, adopting their policies and procedures that are in compliance with approved accounting principles as well as systems for project-based time sheet reporting, state contract reporting requirements and grant award reporting. HIN funds are managed as separate accounts by funding source, with invoices and progress expense reporting being generated as scheduled. This system also generates monthly financial statements and cash flow projections that are shared with the HIN Board and Executive Committee. An annual audit of HIN accounts is conducted in combination with the 501c3 organization's annual audit.

Technical Infrastructure

Standards and Certification

Operational Task 12: HIN shall comply with all standard and certification requirements for interoperability and certification requirements.

HIN has taken an active role in supporting the adoption of national standards for HIE through its participation in the CCHIT Health Information Exchange Work Group. HIN has teamed with several of the nation's leading companies in healthcare information technology solutions to enable the secure, timely and reliable exchange of electronic health information. HIN's Technical and Professional Practice Advisory Committee (TPPAC) serves as the multi-stakeholder committee responsible for identifying and recommending accepted national standards for HIN and the statewide HIE operation. This group has been working with HIN to both review the results of the 24-month demonstration project and recommend changes to the HIN system to conform to evolving national standards. HIN anticipates using the NHIN Connect system to interface with the VA and other federal agencies in early 2011. As a result HIN is

working with current and new vendors to assure that the statewide deployment of HIN conforms to all relevant national standards as described in 45 CFR Part 170.

The current HIN systems support the following standards: Abstract Syntax Notation 1 (ASN1), Health Level 7 (HL7), Secure Socket Layer (SSL), Standard Object Access Protocol (SOAP), electronic business Extensible Mark-up Language (ebXML), Public Health Information Network Messaging System (PHIN MS), Systematized Nomenclature of Medicine-Clinical Terms (SNOMED – CT), Unified Medical Language System (UMLS) Logical Observation Identifiers Names and Codes (LOINC), Rx NORM, National Council on Prescription Drug Plans (NCPDP), National Drug Code (NDC), National Center for Health Statistics (NCHS) ICD-9, Diagnostic Related Groups (DRG), and Current Procedural Terminology (CPT) coding.

HIN is currently in discussions with Orion Health in regard to architectural system update to assure that the architectural platform will support the use of the Continuity of Care (CCD) C-32 format as a document standard beginning in 2011. These efforts are occurring as HIN is in discussions with the Beacon Community (Bangor) and the VA system to develop interoperability interfacing between the Beacon Community and the Togus VA Medical Center.

To further reinforce the use of standards across Maine, HIN as the statewide Regional Extension Center (REC) and the statewide HIE is requiring providers and organizations receiving REC supports to connect to the HIE using national standards and all providers connecting to the HIE to abide by national certification standards as currently described in the interim certification criteria in 45 CFR 170. HIN and the OSC along with the HIN TPPAC are monitoring the work of ONC's HIT Policy and Standards Committees to ensure that the evolving HIN technical architecture includes those standards that are endorsed by ONC and other Federal Agencies within the Department of Health and Human Services.

Operational Task 13: Develop a meaningful user certification plan consistent with the REC scope of work

OSC and HIN will work in collaboration to maximize the ability of providers to qualify for incentives by meeting the meaningful use certification. Because HIN is both the designated statewide health information exchange for Maine and the statewide REC, coordination of the overall objective of enhancing support for providers as they work toward attaining meaningful use certification will be optimized. Work in this area will focus on the ONC certification criteria listed in 45 CFR Part 170.

Currently these include:

- Drug-drug, drug allergy, drug-formulary checks
 - Alerts
 - Formulary checks
 - Customization
 - Alert statistics
- Maintain up-to-date problem lists

- Maintain active medication lists
- Maintain active medication allergy lists
- Record and chart vital signs
 - Calculate body mass index
 - Plot and display growth charts
- Smoking status
- Incorporate laboratory test results
 - Receive results
 - Display codes in readable formats (LOINC)
 - Display test information
 - Update
- Generate patient lists
- Report quality measures
- Check insurance eligibility
- Submit claims
- Medication reconciliation
- Submission to immunization registries
- Public health surveillance
- Access control
- Emergency access
- Automatic log-off
- Audit log
- Integrity
- Authentication
- Encryption

The TPPAC, began the process of defining priority services that both the HIE and REC should provide in Maine in order to optimize provider potential for attaining meaningful use certification. An initial analysis completed by TPPAC in March, 2010 identified the following Stage 1 proposed meaningful use criteria as priority areas of development for the HIN to address in its HIE development plan:

- Inter-provider problem list coordination
- Statewide prescription medication history report
- Inter-provider medication allergy coordination
- Access to a certified, shared service EHR solution with e prescribing offered through the HIE
- Reporting for quality measures (in partnership with Onpoint health data – Discussions currently underway in June 2010)
- Patient access to copies of electronic health information (Personal Health Record (PHR) to be made available by HIN by Spring 2011)
- Inter-provider care coordination through presentation of clinical summary documents
- Connection to public health for automated disease reporting and syndromic surveillance

The REC and TPPAC will continue to build their evaluation process around verification of the products and services offered both through the REC and the HIE to assure alignment with the

ONC HIE standards and certification criteria. In addition HIN is working with current and new vendors to assure that providers across the state have access to all levels of functionality required by ONC and CMS to meet meaningful use. Figure 12 provides a list of meaningful use Stage 1 functionality and the organizations and strategies that are providing or going to provide those services by data of completion.

Figure 14: Meaningful Use by Organization and Planning and Completion Dates

Meaningful Use Functionality	Organizations/Strategy	Date Completed or Planned
Electronic Eligibility	Payers	Current (complete)
Claims Transactions	Payers/Providers/Onpoint Health Data	Current (complete)
Electronic Prescribing and Refill Requests	Provider EMR systems and Pharmacies – REC and HIN planning underway for refill request in tandem with PHR	December 2010 (planning)
Electronic Clinical Laboratory Ordering and Delivery	Provider EMR and Labs – HIN planning underway for results ordering and delivery, view currently available	December 2010 (planning)
Electronic Public Health Reporting	HIN – 30 Diseases currently – Planning underway for immunization, and notifiable conditions	December 2010 (planning)
Quality Reporting	Onpoint, Muskie School of Public Service, MHMC, MQF – Planning is underway to integrate metrics and develop unified approach beginning with the REC and PCMH pilot alignment of Adult Clinical Quality Metrics	August/September 2010 (planning)
Medication Fill History and Status	HIN - Current for history: Fill status being reviewed with PBMs and pharmacies	December 2010 (planning)
Drug Formulary Check	MaineCare and Payers – HIN planning for inclusion in portal	December 2010 (planning)
Clinical Summary Exchange	HIN	Current (complete)
Patient Engagement – PHR	HIN (review of vendors currently underway)	Live in mid-2011 (planning)

Technical Architecture

The HIN demonstration phase technical solution used proven products from 3M Health Information Systems, Inc. and Orion Systems, Inc. This combination of best-of-breed commercial products requires minimum customization to provide an integrated, flexible and highly scalable solution set to meet all program technical requirements.

Specializing in health IT, Orion is a leading provider of clinical workflow and integration technology. Orion provides innovative software that integrates and enhances healthcare systems, improving efficiency, accuracy, and patient outcomes. All of Orion’s software is designed to

interact and integrate with systems built by other vendors and to be part of a wider, integrated clinical information system. Orion health has been named as one of the top HIE vendors in a recent vendor assessment of HIE vendors by Health Industry Insights.¹¹

Operational Task 14: A deployment schedule for statewide implementation will be developed.

The current HIN Demonstration Phase includes the participation of the four large Integrated Delivery Networks in Maine, their affiliate hospitals, their affiliated providers, and a small rural hospital for a total of sixteen of the thirty-nine hospitals in Maine and a large number of practicing providers. Two new affiliate hospitals will be joining the network in 2010. Currently, 57% of the hospital beds in Maine are connected to HIN. The following table presents the proposed schedule for hospital implementation with a cumulative % of statewide hospital beds. Also included in the proposed schedule for the implementation are twenty FQHCs representing 54 sites. It is planned that eight large unaffiliated practices will be connected over the next five years and through the coordinated work with the Maine REC additional primary care practices will be connected. It is also planned that the majority of the independent practices and specialty groups will be connected to HIN by 2014. This implementation schedule represents an initial implementation assessment by HIN and has not been fully vetted with the provider organizations listed. The implementation schedule is subject to change going forward based on the readiness of each provider organization in Maine. Currently HIN is meeting with provider organizations throughout the state to determine readiness and to refine the implementation schedule.

¹¹ Lynn A. Dunbrack. Vendor Assessment: Industry Short List for Health Information Exchange Technologies. Health Provider IT Strategies Market Overview #HI222529. March 2010.

Figure 15: HealthInfoNet Implementation Schedule

	Hospitals & Affiliated Providers	Hospital Names (Hospitals in italics are participating in Demonstration Phase)	FQHCs	Large Affiliated Practices
2010	21 (79% beds)	<i>Central Maine Medical Center, Bridgton, Parkview, Rumford, Eastern Maine Medical Center, Blue Hill C.A. Dean, Eastern Maine Medical Center, Inland Hospital, Sebasticook, The Aroostook Medical Center, Franklin, Maine Medical Center, Miles, Stephens, St. Andrews, Maine General, St. Joseph's Healthcare (Beacon)</i>	Penobscot Community Health Center (5 Sites – Beacon)	<i>Martin's Point (Demo Phase Participant, InterMed,</i>
2011	5 (90% beds)	PenBay, MidCoast, Cary, Redington Fairview, Maine Coast, Waldo, Southern Maine Medical Center, Mercy, St. Mary's, Pen Bay, Mid Coast	Bucksport Regional Health Center, Community Clinical Services, DFD Russell Medical Center (3 sites), East Grand Health Center, Eastport Health Care (3 sites), Fish River Rural Health (2 sites), Harrington Family Health Center, Health Access Network (4 sites), Islands Community Medical Center, Katahdin Valley Health Center (4 sites), Pines Health Center (4 sites), Regional Medical Center at Lubec (2 sites), Sacopee Valley Health Center, Sebasticook Family Doctors (6 sites), St. Croix Regional Family Health Center (2 sites), York County Community Health	PrimeCare, Bowdoin Medical Group
2012	3 (95% beds)	York, Northern Maine Medical Center, H.D. Goodall	HealthReach Community Health Centers (11 sites), City of Portland Health Center	Central Maine Heart Associates, Central Maine Internal Medicine, Central Maine Pediatrics, Central Maine OB/GYN, Northeast Cardiology Associates,

				Norumbega Medical Associates, Sunbury Medical Associates
2013	4 (99% beds)	Houlton, Mayo, Down East, Mt. Desert		
2014	3 (100% beds)	Calais, Millinocket, Pen Valley		
TOTAL		36 Hospitals	20 FQHCs (54) sites	11 Multi- Specialty and Specialty Groups

Operational Task 15: A procedure manual for data security will be maintained and updated.

In preparation for HIN beginning data exchange at the end of 2008 as part of its Demonstration Phase, a comprehensive set of policies and procedures were developed that define HIN’s approach to data security and data management. More than fifty written policies and procedures have been defined to date. There is a formal process in place for the annual review of each policy and procedure that includes evaluation and discussion by HIN’s operating staff as part of its weekly staff meetings.

Going forward, HIN will continue to modify and expand its data security policies and procedures in order to address both changes in operation and new laws and statutes that impact on data security and electronic personal health information (EPHI) data management requirements at both the state and federal level. As an example, the HITECH act of 2009 introduced new security requirements for third party business associates such as consumer notice for unauthorized breach of PHI information. In response to these new requirements, HIN has defined and published a written breach of information policy and procedure that is currently being included in the operating staff education process. Appendix D contains all of HealthInfoNet’s Administrative and Safeguard Policies and Procedures.

Operational Task 16: Procedures for interoperability compliance will be finalized

HIN’s TPPAC is comprised of leading chief information officers, technology managers, medical directors, and practicing physicians from throughout the state. This committee has directed the development of the functional design for HIN and participated in the national RFP process for selecting the HIN vendor partner. Participation by this committee has guaranteed strong statewide buy-in by the technical and medical community. The vision for HIN has always been statewide and in 2005, technical specification and design requirements were developed in concert with the TPPA. The specification document outlined a plan for the Demonstration Phase and subsequent statewide implementation of an HIE and established objectives for interoperability that included:

- Adoption of the Continuity of Care Record (CCR) data set as the foundation for the initial HIE content;
- Semantic data mapping to achieve data standardization for critical categories of clinical content (Laboratory, prescription medication, and diagnostic studies);

- Creation of key statewide registries including a master patient index, a master provider index, and a patient centered clinical data summary;
- Connection to the state public health information structure to support automated reporting of clinical data from public health surveillance and population management; and
- Definition of consumer principles for privacy and security management practices.

The design of the Demonstration Phase and its participants has focused on developing an HIE solution scalable to a statewide system. The first clinical use of the HIN during the Demonstration Phase was initiated in July 2009. Up to 2,000 clinicians from 15 Maine hospitals and one independent group practice have access to the exchange through integration with their EMR systems. Based on a central data repository model and a portal presentation of patient centric clinical summaries, the exchange manages and standardizes a database of discrete clinical content that includes the following: 1) patient demographic identifiers, 2) laboratory results, 3) diagnostic study results (radiology and other), 4) other text documents, 5) prescription medication history, 6) allergies, 7) visit history, and 8) principle diagnosis and procedure summary. As of September 1, 2009, 550,000 lives are being managed within the HIN master Patient Index. This number is currently growing by 10,000 lives every two weeks.

The following table identifies the sources currently providing data content from each of the four Integrated Delivery Networks and large group practice participating in the Demonstration Phase.

Figure 16: Source Participants in the HealthInfoNet Demonstration Project

	Central Maine Healthcare	Eastern Maine Healthcare Systems	Maine General Healthcare	Maine Health	Martin's Point
Inpatient	X	X	X	X	
Outpatient	X	X	X	X	X
Medication	X	X	X	X	
Diagnostic Imaging*	X	X	X	X	
Lab*	X	X	X	X	X
Reference Lab		X		X	
Registration	X	X	X	X	X
Encounter History	X	X	X	X	X
Allergies	X	X	X	X	X
Problem List					X
Diagnosis (coded)	X	X	X	X	X
Procedures (coded)	X	X	X	X	X

* MaineHealth provides Imaging and laboratory test results for Martin's Point

HIN included in their Demonstration Phase, a network of providers as participants that maintain a variety of EHRs supporting both their inpatient and ambulatory patient care services. This variety of providers and EHRs provided an opportunity to test connectivity with all users. As a statewide solution, this approach was an important test for the scalability of the Demonstration Phase solution to a statewide system.

Figure 17: EHR Systems in Use By Participating Healthcare Systems

Healthcare Systems	Inpatient Electronic Health Record	Ambulatory Electronic Health Record	Personal Health Record
Central Maine Healthcare	Cerner Millennium PowerChart	GE Centricity	—
Bridgton Hospital	Cerner Millennium PowerChart	GE Centricity	—
Central Maine Medical Center	Cerner Millennium PowerChart	GE Centricity	—
Rumford Hospital			
Eastern Maine Healthcare Systems	Cerner Millennium PowerChart	GE Centricity	—
Blue Hill Memorial Hospital	Cerner Millennium PowerChart	—	—
C.A. Dean Memorial Hospital	Cerner Millennium PowerChart	GE Centricity Cerner PowerChart	Cerner IQHealth
Eastern Maine Medical Center	Cerner Millennium PowerChart	GE Centricity Cerner PowerChart	—
Inland Hospital	Cerner Millennium PowerChart	GE Centricity Cerner PowerChart	—
Sebasticook Valley Hospital	Cerner Millennium PowerChart	—	—
The Aroostook Medical Center	Cerner Millennium PowerChart	GE Centricity Cerner PowerChart	
MaineGeneral Healthcare	Eclipsys SCM	Allscripts TouchWorks	—
Augusta Campus	Eclipsys SCM	Allscripts TouchWorks	—
Waterville Campus	Eclipsys SCM	Allscripts TouchWorks	
MaineHealth	Eclipsys SCM	GE Centricity EpicCare	—

Maine Medical Center	Eclipsys SCM	GE Centricity EpicCare	—
Miles Memorial	Meditech	—	—
St. Andrews	Meditech	—	—
Stevens Memorial	Meditech		
Physician Groups	—	GE Centricity	—
Martins Point	—	GE Centricity	—

HIN System Overview

The HIN system review is currently being finalized and vendor negotiations are currently underway to address scalability issues for statewide HIE operations as a result of the HIE Cooperative Agreement, the Beacon Community, and meaningful use. The development of the system has always been intended for statewide deployment but as the Demonstration Phase has neared its completion, modifications and/or enhancements are required. An extensive review of the current systems has been conducted resulting in a recommendation to the HIN Board of Directors to change the vendor platform in June 2010. (See below for additional information on this evaluation)

The HIN statewide HIE solution is message-driven and uses a centralized architecture. The solution is currently comprised of the 3M™ Clinical Data Repository (CDR), Healthcare Data Dictionary (HDD), and Enterprise Master Person Index (EMPI), and Orion Health's Concerto Medical Applications Portal (MAP—including Results Viewer), Soprano Medical Templates, and Rhapsody Integration Engine. The solution is hosted remotely by Connectria (soon to be WinexNet) acting as an Application Solution Provider (ASP) and available to HIE participants through a secure VPN Internet connection.

The solution is designed to leverage and protect the investment already made by healthcare organizations in Maine. Point-of-care systems (i.e., existing clinical information systems at integrated delivery systems, pharmacies, laboratories, and physician practices) generate HL7 messages and send these to the HIN solution via a local (existing) interface engine (Rhapsody, Quovadx, SeeBeyond, or similar).

Rhapsody receives the incoming HL7 message and, given correct message structure, queries the 3M EMPI to ascertain whether the patient is known to the system already. If not, a new patient record is created. The incoming message is passed to the 3M CDR for permanent storage. The 3M HDD maps the incoming data to pre-defined terminology standards and/or code sets.

Once the information is stored in the CDR, physicians are able to log into HIN (Concerto) using a web browser such as Internet Explorer to view the patient's record online. Concerto applies the patient's consent status to restrict access to the record when applicable.

The HIN solution maintains the key infrastructure required to build a lifetime EHR for each resident in the state. The architecture has been designed to promote interoperability with existing

clinical systems, with the Nationwide Health Information Network (NHIN), and with the Public Health Information Network (PHIN) using industry standards such as the CCD and HL7.

User Interface: Orion Health's Concerto Medical Applications Portal (Concerto) is a Clinical Portal for viewing virtual EHRs. In Maine, a patient's EHR is comprised of information sent from participant sites (primary and secondary care facilities, laboratories, and pharmacy clearing houses) to HIN for lifetime storage in the 3M CDR. Each patient with a record is registered in the 3M EMPI and assigned a unique identifier, which Concerto uses to retrieve information about that patient from the 3M CDR and display it to authorized users.

Login Page: Users access the HIN solution by launching an Internet Explorer browser window and going to the Concerto login page. The Concerto login page provides user ID and password fields so that authorized users can login to the system.

Parameter-Based Launch: Users of EHR systems are offered a parameter-based launch option in addition to the normal Concerto login page. They are still required to enter their password, but their user ID will pre-populate. The user is only required to enter their password in Concerto the first time they log in. As long as the user keeps their Concerto session active, they will not be required to enter their password again.

Authentication and Access Control: Authentication is performed using Concerto's User Management module. Concerto securely holds usernames and passwords for HIN participants. Each user is to be assigned an account ID that will allow them to login 24 /7. Once authenticated, the user's access will be controlled according to their role (e.g., physician, nurse, pharmacist, administrator, etc.). When accessing a patient for the first time, each user is required to "break the glass" and document their relationship to the patient (primary care provider, consultant, etc.). This relationship is maintained for four days. After four days, users accessing the same patient are required to "break the glass" again. User accounts for participants have been created via a bulk load interface prior to go-live in July 2009.

Patient Search: HIN, through Orion Health, provides a patient search through the Patient Search menu. Searches look for patients registered in the 3M EMPI. Once the patient is found, the clinician can access the full patient record simply by clicking on the patient's name. A Demographic Search can use either the Medical Record Number (MRN) or the name—and date of birth (DOB) or gender, if desired—of the patient. When a patient is selected from a Patient Search, the patient is "put into context," and the Patient Context Bar, Clinical Document Viewer Tree and Dynamic Patient Summary are displayed. The Patient Context Bar typically contains a summary of information about the patient that is used to identify the patient. The context bar also contains a link to be able to add the patient to a work list and context icons to launch patient information windows or other products (e.g., medication reconciliation).

Dynamic Patient Summary: The Dynamic Patient Summary (DPS) presents a snapshot of the patient; retrieving all the latest key information about the patient stored in the 3M CDR. It typically contains a summary of information about the patient that is important to see as soon as

the patient is selected. This allows the clinician to get an at-a-glance summary of the patient in a single screen. The Dynamic Patient Summary displays the following:

- Demographics
- Encounter History
- Allergies/Adverse Reactions
- Medication History
- Diagnosis/Conditions/Problems

Clinical Document Viewer: HIN/Concerto includes a Clinical Document Viewer (CDV) Tree, which enables clinicians to quickly find and view clinical documents related to a patient. All patient information displayed in the CDV Tree is stored in the 3M CDR. Concerto's CDV Tree provides the ability to search for particular documents; allows sorting of the document by category, service, author or date; and tracks the documents the clinician has read, enabling the clinician to easily identify any new documents.

Concerto provides multiple options for report groupings within the tree, allowing clinicians to quickly locate reports. For example, reports may be grouped by a category (e.g., Biochemistry, Hematology, Microbiology, etc.) or by a report author. A library of clinically relevant icons identifies tests by providing visual indications of report type, e.g., a test tube can be used to identify a hematology report.

Audit Log: Concerto records all user activity (e.g., login attempts, entry points opened, user access to patient data, password and user profile changes, etc.) in an Audit Log. Audit trails by patient or user can be performed. Drilling down on each audit event will provide detailed information about the event, including, in the case of a Patient Search, the search criteria entered by the user.

Medication History Profile Management and Medication Reconciliation: HealthInfoNet (HIN) is currently managing access to prescription medication history profiles through the statewide health information exchange. During the current Demonstration Phase, providers accessing the exchange have patient specific prescription medication profiles for all prescriptions that have been processed through the RxHub / SureScripts system and the DrFirst e prescribing network. For Maine, this current process provides access to prescription medication history on approximately 53% of the residents of the State of Maine. In June 2010, the scope of prescription medication information managed through the HIN structure has been expanded to include the history profiles for Maine residents covered by MaineCare. This is an important addition to the content provided by HIN and increases the percentage of Maine residents with prescription information available through the exchange to approximately 65%. The key challenge that HIN now faces in expanding its medication history profile management efforts is the fact that there are a significant volume of prescriptions filled in the State that are either not part of the current claims adjudication process supported by RxHub, are not managed as true e-prescribed events through the SureScripts network, or are handled as straight cash purchases by consumers. The plan for moving the HIN medication history profile management process forward coming out of the Demonstration Phase will be to focus on developing direct service contracts with the pharmacies across Maine to enable these pharmacies to both be suppliers of prescription

medication information to the statewide exchange and, where appropriate, users of selected clinical data managed within the exchange to better support pharmacists in their care of their clients. In addition, through the REC, HIN is promoting the increased adoption of e prescribing within all supported EMR systems.

During the transition from the Demonstration Phase to the Operations Phase, the HIN solution will also be expanded to support Medication Reconciliation for patients at provider sites who choose to participate in the statewide HIE. HIN is considering offering an on-line medication reconciliation service for providers through the exchange. The proposed HIN medication reconciliation on-line solution is comprised of the Orion Health Concerto Medical Applications Portal, Orion Soprano Medical Templates, and the Orion Rhapsody Integration Engine. Many of Maine's providers who have already adopted EMR solutions, are being provided with medication reconciliation management tools within these EMRs. By moving toward the adoption of CCR/CDA standards, HIN expects to develop a strategy for exporting prescription medication history profile information on demand for import in to local EMR solutions to support individual providers and hospitals in accomplishing medication reconciliation that incorporates a community-wide and statewide view of the patient. Not all providers in Maine will have access to local, automated medication reconciliation solutions in the near to midterm. However, at a minimum, all authorized HIN clinical users will be able to begin to improve their current manual medication reconciliation process by accessing HIN and printing the existing prescription medication history reports now provided through the exchange.

Messaging Interfaces: The information comprising each patient's EHR is sourced from point-of-care clinical systems within the participating IDNs, hospitals, clinics, laboratories, pharmacy clearinghouses, and physician practices. Rhapsody receives real-time, outbound message feeds via communication points. As the messages pass through the engine, Rhapsody validates that their structure meets the defined interface specification, returning a negative acknowledgement back to the source if validation fails.

To promote interoperability within Maine and increase the likelihood of rapid implementation success, there is a single, common message type for each of the following types of source systems: PAS, LIS, RIS, PIS, EMR, and CDR. It is assumed that all source systems will comply with the published interface specifications. Rhapsody does not communicate directly with Maine's source systems because the sites have local integration engines through which they send the HL7 messages to HIN. While Rhapsody supports all versions of HL7, for the Demonstration Phase, 3M and Orion Health are supporting only the values outlined in the HL7 V2.3 specification. Any mappings required to support values outside this specification have been the responsibility of participants.

The unique messaging formats identified and scoped into the Demonstration Phase are presented below:

Figure 18: Current Inbound Data

Type of Patient Data	Message Format	Source Systems Identified
Patient Demographics	HL7 2.3 ADT	3 IDNs, 1 MD EMR, 1 Community Hospital, 1 Reference Lab
Encounter (visit) Information, Diagnosis and Treatment Codes, Adverse Events / Allergies		3 IDNs, 1 MD EMR, Community Hospital
Laboratory Results	HL7 2.3 ORU O01	3 IDNs, Community Hospital, 1 Reference Lab
Radiology Reports, Transcribed Documents		3 IDNs, Community Hospital
Medication History (Prescriptions)	NCPDP	1 out of SureScripts, RxHub or DrFirst
Medications (Inpatient, Discharge)	HL7 2.3 RDE O01	3 IDNs, Community Hospital

All messaging interfaces are currently uni-directional (i.e., inbound only). The only exception to this is if a query-response interface is required in order to obtain a patient’s Medication History. As a result of the vendor review in May 2010, HIN is working with Orion Health (its new vendor for both the portal and interfacing but also the CDR) in the contract negotiations to standardize all CDR data content and make available query based CCD C-32 outbound messages to EMRs capable of receiving and un-packaging the standardized content.

Figure 19: Current Outbound Data

Type of Patient Data	Message Format	Destination Systems Identified
Medications Reconciliation documents	PDF inside HL7 2.3 REF	The IDNs where the Medication Reconciliation process took place

Rhapsody receives incoming laboratory results in the form of HL7 2.5 messages. The system queries the 3M Enterprise Master Person Index (EMPI) to match the result to a patient and translates the content of the message in conjunction with the 3M Healthcare Data Dictionary (HDD). A second look up against a notifiable conditions mapping table is used to determine whether the result should continue along the interface route or be discarded. An HIPAA de-identifier filter replaces the patient’s demographics and EMPI identifier with an alias, and this alias is stored alongside the EMPI identifier in a cross walk table so the result can be re-identified at a later date (as required by the use case). Lastly, a mapping filter batches several HL7 2.5 messages into a single ebXML with a SOAP wrapper and forwards it using the PHIN MS transport layer onto the PHA, where another interface engine receives and processes the message.

Clinical Data Repository: The clinical information accessible to HIN users currently resides in 3M’s centralized Clinical Data Repository (CDR). A decision has been reached by the HIN Board of Directors to move to Orion Health’s CDR. Contract negotiations are currently underway. The goal of this change is to maintain current CDR functionality and bring in a less costly solution to bring HINs’ HIE services to scale statewide with the flexibility needed to add

additional functionality and data fields as is needed to meet the needs of Maine providers and the requirements of ONC and CMS in regard to meaningful use.

Each participant facility system currently pushes clinical information into the messaging engine installed at each site. The messaging engine then performs the required patient lookup and confirms that the patient is available in the 3M Enterprise Master Person Index (Note, as a result of the change in the CDR, HIN is currently finalizing a contract with Initiate (IBM) to be the vendor for the Enterprise Master Person and Master Provider Index). The 3M engine currently performs message transformation, changing the messages from a site's local format into the statewide standard, which is HL7. Confirmation of the consent status of the patient is also done. In the absence of required consent, the engine prevents the message from being recorded into the CDR. This confirmation step can also occur within the facility, before the data is ever transmitted to the CDR. Upon receipt, the message is translated via the 3M Healthcare Data Dictionary (HDD) into a standard coding system and stored in the CDR.

If the search in the EMPI fails to identify the patient, an additional search is done using patient demographics as matching criteria. If a match above the required threshold is found, the newly discovered identifier is added to the patient's existing list of patient identifiers. If no matches are found, then a new patient is registered.

Access to patient data: Access is gained using the Concerto™ portal. End users must first authenticate in to their local hospital network infrastructure. Upon launching HIN from their internal system they are then again faced with another security level of asking for their passwords. They are then grouped into a role-based access to certain information in the system. Upon accessing any patient they are asked to establish a relationship with the patient in order to view any data. Each step of this process is logged in an Audit table. No shared accounts are allowed in HIN, in order to provide accountability. All access to HIN is granted by HIN through the request of designated security officers at each site.

The user simply requires a computer with a web browser installed, The user is first required to log into the system with a unique user name and password combination, When login is complete, the user can search for the required patient using either the patient identifier or the patient demographics. Once the patient is found, the record is displayed to the user according to the user's security privileges and the patient's recorded consent.

User audit logs are monitored daily for a number of factors including but not limited to, failed authentication attempts, number of logins, number of patients accessed over a time period, number of accesses of a single patient, patients viewed, name similarities between user and patient, and reason(s) given to view the patient(s). These reports can be called ad hoc through the HealthInfoNet portal via an easy to use Graphical Interface. Each participant has identified at least one security officer at their site that has access to the Ad hoc audit log reporting functionality, to use at their discretion. HealthInfoNet provides logs to sites on an as needed basis; some sites request daily summaries of activity.

Integration: Rhapsody™ contains powerful message mapping and translation tools to enable data conversions to occur in cases where the external system is unable to comply with national or state standards. Rhapsody™ utilizes the underlying message mapping capability of Orion's Symphonia suite, used by more than 10,000 vendors and providers throughout the world, to enable healthcare-specific messaging within their systems.

The solution can be easily integrated with a larger, nationwide EHR system simply by exposing an interface allowing the nationwide system to query the HIN system's CDR. The centralized repository means the HIN is only required to add the ability for queries to be performed against a single data source. This has the following advantages:

- Ensures that the HIN system can be part of a national system within a short time period;
- Allows interfaces to be modified as the NHIN standards adapt and grow; and
- Ensures that information provided from the HIN system to external queries is complete because there are no underlying systems that may be offline.

Performance: The system allows system extracts to be either batched (e.g., overnight during low-peak periods of use) or real-time if suitable hardware is deployed to handle this extra load. The client requests from the browser to the server and the web pages presented to the user in response to those requests are typically 120 kilobytes or less. This size will not adversely impact network performance.

The system can be deployed using performance-monitoring tools to measure system and network performance. The Demonstration Phase has performed stress testing, load-balance testing, and fine-tuning of the database, and indexing has been performed when these tests indicate the response times are not within the adopted standards for timeliness.

Reliability/Availability: Concerto's web-based architecture model is scalable; accommodating networks ranging from a few workstations to thousands. The solution can be deployed with clustered web servers, application servers, and database servers to provide high availability. One server at a time can be taken offline when software updates are applied.

Given the high-availability hardware configuration being used, and given that complete, thorough testing of the system is being carried out during the Demonstration Phase, the HIN goal is to have almost 100% availability of the system at all times. One of the key features of Concerto™ is that it allows step-by-step upgrading of systems, ensuring minimal effect on existing hospital workflows and avoiding the cost and disruption of total information system replacement. Rhapsody's "on-the-fly" maintenance capabilities bring engine downtime to almost zero, so there is no routine downtime. The only exception is system upgrading, when the engine will need to be stopped and restarted, which only takes a few minutes.

HealthInfoNet employs a replicated database at a collocation site in order to minimize disruption to services. Also all HIN backup tapes are stored at a 3rd secure site greater than 15 miles from the data centers. This replicated database acts as a failover environment in case of disaster,

hardware failure or other problems. In each data center we have multiple power sources on different power grids, redundant internet connectivity, redundant routers and switches, redundant HVAC systems, ups and diesel generators in case of power loss, on site 24/7 network operations center, and daily tape backups.

Integrity: HIN has been using the 3M HIS EMPI's enhanced record-matching logic to address the problem of duplicate records and help prevent duplicates from ever entering the EMPI. This logic has the following capabilities:

- More intelligently compares a multitude of data elements;
- Anticipates possible mistakes and variations in data entry;
- Matches records even when their individual data elements are not exactly the same; and
- Helps overcome the inconsistencies created by variations in registration practices across multiple systems.

When a single identifier, such as an enterprise identification number (EIN) or a facility ID/medical record combination, is not available for a record search, or no exact match for the identifier is found, the EMPI uses probabilistic matching logic rules to examine and compare many different data fields within the record. Before a new record is ever added to the EMPI, the matching logic searches and thoroughly compares the incoming data with the existing demographic data contained in the EMPI. The matching logic can quickly calculate the probability of a record match and presents the user with the information needed to determine if two records belong to one patient. Matching one patient record to another consists of the following steps:

- Normalizing all incoming data elements;
- Querying the EMPI's patient records and building a candidate list;
- Scoring the candidates to indicate the probability of a record match;
- Sorting the candidates by their scores and arranging them for the user from highest to lowest probability; and
- Returning the best candidate(s) to the user.

Interoperability: To allow disparate systems within HIN to communicate with each other, standardized coded data is required. HIN has adopted the approach of using accepted national coding and terminology standards that serve as a common language between systems.

The HDD is a concept-based medical data dictionary that encodes clinically relevant patient data. The HIN system makes full use of the HDD's extensibility, flexibility, comprehensiveness, and rich ontology. In line with the goals of the HIN system, the HDD is targeted at mapping among standard and interface terminologies and unifying them under a single, consistent model.

Since the HDD is specialized to code the essential clinical information critical to patient care, it is not cluttered with a vast number of clinically irrelevant terms and relationships that would be present in a more general, linguistic data dictionary.

Mapping: Mapping is the process of creating one-way links between concepts and terms for specific purposes. Mapping often involves patient, administrative, or interface contexts between concepts in the following:

- A reference terminology and external administrative or reimbursement classifications;
- A reference terminology and interface (enterprise- or application-specific) terms or codes;
- Different source terminologies or application vocabularies.

The one-way links are established through representation synonymy, term association, relationships, attributes, layers of granularity, or composition/decomposition. The result is a universal, cross-referenced map accounting for all concepts and terms in the HDD.

Currently 3M maps interface terminologies of healthcare systems to standard terminologies in the HDD; the enterprise's data becomes exchangeable and interoperable with the rest of the world through the use of the standard codes in the HDD.

HIN and 3M currently establish mapping accuracy (correctness) and consistency (inter-mapper and inter-site consensus) through an expert review and QA process, which is supported by automated, self-learning mapping tools and a Mapping Quality database. Staffing, training, procedures, automated tools, and documentation are all in place.

Our project management and coordination provide for an efficient site implementation, and lessons learned allow for continuous quality improvement. As each new terminology is added to the HDD, the number of concepts, synonyms and relationships in the HIN network grows, allowing it to take advantage of economies of scale for the mapping effort. 3M manages ongoing updates from standard terminologies as well as additions and changes from local sites. This creates an environment that encourages continuous growth and improvement of the HIN network. It also ensures that the HIN network is completely compatible with the operational needs of its participants.

Laboratory Result Reporting: HIN maps the laboratory results codes to the LOINC standard for purposes of reporting and information exchange. Using the LOINC standard to exchange clinical data allows participants to achieve semantic interoperability with other HIN participants and in the future participants in the NHIN.

By taking advantage of mapping rather than using LOINC directly, participants ensure that all of their legacy data can continue to be useful. There is no need to discard legacy data because, as far as the individual facility is concerned, there are no changes to the codes that it has always used. Mapping allows participants to maintain their investments in their legacy systems and also allows them to achieve semantic interoperability with external systems. Using the HDD and mapping also relieves participants of the burden of vocabulary maintenance. Updates and changes to the standards are handled through the HDD, so participants are assured of staying current with the latest version of standards without the need to maintain staff for vocabulary and standards maintenance. Because the data within HIN has been normalized through the HDD and stored in structured format in the CDR, it is viewable in a consistent manner through the Concerto Medical Applications Portal. Authorized users from within HIN and from other HIEs

can log into Concerto and view the results, and they can also use decision support with the coded data.

HIN is currently reviewing the option to provide direct laboratory ordering and results delivery through the Orion Concerto Portal. This capacity is one of the new functionalities being procured in the current vendor negotiations.

Data Protection

All connections to HIN are provided through a port-to-port VPN tunnel. The firewall is in a state of implicit deny all, and only access rules created by the discretion of HIN are allowed. There are no direct internet facing servers. All traffic located in these IPSEC tunnels are encrypted in SSL, as another layer of security. Our data center also employs a tipping point device that inspects packet flow at the application layer in order to detect any anomalies. No external programs are allowed to make calls directly to the HIN database, at this time. All servers are located in a datacenter that has appropriate physical and technical barriers to limit access. Our current data center meets all SAS 70 requirements, and is annually audited by a third party.

Operational Task 17: Develop a statewide HIE solution plan to incorporate non-EHR providers and vendors/aggregators.

During the planning period, HIN has focused on the progress of the Demonstration Phase and plans for the transition to implementation. The planning activities addressed: an evaluation of the Demonstration Phase technical architecture, lessons learned and modifications, new functionality/ enhancements, HIE certification, meaningful user certification, and REC coordination.

Evaluation of Technical Architecture

In preparing to move beyond the Demonstration Phase, a formal review of the demonstration phase technical architecture for the exchange has been executed and recommendations were made in June 2010 for changes that are needed to support implementation of the statewide HIE solutions defined. The review process included the development of a technical review team composed of subject matter experts and consultants retained to support an independent assessment of the technology architecture. The review addressed key areas of performance experienced during the Demonstration Phase including:

- Software Module Strengths and Weaknesses
- Database Design and Capability
- Security and Audit Control
- Network Performance
- Technical Support
- Staffing and Technical Skill Mix Alignment

The review process also included a performance gap analysis, assessment of alternative technologies and technical support configurations, and a migration strategy that will enable the HIE to transition to the next iteration of the exchange while continuing to support, manage and

grow the level of connection established during the Demonstration Phase. For those areas of technical design where changes are recommended coming out of the Demonstration Phase, the evaluation process resulted in the development of a transition plan that includes an investment summary, order of priority for changes and a time line for completion of this work.

Lessons Learned and Modifications

Working closely with the HIN User Group, individual users, HIN staff and vendor partners 3M and Orion Health, HIN addressed the current Demonstration Phase HIE system and identified modifications needed for statewide implementation. HIN has developed a user survey that addresses ease of use, response time, content displays, etc. The results of the user surveys were combined with input from the system managers to develop a plan for needed changes. Major areas that needed to be addressed included (but were not limited to) the following:

- **Provider Directory:** An improved statewide master physician directory is needed to support effective management of provider-oriented services such as result reporting and coordination of services across care delivery locations. The unique identification of a physician across multiple organizations is a challenge but is necessary for the quality reporting needed to meet the meaningful use criteria. This statewide directory will also provide a valuable resource to other users building physician specific databases.
- **Response Time:** User satisfaction is directly connected to response time. One of the planning activities was to benchmark response times and work with the vendors to guarantee an acceptable time for all users.
- **HIN Data Set:** The data elements currently collected in the Demonstration Phase need to be expanded for the implementation phase in order to incorporate content that is not included in the current scope of the Demonstration Phase – insurance demographic information, images for radiology, etc.
- **Technical Help Desk Support:** The scope and nature of 24 X 7 support for HIN operations was reviewed in relationship with the availability and resource requirements of 24hr support.
- **HIN Database Development:** The approach for the hosting of the data center and provider of ASP service needs was reassessed during the planning period. Given the future needs for quality reporting and access to the data, it was determined important to have a database management and reporting strategy as HIN moves into the implementation phase.

Operational Task 18: Apply for HIE Certification when available

Implementation Activities

The HIN Demonstration Phase will be completed in the early summer of 2010. The timing of the implementation activities will support the transition from the HIN Demonstration Phase to a statewide implementation Phase for the exchange. The implementation activities will include: 1) transition of the Demonstration Phase to a full Operational Phase, 2) implementation of the plan for system modifications/enhancements, 3) negotiations with the vendors for the operational phase, 4) development and implementation of a schedule for user subscription costs, 5) phase-in

of additional users, and 6) the design and management of the clinical data repository for quality reporting. All of these activities will be components of the Maine HIT Operational Plan.

Although HIE certification requirements have not been finalized, HIN has met the following criteria which were part of the HIE certification discussions:

- Include 5 or more competing provider organizations or at least 50 percent of the provider organizations in a service area.
- Include different types of provider organizations, two of which must include independent physician practices and safety net providers.
- Involve both inpatient and outpatient settings.
- Include both provider applications (certified EHRs) that will exchange information across different sites of care.
- Applications must be the products of multiple competing vendors, where EHRs are deployed in clinical settings, and handle a volume of at least 100,000 patient encounters per year.

Operational Task 19: Implement a statewide plan for new user participation

Limitations of the Demonstration Phase Exchange Model

When HIN developed its technical model for its twenty-four month Demonstration Phase, a conscious decision was made to start the exchange as a portal solution that could be effectively embedded into each participating provider's existing Electronic Medical Record (EMR) solution. The decision to start with a portal strategy for the statewide health exchange was further reinforced by the choice of central data repository model as the foundation for how the initial technology model would be anchored.

The risks associated with attempting to incorporate the XML bi-directional file exchange standards in to the model for the Demonstration Phase were judged to be too great in 2006 and 2007, given that most inpatient and ambulatory EMR vendors were still considering how to modify their products to support these evolving file exchange standards. While there has been progress in developing CCR/CDA standards within ambulatory EMRs since 2008, the need to settle on a demonstrated technical architecture heading in to 2008 further supported the choice of a portal approach for the Demonstration Phase. In expectation that HIN will transition to bi-directional exchange standards (HITSP CCD/C-32) coming out of the Demonstration Phase, each of the two vendors involved as finalists in the technology vendor contract negotiations were required in the final contract to demonstrate and commit to the delivery of CCR/CDA bi-directional interfaces heading in to the full statewide health information exchange implementation at the conclusion of the Demonstration Phase. Orion Health was selected as the technology vendor supplying both the inbound and outbound interface management tools for the Demonstration Phase. Orion has subsequently demonstrated to HIN that they can manage CCR/CDA inbound and outbound exchange transactions with their existing interface tools.

The evaluation of the 3M/Orion vendors for the demonstration phase resulted in a number of findings of current limitations that were critical to the choice to change vendor relationships:

- The current demonstration phase infrastructure is unsustainable

- Contract with 3M/Orion expires 12/15/10,
- 3M as prime contractor wasn't very effective due to 3M's challenges managing multiple subcontractors,
- The 3M platform does not support flexibility in discrete data capture needed for statewide HIE rollout, and
- The 3M cost structures were too high, and with renewal are expected to increase
- HIN needs an adaptable, current infrastructure at affordable cost
 - Lower price point with sustainable costs,
 - Scalability – make possible significant growth,
 - Implement right mix of in-house vs. outsourced functions,
 - Extensible and flexible platform (statewide, new fields),
 - Support expanded reporting and analysis,
 - Supports expanded discrete data capture, and
 - Effectively support meaningful use requirement for customers.

Negotiations with the Vendors

As a result of this analysis, HIN conducted a review of the current HIE vendor marketplace by analyzing data presented by Health Industry Insights in a report released in March 2010¹² as well as other HIE market research available. In addition a team of specialists, CIOs and experts consultants working with HIN conducted an extensive assessment covering software offerings, products/services and a company's position and commitment to the HIE marketplace, through direct one-on-one interviews with vendors and clients across the country, attendance at the Health Information Management Systems Society (HIMSS) annual meeting and associated HIE "connectathons" and a review of software specifications provided to HIN by prospecting vendors. Figure 20 provides a summary of HIN's findings for the top three candidates for HIE services in Maine. Specific criteria was used to identify the top candidates, most notably was the capability of the vendor to maintain and enhance the attributes of the demonstration phase systems viewed positively by participants including the user portal, functionality, the fundamental architectural model (centralized), consent management, system flexibility, and scalability.

¹² Lynn A. Dunbrack. Vendor Assessment: Industry Short List for Health Information Exchange Technologies. Health Provider IT Strategies Market Overview #HI222529. March 2010.

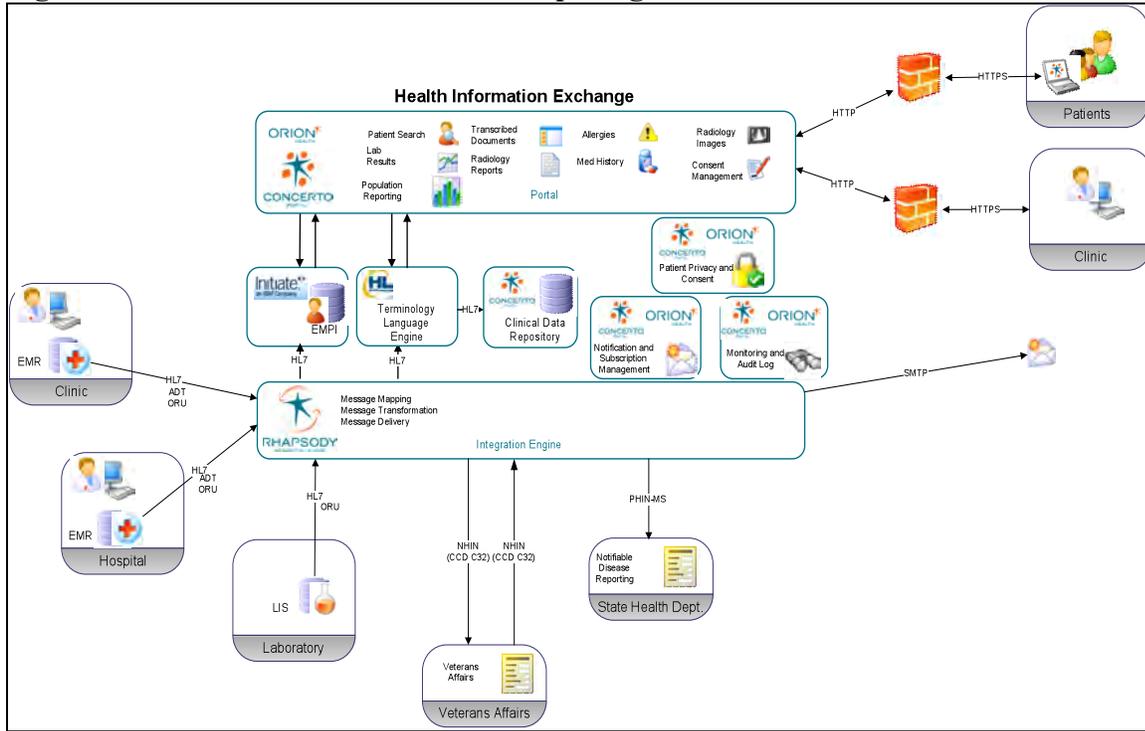
Figure 20: HIN Top Vender Ranking Summary 2010

HealthInfoNet		6/1/2010	
Vendor Strengths and Weaknesses		HealthInfoNet Confidential	
Scale: VS = Very Strong, S = Strong, SS = Somewhat Strong, S&W = Strong & Weak, SW = Somewhat Weak, W = Weak, and VW = very weak			
Summary Table	Orion	3M	Microsoft
SW Offerings			
EMPI (Patients & Providers)	n/a	S&W	W - Limited - Amalga - Med Rec Locator
Interface Engine	S - Rhapsody	n/a	SW - Limited - Amalga - write your own parser
Clinical Database (CDR)	S	S&W (old tech & design)	VS - Amalga
Portal/Applications	VS - Concerto	n/a	W - Limited - Amalga - Viewer Application
Mapping/Coding (HDD)	n/a	VS - HDD	VW - Limited - 3rd Party
Reporting & BI	SW - Limited - write your own	SW - Limited - write your own	VS (Potential) - Amalga v2 - MS BI Stack
Public Health Support	SS - Rhapsody Connect	n/a	W - Amalga
Products/Services			
Mature Product(s)	S	SW	VW - little resuability and experience
Large Customer Base	S - varies by product	W - varies by product	VW - only 2 HINs live
Current Technology	S - up-to-date	W - db design and adaptability	VS - SOA with MS products
Integrated Product	S - all product interoperate	SW - adaptability	S&W - all built on Amalga arch.
Value to Cost Ratio	S - good ratio	W - very expensive	W - expensive considering amount of customization required
Customizable/Adaptable	S - very responsive/adaptable	SW - varies by product	VS - Amalga ultimate, adaptable product-pay & make it what you want
User Group	S&W - Started in May 2010	VW - Does not exist	VW - new, enthusiastic users but not many of them banding together
Implement Resource Avail.	S	SS	S&W - lots trained but inexperienced
Implement Effort (HIN)	VS - already installed/running	SS - already installed/running	S&W - six month minimum timeline
Support & Maintenance	SS	VW	S - not much experience yet
Company			
Stability of Company	SS - small, closely held with profit.	S - Parent company	VS - large and stable company
Vendor Div. Working Rel.	S - Very responsive	SW - shallow resources	S - by reputation (ref calls)
Commitment to Product(s)	SS - Only source of revenue	SW - Long term commitment?	VS - Committed long term

Modification/Enhancements Implementation

As discussed above, the evaluation of the Demonstration Phase technology model has been completed and the HIN team is currently planning for the transition to full implementation of the statewide HIE. Although contract negotiations have not been finalized, a final decision has recently been made by HealthInfoNet’s Board of Directors to move forward with a set of four vendors; Orion, Health Language Incorporated, Initiate and WinexNet. As this systems architecture diagram depicts below, HIN is now in the process of incorporating and leveraging many new features across our current operations. One of the key elements to the success of this transition is maintaining both our User Portal and data feed interface with our existing HIE participants. This approach will allow HIN to not only reduce the risk of the implementation, but to also continue the process of connecting new provider organizations to our HIE services.

Figure 21: HIN New Vendor Relationship Diagram



HIN has developed a scope of work to determine which changes fall within the current vendor scope of work and which enhancements/changes are new requirements. This milestone project schedule depicts our planned transition activities as the HIN moves through this technology maturing process to better position our services with the State of Maine. It is planned that the new contract will cover the time periods 2010 – 2014. As vendor contracts are currently being finalized, full detail for the implementation schedule is still under development and will be finalized by the end of June 2010.

Task Name	Duration	Start	Finish	Jun '10		Jul '10			Aug '10			Sep '10			Oct '10			Nov '10			Dec '10									
				30	6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28
1 New HIE Architecture Implementation	117 days	Fri 6/25/10	Mon 12/6/10	[Gantt bar spanning from 6/25 to 12/6]																										
2 Contracts Signed	0 days	Fri 6/25/10	Fri 6/25/10	[Task bar at 6/25]																										
3 Project Planning	10 days	Fri 6/25/10	Thu 7/8/10	[Task bar from 6/25 to 7/8]																										
4 Installation & Configuration	80 days	Fri 6/25/10	Thu 10/14/10	[Task bar from 6/25 to 10/14]																										
5 Core Modules	80 days	Fri 6/25/10	Thu 10/14/10	[Task bar from 6/25 to 10/14]																										
6 Winxnet (Data Center)	47 days	Fri 6/25/10	Mon 8/30/10	[Task bar from 6/25 to 8/30]																										
7 Initiate (EMPI - Patient & Provider)	70 days	Fri 7/9/10	Thu 10/14/10	[Task bar from 7/9 to 10/14]																										
8 Orion (CDR - Clinical Data Repository, Concerto & Rhapsody) - Orion will host database until new data	40 days	Fri 7/9/10	Thu 9/2/10	[Task bar from 7/9 to 9/2]																										
9 Health Language Inc. - HLI (Language Engine & Tools)	15 days	Fri 8/13/10	Thu 9/2/10	[Task bar from 8/13 to 9/2]																										
10 New Module	20 days	Fri 9/3/10	Thu 9/30/10	[Task bar from 9/3 to 9/30]																										
11 Orion (Notification & Subscription Management)	20 days	Fri 9/3/10	Thu 9/30/10	[Task bar from 9/3 to 9/30]																										
12 Data Migration	50 days	Mon 7/26/10	Fri 10/1/10	[Task bar from 7/26 to 10/1]																										
13 Acceptance Testing	31 days	Mon 10/4/10	Mon 11/15/10	[Task bar from 10/4 to 11/15]																										
14 Production Migration	15 days	Tue 11/16/10	Mon 12/6/10	[Task bar from 11/16 to 12/6]																										
15 Switch Over - Go Live	0 days	Mon 12/6/10	Mon 12/6/10	[Task bar at 12/6]																										

Transition of the Demonstration Phase to an Operation Phase

HIN realizes that a vendor transition of this nature includes multiple risks that must be addressed. HIN's contract with 3M its current vendor ends in December 2010 and to be cost effective HIN is doing everything in its power to implement the new vendor platform between June and December. Some risks that HIN has been focusing on in regard to this transition are presented below.

Company & Product

- Orion – small company, potential acquisition target in healthcare market
- Initiate – recently purchased by IBM, uncertain direction for product
- Health Language Inc. (HLI) – small company founded in early 2000
- 3M – Limited market presence in HIE, mainly focused on serving the Department of Defense (DoD)

Technology

- 3M – Not making the technical investment in products (CDR & HDD)
- HLI Language Engine – first integration with Orion's CDR

Project Management

- Short Timeline – need to ensure transition is completed by December 2010 and allows for growth in meeting Beacon HIE objectives
- Extra Cost – Short term transition costs for new integration and data migration activities
- Extra Scope – New Orion Notification & Subscription Module, HLI Mapping Tools and features within Initiate
- Required Training - Use of new modules, tools and functionality

HIN is working with its staff and expert consultants to mitigate these transition risks. As the contracts with the new vendors are finalized these mitigation strategies will be aggregated into a comprehensive project plan used by the HIN team to manage and monitor progress and risk.

Schedule

- Risk: Short Implementation Timeline – 3M Contract Ends on December 15, 2010
- Mitigation:
 - Orion will host initial database and application servers in order to support early start on data conversion & allow the standup of our new data center
 - HLI's Language Engine integration is not critical to transition Go live – terminology mapping can be done manually

Cost

- Risk: Short term transition costs for new integration and data migration activities
- Mitigation:
 - Shifted costs from 2010 into 2011 due to cash flow needs
 - Plan to sign up additional sites for integration work to begin in 4th Quarter of 2010, plan completion in 1st Quarter 2011

Scope

- Risk: Integration of Orion's Notification & Subscription Module, HLI Language Engine / Mapping Tools, Initiate EMPI and Winxnet Data Center
- Mitigation:
 - Implementation of Orion's Notification & Subscription Module is not critical to the transition of existing sites – this is new functionality
 - Delay integration of HLI's Language Engine and process mappings manually during initial Go Live on new system
 - Focus on core features offered in Initiate module for patient and provider population
 - Work with Orion to host environment until hardware can be procured by WinexNet

Operational Task 20: Negotiate an operational contract with the vendors incorporating system modifications and enhancements to include introduction of CCR/CDA exchange standards.

Establish Vendor Commitment to Implement CCR/CDA Bi-Directional Exchange Functionality

The contract negotiated to expand to a full, statewide health information exchange at the conclusion of the Demonstration Phase sets the timetable for implementing bi-directional interoperability standards based on CCR C-32 HITSP requirements. This important addition in functionality to support enhanced patient summary document sharing will complement the existing portal strategy. The move to these expanded exchange standards will be coordinated with the definition of EMR specifications by the statewide REC for contracting with EMR vendors to ensure cost effective integration of EMR solutions with the statewide health information exchange going forward.

Fee Structure for Users

Building on historical work done by HIN in reviewing options for fee schedules and working closely with the OSC during the planning period, HIN will implement the new participating user fee schedule starting in the summer of 2010.

Phase In of New Users

Currently there are 15 hospitals and one large group practice participating in the HIN Demonstration Phase. They will be transitioned to the operational phase along with new users according to the schedule provided in Figure 15. During the planning period, this schedule may be changed but the intent is to have statewide participation in the HIN by early 2014.

Clinical Data Repository/ Quality Reporting

Working closely with Onpoint Health Data and the current clinical data repository for HIN, a version of the HIN CDR will be developed for data reporting purposes in late 2010 / early 2011. The first focus of the data reporting during the implementation period will be on providing the provider community with the reporting required to meet the CMS quality data and other meaningful use requirements. A report package will be made available to providers as well as a

clearinghouse reporting function to report required data to CMS on their behalf. This activity will also be coordinated with the REC scope of work and the EHR implementation. HIN will work closely with other interested parties to integrate the various quality data activities currently underway in Maine by the Maine Quality Forum, Quality Counts, MHDO, the business coalition, and the payers (as it is currently through the REC and the PCMH Pilot).

HIN will also work with Onpoint Data to implement a plan for integrating the HIN clinical data with the Maine All-Payer All-Claims database. This database provides claims data on all settings. These efforts are currently underway. HIN's negotiations with Initiate have come at the same time as Onpoint is renegotiating its current vendor for provider identification within its All-Payer All-Claims databases in ME, VT, NH, TN, MN and other states it is currently negotiating relationships with. HIN and Onpoint are working by the end of June 2010 to determine the appropriate strategy for provider identification for both Maine datasets. These strategies must be developed in regard to current Maine laws regarding de-identification of the claims database, Maine Health Data Organizational (MHDO) approval of all data use requirements, person identification within the database etc. In addition, the Onpoint database includes Medicare claims data. This has been one of the most notable features of the Maine All-Payer All-Claims database differentiating it from others. The OSC, MaineCare, MHDO and Onpoint and HIN all are working collaboratively to allow for the use of Medicare data to improve the quality and effectiveness of care for Maine's elderly and high cost disabled individuals dually eligible for both MaineCare and Medicare. Using this data in tandem with the HIN clinical data set and Onpoint's claims data would represent a foundational opportunity to accomplish this.

Operational Task 21: Develop a plan for quality reporting for providers and address the need for public reporting

As Maine moves forward to implement the statewide HIE, several challenges will need to be met: the awarded funds will go a long way in supporting the development of a sustainable business plan; the revisions required to move the Demonstration Phase technology to a statewide system ready for implementation; the adoption of new functionality that will assist providers in meeting the meaningful use criteria, and the development of data reporting to support quality initiatives.

The HIE Cooperative Agreement funds will be used to build collaborative strategies to meet challenges as a successful HIE is implemented in Maine. The current interface model (HL7 messaging) is a possible deterrent to connection to HIN by small hospitals and physician practices. Other options such as batch vs. real time interfaces will need to be considered. Subscriber fees may be prohibitive for small providers. Even with incentive payments, capital expenditures and on-going costs may be more than a practice can afford. Subsidies or a loan program for smaller providers, many who will not qualify for an incentive payment, may need to be addressed. Value needs to be documented for hospitals and providers already supporting their own regional HIEs as is being proposed through the "wholesale / retail" approach to the REC. Access to the clinical data by third parties will be a challenge. Currently the providers own the HIN clinical data. As more interest develops in using the data for public quality reporting, rules governing access, de-identification of patients, fees for use, etc. will all need to be addressed.

All of these issues are of critical importance to OSC and HIN. As a result, from June 2010 forward the MaineCare PAPD team has been brought into weekly planning meetings of the HIT and HIE Implementation Workgroup to address each one of these issues moving forward.

Business and Technical Operations

Current HIE Capacities

The State of Maine will continue efforts currently underway to develop a patient centered health system that uses highly secure, integrated health information systems to advance access, safety, quality, and cost efficiency in the care of individual patients and populations. The patient centered health system is the vision that the HIT Steering Committee has developed as an organizational and technological principle governing all HIE efforts in the state to integrate with the State Health Plan.

HIN and OSC will continue the rollout of clinical HIE services statewide and incorporate meaningful user guidelines as agreed upon by CMS and MaineCare. HIN and OSC will build on their strong core capacities, HIN's multi-stakeholder board, OSC's multi-stakeholder HITSC, their standing committees and workgroups, vendor relationships, and systems currently participating in the Demonstration Phase. To achieve statewide scale, HIN and OSC will use funding from the HIE Cooperative Agreement, the Beacon Community and other sources described in this plan to develop, manage, and evolve data use agreements, business associate agreements, and privacy and security policies with additional providers to meet the needs of the State and assure alignment with the standards and certification requirement of the ONC and CMS (including the DURSA). In addition, through this project, HIN will continue the close collaboration between vendor and participating providers that was started during the Demonstration Phase in order to continue to address the progress of the implementation, challenges and barriers, and potential solutions.

HIN, through its COO, will continue to update its standard operating policies and procedures as presented in Appendix D to meet the needs of the evolving HIE marketplace and new requirements placed upon the organization as it moves forward on its statewide HIE deployment activities.

Operational Task 22: HIN will convene a group of interested parties to address the sharing of applications, registries, and functionalities.

State-Level Shared Services and Repositories

As a result of the vendor review and the negotiations currently underway HIN has determined to use Initiate as its chosen vendor for the statewide Master Patient and Provider Index (MPI). During the transition from the demonstration phase 3M will be in place as Initiate is being implemented. The HIN MPI is very complex and is consumes a large amount of staff time no matter what vendor is chosen. As a result of the change in vendor platforms, HIN and Onpoint are in discussions with a planned decision by the end of June 2010 to partner on a shared instance of the Initiate MPI. This will allow for economies of scale to be gained by both organizations. In addition MaineCare as also expressed interest in sharing patient and provider identification and matching services in relationship to its development for an Implementation

Advanced Planning Document (IAPD). These discussions are underway through MaineCare and Deloitte's participation in the OSC HIT and HIE Implementation Workgroup beginning in June 2010 as a standing agenda item. Finally, through participation in the New England States Consortium (NESCOS) HIE Collaboration, the New England States (including Maine) and New York are finalizing a Memorandum of Understanding to pursue a shared project to promote a shared patient and provider directory.

HIN will also explore with its participating users, opportunities for sharing applications specific to the data content and functionality of HIN. As a result of the REC award and the interest of primary care providers and small hospitals, HIN is currently reviewing the business and technical requirements related to hosting a shared EMR service for providers in the state. Due to HIN's reputation as a neutral convener, there has been interest expressed by many stakeholders and OSC in this service in order to bring down purchase and maintenance costs as well as to drive standardized quality reporting capabilities throughout the state. HIN will be requesting technical assistance from ONC and others in these areas and will be monitoring all standards and certification requirements to assure HIN's compliance and readiness to participate in the NHIN.

Finally, to improve the reach of HIN and the economies of scale for connection to the statewide exchange hosted by HIN, planning is underway to drive a nodular approach to HIE in Maine. Beginning in the Beacon Community, the Maine Primary Care Association (PCA), through HRSA funding has worked with an implementation optimization organization – Maine MSO to develop a shared data repository for FQHCs in the state. Penobscot Community Health Center is one of these health centers participating in the repository. The purpose of the repository is to provide a shared platform for FQHC reporting and connection to the statewide Immunization Registry – Impact 2. HIN has been working with the PCA and Maine MSO to develop a single point of connection to this data repository for all HIE capabilities for the FQHCs participating in the PCA. Moreover, as the MSO has already developed the APIs required to interface with the Impact 2 registry HIN is working with MSO to maximize their lessons learned and replicate that interface for the other providers participating in the exchange.

Operational Task 23: Monitor issues and risks related to the successful implementation of the statewide HIE system

HIN and OSC, in their respective roles have implemented a comprehensive risk assessment approach for early identification and quantification of risks and the identification of steps to be taken to avoid or deal with the risks. HIN has employed a robust, demonstrated risk and opportunity management approach during the Demonstration Phase. The risk assessment approach focuses on both policy and operations and is based on several key components:

- Senior management support and involvement
- Regularly scheduled communication regarding risks
- Scheduled annual review of all privacy and security policies
- Continuing HIN staff education on risk, risk assessment and risk identification
- Targeted business areas for assessment
- Standardized assessment tool
- Involvement of technology vendors/experts

- Action plans and documentation

The COO and Director of Project Management of HIN manage the risk assessment activities. The CEO serves as the Security Officer for the organization with specific roles and obligations defined in the organization's security policies. The CEO is directly accountable for adherence to the security policies and takes a direct role in reviewing and signing off on all risk assessment activities and action plans. The direct involvement of the three senior management positions in the risk assessment and risk management process signals the seriousness of the work and the availability of resources to implement changes at policy and operational levels. Monthly meetings are held with key staff members to address the risk assessments, document progress on action steps, and identify any new action needed. Targeted areas for risk assessment include: business related decisions such as policies impacting confidentiality of information and network security and technology systems including software, database management, hardware, and network performance. Using a standardized matrix to identify the risk, level of severity, potential impact, and plan for addressing risk, a comprehensive list of potential risks will be updated in the Spring of 2010 and reviewed on a monthly basis.

Meetings with staff, the primary vendors, and the Demonstration Phase Steering Committee are currently held to assist in identifying risks, and to discuss implementation options for appropriate changes. The Steering Committee has senior level technology representation from all of the provider participating sites' implementation teams. This Committee has provided the HIN project management team with information necessary for timely identification and handling of program risks and opportunities to ensure that overall cost, schedule, and technical performance objectives are met. Action plans developed are reviewed with the HealthInfoNet Chief Executive Officer who will involve the HealthInfoNet Board of Directors (including the OSC), Executive Committee, and standing committees as needed. A central file is maintained of all documentation related to the risk assessments and solutions. This risk management methodology will be carried forward as new vendors are procured and new participants are added.

If it is determined that a technology change is required to mitigate a risk, HIN has established a method for managing change requests through the vendors. A systematic process of request, evaluation, and collaborative decision-making is in place. All change requests are logged and reviewed to see if the requirements are feasible. OSC and HIN will be working closely to manage risk. The OSC will be working closely to manage risk by bringing critical issues forward to the HITSC.

Figure 11 provides examples (note this is not an exhaustive list) of risks related to the HIE Cooperative Agreement and actions taken or planned by HIN and/or OSC. These risks include: long response time for the HIN queries, breach of the data systems, confidentiality issues related to mental health, substance abuse, and HIV, the availability, completeness and cost of the prescription drug data, the need for discrete data sets for quality reporting, financial sustainability, new governance models, political uncertainty, etc.

Figure 20: Risk Abatement/Action Examples

Risk	Risk Severity and Domain	Potential Impact	Abatement Strategy / Actions
Breach of the data system/ clinical data repository by unauthorized user (assessment and Breach Notification)	High – Architecture and Security Provisions	Malicious or inappropriate use of personal health data in the exchange. Trust and use of the system may be jeopardized.	<ol style="list-style-type: none"> 1. Definition of breach, breach assessment and the procedures for investigating reported incidents of possible breach for significant risk of financial, reputational, or other harm to the individual have been developed in accordance with federal rules for Breach Assessment and Notification defined through the HITECH Act and the rules developed as required by this Act. 2. A formal policy for reporting potential breach incidents, investigating potential breach incidents, evaluating reported breach incidents, and reporting findings to individual consumers when warranted has been developed and vetted. 3. A standard security auditing protocol has been defined in collaboration with covered entities participating in the Exchange that monitors and reports on areas of high risk for potential breach with daily, weekly and monthly routines that include the exchange of audit data across all organizations and a protocol for elevating possible incidents of unauthorized access to electronic personal health information (EPI). 4. Business Associate Agreements (BAAs) between the Exchange and covered entities under contract as participants in the Exchange have been developed to incorporate the federal privacy and security changes established by HITECH. These BAAs are currently being executed by participating covered entities. 5. The new BAAs establish the terms and protocols for the Exchange reporting possible breach incidents to covered entities, standards for breach assessment, and definition of who will assume responsibility for consumer breach notification once a breach is confirmed. 6. Cyber liability insurance has been secured by the Exchange that includes the requirement for a minimum standard of annual risk assessment of all systems and operating procedures associated with breach identification, breach

Risk	Risk Severity and Domain	Potential Impact	Abatement Strategy / Actions
Long Response time for the HealthInfoNet queries	High – Technology and Architecture: Network Performance	Response time is critical to the acceptance and use by healthcare providers	<p>investigation and breach notification.</p> <ol style="list-style-type: none"> 1. Time studies were conducted in 2009 with the participating providers and it was determined that response times were exceeding acceptable standards 2. An in depth analysis of the network and clinical content was performed in collaboration with the vendor. 3. The content in the central data repository was fully indexed to enhance the efficiency of queries. 4. It was determined that the set up of the key server supporting the middle level management software was incorrect. 5. Changes to the set up were made. 6. Performance studies were repeated and the response times improved and met the HealthInfoNet service level commitments. 7. HIN staff are currently enforcing time and performance monitoring policies.
Scalability of HIN HIE Architecture	High – Technology and Architecture	The inability of the HIN architecture to scale to statewide operations and standards based HIN in conformance with NHIN would result in failure.	<ol style="list-style-type: none"> 1. Since October 2010, HIN has been working with a consulting team to assess the current HIE vendors capabilities for scaling to statewide operation. 2. Since October 2010, HIN and consultants have been reviewing the HIE vendor marketplace to assess if other vendors could reduce risk and cost associated with statewide HIE Operations. 3. In May 2010 HIN determined its current vendor relationships did not represent the best option for moving forward for statewide HIE and have conducted vendor negotiations for revising the architecture
Changes in architectural vendors	High - Technology and Architecture	New vendor relationships and timing of updates may disrupt system capabilities	<ol style="list-style-type: none"> 1. Focusing on concurrent development of and testing of new vendor environment while live on current system 2. Shifted new costs for systems (annual and perpetual) into 2011 to address cash flow needs 3. New features are delayed in implementation until new core modules are tested and functioning
Confidentiality agreement for high risk (MH/SA/HIV)	Medium – Legal and Policy	Critical information at the point of care is not included in the clinical data set	<ol style="list-style-type: none"> 4. Build off the work conducted to date through the HISPC project. 5. Bring recommendations of the Legal Working Group (LWG) to the HIT

Risk	Risk Severity and Domain	Potential Impact	Abatement Strategy / Actions
data not reached		available to clinicians at the point of care – limiting the value of the exchange	Steering Committee for feedback and input 6. Convene, regularly, the LWG to refine recommendations and present legislation to the 125 th Legislature in 2011.
The availability, completeness and cost of the prescription drug data	Medium – Business and Operations / Finance	Lack of complete prescription drug set in the clinical data set available to clinicians thereby reducing the value of the exchange (Current vendors do not have information on prescriptions paid for in cash) High costs associated with purchasing the data set from oligopolistic vendors threatens financial sustainability of HIN	1. Continue vendor negotiations with Dr. First (Rx Hub and SureScripts) during phase in period from Demonstration to statewide HIE 2. Review current legislative background on the prescription monitoring program (PMP) 3. Assess the capability of HIN to conduct PMP activities for all pharmacies in the state without compromising the “opt in” consent policy 4. Assess the ability of HIN to capture data from PMP for consenting participants to gather insurance paid and cash paid prescription drug information for inclusion in the CDR 5. Conduct outreach with the pharmacy association to assess the advantage of a PMP or other potential strategy for HIN to include all prescription information in the exchange 6. Work with AG, GOHPF, OSC, and HITSC to develop a legislative proposal if appropriate.
The need for discrete datasets for quality reporting	High – Architecture / Policy / Finance	The mission of HIN is to improve quality. The current dataset was designed in 2006 for reporting on treatment only and therefore all data is not discrete. Without discrete data quality measurement is impossible thereby reducing the business value of the exchange to stakeholders	1. Explicitly address the data set structure during the vendor evaluation for the demonstration phase (currently under way) 2. Work with QI partners, Quality Counts, Maine Quality Forum and other on the Quality and Systems Improvement Subcommittee to identify all relevant data and metrics that HIN data could be used to generate for public and population health (MECDC), Medicaid (MaineCare), and for Meaningful Use (Medicaid and Medicare) 3. Work closely with the Regional Extension Center (REC) to align data gathering efforts for quality reporting.
Limited capital, revenue, and financial sustainability	High – Finance and Sustainability	The statewide HIE structure in Maine was built upon a public/private agreement in the	1. Convened the HIN Board of Directors for a ½ day Sustainability retreat to determine the fundamental revenue framework for HIN in the short (next 4 years) and long term.

Risk	Risk Severity and Domain	Potential Impact	Abatement Strategy / Actions
of HIN		fundamental public good of HIE. Should a sustainable financial model not develop significant local, state, and federal resources will be wasted at the expense of the quality and safety of the healthcare system.	<ol style="list-style-type: none"> 2. Agreed that an equal participation model would be the best option for HIN financial sustainability for the Long-term (Provider/Payer/Public) 3. For the short-term (2010/2011): HIN developed a revenue subscription model HIE services for current and new organizations. 4. Developed a tiered service bundle proposal for 2011 that will meet the requirements of ONC and CMS for meaningful use and allow participants to connect to HIN based on their current level of capabilities internally. 5. OSC is developing a legislative proposal for 2011 to leverage a portion of the current claims assessment for the Dirigo Health Program (2.14% of all claims) to support the payer revenue for HIN. 6. In May 2010 HIN has renegotiated its vendor costs and have reduced the total cost of operation by over 20%.
Impact of Transition of Governor	Medium - Governance	The OSC is currently located within the GOHPF. Should a new governor be elected in 2011, this office may be disbanded.	<ol style="list-style-type: none"> 1. The OSC is working with the Attorney General and the GOHPF to develop a permanent placement of the office to prevent political changes from impacting the Office permanence.
New Governance Structure	Medium - Governance	Relationships between OSC and HIN will need to evolve and be addressed as appropriate	<ol style="list-style-type: none"> 1. The OSC and HIN have been working in close collaboration to develop plans and Governance responsibilities and accountabilities. Legal review by both the Attorney General and HIN Legal Council is ongoing to assure that issues such as contracting, board representation, and appropriate public reporting are addressed. 2. Changes in governance require the ongoing development of trusted relationships. HIN and OSC are attending meetings with stakeholders across the state and are incorporating feedback into the evolving structure to assure that it aligns with the interests of all stakeholders and the needs of both the public and private sectors.
State rules and procedures related to	High – Financing and Operations	Long hiring process in a budget downfall and hiring freeze at	<ol style="list-style-type: none"> 1. OSC is working within the boundaries of state procurement rules leveraging staff from MaineCare to support ongoing

Risk	Risk Severity and Domain	Potential Impact	Abatement Strategy / Actions
staffing		the state level may prevent the OSC from hiring needed staff.	activities 2. HIN is supporting OSC in convening meetings, providing staffing support for planning activities etc.
Unaligned Broadband Roll Out – Connect ME – NETC -	Medium – Technical Infrastructure	A number of projects without clear alignment resulting in redundancy of service	1. The OSC is conducting meetings with NETC and Connect Me regularly to assure alignment and clear communications about the tools and infrastructure being developed, timelines for deployment and integration with HIE. 2. NETC and Connect ME officials are invited to the HITSC to present and get feedback in the Summer of 2010
MaineCare – New MIMS System – structures for oversight of incentive payment not aligned with REC or meeting needs of providers	Medium – Business and Operations	The complexity of the Medicaid MMIS systems, separate funding channels and planning activities related to incentive payment if not aligned with HIE and REC activities may drive providers from embracing technologies.	1. The HIT and HIE Implementation Workgroup has included (as of June 2010) an weekly agenda item for MaineCare and Deloitte alignment with the PAPD planning efforts and IAPD implementation planning. 2. REC (HIN) and MaineCare staff are working together to develop a comprehensive list of practices and providers qualifying for HIT incentives and are inputting data into the ONC/REC CRM tool. 3. REC and MaineCare Communications Coordinators are working together on a provider outreach campaign to promote a shared message for EMR supports in Maine.

Legal and Policy Development and Alignment

Operational Task 24: Convene the new Privacy and Security Committee to address legislative needs and develop legislation to address HIE barriers and Assure Compliance with State and Federal Law

The State of Maine has made great strides in developing policies and procedures to support HIE. HIN, working in collaboration with the State Attorney General and its own private/public Board, has assured that data use agreements, business associate agreements, and vendor contracts with its primary vendors (Orion Health, Initiate, HLI, WinexNet) are being executed in a manner that is appropriate, legal, and supports the vision of HIE in the State.

Appendix G includes the contractual agreement between HIN and OSC that outlines the accountabilities of both organizations for achieving the goals and objectives presented in this plan. This contract arrangement along with the open and transparent processes in place for both

the HIN and OSC governance bodies and associated workgroups and committees addresses accountability for meeting the needs of all stakeholders of the state while complying with all federal and state law. Monitoring and assuring strict compliance with current federal and state law is a commitment of HIN and is present throughout its policies and procedures outlined in Appendix D.

Current Privacy and Security Policies for HIE

The State of Maine has made great strides in developing policies and procedures to support HIE. HealthInfoNet (HIN), working in collaboration with the State Attorney General and its own private/public Board, has assured that data use agreements, business associate agreements, and vendor contracts with its primary vendors have been executed in a manner that is appropriate, legal, and supports the vision of HIE in the State.

HIN has developed privacy and security policies consistent with federal guidance and specific to Maine State Law, to assure the privacy and security of all patient data being exchanged (Appendix D includes HIN's Administrative and Safeguard Policies and Procedures). HIN and the State have been long time participants of the Health Information Security and Privacy Collaborative (HISPC) and have used this participation to review and, where possible, harmonize Maine State Law and Regulations with the goals of HIE. In addition, as a result of the HITECH act and the formation of the legal working group within the OSC, HIN and OSC have been closely collaborating to assure alignment of all HIE policies to the Nationwide Privacy and Security Framework for the Electronic Exchange of Individually Identifiable Health Information¹³ as well as federal summaries of laws and regulations pertaining to confidentiality, privacy and security¹⁴. Moreover the changes in the Health Insurance Portability and Accountability Act (HIPAA) have required a revision in policies such as breach notification. The HIN breach Notification Policy in Appendix D represents that change.

A consumer consent process for participation in the statewide HIE enables consumers to opt out of the exchange. When a consumer opts out, clinical content on the individual is deleted from the clinical data repository and a flag is set in the system blocking the addition of new clinical data for that individual. An audit process is run daily to assure that there is no clinical information associated with any consumer who has elected to opt out of participation in the exchange. Out of 733,965 patient consents sought to date for the HIN Demonstration, only 5,362 (.7%) have chosen to opt out.

Finally, as noted above, the OSC and HIN are engaging New Hampshire and the other New England States in interstate HIE planning efforts. Maine has been working closely with New Hampshire to begin addressing differing state laws that may impede appropriate HIE in medical

¹³ Nationwide Privacy and Security Framework:

http://healthit.hhs.gov/portal/server.pt?open=512&objID=1173&parentname=CommunityPage&parentid=34&mode=2&in_hi_userid=10732&cached=true

¹⁴ Summary of Selected Federal Laws and Regulations Addressing Confidentiality, Privacy and Security:

http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11113_911059_0_0_18/Federal%20Privacy%20Laws%20Table%202%2026%2010%20Final.pdf

trading areas that cross state borders. Leveraging such work as the “Policy Strategies for Advancing Interstate Health Information Exchange A Report to the State Alliance for e-Health”¹⁵ released by the National Governors Association in October 2009 as well as the support of the New England States Consortium of Systems Organizations (NESCSO), shared project proposals are currently under development across the New England region in collaboration with New York.

As a result of these efforts, agreements and policies are in place in Maine, allowing 16 hospitals, a large group practice, MaineCare and the MCDC to actively exchange patient information today. To achieve statewide HIE scale, the state and HIN must continue to partner in assuring the alignment of state privacy laws and regulations that may impede the electronic sharing of PHI especially for those who need it most. HIN has developed a comprehensive business associate agreement (BAA) for all participants in the statewide HIE. The current HIN BAA is provided in Appendix E.

In November 2009, a Legal Working Group (LWG) was created by the HIT Steering Committee to address the Legal and Policy Domain requirements in the State HIT Plan as required by the ONC. Specifically, the group was charged with addressing: privacy and security issues related to HIE within the state, and between states; any plans to analyze and/or modify state laws, as well as communications and negotiations with other states to enable exchange; addressing the development of policies and procedures necessary to enable and foster information exchange within the state and interstate; the use of existing or the development of new trust agreements among parties to the information exchange that enable the secure flow of information; and how the state will address issues of noncompliance with federal and state laws and policies applicable to HIE. The LWG included representatives of National Association of Mental Illness of Maine (NAMI-ME), HIV providers and advocates, the Maine Hospital Association, the Maine Medical Association, Maine Family Planning, the Attorney General’s Office, HealthInfoNet, the Maine Civil Liberties Union, and private health attorneys, among others.

The LWG met over the course of three months, beginning with a review of the work that the Consumer Advisory Committee to HIN has completed to date. Like many states, Maine has state laws that provide heightened privacy protection for certain types of health information, specifically for HIV/AIDS and mental health information. The LWG reviewed laws relevant to the group’s charge, including provisions of ARRA/HITECH (including the HIPAA amendments), Maine’s General Privacy Law, Maine’s HIV Privacy Law, and Maine’s Mental Health Privacy Law.

There was not unanimous agreement on the LWG’s recommendations, and the group agreed that the review and analysis of existing state law is an on-going process. The group did however begin to coalesce around areas that should be enumerated the strategic HIE plan to support the use of HIE, either as possible amendments to Maine’s privacy laws or as recommended changes in HealthInfoNet’s practices (see further reference to these recommendations in the HIE

¹⁵ Policy Strategies for Advancing Interstate Health Information Exchange. A Report to the State Alliance for e-Health. October 2009: <http://www.nga.org/Files/pdf/0910EHEALTHHIEREPORT.PDF>

Strategic Plan). The LWG recommends that the OSC continue working on these issues together with the HIT Steering Committee, and present legislation in the first month of the 125th Legislature in 2011. The LWG also recommended that this work continue through the new committee structure constituted under the HIT Steering Committee (HITSC). The LWG is scheduled to be reconvened in the Summer of 2010.

Appendix A: Glossary

3M Healthcare Data Dictionary: A controlled vocabulary server. It allows systems to translate and integrate patient data into a standard, meaningful language that can be used regardless of where it originated. Then caregivers and administrators can begin to share and aggregate the information for clinical decision-making and quality analysis.

Ambulatory Payment Classifications (APC): The method used by CMS to implement prospective payment for ambulatory procedures. APC clusters many different ambulatory procedures into groups for purposes of payment.

American Recovery and Reinvestment Act (ARRA): ARRA refers to the American Recovery and Reinvestment Act, also known as the “stimulus bill” that was signed into law on February 17, 2009. It includes \$787 billion in economic stimulus for the United States economy. The Health Information Technology for Economic and Clinical Health (HITECH) Act is a subset of ARRA that is an “act within the act” embedded in the ARRA legislation – about \$34 billion in funding – which is specifically aimed at helping healthcare providers obtain Meaningful Use of health information technology (HIT), including electronic health records and care coordination through health information exchange (HIE). See <http://www.recovery.gov/>

Authorized User: Each Individual authorized by a Participant to access and Use the HIN System.

Business Associate: HIPAA defines a business associate as an individual or corporate "person" that: performs on behalf of the covered entity any function or activity involving the use or disclosure of protected health information (PHI); and is not a member of the covered entity's workforce.

Centers for Disease Control and Prevention (CDC): As one of the major operating components of the Department of Health and Human Services, CDC collaborates to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

Centers for Medicare and Medicaid Services (CMS): As one of the major operating components of the Department of Health and Human Services, CMS' mission is to ensure effective, up-to-date health care coverage and to promote quality care for beneficiaries.

Certification Commission for Healthcare Information Technology (CCHIT): A voluntary, private-sector organization launched in 2004 to certify health information technology (HIT) products such as electronic health records and the networks over which they interoperate. See <http://www.cchit.org/>

Clinical Data Repository (CDR): A real-time database that consolidates data from a variety of clinical sources to present a unified view of a single patient.

Consent: The written permission of the Individual who is the subject of the Information that meets the requirements of an authorization under the HIPAA Regulations, a consent under the requirements of 42 CFR Part II, and that also meets the requirements of a consent or authorization under Maine law for the release of Specially Protected Information.

CPT (Current Procedural Terminology): CPT codes are a coding system chosen by HIPAA to identify health care services in electronic transactions.

Data Warehouse (DW): Data warehouse is a repository of an organization's electronically stored data. Data warehouses are generally designed to facilitate reporting and analysis.

Demographic Information: Information that identifies the Individual who is the subject of the health care information, including the Individual's name, date of birth and address and other information necessary to identify the Individual or that associates the individual with the Individual's Electronic Medical Record.

Dynamic Patient Summary: A real-time summary generated from the latest available information gathered from underlying clinical information systems across the enterprise (e.g. demographics, GP details, medications, encounter history, upcoming appointments).

Electronic: Relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic or similar capabilities

Electronic Health Record: An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

Electronic Medical Record: An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization.

Electronic Protected Health Information: According to HIPAA, Electronic protected health information (ePHI) means protected health information that is created, received, maintained or transmitted in electronic format.

Eligible Hospital: Per Title 18 of the Social Security Act as amended by Title IV in Division B of ARRA, an 1886(d) inpatient acute care hospital paid under the Medicare inpatient prospective payment system (IPPS) or an 1814(l) Critical Access Hospital (CAHs).

- The definition of Medicaid providers for purposes of eligibility for Medicaid HIT incentive payments provided at Social Security Act 1903(t)(2)(B), as added by ARRA, is a 81

Children 's Hospital or an Acute Care Hospital with at least 10 percent patient volume attributable to Medicaid.

Eligible Professional: Social Security Act 1903(t)(3)(B), as added by ARRA, defines an Eligible Professional for Medicaid health IT incentives as a physician, dentist, certified nurse mid-wife, nurse practitioner, or a physician assistant practicing in a Rural Health Clinic or FQHC that is led by a physician assistant, if he/she meets the criteria set forth in SSA 1903(t)(2)(A) as added by ARRA.

- For purposes of the Medicare incentive, an Eligible Professional is defined in Social Security Act Section 1848(o), as added by ARRA, as a physician as defined in Social Security Act 1861(r). The definition at 1861(r) includes doctors of medicine, doctors of osteopathy, doctors of dental surgery or of dental medicine, doctors of podiatric medicine, doctors of optometry, and chiropractors.

Enterprise Master Person Index (MPI): A central index of patient records used for the purpose of matching records from different sources and accurately relating that data to the same patient. An MPI usually does not have medical data contained within it, and may or may not point to medical data found elsewhere.

e Prescribing (eRx): Computer technology in which physicians use handheld or personal computer devices to review drug and formulary coverage and transmit prescriptions to a printer, EHR-S or pharmacy. e-Prescribing software can be integrated with existing clinical information systems to allow access to patient-specific information to screen for drug interactions and allergies.

Federally Qualified Health Center (FQHC): A type of Provider defined by the Medicare and Medicaid statutes for organizations that provide care to underserved populations and include Community Health Centers, Migrant Health Centers, Health Care for the Homeless Programs, Public Housing Primary Care Programs and some tribal clinics. FQHC provide services in both medically underserved area and to medically underserved populations.

Healthcare Information: Any Information, whether oral or recorded in any form or medium, related to the past, present or future physical or mental health or condition of an Individual; the provision of Healthcare to an Individual; or the past, present or future payments for the provision of Healthcare to the Individual.

Healthcare Institution: Any institution, facility, or agency licensed, certified or otherwise authorized or permitted by Applicable Law to provide Healthcare in the ordinary course of business.

Health Information Exchange: The electronic movement of health-related information among organizations according to nationally recognized standards.

Health Information Organization: An organization that oversees and governs the exchange of

health-related information among organizations according to nationally recognized standards.

Health Information Portability and Accountability Act of 1996 (HIPAA): A federal law intended to improve the portability of health insurance and simplify health care administration. HIPAA sets standards for electronic transmission of claims-related information and for ensuring the security and privacy of all individually identifiable health information.

Health Information Technology (HIT): Certified EHRs and other technology and connectivity required to meaningfully use and exchange electronic health information

HITECH Act: The Health Information Technology for Economic and Clinical Health (HITECH) Act is a subset of ARRA that is an “act within the act” embedded in the ARRA legislation – about \$34 billion in funding – which is specifically aimed at helping healthcare providers obtain Meaningful Use of health information technology (HIT), including electronic health records and care coordination through health information exchange (HIE). HITECH seeks to improve patient care and make it patient-centric through the creation of a secure, interoperable nationwide health information network. A key premise is that information should follow the patient, and artificial obstacles – technical, bureaucratic, or business related – should not be a barrier to the seamless exchange of information.

HL7 (Health Level Seven): A standard for exchanging information between medical applications. In general terms, HL7 is a protocol for data exchange. It defines the format and the content of the messages that applications must use when exchanging data with each another in various circumstances. See <http://www.hl7.org/>

International Statistical Classification of Diseases and Related Health Problems Clinical Modification (ICD-CM): ICD-9 (or 10)-CM is the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the United States. See <http://www.cdc.gov/nchs/icd.htm>

Interoperability: The ability of two or more systems or components to exchange information and to use the information that has been exchanged. Typically, Interoperability is understood to have three components: technical, semantic, and process.

Individual: Shall have the same meaning as the term “individual” under the HIPAA Regulations.

Information: Data, including text, images, sounds and codes and computer programs, software and databases.

Logical Observation Identifiers Names and Codes (LOINC®): The purpose of LOINC® is to facilitate the exchange and pooling of clinical results for clinical care, outcomes management, and research by providing a set of universal codes and names to identify laboratory and other clinical observations. The Regenstrief Institute, Inc, an internationally renowned healthcare and

informatics research organization, maintains the LOINC database and supporting documentation, and the RELMA mapping program. See <http://loinc.org>

Master Patient Index (MPI): See Enterprise Master Person Index.

Meaningful Use: Under the HITECH Act, an Eligible Professional or hospital is considered a “meaningful EHR user” if they use certified EHR technology in a manner consistent with criteria to be established by the Secretary through the rulemaking process, including but not limited to eprescribing through an EHR, and the electronic exchange of information for the purposes of quality improvement, such as care coordination. In addition, eligible professionals and hospitals must submit clinical quality and other measures to HHS. Pursuant to Titles 18 and 19 of the Social Security Act as amended by Title IV in Division B of ARRA, the Secretary will propose and finalize a definition for meaningful EHR use through formal notice-and-comment rulemaking by the end of FY 2010.

Medicaid Information Technology Architecture (MITA): A national framework to support improved systems development and health care management for the Medicaid enterprise. See <http://www.cms.hhs.gov/MedicaidInfoTechArch/>

Medicaid Management Information System (MMIS): The MMIS is an integrated group of procedures and computer processing operations (subsystems) developed at the general design level to meet principal objectives, including Medicaid program control and administrative costs; service to recipients, providers and inquiries; operations of claims control and computer capabilities; and management reporting for planning and control.

Nationwide Health Information Network (NHIN): Describes the technologies, standards, laws, policies, programs and practices that enable health information to be shared among health decision makers, including consumers and patients, to promote improvements in health and healthcare. The development of a vision for the NHIN began more than a decade ago with publication of an Institute of Medicine report, “The Computer-Based Patient Record.”

Orion Health's Concerto Medical Applications Portal: Provides a single point of access to all patient information that is integrated into the portal, regardless of the source of information.

Orion Health's Rhapsody Integration Engine: Manages and streamlines message exchange between hospital applications, databases and external systems.

Office of the National Coordinator for Health Information Technology (ONC): A government agency (part of HHS) that oversees and encourages the development of a national, interoperable (compatible) health information technology system to improve the quality and efficiency of health care.

Participant: The Person identified on the first page of this Agreement who is a party to this Agreement.

Person: Any of an Individual, a partnership, a corporation, limited liability company, or other entity recognized by applicable law.

Personal Health Record (PHR): An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.

Priority Primary Care Providers: Primary-care providers in individual and small group practices (fewer than 10 physicians and/or other health care professionals with prescriptive privileges) primarily focused on primary care; and physicians, physician assistants, or nurse practitioners who provide primary care services in public and critical access hospitals, community health centers, and in other settings that predominantly serve uninsured, underinsured, and medically underserved populations.

Protected Health Information: Shall have the same meaning as the term “protected health information” under the HIPAA Regulations.

Provider: An Individual who is licensed, certified or otherwise authorized or permitted by Applicable Law to provide Healthcare in the ordinary course of business or practice of a profession.

Record Locator Services (RLS): An index containing patient demographic information and the location of a patient’s medical records. It typically contains no clinical information. Participating entities decide whether or not to put record locations into the RLS. Designed to take a query in the form of demographic details and return only the location of matching records.

Regional Extension Center (REC): HITECH allows funding for 70 or more regional centers, each serving a defined, non-overlapping geographic area. The REC provides on-site technical assistance in selecting a certified EHR, implementing it, enhancing clinical and administrative workflow, and complying with privacy and security requirements. Each REC is a U.S.-based nonprofit organization with established support and recognition within the local communities they propose to serve. The REC focuses its effort on individual and small group practices (<10 providers) and providers in public and critical access hospitals, community health centers and other safety net providers.

Systematized Nomenclature of Medicine-Clinical Terms (SNOMED-CT): SNOMED CT provides the core general terminology for the electronic health record (EHR) and contains more than 311,000 active concepts with unique meanings and formal logic-based definitions organized into hierarchies. When implemented in software applications, SNOMED CT can be used to represent clinically relevant information consistently, reliably and comprehensively as an integral part of producing electronic health records. See <http://www.ihtsdo.org/snomed-ct/>

State Designated Entity: A not-for-profit organization with broad stakeholder representation on

its governing board designated by the State as eligible to receive awards under the Cooperative Agreement. For more information see the full FOA.

Veteran's Administration (VA): The VA provides veterans the world-class benefits and services they have earned by adhering to the highest standards of compassion, commitment, excellence, professionalism, integrity, accountability, and stewardship. See <http://www.va.gov/>

Workstation: An electronic device by which an Authorized User may access Healthcare Information through the Internet.

XML (Extensible Markup Language): XML is a general-purpose markup language that combines text and extra information about the text. Its primary purpose is to facilitate the sharing of data across different information systems, particularly via the Internet.

Appendix B: Executive Order

 <p>STATE OF MAINE Office of the Governor EXECUTIVE BRANCH</p>																
Home Contact Us Site Map Search Governor's Site: <input type="text"/> <input type="button" value="Go"/>																
AGENCY INFORMATION	Home > News & Events > Executive Orders > Executive Order															
<table border="1"><tr><td>Contact Us</td></tr><tr><td>News & Events</td></tr><tr><td> News Releases</td></tr><tr><td> Calendar</td></tr><tr><td> Letters from Governor Baldacci</td></tr><tr><td> Speeches</td></tr><tr><td> Executive Orders</td></tr><tr><td> Flag Etiquette</td></tr><tr><td> People Are Talking</td></tr><tr><td>Policy Initiatives</td></tr><tr><td>About the Governor</td></tr><tr><td> First Family & Blaine House</td></tr><tr><td> Cabinet, Staff & Offices</td></tr><tr><td> Mainers Working for Maine</td></tr><tr><td> Internship Program</td></tr></table>	Contact Us	News & Events	News Releases	Calendar	Letters from Governor Baldacci	Speeches	Executive Orders	Flag Etiquette	People Are Talking	Policy Initiatives	About the Governor	First Family & Blaine House	Cabinet, Staff & Offices	Mainers Working for Maine	Internship Program	<h2>An Order to Improve Health Information Exchange by Establishing the Office of the State Coordinator for Health Information Technology and the Health Information Technology Steering Committee</h2> <p>April 6, 2010 09 FY 10/11</p> <p>WHEREAS, on February 17, 2009 the President signed the American Recovery and Reinvestment Act of 2009 (ARRA), which contained the Health Information Technology for Economic and Clinical Health Act (HITECH); and</p> <p>WHEREAS, the HITECH Act includes a significant investment in health information technology and health information exchange to improve and expand opportunities to reach all health care providers in an effort to improve the quality and efficiency of healthcare; and</p> <p>WHEREAS, the Governor's Office of Health Policy and Finance established a multi-stakeholder health information technology steering committee to coordinate opportunities arising from the HITECH Act, which has been meeting since May, 2009; and</p> <p>WHEREAS, the US Department of Health and Human Services, Office of the National Coordinator for Health Information Technology has recently awarded the Governor's Office of Health Policy and Finance a cooperative agreement to advance the goals of the HITECH Act and requires the appointment of a state Health Information Technology Coordinator; and</p> <p>WHEREAS, effective coordination throughout state government and the private sector is important in implementing the goals of the HITECH Act;</p> <p>NOW, THEREFORE, I, John E. Baldacci, Governor of the State of Maine, do hereby order the establishment of the Office of the State Coordinator for Health Information Technology within the Governor's Office of Health Policy and Finance and the creation of the Health Information Technology Steering Committee as follows:</p> <p>Purpose</p> <p>The Office of the State Coordinator for Health Information Technology shall:</p> <ul style="list-style-type: none">• Serve as a focal point on health information technology (HIT) and health information exchange (HIE) policy and assure coherent, collaborative cross agency state HIT planning;
Contact Us																
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Mainers Working for Maine																
Internship Program																

- Serve as a clearinghouse for all state HIT policy;
- Align HIT planning efforts with the State Health Plan;
- Coordinate ARRA HIT/HIE planning and implementation, and provide financial and regulatory oversight of HIT and HIE efforts and initiatives throughout the state;
- Develop and disseminate public information about HIT and HIE through partnerships with stakeholders; and
- Work collaboratively with HealthInfoNet, the State's designated health information exchange, or its successor, pursuant to the public-private partnership as outlined in the State HIT Plan.

To carry out the foregoing purpose and charge, the office is administered by a director and such staff as are necessary and appropriate to carry out its activities. The director is responsible for securing external funding and administering grants to support the purposes of the office. The director is authorized to take action as necessary to carry out the goals of the office as set forth in this Executive Order, including the goals of the State HIT Plan.

A Health Information Technology Steering Committee (HITSC) shall advise the Office of the State Coordinator for HIT in developing the vision, goals, and prioritization areas for advancing HIT and HIE across Maine and to develop appropriate governance, oversight, and accountability mechanisms to assure success. The HITSC shall present a draft state HIT Plan for approval by the Director of the Office of the State Coordinator for HIT, or his or her designee.

Membership and Support

The Committee shall consist of twenty-six (26) members, twenty-two (22) of whom are appointed by and serve at the pleasure of the Governor. The Director of the Office of the State Coordinator for HIT shall serve as Chair.

The Steering Committee Members appointed by the Governor shall include:

- The Commissioner of Labor, or designee
- The Director of the Office of Information Technology, or designee
- The Director of the Dirigo Health Agency/Maine Quality Forum, or designee
- The Director of DHHS/CDC or designee
- The Director of DHHS/Maine Care Services, or designee
- The Director of the Maine Health Data Organization, or designee
- The Director of the Office of the State Coordinator for HIT
- The Executive Director or designee of the State's designated health information exchange organization
- One individual with expertise in health information exchange and/or health information technology
- Two individuals representing health care providers
- One individual representing home health providers
- One individual representing hospital systems
- One individual representing federally qualified health care

centers

- One individual with expertise in health care quality
- One individual representing behavioral health providers
- One representative of consumers
- One individual with expertise in the insurance industry
- One individual representing a business or businesses
- One individual with expertise in health care data information
- A representative of the university system
- A representative of the community college system

The President of the Senate may appoint two members of the Senate, and the Speaker of the House may appoint two members of the House of Representatives. Members appointed by the President of the Senate and by the Speaker of the House shall serve at the pleasure of their appointing authority.

The Committee may call on representatives of other state agencies or organizations not represented on the Committee to provide limited information or to participate fully in the Committee when, in the Committee's discretion, that person has responsibilities or expertise in a particular area that would be helpful to the work of the Committee. Staff support to the Committee shall be provided by the Office of the State Coordinator for Health Information Technology, Governor's Office of Health Policy and Finance, the Department of Health and Human Services and other state agencies as needed.

Procedures

The Committee shall meet at times and places called by the Chair, and no less than once a month. The Committee shall establish sub-committees to address specific areas of HIT implementation as the need arises. The members of the Committee shall serve without compensation.

Effective Date

The effective date of this Executive Order is April 6, 2010.

John E. Baldacci, Governor

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Appendix C: HealthInfoNet By Laws

CORPORATE BYLAWS OF HealthInfoNet

ARTICLE I GENERAL

Section 1.1. Name. The name of the Corporation shall be HealthInfoNet.

Section 1.2. Location of Corporation. The Corporation shall have its principal place of business at 16 Association Drive, Manchester, Maine 04351-0360.

Section 1.3. Seal. The Corporation may adopt a circular seal with the Corporation's name, the year of its organization and the word "Maine" inscribed on it. The seal may be used by causing it or a facsimile of it to be impressed or affixed or in any manner reproduced. A corporate seal may be adopted at any time by act of the Board of Directors in accordance with these Bylaws.

Section 1.4. Registered Office. The Registered Office of the Corporation is at _____ . The address of the Registered Office may be changed from time to time by the Board of Directors or by the Registered Agent.

Section 1.5. Registered Agent. The Registered Agent of the Corporation is the person designated in the Articles of Incorporation, as amended from time to time by the Board of Directors.

ARTICLE II PURPOSES

Section 2.1. General Purposes. The Corporation is organized and shall be operated exclusively for charitable, educational, and scientific purposes, including, for such purposes the making of distributions to organizations that qualify as exempt organizations under Section 501(c)(3) of the Internal Revenue Code of 1986, or corresponding section of any future federal tax code (collectively, the "Code"). HealthInfoNet will operate as a charitable, non-profit organization responsible for overseeing the implementation and operation of a health information technology network. HealthInfoNet will provide leadership and oversight for all aspects of the governance of the network including funding and financial management, employment and oversight of a Chief Executive Officer; protection of the privacy of patients' health information in all aspects of the HealthInfoNet network; compliance with privacy and

security requirements; approval of an annual budget and workplan; promotion of HealthInfoNet statewide and nationally and other responsibilities identified by the Board of Directors.

In furtherance of the Corporation's charitable, educational, and scientific purposes, the purposes of the Corporation shall be limited to:

1. Establishing, governing and sustaining an integrated electronic clinical health information sharing network designed to improve the quality of health care, enhance patient safety, moderate the growth of costs and make healthcare information available and understandable to consumers and caregivers while protecting the privacy, confidentiality, and security of patient specific health information.
2. Consistent with privacy and confidentiality best practice, providing caregivers with patient-specific information from various data sources at the point of care.
3. Supporting Maine's public health information system, including public health emergency preparedness efforts.
4. Designing the HealthInfoNet system to facilitate research aimed at improving access, and quality of care, and addressing healthcare costs. The use and disclosure of HealthInfoNet data will comply with HIPAA standards and all statutes and regulations governing the use of such data.
5. Conducting such other activities and/or business and for all other purposes that may be lawfully carried on or performed by a corporation formed under the Non Profit Corporation Law Maine Revised Statutes Annotated Title 13-B, as amended.

Section 2.2. Powers. This Corporation shall have all such powers as are authorized to non-profit corporations by the Maine Nonprofit Corporations Act. The Corporation shall neither have nor exercise any power, nor shall it engage directly or indirectly in any activity that would invalidate its status (i) as a corporation which is exempt from federal income taxation as an organization described in Section 501(c)(3) of the Code, or (ii) as a corporation to which contributions are deductible under Section 170(c)(2) of the Code.

Section 2.3. Prohibition of the Inurement of Assets and Income to Private Persons. The Corporation is not organized for pecuniary profit and shall not have any capital stock. No part of its net earnings or of its principal shall inure to the benefit of any officer or director of the Corporation, or any other individual, partnership or corporation, but reimbursements for expenditures or the payment of reasonable compensation for services rendered shall not be deemed to be a distribution of earnings or principal.

Section 2.4. Dissolution. If the Corporation is dissolved or its legal existence terminated, either voluntarily or involuntarily, or upon final liquidation of the Corporation, none of its assets shall inure to the benefit of any private individual, and all of its assets remaining after payment of all of its liabilities shall be distributed to one or more organizations which the Board of Directors then determines is qualified both as an exempt organization under Section 501(c)(3) of

the Code, and as an organization engaged in activities substantially similar to those of this Corporation (within the meaning of 13-B M.R.S.A. § 407).

Section 2.5. Tax Exempt Status. It is intended that the Corporation shall have and continue to have the status of a corporation which is exempt from federal income tax under Section 501(a) of the Code, or successor provisions of federal tax law as an organization described in Section 501(c)(3) of the Code, and to which contributions are deductible under Section 170(c)(2) and 2055(a)(2) of the Code which is other than a private foundation as defined in Section 509(A) of the Code. The Articles of Incorporation and these Bylaws shall be construed accordingly, and all powers and activities shall be limited accordingly.

No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation; provided that the Corporation shall have the power to make an election under Section 501(h) of the Internal Revenue Code. Likewise, the Corporation shall not participate or intervene in any manner or to any extent in any political campaign on behalf of any candidate for public office. Furthermore, the Corporation shall not engage in any activities that are unlawful under applicable federal, state or local laws, including, but not limited to, activities prohibited for an exempt organization under Section 501(c)(3) of the Internal Revenue Code and regulations thereunder as they now exist or as they may hereafter be amended.

ARTICLE III MEMBERSHIP

Section 3.1. No Membership. This Corporation shall have no members.

ARTICLE IV BOARD OF DIRECTORS

Section 4.1. Responsibilities of Board. The affairs of the Corporation shall be led and overseen by its Board of Directors, which may exercise all powers of the Corporation and do all lawful acts and things necessary or appropriate to carry out the purposes of the Corporation. The Board shall:

- 1) oversee the mission of the organization;
- 2) actively participate in the development of the organizational funding base;
- 3) approve operational, technology, and business plans;
- 4) assure effective management and leadership of the organization through the employment of the Chief Executive Officer;
- 5) appraise the performance of the organization;
- 6) exercise fiduciary responsibility;
- 7) advocate for and disseminate information regarding the work of HealthInfoNet;
- 8) make best efforts to assure compliance with privacy and security requirements;
- 9) conduct its work openly to build public trust and confidence;

- 10) assure that HealthInfoNet data is used and disclosed only for those reasons specified in the above mission statement and the organization's bylaws; and
- 11) ensure that HealthInfoNet is well positioned to become the Regional Health Information Organization (RHIO) for Maine.

Section 4.2. Number of Directors; Eligibility. The Board of Directors shall consist of not less than eleven, nor more than 21 (Amended on 09/19/2007) persons drawn from geographically diverse regions of the state. Directors shall be individuals who are recognized as high level leaders in their field and serve in a broad range of leadership positions in the Maine health community and others as deemed appropriate. HealthInfoNet shall maintain an approved job description for Board Directors.

The Directors shall include, but not be limited to participants in the Maine health community as: hospitals; physicians; consumers; employers/purchasers; plans/payers; members of government/public health officials; and other health care providers. The Commissioner of the Maine Department of Health and Human Services, the Director of the Maine Center for Disease Control and Prevention, and an appointee of the Governor of Maine (collectively referred to as the "Standing Directors") shall hold positions on the Board. Standing Directors may formally nominate a single designee to serve on the Board in their absence. Acceptance of a nominated designee to serve in place of a Standing Director will require a majority vote of the Board of Directors. Approved designees will have full voting rights with the stipulation that only one vote may be cast by either the Standing Director or his/her designee for every action requiring a vote of the Board of Directors. In the event that a Standing Director resigns his/her position in state government, the designee will continue to serve on the Board until a new Standing Director is appointed and a new designee is nominated and voted by the Board of Directors. (Amended on 10/18/2006.)

Section 4.3. Initial Directors Election; Term of Office. The initial Board of Directors shall be appointed by the incorporators of the Corporation and shall serve until their successors are elected and qualified at the first Annual Meeting. Thereafter, and for purposes of providing staggered terms of office only, the Directors, other than the Standing Directors, shall be divided into three (3) classes, which will, as nearly as possible, result in one-third (1/3) of the terms of Directors expiring in each year. Each Director, other than the Standing Directors, shall serve for the term of office specified in the vote by which such Director was elected until his or her successor is duly elected and appointed, unless he or she sooner resigns or is removed. Approximately one-third of the Directors, other than the Standing Directors, shall be elected each year from a slate submitted by the Nominating Committee at the Annual Meeting, for a term of three (3) years, beginning at the close of said Annual Meeting. Directors, other than the Standing Directors, shall not serve more than three (3) consecutive three (3) year terms.

Section 4.4. Vacancies. Any vacancy occurring on the Board of Directors may be filled by the affirmative vote of a majority of the remaining Directors. A person appointed to fill a vacancy which occurs other than by reason of an increase in the number of Directors shall serve until expiration of the term that would have been served had the vacancy not occurred.

Section 4.5. Removal of Directors. The Board of Directors may suspend or remove a Director at any time, with or without cause by a two-thirds (2/3) affirmative vote of the Board.

Section 4.6. Resignation. Any Director may resign at any time by giving written notice to the Chairperson of the Corporation. Such resignation shall take effect on the date of receipt or at any later time specified therein.

Section 4.7. Compensation. Directors as such shall not receive any stated salaries for their services, but by resolution of the Board of Directors, the expenses of attendance, if any, may be allowed for attendance at each regular or Special Meeting of the Board.

Section 4.8. Honorary Directors. As provided in this Section 4.8, individuals to whom the Board of Directors wish to indicate their gratitude and appreciation for outstanding service to the Corporation may be elected as Honorary Directors of the Corporation. Each such Honorary Director shall serve for a lifetime term. Honorary Directors may attend meetings of the Board of Directors but shall have no vote at such meetings. No individual may serve simultaneously as a Director and as an Honorary Director.

ARTICLE V MEETINGS

Section 5.1. Annual Meeting. The Board of Directors shall meet annually for the purpose of electing the class of Directors then standing for election or reelection as the case may be, and for the transaction of such other business as may come before the meeting. The Annual Meeting shall be held on such day and month of each year and at such time and place as shall be designated by the Board of Directors.

Section 5.2. Regular Meetings. Regular meetings of the Board of Directors may be held on such notice and at such time and at such place as may from time to time be determined by the Board of Directors. To the extent possible, meetings shall be open to the public, except for executive sessions when proprietary and personnel issues are discussed. Notice to the public will be published in advance of such meetings in a manner that the Board may deem appropriate from time to time.

Section 5.3. Special Meetings. Special Meetings of the Board of Directors may be called by the Chairperson of the Corporation on his or her own motion or upon written request of a majority of the Directors, and held not less than seven (7) nor more than thirty (30) days after such notice is given to each Director, either personally, by electronic mail, or by first class mail, postage paid.

Section 5.4. Waiver. Whenever under the provisions of the statutes, Articles of Incorporation or these Bylaws notice is required to be given to any Director, a waiver thereof in writing, signed by the person or persons entitled to such notice, whether before or after the time

stated therein, shall be deemed equivalent to the giving of such notice. Attendance of a Director at any meeting shall constitute a waiver of notice of such meeting, except where a Director attends for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or Special Meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting unless required by law or these Bylaws.

Section 5.5. Telephonic Meetings. The Directors may hold a meeting by conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence of the Director at such meeting. Notice of such meeting shall give each Director the telephone number at which, or other manner in which, he or she will be called.

Section 5.6. Manner of Acting. Except as specified by law or these Bylaws, the Board of Directors shall act by a majority vote of the Directors present in person or by telephone or similar communications equipment by which all persons participating in the meeting can hear each other at any duly called and held meeting of the Board of Directors at which a quorum is present. Each Director shall have one (1) vote. A vote of two-thirds will be required to amend any bylaw or charter provision, to approve any indebtedness to be incurred by the organization, to engage a Technology Vendor, and to change any privacy/confidentiality principles governing access to the HealthInfoNet data.

Section 5.7. Quorum. A majority of the Directors shall constitute a quorum for the transaction of business. If a quorum shall not be present at any meeting of Directors, the Directors present thereafter may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. At such adjourned meeting at which a quorum shall be present, any business shall be transacted which might have been transacted at the meeting as originally notified.

Section 5.8. Conduct of Meeting; Record of Meetings. The Chairperson of this Corporation, or in his or her absence, the Vice Chairperson or, in his or her absence, the Treasurer, or, in his or her absence, any Director chosen by the Directors present, shall call meetings of the Board of Directors to order and shall act as the presiding officer for the meeting. The Secretary or Clerk, or if neither participates in the meeting, one of the Directors designated by the Board participating in the meeting, shall keep a record of the meeting.

Section 5.9. Action by Unanimous Consent. Any action required or permitted to be taken at a meeting of the Directors may be taken without a meeting if consents in writing, setting forth the action so taken, shall be signed by all of the Directors, and filed with the minutes of the meetings of the Board of Directors.

Section 5.10. Informal Action by Directors. Action of the Directors may be taken in accordance with the provisions of Section 708 of the Maine Nonprofit Corporations Act, Title 13-B M.R.S.A. In amplification of, and not in limitation of the foregoing, action taken by

agreement of a majority of Directors shall be deemed action of the Board of Directors if all Directors know of the action taken and no Director makes prompt objection to such action. Objection by a Director shall be effective if written objection to any specific action so taken is filed with the Secretary of this Corporation within thirty (30) days of such specific action.

Section 5.11. Notice. Whenever under the provisions of the statutes, Articles of Incorporation or these Bylaws notice is required to be given to any Director, such notice must be given in writing by personal delivery, by mail, by electronic mail, or by telephone, addressed to such Director at his or her address as it appears on the records of the Corporation, with postage or other delivery fees prepaid, or at his or her telephone number as it appears on the records of the Corporation. Notice by mail shall be deemed to be given at the time it is deposited in the United States Mail. Public notice of meetings may be made in accordance with the provisions of Section 5.2 herein.

ARTICLE VI OFFICERS, AGENTS AND CLERK

Section 6.1. Officers. The officers of the Corporation shall be a Chairperson, a Vice-Chairperson, a Treasurer and a Secretary and such other officers as the Board of Directors may from time to time designate.

Section 6.2. Election of Officers. The Board of Directors shall choose annually the officers of the Corporation, all of whom must be Directors, from a slate submitted by the Nominating Committee at the Annual Meeting.

Section 6.3. Other Officers and Agents. The Board of Directors may appoint such other officers and agents as it shall deem necessary. Such officers and agents shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors.

Section 6.4. Compensation. The compensation, if any, of all officers and agents of the Corporation shall be fixed by the Board of Directors.

Section 6.5. Term of Officers. The officers of the Corporation shall hold office for a term of one (1) year until their successors shall have been elected and qualified. Officers shall not serve more than three (3) consecutive one (1) year terms. Any officer elected or appointed by the Board of Directors may be removed with or without cause at any time by an affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by vote of the Directors from a slate submitted by the Nominating Committee.

Section 6.6. Chairperson. The Chairperson of the Corporation shall be elected from among the members of the Board of Directors and shall, when present, chair all meetings of the Board of Directors. He or she shall inform himself or herself concerning all affairs of the Corporation and see that the duties of the officers are properly discharged and that the Bylaws of

the Corporation are observed. The Chairperson shall appoint such committees as he or she deems necessary, subject to the approval of the Directors, with the exception of the Nominating Committee which shall be a standing committee of the Board of Directors. The Chairperson shall be an ex officio member of all committees. The Chairperson shall perform all duties incident to the office of the Chairperson.

Section 6.7. Vice Chairperson. The Vice Chairperson shall be elected from among the members of the Board of Directors. The Vice Chairperson shall perform such duties as are assigned to him or her by the Chairperson and the Board. In the absence of the Chairperson, he or she shall perform the duties of that office.

Section 6.8. Treasurer. The Treasurer shall be elected from among the members of the Board of Directors. The Treasurer shall oversee the management of all corporate funds and securities. The Treasurer shall report to the Chairperson and the Board of Directors at its regular meetings or when the Directors shall require, an account of the HealthInfoNet transactions and of the financial condition of the Corporation. The Treasurer shall oversee the acquisition of a bond in such sum and with such surety or sureties as the Board of Directors shall determine. The Treasurer shall perform such other duties as are incident to the office of Treasurer and such other duties as from time to time may be assigned by the Board of Directors.

Section 6.9. The Secretary. The Secretary shall be elected from among the members of the Board of Directors and shall attend all meetings of the Board of Directors and record all its proceedings in a book kept for that purpose. The Secretary may give, or cause to be given, notice of all Directors' meetings and shall perform such other duties as may be prescribed by the Board of Directors or by the Chairperson. The Secretary may certify all votes, resolutions and actions of the Board. The Secretary shall in general perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned by the Board of Directors.

Section 6.10. The Clerk. The Corporation shall have and continuously maintain a Clerk, who shall be a resident of the State and who shall not be deemed an officer of the Corporation. The Board shall have authority from time to time to appoint or remove the Clerk. The position of Clerk shall be ministerial in nature, and the Clerk, in his or her capacity as such, shall have no authority to engage in any policymaking function on behalf of the Corporation, or to enter into contracts or incur debts on behalf of the Corporation. In the absence of the Secretary, the Clerk shall keep records of the meetings of directors. The Clerk may certify all votes, resolutions, and actions of the Board and committees of the Board, and may attest all documents executed on behalf of the Corporation.

ARTICLE VII
CHIEF EXECUTIVE OFFICER

Section 7.1 Authority. The Board of Directors may select and employ a professionally trained Chief Executive Officer, the qualifications of whom shall be determined by the Board of Directors, in its discretion and upon the advice of such counsel as it shall seek, from time to time.

Section 7.2. Responsibilities. The Chief Executive Officer shall be responsible for administering the Corporation's programs and activities in accordance with policies and objectives established by the Board of Directors. The Chief Executive Officer shall have the authority to employ all members of the staff in accordance with position classifications, duties and qualifications established by the Board of Directors, and shall act as liaison between the Board of Directors and the staff. The Chief Executive Officer shall annually submit a budget for the next fiscal year and shall report to the Annual Meeting on the past year's activities. The Chief Executive Officer shall be a non-voting ex officio member of the Board of Directors and the Executive Committee.

ARTICLE VIII
COMMITTEES

Section 8.1. Committees. The Board of Directors may establish such committees as it deems appropriate to assist and recommend in the management of the Corporation.

Section 8.2. Composition. Committees shall consist of at least two (2) Directors, one of whom shall be the chairperson of such committee. The Chairperson shall annually appoint the members of each committee, subject to the approval by the Board of Directors, unless the Board of Directors specifies by resolution an alternative method of naming members of the committees.

Section 8.3. Executive Committee. There shall be an Executive Committee comprised of all of the officers of the Corporation and the immediate past Chairperson of the Board and chaired by the Chairperson and with the Chief Executive Officer as an ex officio member. In the absence of an immediate past Chairperson, an at large member of the Committee shall be appointed by the Board to serve during the first two years of the Corporation. The Board may delegate to the Executive Committee all or any portion of the authority of the Board, except authority to amend these Bylaws or the Corporation's Articles of Incorporation, and except to the extent prohibited by the Maine Corporation Act. A majority of the members of the Committee shall constitute a quorum for the transaction of business. Committee meetings may be called by the Chairperson or by a designee of the Chairperson. The Committee shall keep regular minutes of its meetings and shall report its actions to the Board when so requested.

Section 8.4 Finance Committee. There shall be a Finance Committee comprised of people with experience and expertise in financial matters, chaired by the Treasurer and with the Chief Executive Officer as an ex officio member. The Committee will be responsible for

developing the Corporation's financial policies and for reviewing the management of the Corporation's investments, assisting the Chief Executive Officer in developing annual budgets, and reviewing the Corporation's financial statements and for other related duties as may be prescribed by the Board from time to time. A majority of the members of the Committee shall constitute a quorum for the transaction of business. Committee meetings may be called by the Committee Chairperson or by a designee of the Committee Chairperson. The Committee shall keep regular minutes of its meetings and shall report its actions to the Board on a regular basis.

Section 8.5 Audit and Compliance Committee. There shall be an Audit and Compliance Committee comprised of people with experience and expertise in accounting and regulatory compliance, chaired by a Director and with the Chief Executive Officer as an ex officio member. The Committee will be responsible for developing the Corporation's audit and compliance policies and for reviewing the Corporation's audited financial statements and other related duties as may be prescribed by the Board from time to time. A majority of the members of the Committee shall constitute a quorum for the transaction of business. Committee meetings may be called by the Committee Chairperson or by a designee of the Committee Chairperson. The Committee shall keep regular minutes of its meetings and shall report its actions to the Board on a regular basis.

Section 8.6 Technology/Clinical Advisory Committee. There shall be a Technology/Clinical Advisory Committee comprised of Chief Information Officers and Chief Medical Directors from Maine provider sites, practicing providers, and other interested parties with experience and expertise in the implementation and use of health information technology, clinical data sets, and/or public health information systems. Committee members shall also represent providers and clinical practices with varying degrees of electronic medical record system use including non-users. The Committee shall be chaired by a Director. The Committee will be responsible for advising the Corporation on all matters related to the HealthInfoNet system. A majority of the members of the Committee shall constitute a quorum. Committee meetings may be called by the Committee Chairperson or by a designee of the Committee Chairperson. The Committee shall keep regular minutes of its meetings and shall report its actions to the Board on a regular basis.

Section 8.7 Consumer Advisory Committee. There shall be a Consumer Advisory Committee comprised of citizens, consumer advocates, consumer organizations, legal experts, medical ethicists, health educators, privacy officers, public health professionals, and interested parties with experience and expertise in consumer participation and privacy protection in health information technology systems. The Committee shall be chaired by a Director. The Committee will be responsible for reviewing and advising on all policies and procedures related to the confidentiality of the HealthInfoNet clinical data and the privacy protection for patients. The Committee will be well versed in HIPAA and State law requirements as well as other federal and State guidelines and initiatives. The Committee will also review public health data laws and future provisions for access to the non-identified clinical data by researchers and other interested parties. A majority of the Committee shall constitute a quorum. Committee meetings may be called by the Committee Chairperson or by a designee of the Committee Chairperson. The

Committee shall keep regular minutes of its meeting and shall report its actions to the Board on a regular basis.

Section 8.8. Nominating Committee. There shall be a Nominating Committee elected by the Board of Directors. Its function shall be to prepare a slate of one candidate for each position to be filled, including the Board of Directors, the Officers and the Nominating Committee. This slate shall be mailed to the Board of Directors at least twenty (20) days prior to the meeting at which an election shall take place. The Nominating Committee shall consist of five (5) persons elected by the Directors to serve for a term of two (2) years. Three (3) members, at least one of whom must be a Director, shall be elected in even-numbered years; two (2) members, at least one of whom must be a Director, shall be elected in odd-numbered years. The Nominating Committee shall elect a chairperson, who must be a Director, to serve as chairperson for one (1) year.

ARTICLE IX FINANCES

Section 9.1. Checks. All checks or demands for money and notes of the Corporation shall be signed by such officer(s) or person(s) as the Board of Directors may from time to time designate.

Section 9.2. Fiscal Year. The fiscal year of the Corporation shall end on December 31 unless otherwise fixed by resolution of the Board of Directors.

ARTICLE X LIABILITY; INDEMNIFICATION

Section 10.1. Directors and Agents. The individual property of the Directors, officers, employees or agents of the Corporation shall not be held liable for the debts of the Corporation.

Section 10.2. Indemnification of Directors and Officers. To the fullest extent permitted by law, the Corporation shall in all cases indemnify any existing or former Director, officer, or registered agent of the Corporation who was or is a party (or is threatened to be made a party) to any threatened or pending action, suit, or other proceeding by reason of the fact that he or she is or was a Director, officer, employee, or agent of the Corporation (or is or was serving at the request of the Board as a Director, officer, trustee, partner, fiduciary, employee, or agent of another entity), or by reason of his or her conduct in any such capacity, against expenses (including, without limitation, costs of investigation and attorneys' fees, judgments, fines, penalties, and amounts paid in settlement) actually and reasonably incurred by him or her in connection with such proceeding.

Section 10.3. Indemnification of Employees and Agents. The Corporation may (but except as provided in Section 10.2 above shall not be required to) indemnify any other person who was or is a party (or is threatened to be made a party) to any threatened or pending action,

suit, or other proceeding by reason of the fact that he or she is or was an employee or agent of the Corporation (or is or was serving at the request of the Corporation as a director, officer, trustee, employee, partner, fiduciary, or agent of another entity), or by reason of his or her conduct in any such capacity, against expenses actually and reasonably incurred by him or her in connection with such proceeding. Such indemnification shall be subject to any restrictions imposed by applicable law or by the Board in its discretion.

Section 10.4. Advance Payment of Expenses. In its discretion the Board may, on such conditions as it deems appropriate, authorize the Corporation to pay or reimburse costs of investigation, attorneys' fees, and other expenses incurred by a person entitled to reimbursement under this Article, even in advance of the final disposition of the proceeding in question.

Section 10.5. Nonexclusive Remedy; Benefit. The rights provided by this Article shall not be deemed exclusive of any other right of indemnification or payment provided by contract, the Articles, vote of directors, or otherwise. Any right of indemnity or payment arising under this Article shall continue as to a person who has ceased to hold the office or position in which such right arose; shall inure to the benefit of his or her heirs, executors, and administrators; and shall survive any subsequent amendment of this Article.

Section 10.6. Insurance. The Corporation shall purchase and maintain insurance on behalf of the persons described in Sections 10.2 and 10.3 against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify such person under the laws of the State of Maine.

ARTICLE XI CONFLICTS OF INTEREST

Section 11.1. Statement of Potential Conflicts. Prior to taking his or her position on the Board of Directors, and annually thereafter, each Director shall complete and submit to the Chairperson of the Board of Directors a conflict of interest statement as required by the HealthInfoNet conflict of interest policy. The statement shall include a list of all businesses and other organizations of which he or she is an officer, director, trustee, member, owner (either as a sole proprietor or a partner), or employee with which the Corporation has, or might be expected to have, a relationship or a transaction in which the Director might have a conflicting interest. Each written statement will be resubmitted with any necessary changes annually. The Chairperson and the Board of Directors shall become familiar with the statements of all Directors in order to guide the conduct of the Board of Directors should such a conflict arise.

Section 11.2. Conduct of Meetings of the Board of Directors When a Conflict Exists. At such time as any matter comes before the Board of Directors which involves or may involve a conflict of interest, the affected Director shall make known the potential conflict, whether disclosed by his or her written statement or not. Such Director shall answer any questions that might be asked of him or her and shall disclose all material facts. At the request of the

Chairperson, such Director shall withdraw from the meeting for so long as the matter shall continue under discussion.

Section 11.3. Effect of Conflict. The Directors of the Corporation may be interested, directly or indirectly, in any contract, transaction or act relating to or incidental to the operations conducted by the Corporation, and may freely make contracts, enter into transactions, or otherwise act for or on behalf of the Corporation in such matters; provided that (i) the direct or indirect interest of the Director in the proposed contract, transaction or act shall first be disclosed to and approved by the Board of Directors, (ii) any Director directly or indirectly interested in the contract, transaction or act shall refrain from voting on the matter, and (iii) no contract, transaction or act shall be entered into or taken on behalf of the Corporation if such contract, transaction or act would jeopardize the Corporation's tax-exempt status under Section 501(c)(3) of the Code.

ARTICLE XII MISCELLANEOUS

Section 12.1. Amendments. These Bylaws may be amended or repealed or new Bylaws adopted by a two-thirds vote of the Directors at an Annual or Special Meeting as designated by the Chairperson provided that the written notice of the meeting and of the substance of the proposed change to the Bylaws is given in accordance with the procedures and time requirements specified in Section 5.11 hereof and the substance of the amendment or repeal has been discussed at a meeting of the Board of Directors at which a quorum was present held at least thirty (30) days prior to such Annual or Special Meeting; and, further provided that the Bylaws may not be amended in such a way as to cause the corporation to lose its status (i) as a corporation which is exempt from federal income taxation as an organization described in Section 501(c)(3) of the Code, or (ii) as a Corporation to which contributions are deductible under Section 170(c)(2) of the Code , or (iii) as a corporation described in Section 170(b)(1)(A)(vi) of the Code

Section 12.2. Notice. Whenever under the provisions of the statutes, Articles of Incorporation or these Bylaws notice is required to be given to any Director, such notice must be given in writing by personal delivery or by mail addressed to such Director at his or her address as it appears on the records of the Corporation, with postage or other delivery fees prepaid. Notice by mail shall be deemed to be given at the time it is deposited in the United States Mail.

ATTEST: _____ DATE: _____
Secretary

Appendix D: HealthInfoNet's Administrative and Safeguard Policies and Procedures

GENERAL ADMINISTRATIVE POLICIES

Standard	Procedure Number	Page	Review Date
Consumer Opt Out Election Process	1	3	05/18/2010

ADMINISTRATIVE SAFEGUARDS POLICIES

Standard	Procedure Number	Page	Review Date
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CONSUMER OPT OUT ELECTION PROCESS	POLICY # 1	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
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Policy Summary: HealthInfoNet is committed to supporting the direct involvement of consumers in electing whether or not to participate in the statewide health information exchange by having personal health information (PHI) included in the HealthInfoNet clinical data repository. The consumer opt out election process has been defined to support managing the execution of consumer choice about whether or not to participate in the health exchange.

Purpose: This policy reflects HealthInfoNet's commitment to support a consumer election process to opt out of having personal health information (PHI) included in the statewide health information exchange.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members involved in the execution of the consumer opt out election process and the use or discloser of electronic protected health information that may be involved in that process.*

This policy assumes that a Participants Agreement (PA) and Business Associates Agreement (BAA) has been executed between HealthInfoNet and a Maine covered entity electing to use the statewide health information exchange to support patient treatment and that the PA and BAA define HealthInfoNets responsibilities for managing an opt out program on behalf of the covered entity.

This policy's scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.308(a)(2)(i)

Policy Authority/ Enforcement:	HealthInfoNet's Executive Director (ED) and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.
Related Policies:	
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<p><i>1. HealthInfoNet will define, build and maintain both a manual (paper-based) and an electronic system to enable consumers to execute an election form to establish their decision to opt out or opt back in to having personal health information (PHI) entered, managed, stored and made available through the statewide health information exchange to support clinical treatment. This election system will:</i></p> <ul style="list-style-type: none"> <i>• Be designed to make the election process easy to execute.</i> <i>• Request the minimum amount of personal identifier information needed to effectively accomplish initiating and sustaining an opt out or opt in decision.</i> <i>• Provide a clear explanation to consumers for why personal identifier information is needed to support the opt out, opt in process and how that information will be used and retained.</i> <i>• Clearly identify personal identifier information that is required to accomplish the opt out/opt in process and personal identifier information that is desired but optional to support this process.</i> <i>• Be delivered through a secure Internet connection session for the electronic election process.</i> <i>• Provide contact information to support having consumers address and resolve questions that are related to the election system.</i> <p><i>2. HealthInfoNet will work directly with provider organizations, businesses, payers, government, advocacy groups and other statewide organizations with an interest in the statewide health information exchange to define, develop, maintain and promote a consumer education strategy that will inform consumers about:</i></p> <ul style="list-style-type: none"> <i>• The purpose of the health information exchange</i> <i>• The categories of personal health information (PHI) that will be managed through the health information exchange</i> <i>• Who will have access to PHI through the health information exchange</i>

- *What the advantages are for consumers who choose to participate in the health information exchange*
- *What the possible risks are for consumers who choose to participate in the health information exchange*
- *What a consumer needs to do to elect not to have PHI included in the statewide health information exchange*

3. *The electronic opt out/opt in election management system will be built and managed to:*

- *Edit individual data field entries to assure completeness and accuracy before submission is permitted to complete*
- *Provide an electronic confirmation to the consumer acknowledging receipt of an election submission with instructions for what to do if the election was submitted in error*
- *Provide the interface controls that will manage successful communication of the election request to the health information exchange's person identity management system*
- *Provide the system administration tools that will validate the successful match of an election request with an existing person identifier record active in the health information exchange or the creation of a new person identifier record.*
- *Provide the audit tools to support schedule review and confirmation that an opt out/ opt in election has been activated accurately at a person specific level*
- *Provide audit tools to support scheduled system review and confirmation that all PHI for consumers electing to opt out of the statewide health information exchange has been removed from the database and that the active opt out "flags" set in the system coincide with no PHI being present in the system.*

4. *Personal identifier information collected by HealthInfoNet through the electronic opt out/opt in election process will be retained in the election processing system for no more than 72 hours in order to assure completion of the election process. This personal identifier information will be deleted from the opt out/opt in election process system upon completion of the election process.*

5. *The manual paper-based opt out/opt in election process will:*

- *Date stamped with date of receipt*
- *Assure that election forms received are reviewed for completeness of required personal identifier information*
- *Require telephone or mail follow up with a consumer if an election form does not include the person identifier information required to complete the election process*

- *Provide a written, mailed confirmation letter to the consumer acknowledging receipt of an election submission with instructions for what to do if the election was submitted in error*
- *Complete the entry of individual election forms in to the health information exchange within seven (7) business days from the date that the paper election form is received by HealthInfoNet*

6. Paper-based opt out/opt in election forms will be held by HealthInfoNet for up to 1 year to assure completion of the election process. These forms will be destroyed after 1 year of retention.



SECURITY MANAGEMENT PROCESS	POLICY # 2	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
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SUPERCEDES POLICY:	REVIEWED:	
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HIPAA Security Rule Language: *“Implement policies and procedures to prevent, detect, contain, and correct security violations.”*

Policy Summary: HealthInfoNet will ensure the confidentiality, integrity and availability of its information systems containing EPHI by implementing appropriate and reasonable policies, procedures and controls to prevent, detect, contain, and correct security violations. HealthInfoNet’s security management program must be based on formal and regular processes for risk analysis and management, sanction policies for non-compliance, and information system activity review.

All HealthInfoNet workforce members are responsible for appropriately protecting EPHI maintained on HealthInfoNet information systems. HealthInfoNet management is responsible for ensuring the confidentiality, integrity and availability of all EPHI maintained on HealthInfoNet information systems.

Purpose: This policy reflects HealthInfoNet’s commitment to ensure the confidentiality, integrity, and availability of its information systems containing EPHI by implementing policies and procedures to prevent, detect, contain, and correct security violations.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members who use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as

described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.308(a)(1)(i)

Policy Authority/ Enforcement: HealthInfoNet's Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies: Risk Analysis
Risk Management
Information System Activity Review
Sanction Policy

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet makes active strides to protect the integrity and confidentiality of EPHI information managed on behalf of provider organizations participating in the statewide health information exchange. These activities include, but are not limited to the use of identity protected storage, network storage, system access logging, physical protections and security, and user education.
2. HealthInfoNet actively controls EPHI information and educates its workforce members in EPHI security by any of the following:
 - HealthInfoNet will demonstrate its commitment to enforce HIPAA regulations and secure EPHI information by establishing a HIPAA Security and Privacy Officer who will be charged with the ongoing process of establishing, maintaining and updating HIPAA rules, policies and guidelines.
 - The HealthInfoNet HIPAA Security and Privacy Officer will aggressively enforce HIPAA guidelines and procedures and will actively introduce new procedures in the face of rapidly changing technology.
 - The HealthInfoNet HIPAA Security and Privacy Officer and workforce members will meet at least quarterly to audit existing procedures and technology to ensure that HIPAA regulations are being actively enforced.

- The HealthInfoNet HIPAA Security and Privacy Officer is responsible for establishing training guidelines for each respective HealthInfoNet workforce member specifically with regards to the types and amount of training required to meet HIPAA regulations.

3. All HealthInfoNet HIPAA procedures must undergo formal risk management auditing at least yearly.
4. Despite the fact that all HealthInfoNet workforce members will not have regular access to or a day-to-day need to handle EPHI, all HealthInfoNet workforce members will receive training in and will follow baseline information security policies. This will include, but not be limited to, password use and discipline, use of network storage and workstation locking.
5. All HealthInfoNet management will actively promote and enforce HIPAA policies and procedures to their respective workforce members.



RISK ANALYSIS	POLICY # 3	
ADMINISTRATIVE MANUAL		
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HIPAA Security Rule Language: *“Conduct an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity, and availability of electronic protected health information (EPHI) held by the covered entity.”*

Policy Summary: HealthInfoNet will regularly identify, define and prioritize risks to the confidentiality, integrity, and availability of its information systems containing EPHI. The identification, definition and prioritization of risks to HealthInfoNet information systems containing EPHI will be based on a formal, documented risk analysis process. HealthInfoNet must conduct risk analysis on a regular basis. Such risk analysis will be used in conjunction with HealthInfoNet’s risk management process. HealthInfoNet will also conduct a risk analysis when environmental or operational changes occur which significantly impact the confidentiality, integrity or availability of specific information systems containing EPHI.

Purpose: This policy reflects HealthInfoNet’s commitment to regularly conduct accurate and thorough analysis of the potential risks to the confidentiality, integrity, and availability of its information systems containing EPHI.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category:	Administrative Safeguards
Regulatory Type:	REQUIRED Implementation Specification for Security Management Standard
Regulatory Reference:	45 CFR 164.308(a)(1)(ii)(A)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Sanction Policy Risk Management Information System Activity Review Security Management Process
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. The HealthInfoNet HIPAA Security and Privacy Officer and workforce members will meet at least quarterly to audit existing procedures and technology to ensure that HIPAA regulations are being actively enforced. All HealthInfoNet HIPAA procedures must undergo formal risk management auditing at least yearly.2. HealthInfoNet will contract with a 3rd party organization that specializes in HIPAA risk analysis to perform its annual analyses. The contract will stipulate at the minimum that the risk analysis will:<ul style="list-style-type: none">• Identify and prioritize the threats to HealthInfoNet information systems containing EPHI.• Identify and prioritize the vulnerabilities of HealthInfoNet information systems containing EPHI.• Identify and define the security measures used to protect the confidentiality, integrity, and availability of HealthInfoNet information systems containing EPHI.• Identify the likelihood that a given threat will exploit a specific vulnerability on a HealthInfoNet information system containing EPHI.• Identify the potential impacts to the confidentiality, integrity, and availability of HealthInfoNet information systems containing EPHI if a given threat exploits a specific vulnerability.• Any report compiled will include all statistical and technology references to formulate recommendations.• Judgments used in HealthInfoNet's risk analysis, such as assumptions, defaults, and uncertainties, should be explicitly stated and documented.

3. Upon completion of the Risk Analysis and delivery of results to the HealthInfoNet Executive Director, it is the responsibility of the HealthInfoNet Security and Privacy Officer, management and workforce members to act to resolve any critical or priority 1 issues within 4 business weeks.

4. As appropriate, the HealthInfoNet HIPAA Security and Privacy Officer and management will share the results of the Risk Analysis with standing committees of the HealthInfoNet Board of Directors and designated representatives from provider organizations participating in the statewide health information exchange.



RISK MANAGEMENT	POLICY # 4	
ADMINISTRATIVE MANUAL		
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HIPAA Security Rule Language: *“Implement security measures sufficient to reduce risks and vulnerabilities to a reasonable and appropriate level to comply with Sec.164.306 (a).”*

Policy Summary: HealthInfoNet will implement security measures that reduce the risks to its information systems containing EPHI to reasonable and appropriate levels. Selection and implementation of such security measures will be based on a formal, documented risk management process. HealthInfoNet will conduct risk management on a continuous basis and all selected and implemented security measures must ensure the confidentiality, integrity and availability of HealthInfoNet information systems containing EPHI and be commensurate with the risks to such systems.

Purpose: This policy reflects HealthInfoNet’s commitment to select and implement security measures to reduce the risks to its information systems containing EPHI to a reasonable and appropriate level.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members who use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type:	REQUIRED Implementation Specification for Security Management Standard
Regulatory Reference:	45 CFR 164.308(a)(1)(ii)(B)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Risk Analysis Sanction Policy Information System Activity Review Security Management Process
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none"> 1. HealthInfoNet actively enforces compliance with HIPAA regulations by utilizing and requiring the use of 'best practice' security measures, including, but not limited to, utilizing mandatory network login, strong password discipline, workstation security, protected network storage and physical security. 2. HealthInfoNet will contract with a 3rd party organization that specializes in HIPAA risk analysis to support performance of its annual analyses. The contract will stipulate at the minimum that the risk analysis will: <ul style="list-style-type: none"> • Identify and prioritize the threats to HealthInfoNet information systems containing EPHI. • Identify and prioritize the vulnerabilities of HealthInfoNet information systems containing EPHI. • Identify and define the security measures used to protect the confidentiality, integrity, and availability of HealthInfoNet information systems containing EPHI. • Identify the likelihood that a given threat will exploit a specific vulnerability on a HealthInfoNet information system containing EPHI. • Identify the potential impacts to the confidentiality, integrity, and availability of HealthInfoNet information systems containing EPHI if a given threat exploits a specific vulnerability. • Any report compiled will include all statistical and technology references to formulate recommendations. • Judgments used in HealthInfoNet's risk analysis, such as assumptions, defaults, and uncertainties, should be explicitly stated

and documented.

3. HealthInfoNet will only implement measures that will mitigate or eliminate risk to EPHI. HealthInfoNet's standard practices will not seek to transfer or accept risk to EPHI.



EMPLOYEE SANCTION POLICY ADMINISTRATIVE MANUAL	POLICY # 5	
APPROVED BY:	ADOPTED:	
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HIPAA Security Rule Language: *“Apply appropriate sanctions against workforce members who fail to comply with the security policies and procedures of the covered entity.”*

Policy Summary: HealthInfoNet workforce members must comply with all applicable HealthInfoNet security policies and procedures. HealthInfoNet must have a formal, documented process for applying appropriate sanctions to workforce members who do not comply with its security policies and procedures. Sanctions must be commensurate with the severity of the non-compliance with HealthInfoNet security polices and procedures.

Purpose: This policy reflects HealthInfoNet’s commitment to apply appropriate sanctions against workforce members who fail to comply with its security policies and procedures.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: REQUIRED Implementation Specification for Security Management Standard

Regulatory Reference: 45 CFR 164.308(a)(1)(ii)(C)

Policy Authority/ Enforcement:	HealthInfoNet’s Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Risk Analysis Risk Management Information System Activity Review Security Management Process
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet workforce members will comply with all applicable HealthInfoNet security policies and procedures. Compliance is mandated to ensure the confidentiality, integrity and availability of HealthInfoNet information systems.2. HealthInfoNet workforce members will understand and be aware of all applicable HealthInfoNet security policies and procedures. HealthInfoNet will provide regular training and awareness for workforce members on HealthInfoNet security policies and procedures.3. HealthInfoNet has a formal, documented process for applying appropriate sanctions against workforce members who do not comply with its security policies and procedures. The process includes: <u><i>STEPS IN DISCIPLINE PROCESS:</i></u><ol style="list-style-type: none">1. <i>Oral Reminder</i><ol style="list-style-type: none">A. <i>In preparation, the immediate supervisor will gather information, observe the situation first-hand when possible, and plan a meeting designed to help the employee recognize the problem.</i>B. <i>During that private conference, the supervisor will avoid the role of adversary, trying instead to guide the employee as follows:</i><ul style="list-style-type: none">• <i>State the problem clearly.</i>• <i>Identify the changes that are expected.</i>• <i>Ask for and listen to the employee’s point of view.</i>• <i>Encourage the employee to offer solutions.</i>• <i>Reach agreement on actions that will be taken and a timetable for that action.</i>

C. Immediately after the meeting, the supervisor will document the discussion and the resulting agreement in a memo to the employee, a copy of which will be retained in the supervisor's working file (rather than a personnel file). The employee should be informed that such a notation is being made.

2. *Written Reminder*

- *If the problem continues, the supervisor will have a second conference with the employee.*
- *During the second counseling session, the supervisor will continue to pursue a problem-solving approach, rather than a punitive one. The objective is to prevent recurring problems, not to punish for prior wrongdoing. A problem-solving approach, however, does not prevent a supervisor from expressing concern over an employee's continued unacceptable behavior. Each of the points to be included in the written notification, as outlined below in 2C should be offered orally during the meeting.*

Following that meeting, the supervisor should provide the employee written notification which includes the following:

- *A statement that is a written reminder.*
- *A clear, objective statement of the problem.*
- *The desired changes not made to date.*
- *An additional opportunity to correct the problem and the time frame.*
- *An offer of assistance as his/her supervisor.*
- *Disciplinary consequences if the problem is not effectively addressed.*

The employee's signature should be requested to acknowledge receipt, not necessarily agreement; one copy of the notification is given to the employee and one copy is placed in the official personnel file.

3. *Termination*

In the event that performance issues continue after written warning or the nature of the violation requires consideration of termination, the supervisor will document the event in writing and share the document with the HealthInfoNet Executive Director for review and sign off. Upon approval of the Executive Director, the formal termination process will proceed.

4. Sanctions will be commensurate with the severity of the non-compliance with HealthInfoNet security policies and procedures. Sanctions can include but are not limited to:

- Required retraining
- Suspension and required retraining
- Letter of reprimand
- Termination

<i>Level of Security Breach</i>	<i>Sanctions</i>
<p><i>1. Accidental:</i></p> <ul style="list-style-type: none"> <i>Car theft</i> <i>Theft or loss of laptop</i> <i>Burglary at home</i> <i>Burglary at office</i> <i>Fire or water damage</i> 	<p><i>Report incident to Executive Director</i></p> <p><i>Complete Security Incident Report</i></p>
<p><i>2. Inadvertent/Unintentional:</i></p> <ul style="list-style-type: none"> <i>– over the shoulder surfing</i> <i>– PHI left visible</i> <i>– discussing PHI in loud voice</i> <i>– forgetting to log off when computer left unattended</i> <i>– phone call or message left at wrong number</i> <i>– mail to wrong address</i> <i>– faxing to wrong number</i> 	<p><i>Self-report and self-monitor</i></p> <p><i>Verbal reminders or corrections from peer feedback and supervisor</i></p> <p><i>Review policies and procedures</i></p> <p><i>Retraining as needed</i></p>
<p><i>3. Negligence or continuous security breaches with lack of effort to modify behavior:</i></p> <ul style="list-style-type: none"> <i>– leaving PHI visible</i> <i>– discussing PHI in a way that can be heard by non-authorized persons</i> <i>– not logging off when computer left unattended</i> <i>– failure to lock files, office, or car when transporting PHI</i> <i>– providing information to non-authorized person</i> 	<p><i>Letter of reprimand</i></p> <p><i>Documentation on Performance Appraisal with a Plan of Action</i></p> <p><i>Complete Security Incident Report with steps to prevent further breach</i></p> <p><i>Required retraining</i></p>
<p><i>4. Blatant, Intentional, or Premeditated Non-compliance</i></p>	<p><i>Review by Executive Director</i></p> <p><i>Job termination</i></p>



INFORMATION SYSTEM ACTIVITY REVIEW ADMINISTRATIVE MANUAL	POLICY # 6	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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HIPAA Security Rule Language: *“Implement procedures to regularly review records of information system activity, such as audit logs, access reports, and security incident tracking reports.”*

Policy Summary: HealthInfoNet will regularly review records of activity on information systems containing EPHI. Appropriate hardware, software, or procedural auditing mechanisms will be implemented on HealthInfoNet information systems that contain or use EPHI. The level and type of auditing mechanisms that will be implemented on HealthInfoNet information systems that contain or use EPHI must be determined by HealthInfoNet’s risk analysis process. Records of activity created by audit mechanisms implemented on HealthInfoNet information systems will be reviewed regularly.

Purpose: This policy reflects HealthInfoNet’s commitment to regularly review records of activity on information systems containing EPHI.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: REQUIRED Implementation Specification for Security Management Standard

Regulatory Reference: 45 CFR 164.308(a)(1)(ii)(D)

Policy Authority/ Enforcement: HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.

Related Policies: Security Management Process
Risk Analysis
Risk Management
Sanction Policy
Audit Controls
Security Incident Procedures
Response and Reporting

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. The HealthInfoNet Security Coordinator or assigned HealthInfoNet workforce member will regularly review records of activity on information systems containing EPHI. Records of activity to be reviewed will include but are not limited to:
 - Audit logs
 - Access reports
 - Security incident tracking reports
2. Appropriate hardware, software, or procedural auditing mechanisms will be implemented on HealthInfoNet information systems that contain or use EPHI. Such mechanisms will provide the following information:
 - Date and time of activity
 - Origin of activity
 - Identification of user performing activity
 - Description of attempted or completed activity
3. The level and type of auditing mechanisms that will be implemented on HealthInfoNet information systems that contain or use EPHI will be determined by HealthInfoNet's ongoing risk analysis process. Auditable events will include but are not limited to:
 - Access of sensitive data, such as HIV results or patients who are VIPs
 - Use of audit software programs or utilities
 - Use of a privileged account

- Information system start-up or stop
- Failed authentication attempts
- Security incidents

4. Records of activity created by audit mechanisms implemented on HealthInfoNet information systems will be reviewed regularly. The frequency of such review will be determined by HealthInfoNet's ongoing risk analysis. The risk analysis will consider the following factors:

- The importance of the applications operating on the information system
- The value or sensitivity of the data on the information system
- The extent to which the information system is connected to other information systems

5. Reviews will include a formal documented process. At a minimum, the process will include:

- Definition of which workforce members will review records of activity
- Definition of what activity is significant
- Definition of which activity records need to be archived and for what period of time
- Procedures defining how significant activity will be identified and reported
- Procedures for preserving records of significant activity



ASSIGNED SECURITY RESPONSIBILITY	POLICY # 7	
ADMINISTRATIVE MANUAL		
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DATE:	REVIEW:	
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HIPAA Security Rule Language: *"Identify the security official who is responsible for the development and implementation of the policies and procedures required by this subpart for the entity."*

Policy Summary: The Security and Privacy Officer will be responsible for the security of EPHI at HealthInfoNet.

Purpose: This policy reflects HealthInfoNet's commitment to assign a single employee overall final responsibility for the confidentiality, integrity, and availability of its EPHI.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy's scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.308(a)(2)(i)

Policy Authority/Enforcement: HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.

Related Policies:

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures: *HealthInfoNet is committed to ensuring the privacy and security of protected health information that it manages on behalf of its participating provider organizations. In order to manage the facilitation and implementation of activities related to the privacy and security of protected health information, HealthInfoNet will appoint and maintain an internal Security and Privacy Officer (SO) position.*

The Security and Privacy Officer will serve as the focal point for security compliance-related activities and responsibilities, as listed below. The final responsibility for the implementation and maintenance of the security program must rest with one individual. In general, the Security and Privacy Officer is charged with developing, maintaining, and implementing organizational policies and procedures, conducting educational programs, reviewing conduct of those assigned security responsibilities, and administering reviews relating to the company's security program.

Qualifications

1. The Security and Privacy Officer must demonstrate familiarity with the legal requirements relating to security management for confidential and sensitive information including person identified health information, as well as the ability to communicate effectively with and coordinate the efforts of technology and non-technology personnel. Information security will cover legal issues, hardware and software security, as well as physical security.

*2. It is desirable that the Security and Privacy Officer has a background to include the following:
Bachelor's degree or higher from an accredited university in Management Information Systems, Computer Science, Business Administration or similar discipline;
Security certification (e.g., Certified Information Systems Security Professional (CISSP));
[Minimum of three years of information security experience].*

Identification

1. The HealthInfoNet Security and Privacy Officer is:

*Devore S. Culver
207-430-0676*

*245 Commercial St, Suite 204
Portland, Maine 04101
dculver@hinfonet.org*

2. *In the absence of the Security and Privacy Officer, an alternate Security and Privacy Officer will be responsible for executing the responsibilities outlined in this policy. The HealthInfoNet alternate Security and Privacy Officer is:*

*Shaun Alfreds
207-430-0639
245 Commercial St, Suite 204
Portland, Maine 04101
salfreds@hinfonet.org*

Responsibilities

1. The HealthInfoNet Security and Privacy Officer's responsibilities include, but are not limited to the following:
 - Ensure that HealthInfoNet information systems comply with all applicable federal, state, and local laws and regulations.
 - Ensure that no HealthInfoNet information system compromises the confidentiality, integrity, or availability of any other HealthInfoNet information system.
 - Develop, document, and ensure dissemination of appropriate security policies, procedures, and standards for the users and administrators of HealthInfoNet information systems and the data contained within them.
 - Ensure that newly acquired HealthInfoNet information systems have features that support required and/or addressable security Implementation Specifications.
 - Coordinate the selection, implementation, and administration of significant HealthInfoNet security controls.
 - Ensure HealthInfoNet workforce members receive regular security awareness and training.
 - Conduct periodic risk analysis of HealthInfoNet information systems and security processes.
 - Develop and implement an effective risk management program.
 - Regularly monitor and evaluate threats and risks to HealthInfoNet information systems.
 - Develop and monitor/audit records of HealthInfoNet information systems' activity to identify inappropriate activity.
 - Maintain an inventory of all HealthInfoNet information systems that contain EPHI.
 - Create an effective security incident response policy and related procedures.

- Ensure adequate physical security controls exist to protect HealthInfoNet's EPHI.
- *Evaluate new security technologies that may be appropriate for protecting HealthInfoNet's information systems.*



WORKFORCE SECURITY ADMINISTRATIVE MANUAL	POLICY # 8	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE:	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement policies and procedures to ensure that all members of its workforce have appropriate access to electronic protected health information, as provided under paragraph (a) (4) of this section, and to prevent those workforce members who do not have access under paragraph (a) (4) of this section from obtaining access to electronic protected health information.”*

Policy Summary: HealthInfoNet will prevent unauthorized access to information systems containing EPHI. Only properly authorized workforce members must be provided this access. The type and extent of access authorized to HealthInfoNet information systems containing EPHI will be based on a risk analysis. Access to HealthInfoNet information systems containing EPHI will be granted only to properly trained HealthInfoNet workforce members who have a need for EPHI in order to accomplish a legitimate task.

Purpose: This policy reflects HealthInfoNet’s commitment to allow access to information systems containing EPHI only to workforce members who have been appropriately authorized. The type and extent of access authorized to HealthInfoNet information systems containing EPHI must be based on risk analysis.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category:	Administrative Safeguards
Regulatory Type:	Standard
Regulatory Reference:	45 CFR 164.308(a)(3)(i)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Authorization and/or Supervision Workforce Clearance Procedure Termination Procedures Access Control Information Access Management Access Authorization Access Establishment and Modification Facility Access Controls
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet is committed to protecting the confidentiality, integrity, and availability of its information systems containing EPHI by preventing unauthorized access while ensuring that properly authorized workforce member and authorized participating organization users access is allowed.2. Individual job descriptions for HealthInfoNet workforce members will be the basis for defining access authority and the specific information system content that will be accessible.3. Authorized users from participating organizations will be defined and assigned to specific roles in accordance with the terms and conditions presented in the Participants Agreement between HealthInfoNet and the participating organization.4. The nature and extent of access to HealthInfoNet information systems containing EPHI will be based on an ongoing risk analysis process. At a minimum, the risk analysis will consider the following factors:<ul style="list-style-type: none">• The importance of the applications running on the information system

- The value or sensitivity of the EPHI on the information system
- The extent to which the information system is connected to other information systems

4. Access to HealthInfoNet information systems containing EPHI will be authorized only for properly trained HealthInfoNet workforce members having a legitimate need for specific information in order to accomplish job responsibilities as defined in individual job descriptions. Job descriptions will be reviewed at least annually to validate necessity of access to some or all EPHI maintained in the HealthInfoNet information systems.

5. Access to HealthInfoNet information systems containing EPHI will be defined on a role specific basis. The following specifications will govern access to all HealthInfoNet systems by workforce members:

- Access will be limited to secure VPN connection and unique user name and password that will be maintained for each authorized HealthInfoNet employee.
- Individual passwords will be changed by authorized HealthInfoNet employees at least every 90 days.
- Audit logs of authorized HealthInfoNet employees will be reviewed by the HealthInfoNet Security and Privacy Officer (SO) or the alternate Security and Privacy Officer on no less than a weekly basis. These audits will be documented and retained for a minimum of one calendar year.

6. HealthInfoNet workforce members will not access HealthInfoNet information systems containing EPHI for which they have not been given proper authorization. Violations of this standard will be managed in accordance with the Sanctions policy.

7. As defined in HealthInfoNet's Authorization and/or Supervision policy, HealthInfoNet will ensure that all workforce members who have the ability to access HealthInfoNet information systems containing EPHI are appropriately authorized or supervised.

8. As defined in HealthInfoNet's Workforce Clearance policy, HealthInfoNet workforce members will be screened during the hiring process to identify possible areas of risk which will be vetted before retention in a position that requires access to EPHI.

9. As defined in HealthInfoNet's Termination Procedures policy, HealthInfoNet will sustain a formal, documented process for terminating access to EPHI when the employment of a workforce member ends.



AUTHORIZATION AND/OR SUPERVISION ADMINISTRATIVE MANUAL	POLICY # 9	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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DATE:	REVIEW:	
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HIPAA Security Rule Language: *“Implement procedures for the authorization and/or supervision of workforce members who work with EPHI or in locations where it might be accessed.”*

Policy Summary: HealthInfoNet will ensure that all workforce members who can access HealthInfoNet information systems containing EPHI are appropriately authorized or supervised. HealthInfoNet will have a documented process for granting authorization to access to HealthInfoNet information systems containing EPHI. The type and extent of access granted to HealthInfoNet information systems containing EPHI must be based on risk analysis. Appropriate HealthInfoNet information system owners or their chosen delegates must define and authorize all access to HealthInfoNet information systems containing EPHI. Access to HealthInfoNet information systems containing EPHI will be authorized only for HealthInfoNet workforce members having a need for specific information in order to accomplish their respective job responsibilities.

Before third-party persons are granted access to HealthInfoNet information systems containing EPHI or HealthInfoNet locations where EPHI can be accessed, a risk analysis will be performed. Access by third-party persons to HealthInfoNet information systems containing EPHI or HealthInfoNet locations where EPHI can be accessed will be allowed only after an agreement has been signed defining the terms for access. Where appropriate, third-party persons should be supervised by an appropriate HealthInfoNet employee.

Purpose: This policy reflects HealthInfoNet’s commitment to ensure that all workforce members who can access HealthInfoNet information systems containing EPHI are appropriately authorized or supervised.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy's scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Workforce Security Standard

Regulatory Reference: 45 CFR 164.308(a)(3)(ii)(A)

Policy Authority/Enforcement: HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.

Related Policies: Workforce Security
Workforce Clearance Procedure
Termination Procedures
Access Authorization

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet will ensure that all workforce members who can access HealthInfoNet information systems containing EPHI are appropriately authorized to access the system.
2. HealthInfoNet will maintain a documented process for authorizing appropriate access to HealthInfoNet information systems containing EPHI. This will include:
 - A definition of roles based on individual HealthInfoNet workforce job descriptions.
 - A summary of authorized categories of EPHI content that can be accessed by each role.
 - An annual review of roles and authorized categories of access to EPHI to be conducted as part of the ongoing risk analysis process.
3. HealthInfoNet workforce members will not be allowed access to

information systems containing EPHI until properly authorized.

4. The type and extent of access granted to HealthInfoNet information systems containing EPHI will be based on risk analysis. At a minimum, the ongoing risk analysis process will consider the following factors:

- The importance of the applications running on the information system
- The value or sensitivity of the EPHI on the information system
- The extent to which the information system is connected to other information systems

5. HealthInfoNet workforce members will not attempt to gain access to HealthInfoNet information systems containing EPHI for which they have not been given proper authorization.

6. HealthInfoNet will ensure that the confidentiality, integrity, and availability of EPHI on HealthInfoNet information systems is maintained when its information systems are accessed by third parties

7. Before third party persons are granted access to HealthInfoNet information systems containing EPHI, a risk analysis will be performed. At a minimum, the risk analysis will consider the following factors:

- Type of access required
- Sensitivity of the EPHI on the information system
- Security controls on the information system
- Security controls used by the third party

8. Access by third party persons to HealthInfoNet information systems containing EPHI will be allowed only after an agreement has been signed defining the terms for access. The agreement will include:

- The security processes and controls necessary to ensure compliance with HealthInfoNet's security policies.
- Restrictions regarding the use and disclosure of HealthInfoNet data.
- HealthInfoNet's right to monitor and revoke third party persons' access and activity.

9. Where appropriate, third party persons will be supervised by an appropriate HealthInfoNet employee when they are accessing HealthInfoNet information systems containing EPHI.



WORKFORCE CLEARANCE PROCEDURE ADMINISTRATIVE MANUAL	POLICY # 10	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE:	REVIEW:	
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HIPAA Security Rule Language: *“Implement procedures to determine that the access of a workforce member to EPHI is appropriate.”*

Policy Summary: The background of all HealthInfoNet workforce members will be reviewed during the hiring process. When defining an organizational position, the HealthInfoNet will identify and define both the security responsibilities of and level of supervision required for the position. All HealthInfoNet workforce members who access HealthInfoNet information systems containing EPHI sign a confidentiality agreement. All HealthInfoNet employees must also sign a “conditions of employment” document that states their commitment to and understanding of their responsibility for the protection of the confidentiality, integrity, and availability of HealthInfoNet’s EPHI.

Purpose: This policy reflects HealthInfoNet’s commitment to ensure that all workforce members have appropriate authorization to access HealthInfoNet information systems containing EPHI.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes. This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.*

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Workforce Security Standard

Regulatory Reference:	45 CFR 164.308(a)(3)(ii)(B)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Authorization and/or Supervision Workforce Security Termination Procedures
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none"> 1. The background of all HealthInfoNet workforce members will be reviewed during the hiring process. Verification checks will be made, as appropriate. Verification checks include, but are not limited to: <ul style="list-style-type: none"> • Character references • Confirmation of claimed academic and professional qualifications • Professional license validation • Criminal background check • Office of the Inspector General (OIG) database check 2. The extent and type of screening will be based on HealthInfoNet's risk analysis process. 3. When defining a position, the HealthInfoNet hiring manager will identify the security responsibilities and supervision required for the position. Security responsibilities include general responsibilities for implementing or maintaining security, as well as any specific responsibilities for the protection of the confidentiality, integrity, or availability of HealthInfoNet information systems or processes. 4. When job candidates are provided via an agency, HealthInfoNet's contract with the agency will clearly state the agency's responsibilities for reviewing the candidates' backgrounds. 5. When HealthInfoNet retains the services of a third party, the retaining HealthInfoNet manager will ensure that the party or person(s) adheres to all appropriate HealthInfoNet policies. 6. All HealthInfoNet workforce members who access HealthInfoNet information systems containing EPHI will sign a confidentiality agreement in which they agree not to provide EPHI or to discuss

confidential information to which they have access to unauthorized persons. Confidentiality agreements will be reviewed and signed annually by HealthInfoNet workforce members who access HealthInfoNet information systems containing EPHI.

7. All HealthInfoNet employees will sign a “conditions of employment” document that affirms their responsibility for the protection of the confidentiality, integrity, or availability of HealthInfoNet information systems and processes. The document must include the sanctions that may be applied if employees do not meet their responsibilities.



TERMINATION PROCEDURES ADMINISTRATIVE MANUAL	POLICY # 11	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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DATE:	REVIEW:	
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HIPAA Security Rule Language: *“Implement procedures for terminating access to electronic protected health information when the employment of a workforce member ends or as required by determinations made as specified in paragraph (a)(3)(ii)(B) of this section.”*

Policy Summary: When the employment of HealthInfoNet workforce members ends, their information systems privileges, both internal and remote, will be disabled or removed by the time of departure. When workforce members depart from HealthInfoNet, they must return all HealthInfoNet supplied equipment by the time of departure. A workforce member who departs from HealthInfoNet will not retain, give away, or remove from HealthInfoNet premises any HealthInfoNet information. Special attention will be paid to situations where a workforce member has been terminated and poses a risk to information or systems at HealthInfoNet.

Purpose: This policy reflects HealthInfoNet’s commitment to create and implement a formal, documented process for terminating access to electronic protected health information (EPHI) when the employment of a workforce member ends.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use any HealthInfoNet information systems including systems that disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category:	Administrative Safeguards
Regulatory Type:	ADDRESSABLE Implementation Specification for Workforce Security Standard
Regulatory Reference:	45 CFR 164.308(a)(3)(ii)(C)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Workforce Security Authorization and/or Supervision Workforce Clearance Procedure
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will maintain a documented process for terminating access to electronic protected health information (EPHI) when the employment of a workforce member ends. The HealthInfoNet Security and Privacy Officer (SO) will be responsible for managing and maintaining this documentation process.2. When the employment of HealthInfoNet workforce members ends, their information systems privileges, both internal and remote, will be disabled or removed by the time of departure. HealthInfoNet information system privileges include, but are not limited to, workstation and server access, data access, network access, email accounts, and inclusion on bulk e-mail lists.3. When workforce members provide advance notice of their intention to leave HealthInfoNet, the Security and Privacy Officer will be notified at least two days in advance of the scheduled termination date. Such notices will be tracked and logged.4. At a minimum, the tracking log will provide the following information:<ul style="list-style-type: none">• Date and time notice of employee departure received• Date of planned employee departure• Brief description of access to be terminated• Date, time, and description of actions taken

This information will be securely maintained.

5. All HealthInfoNet workforce members will have their information system privileges automatically disabled after their user ID or access method has had 30 days of inactivity (example: when an external consultant ceases supplying services to HealthInfoNet without providing appropriate notification). All such privileges that are disabled in this manner will be reviewed to ensure that the inactivity is not due to termination of employment. If termination is the reason for inactivity, there will be review of the situation to ensure that all access to EPHI has been eliminated.

6. When workforce members depart from HealthInfoNet, they will return all HealthInfoNet supplied equipment by the time of departure. Such equipment includes, but is not limited to:

- Portable computers
- Personal digital assistants (PDAs)
- Name tags or name identification badges
- Building, desk or office keys
- Access cards
- Security tokens

7. The return of all such equipment will be tracked and logged. At a minimum, such tracking and logging will provide the following information:

- Date and time
- Work force member's name
- Brief description of returned items

This information will be securely maintained.

8. As appropriate, all physical security access codes used to protect HealthInfoNet information systems that are known by a departing workforce member will be deactivated or changed. For example, the PIN to a keypad lock that restricts entry to a HealthInfoNet facility containing information systems with EPHI will be changed if a workforce member who knows the PIN departs.

10. A workforce member who departs from HealthInfoNet will not retain, give away, or remove from HealthInfoNet premises any HealthInfoNet information (this does not apply to copies of information provided to the public or copies of correspondence directly related to the terms and conditions of employment). All other HealthInfoNet information in the possession of the departing workforce member will be provided to the person's immediate supervisor at the time of departure.

11. When HealthInfoNet workforce members' employment ends, their computers' resident files will be promptly reviewed by their immediate

supervisors to determine the appropriate transfer or disposal of any confidential information.

12. Special attention will be paid to situations where a departing employee poses a risk to information or systems at HealthInfoNet. If a workforce member is to be terminated immediately, their information system privileges will be removed or disabled just before they are notified of the termination.



INFORMATION ACCESS MANAGEMENT ADMINISTRATIVE MANUAL	POLICY # 12	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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DATE:	REVIEW:	
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HIPAA Security Rule Language: *“Implement policies and procedures for authorizing access to electronic protected health information that are consistent with the applicable requirements of subpart E of this part.”*

Policy Summary: HealthInfoNet will have a documented process for authorizing appropriate access to HealthInfoNet information systems containing EPHI. HealthInfoNet workforce members will not be allowed access to information systems containing EPHI until properly authorized. The type and extent of access authorized to HealthInfoNet information systems containing EPHI will be based on risk analysis. The HealthInfoNet Security and Privacy Officer (SO) will define and authorize all access to HealthInfoNet information systems containing EPHI. Access to HealthInfoNet information systems containing EPHI will be authorized only for HealthInfoNet workforce members who have a need for specific information in order to accomplish the work responsibilities of their specific jobs.

Purpose: This policy reflects HealthInfoNet’s commitment to have a formal documented process for authorizing appropriate access to HealthInfoNet information systems containing EPHI.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference:	45 CFR 164.308(a)(4)(i)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	Access Authorization Access Establishment and Modification Facility Access Controls Access Control and Validation Procedures
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. Access to HealthInfoNet information systems containing EPHI will be managed in order to protect the confidentiality, integrity and availability of EPHI.2. HealthInfoNet will document the granting access to HealthInfoNet information systems containing EPHI. The process must include:<ul style="list-style-type: none">• Granting different levels of access to HealthInfoNet information systems containing EPHI based on defined job tasks.• Tracking and logging authorization of access to HealthInfoNet information systems containing EPHI.• Regular review and revision, as necessary, of authorization of access to HealthInfoNet information systems containing EPHI.3. HealthInfoNet workforce members will not be allowed access to information systems containing EPHI until properly authorized.4. The type and extent of access authorized to HealthInfoNet information systems containing EPHI will be based on risk analysis. At a minimum, the risk analysis will consider the following factors:<ul style="list-style-type: none">• The importance of the applications running on the information system• The value or sensitivity of the EPHI on the information system• The extent to which the information system is connected to other information systems5. The HealthInfoNet Security and Privacy Officer will authorize all access to HealthInfoNet information systems containing EPHI6. Access to HealthInfoNet information systems containing EPHI will be authorized only for HealthInfoNet workforce members having a need for specific information in order to accomplish a legitimate task. All such access will be defined and documented. Such access will also be

regularly reviewed and revised as necessary.

7. HealthInfoNet workforce members will not attempt to gain access to HealthInfoNet information systems containing EPHI for which they have not been given proper authorization.

8. As defined in HealthInfoNet's Access Authorization policy, HealthInfoNet will have a documented process for authorizing appropriate access to HealthInfoNet information systems containing EPHI.

9. As defined in HealthInfoNet's Access Establishment and Modification policy, HealthInfoNet will have a documented process for establishing, documenting, reviewing, and modifying access to HealthInfoNet information systems containing EPHI.

ACCESS AUTHORIZATION	POLICY # 13	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Implement policies and procedures for granting access to EPHI, for example, through access to a workstation, transaction, program, process, or other mechanism.”*

Policy Summary: HealthInfoNet must have a formal documented process for granting and authorizing access to HealthInfoNet information systems that contain EPHI. HealthInfoNet and Participating site workforce members must not be granted access to information systems containing EPHI until properly authorized. Authorization to access information systems that contain EPHI is granted based on a documented risk analysis process that is conducted by appropriate information system stewards/owners. All workforce members must have a need to know about the information to which they are being given access.

Purpose: This policy reflects HealthInfoNet’s commitment to have a formal documented process for authorizing appropriate access to HealthInfoNet information systems containing EPHI.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Administrative Safeguards

Regulatory Type: Addressable Implementation Specification for Information Access Management Standard

Regulatory Reference: 45 CFR 164.308(a)(4)(ii)(A)

Policy Authority/ Enforcement:	HealthInfoNet's Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy in accordance with HealthInfoNet's Account Management procedure.
Related Policies:	Information Access Management Access Establishment and Modification Access Control and Validation Procedures
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will have a formal documented process for granting access to HealthInfoNet information systems that contain EPHI. At a minimum, the process must include:<ul style="list-style-type: none">• Procedure for granting different levels of access to HealthInfoNet information systems containing EPHI.• Procedure for tracking and logging authorization of access to HealthInfoNet information systems containing EPHI.• Procedure for regularly reviewing and revising, as necessary, authorization of access to HealthInfoNet information systems containing EPHI.2. HealthInfoNet and Participating Organizations workforce members will not be allowed access to information systems containing EPHI until properly authorized.3. The type and extent of access authorized to HealthInfoNet information systems containing EPHI is based on a risk analysis. At a minimum, the risk analysis will consider the following factors:<ul style="list-style-type: none">• The importance of the applications running on the information system• The value or sensitivity of the EPHI on the information system• The extent to which the information system is connected to other information systems4. HealthInfoNet information system stewards/owners or their chosen delegates will define and authorize all access to HealthInfoNet information systems containing EPHI that is entrusted to them. Such information system stewards/owners and delegates will be formally designated and documented.5. Access to HealthInfoNet information systems containing EPHI will be authorized only for HealthInfoNet and Participating Site workforce members having a need for specific information in order to accomplish a

legitimate task. All such access will be defined and documented. Such access will also be regularly reviewed and revised as necessary.

6. HealthInfoNet and Participating Site workforce members will not attempt to gain access to HealthInfoNet information systems containing EPHI for which they have not been given proper authorization.

7. All HealthInfoNet employees will sign a non disclosure agreement before accessing systems with EPHI.

ACCESS ESTABLISHMENT AND MODIFICATION ADMINISTRATIVE MANUAL	POLICY # 14	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement policies and procedures that, based upon the covered entity's access authorization policies, establish, document, review, and modify a user's right of access to a workstation, transaction, program, or process.”*

Policy Summary: HealthInfoNet and Participating Organizations must have a formal, documented process for establishing, documenting, reviewing, and modifying access to HealthInfoNet information systems containing EPHI. The process must be based on HealthInfoNet and Participating Sites’ access authorization policy. Only properly authorized and trained HealthInfoNet and Participating Organizations workforce members may access HealthInfoNet information systems containing EPHI. Authorizing HealthInfoNet and Participating Organizations information system owners/stewards or their designated delegates must regularly review workforce member access rights to HealthInfoNet information systems containing EPHI to ensure that they are provided only to those having a need for specific information in order to accomplish a legitimate task. All revisions to HealthInfoNet and Participating Organizations workforce member access rights must be tracked and logged.

Purpose: This policy reflects HealthInfoNet’s commitment to have a formal, documented process for establishing, documenting, reviewing, and modifying access to HealthInfoNet information systems containing EPHI.

Scope/Applicability *This policy is applicable to all HealthInfoNet and Participating Organizations workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type:	ADDRESSABLE Implementation Specification for Information Access Management Standard
Regulatory Reference:	45 CFR 164.308(a)(4)(ii)(B)
Policy Authority/ Enforcement:	HealthInfoNet and Participating Organizations Security Official are responsible for monitoring and enforcement of this policy, in accordance with HealthInfoNet's account management procedure.
Related Policies:	Information Access Management Access Authorization Access Control and Validation Procedures
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<p>1. HealthInfoNet and Participating Organizations will have a formal, documented process for establishing, documenting, reviewing, and modifying access to HealthInfoNet information systems containing EPHI. The process will be based on HealthInfoNet and the Participating Sites' access authorization policy. At a minimum, the process must include:</p> <ul style="list-style-type: none"> • Procedure for establishing different levels of access to HealthInfoNet systems containing EPHI. • Procedure for documenting levels of access established to HealthInfoNet information systems containing EPHI. • Procedure for regularly reviewing HealthInfoNet and Participating Organizations workforce member access privileges to HealthInfoNet information systems containing EPHI. • Procedure for modifying HealthInfoNet and Participating Organizations workforce member access privileges to HealthInfoNet information systems containing EPHI. • Procedure for terminating HealthInfoNet and Participating Organization workforce members' access privileges to HealthInfoNet information systems containing EPHI. <p>2. Only properly authorized and trained HealthInfoNet and Participating Organizations workforce members may access HealthInfoNet information systems containing EPHI. Such access will be established via a formal, documented process. At a minimum, this process must include:</p> <ul style="list-style-type: none"> • HealthInfoNet will be responsible for creating and maintaining unique user accounts that may access HealthInfoNet information

systems containing EPHI.

- Each participating site will create or modify an existing account authorization form for the purpose of allowing access to HealthInfoNet information systems containing EPHI.
- Each site will also establish a primary contact for any questions HealthInfoNet may have in the creation of the new accounts. This contact will also serve as the liaison between HealthInfoNet and the end user.
- The contact at each site will be responsible for sending HealthInfoNet the access authorization form for each account to be created. The form is to include at minimum:
 1. A case sensitive unique user logon name
 2. The user's full legal name
 3. The role level access granted by the participating site
 4. A valid participating site email address
 5. The participating site authorizing access
 6. Length of time access is required
- HealthInfoNet has defined 4 levels of access allowing access to HealthInfoNet information systems containing EPHI. These roles will be matched to appropriate hospital roles at the discretion of each organization.
 1. Auditor - has access to current activity log and privacy log.
 2. Clinician - has access to patient EPHI
 3. Clinician Administrative - has access to patient EPHI
 4. IT Help Desk - has access to user account administration only.
- All user accounts will be logged in an encrypted master person spread sheet, as well as stored in a central secure database.

3. Where appropriate, security controls or methods that allow access to be established to HealthInfoNet information systems containing EPHI must include, at a minimum:

- Unique user identifiers (user IDs) that enable individual users to be uniquely identified. User IDs must not give any indication of the user's privilege level. Common or shared identifiers must not be used to gain access to HealthInfoNet information systems containing EPHI. When unique user identifiers are insufficient or inappropriate, shared identifiers may be used to gain access to HealthInfoNet information systems not containing EPHI.
- A secret identifier (password)
- Permission from participating site to use HealthInfoNet
- When any participating site inactivates an account on their systems for any reason they will notify HealthInfoNet promptly, so that HealthInfoNet can remove the user from its information systems. This includes disciplinary actions, accounts that have been compromised, account maintenance, and any other activity that may affect a user's right to access EPHI in HealthInfoNet.

4. Access to HealthInfoNet information systems containing EPHI will be limited to HealthInfoNet and Participating Organizations workforce members who have a need for specific EPHI in order to perform their job responsibilities.

5. HealthInfoNet and Participating Organizations workforce members will not provide access to HealthInfoNet information systems containing EPHI to unauthorized persons

6. Appropriate HealthInfoNet and Participating Organizations information system owners/stewards or their designated delegates will regularly review workforce member access rights to HealthInfoNet information systems containing EPHI to ensure that they are provided only to those who have a need for specific EPHI in order to accomplish a legitimate task. Such rights will be revised as necessary.

7. All revisions to HealthInfoNet and Participating Organizations workforce member access rights will be tracked and logged. At a minimum, such tracking and logging must provide the following information:

- Date and time of revision
- Unique ID of user
- User Full Legal Name
- Brief description of revised access right(s)
- Person requesting revision
- Reason for revision

This information will be securely maintained.



SECURITY AWARENESS AND TRAINING	POLICY # 15	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE:	REVIEW:	
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HIPAA Security Rule Language: *“Implement a security awareness and training program for all members of an entity’s workforce (including management).”*

1. Security reminders (A)
2. Protection from malicious software (A)
3. Log-in monitoring (A)
4. Password management (A)

Policy Summary: HealthInfoNet will develop, implement, and regularly review a formal, documented program for providing appropriate security training and awareness to its workforce members. All HealthInfoNet workforce members will be provided with sufficient training and supporting reference materials to enable them to appropriately protect HealthInfoNet information systems and data. All new HealthInfoNet employees will receive appropriate security training before being provided with access or accounts on HealthInfoNet information systems. Business associates will be made aware of HealthInfoNet security policies and procedures. Third party persons who access HealthInfoNet information systems or data will be made aware of HealthInfoNet security policies and procedures.

Purpose: This policy reflects HealthInfoNet’s commitment to provide regular security awareness and training to its workforce members.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference:	45 CFR 164.308(a)(5)(i)
Policy Authority/ Enforcement:	HealthInfoNet's Security and Privacy Officer is responsible for monitoring and enforcement of this policy.
Related Policies:	<p>Security Reminders</p> <ul style="list-style-type: none"> Protection from Malicious Software Log-in Monitoring Password Management
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none"> 1. Each workforce member who has access to HealthInfoNet information systems will understand how to protect the confidentiality, integrity, and availability of the systems. 2. HealthInfoNet will develop, implement, and regularly review a documented program for regularly providing appropriate security training and awareness to workforce members. 3. All HealthInfoNet workforce members, both remote and onsite, will be provided with sufficient regular training and supporting reference materials to enable them to appropriately protect HealthInfoNet information systems. Such training may be provided at HealthInfoNet facility locations or via remote training methods. Such training will include, but is not limited to: <ul style="list-style-type: none"> • A review of all appropriate HealthInfoNet information security policies, procedures and standards. • The secure use of HealthInfoNet information systems (e.g. log-on procedures, allowed software). • Significant risks to HealthInfoNet information systems and data. • HealthInfoNet's legal and business responsibilities for protecting its information systems and data. • Security best practices (e.g. how to construct a good password, how to report a security incident). 4. After training has been conducted, each HealthInfoNet workforce member will verify that he or she has received the training, understood the material presented, and agrees to comply with it. 5. All new HealthInfoNet employees will receive appropriate security training before being provided with access or accounts on HealthInfoNet information systems. After such training, each employee will verify that he or she has received the training, understood the material presented,

and agree to comply with it.

6. Business associates will be informed of HealthInfoNet security policies and procedures on a regular basis. Such awareness can occur through contract language or other means.
7. Third-party persons who access HealthInfoNet information systems or data will be informed of HealthInfoNet security policies and procedures. It is the responsibility of the HealthInfoNet manager who retains the services of third-party individuals to ensure that these individuals adhere to all appropriate HealthInfoNet policies. Such responsibility may include verifying third-party individuals have attended security training or providing them with appropriate security training or reference materials.
8. All HealthInfoNet information security policies and procedures will be readily available for reference and review by appropriate employees, business associates, and third-party workers.
9. All HealthInfoNet workforce members responsible for implementing safeguards to protect information systems will receive formal training that enables them to stay abreast of current security practices and technology.
10. As defined in HealthInfoNet's Security Reminders policy, HealthInfoNet will provide regular security information and awareness to its workforce members.
11. As defined in HealthInfoNet's Protection from Malicious Software policy, HealthInfoNet will regularly train and remind its workforce members about its process for guarding against, detecting, and reporting malicious software that poses a risk to its information systems and data.
12. As defined in HealthInfoNet's Log-in Monitoring policy, HealthInfoNet will regularly train and remind its workforce members about its process for monitoring log-in attempts and reporting discrepancies.
13. As defined in HealthInfoNet's Password Management policy, HealthInfoNet will regularly train and remind its workforce members about its process for creating, changing and safeguarding passwords.



SECURITY REMINDERS	POLICY # 16	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
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HIPAA Security Rule *“Implement ..., periodic security updates, ...”*
 Language

Policy Summary: HealthInfoNet will provide regular security information and awareness updates to its workforce members.

Purpose: This policy reflects HealthInfoNet’s commitment to provide regular security information and awareness education to its workforce members.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members who use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Security Awareness and Training Standard

Regulatory Reference: 45 CFR 164.308(a)(5)(ii)(A)

Policy Authority/ Enforcement: HealthInfoNet’s Security and Privacy Officer is responsible for monitoring and enforcement of this policy.

- Related Policies:
- Security Awareness and Training
 - Protection from Malicious Software
 - Log-in Monitoring
 - Password Management
- Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
- Procedures:
1. HealthInfoNet will make certain that all of its workforce members, including those who work remotely, are regularly reminded of information security risks and how to follow HealthInfoNet security policies. Additionally, workforce members will be provided with information about HealthInfoNet security procedures and how to use HealthInfoNet information systems in ways that minimize possible security risks.
 2. On a regular basis, HealthInfoNet will provide all of its workforce members information and reminders on topics including, but not limited to:
 - HealthInfoNet information security policies.
 - Significant HealthInfoNet information security controls and processes.
 - Significant risks to HealthInfoNet information systems and data.
 - Security best practices (e.g. how to choose a good password, how to report a security incident).
 - HealthInfoNet's information security legal and business responsibilities (e.g. HIPAA, business associate contracts).
- Such information and reminders may be provided at HealthInfoNet or via remote methods.
3. In addition to providing regular information security awareness, HealthInfoNet will provide security information and awareness to all of its workforce members when any of the following events occur:
 - Significant revisions to HealthInfoNet's information security policies or procedures.
 - Significant new information security controls are implemented at HealthInfoNet.
 - Substantial changes are made to significant HealthInfoNet information security controls.
 - Significant changes occur to HealthInfoNet's information security legal or business responsibilities.
 - Significant new threats or risks arise against HealthInfoNet information systems or data.

Such information may be provided at HealthInfoNet or via remote methods.

4. HealthInfoNet's Security and Privacy Officer (SO) is responsible for ensuring that workforce members receive regular security information and awareness updates.

5. Methods for providing security information and awareness updates may include, but are not limited to:

- Email reminders
- Posters
- Letters
- Workforce member meetings
- Security days
- Screen savers
- Information system sign on messages
- Newsletter articles
- Paycheck messages



PROTECTION FROM MALICIOUS SOFTWARE ADMINISTRATIVE MANUAL	POLICY # 17	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
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HIPAA Security Rule Language: *“Implement.....Procedures for guarding against, detecting, and reporting malicious software.....”*

Policy Summary: HealthInfoNet will regularly train and remind its workforce members about its process for guarding against, detecting, and reporting malicious software that poses a risk to its information systems.

Purpose: This policy reflects HealthInfoNet’s commitment to provide regular training and awareness to its employees about its process for guarding against, detecting, and reporting malicious software that poses a risk to its information systems.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Security Awareness and Training Standard

Regulatory Reference: 45 CFR 164.308(a)(5)(ii)(B)

Policy Authority/ HealthInfoNet’s Security and Privacy Officer is responsible for

- Enforcement: monitoring and enforcement of this policy.
- Related Policies: Security Awareness and Training
Security Reminders
Protection from Malicious Software
Log-in Monitoring
Password Management
- Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
- Procedures:
1. HealthInfoNet must be able to effectively detect and prevent malicious software, particularly viruses, worms and malicious code.
 2. HealthInfoNet will develop, implement, and regularly review a formal, documented process for guarding against, detecting, and reporting malicious software that poses a risk to its information systems and data. All HealthInfoNet workforce members will be regularly trained and reminded about this process.
 3. At a minimum, HealthInfoNet's malicious software prevention, detection and reporting process will include:
 - Installation and regular updating of anti-virus software on all HealthInfoNet information systems.
 - Examination of data on electronic media and data received over networks to ensure that it does not contain malicious software .
 - The examination of all electronic mail attachments and data downloads for malicious software before use on HealthInfoNet information systems.
 - Reporting of suspected or known malicious software by members of the workforce.
 - Verification that all information relating to malicious software is accurate and informative.
 - An expectation that HealthInfoNet workforce members will not modify web browser security settings without appropriate authorization.
 - An expectation that unauthorized software will not be installed on HealthInfoNet information systems and devices.
 4. At a minimum, HealthInfoNet protection from malicious software training and awareness will cover topics including, but not limited to:
 - How to identify malicious software.
 - How to report malicious software.

- How to effectively use anti-virus software.
 - How to avoid downloading or receiving malicious software.
 - How to identify malicious software hoaxes.
5. Unless appropriately authorized, HealthInfoNet workforce members will not bypass or disable anti-virus software.



LOG-IN MONITORING ADMINISTRATIVE MANUAL	POLICY # 18	
APPROVED BY:	ADOPTED:	
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HIPAA Security Rule Language: *“Implement....Procedures for monitoring log-in attempts and reporting discrepancies.....”*

Policy Summary: HealthInfoNet will provide regular training and awareness to its workforce members about its process for monitoring log-in attempts and reporting discrepancies.

Purpose: This policy reflects HealthInfoNet’s commitment to regularly train and remind its workforce members about its process for monitoring log-in attempts and reporting discrepancies.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Security Awareness and Training Standard

Regulatory Reference: 45 CFR 164.308(a)(5)(ii)(C)

Policy Authority/ HealthInfoNet’s Security and Privacy Officer is responsible for

Enforcement:	monitoring and enforcement of this policy.
Related Policies:	Security Reminders Protection from Malicious Software Log-in Monitoring Password Management
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will develop, implement, and regularly review a formal process for monitoring log-in attempts and reporting discrepancies. All HealthInfoNet workforce members will be regularly trained and reminded about this process.2. Access to all HealthInfoNet information systems will be via a secure log-in process. The process will:<ul style="list-style-type: none">• Not display information system or application identifying information until the log-in process has been successfully completed.• Not provide help messages during the log-in procedure that would assist an unauthorized user.• Validate log-in information only when all data has been inputted. If an error arises, the system will not indicate which part of the data is correct or incorrect.• Limit the number of unsuccessful log-in attempts to no more than three (3) consecutive attempts before requiring a time out and/or challenge requirement for resetting the log in.3. HealthInfoNet information systems' log-in process will include the ability to:<ul style="list-style-type: none">• Record unsuccessful log-in attempts.• Limit the maximum number of attempts allowed for the log-in procedure.4. At a minimum, HealthInfoNet log-in monitoring training and awareness will cover topics including, but not limited to:<ul style="list-style-type: none">• How to effectively use HealthInfoNet's secure log-in processes.• How to detect log-in discrepancies.• How to report log-in discrepancies.



PASSWORD MANAGEMENT ADMINISTRATIVE MANUAL	POLICY # 19	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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HIPAA Security Rule Language: *“Implement....Procedures for creating, changing, and safeguarding passwords...”*

Policy Summary: HealthInfoNet will regularly train and remind its workforce members about its process for appropriately creating, changing and safeguarding passwords.

Purpose: This policy reflects HealthInfoNet’s commitment to provide regular training and awareness to its workforce members about creating, changing, and safeguarding passwords.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Security Awareness and Training Standard

Regulatory Reference: 45 CFR 164.308(a)(5)(ii)(D)

Policy Authority/ HealthInfoNet’s Security and Privacy Officer is responsible for

Enforcement:	monitoring and enforcement of this policy.
Related Policies:	Security Reminders Protection from Malicious Software Log-in Monitoring Password Management
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will develop, implement, and regularly review a formal process for appropriately creating, changing and safeguarding passwords used to validate a user's identity and establish access to its information systems and data. All HealthInfoNet workforce members must be regularly trained and reminded about this process.2. HealthInfoNet's password management system will:<ul style="list-style-type: none">• Require the use of individual passwords to maintain accountability.• Where appropriate, allow workforce members and authorized users from organizations participating in the health information exchange select and change their own passwords.• Require unique passwords that meet the standards defined by the HealthInfoNet Information Security Office.• Require regular password changes.• Not display passwords in clear text when they are being input into an application.• Require the storage of passwords in encrypted form using a one-way encryption algorithm.• Require the changing of default vendor passwords following installation of software.3. HealthInfoNet's password creation standards will require:<ul style="list-style-type: none">• Passwords have a minimum length of eight characters.• Passwords must not be based on something that can be easily guessed or obtained using personal information (e.g. names, favorite sports team, etc.)• Passwords will be composed of a mix of numeric and alphabetical characters where there is at least one of each in the password.4. At a minimum, HealthInfoNet password management training and awareness must involve requirements for use of information systems

including, but not limited to:

- The importance of keeping passwords confidential and not sharing them with those who ask.
- The need to avoid maintaining a paper record of passwords, unless the record can be stored securely.
- Changing passwords whenever there is any indication of possible information system or password compromise.
- HealthInfoNet's password standards.
- The importance of not using the same password for personal and business accounts.
- The importance of changing passwords at regular intervals and avoiding re-using old passwords.
- Changing temporary passwords at the first log-on.
- Not including passwords in any automated log-on process (e.g. stored in a macro or function key).
- Ensuring that HealthInfoNet workforce members understand that all activities involving their user identification and password will be attributed to them.



SECURITY INCIDENT PROCEDURES	POLICY # 20	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
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HIPAA Security Rule Language: *“Implement policies and procedures to address security incidents.”*

Policy Summary: HealthInfoNet has a documented process for quickly and effectively detecting and responding to security incidents that may impact the confidentiality, integrity, or availability of HealthInfoNet information systems.

Purpose: This policy reflects HealthInfoNet’s commitment to implement policies and procedures for detecting and responding to security incidents.

Scope/Applicability: *This policy is applicable to all HealthInfoNet workforce members that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.308(a)(6)(i)

Policy Authority/Enforcement: HealthInfoNet’s Security and Privacy Officer is responsible for monitoring and enforcement of this policy.

Related Policies:	Response and Reporting
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<p>1. HealthInfoNet maintains a documented process for quickly and effectively detecting and responding to security incidents that may impact the confidentiality, integrity, or availability of HealthInfoNet information systems. The process includes:</p> <ul style="list-style-type: none"> • A security incident response team (SIRT), whose membership will consist of the HealthInfoNet Security and Privacy Officer, HealthInfoNet Project Manager, HealthInfoNet Security Coordinator and the 3M Executive Contract Manager. • The expectation that HealthInfoNet workforce members will promptly report a perceived or actual security incident to the Security and Privacy Officer. • The Security and Privacy Officer will analyze and identify the root cause(s) of a security incident and document these findings. • If required by the nature of the security incident, the HealthInfoNet Security and Privacy Officer will activate the SIRT. Minor security incidents may not require activation of HealthInfoNet's SIRT. • If needed, the Security and Privacy Officer will direct members of the SIRT or their appointed designees to collect and document additional evidence of a security incident. • Formal mechanisms for evaluating security incidents and implementing appropriate mitigations to prevent further recurrence. • HealthInfoNet will conduct regular training and awareness of security incident policies and procedures with HealthInfoNet workforce members. • The Security and Privacy Officer will assure that HealthInfoNet conducts regular risk analysis of HealthInfoNet's information systems. <p>2. All HealthInfoNet actions to respond to and recover from security incidents will be carefully and formally controlled. At a minimum, HealthInfoNet's Security and Privacy Officer will ensure that:</p> <ul style="list-style-type: none"> • All actions taken are intended to minimize the damage of a security incident and prevent further damage. • Only authorized and appropriately trained HealthInfoNet employees are allowed access to affected information systems in order to respond to or recover from a security incident. • All actions taken are carefully documented.

3. HealthInfoNet workforce members will report any observed or suspected security incidents as quickly as possible to HealthInfoNet's Security and Privacy Officer or his/her designee.

4. HealthInfoNet will maintain a mechanism for quantifying and monitoring the types, volumes and costs of security incidents. This information will be used to identify the need for improved or additional security controls.

5. HealthInfoNet's Security and Privacy Officer is authorized to investigate any and all alleged violations of HealthInfoNet security policies, and to take appropriate action to mitigate the infraction and apply sanctions as warranted.

CONTINGENCY PLAN ADMINISTRATIVE MANUAL	POLICY # 21	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Establish (and implement as needed) policies and procedures for responding to an emergency or other occurrence (for example, fire, vandalism, system failure, and natural disaster) that damages systems that contain EPHI.”*

Policy Summary: HealthInfoNet must prepare for and be able to effectively respond to emergencies or disasters in order to protect the confidentiality, integrity and availability of its information systems.

Purpose: This policy reflects HealthInfoNet’s commitment to effectively prepare for and respond to emergencies or disasters in order to protect the confidentiality, integrity and availability of its information systems.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Administrative Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.308(a)(7)(i)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy in accordance with 3M and Connectria’s Disaster Recovery Policy.

Related Policies:	<p>3M Failover Policy (Appendix)</p> <p>3M/Connectria Backup Policy (Appendix)</p> <p>3M/Connectria Disaster Recovery (Appendix)</p>
Renewal/Review:	<p>This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.</p>
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will have a formal process for both preparing for and effectively responding to emergencies and disasters that damage the confidentiality, integrity or availability of its information systems.2. This process will follow 3M and Connectria's Data Backup, Data Recovery, and Failover policies. At a minimum, the process will include:<ul style="list-style-type: none">• Regular analysis of the criticality of HealthInfoNet information systems.• Development and documentation of a disaster and emergency recovery strategy consistent with HealthInfoNet's business objectives and priorities.• Development and documentation of a disaster recovery plan that is in accordance with the above strategy.• Development and documentation of an emergency mode operations plan that is in accordance with the above strategy.• Regular testing and updating of the disaster recovery and emergency mode operations plans.3. HealthInfoNet's disaster and emergency response process will reduce the disruption to HealthInfoNet information systems to an acceptable level through a combination of preventative and recovery controls and processes. Such controls and processes will identify and reduce risks to HealthInfoNet information systems, limit damage caused by disasters and emergencies and ensure the timely resumption of significant information systems and processes. Such controls and processes will be commensurate with the value of the information systems being protected or recovered.4. HealthInfoNet workforce members will receive regular training and awareness on HealthInfoNet's disaster preparation and disaster and emergency response processes.5. HealthInfoNet will maintain an accurate up to date list server for all parties directly affect by a disruption of service. This list will be triggered by 3M and Connectria's Failover Policies.

DATA BACKUP PLAN	POLICY # 22	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Establish and implement procedures to create and maintain retrievable exact copies of EPHI.”*

Policy Summary: All EPHI on HealthInfoNet information systems and electronic media must be regularly backed up and securely stored. Backup and restoration procedures must be regularly tested.

Purpose: This policy reflects HealthInfoNet’s commitment to backup and securely store all EPHI on its information systems and electronic media.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*
 This policy’s scope includes all electronic protected health information, as described in Definitions below.

Regulatory Category: Administrative Safeguards

Regulatory Type: REQUIRED Implementation Specification for Contingency Plan Standard

Regulatory Reference: 45 CFR 164.308(a)(7)(ii)(A)

Policy Authority/ Enforcement: HealthInfoNet’s Security Official is responsible for monitoring and enforcement of this policy, in accordance with Connectria’s Data Backup policy.

Related Policies: Contingency Plan
 Disaster Recovery Plan
 Emergency Mode Operation Plan
 Testing and Revision Procedure
 Applications and Data Criticality Analysis

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures: 1. HealthInfoNet must have a formal, documented backup plan for its information systems. At a minimum, the plan must:

- Identify information systems and electronic media to be backed up.
- Provide a backup schedule.
- Identify where backup media are stored and who may access them.
- Outline restoration procedures.
- Identify who is responsible for ensuring the backup of information systems and electronic media.

2. Backup copies of all EPHI on HealthInfoNet electronic media and information systems must be made regularly. This includes both EPHI received by HealthInfoNet and created within HealthInfoNet. HealthInfoNet will maintain the following back up policy.

Platform	Scheduled Days	Time	Backup Type	Retention Period	Off-site Rotation	On-site Copy
All	Weekend	Varies	Full	18 Days	Weekly	Yes
All	Monday-Friday	Varies	Incremental	18 Days	Weekly	Yes

3. Information systems and electronic media for which this policy applies include, but are not limited to, computers (both desktop and laptops), floppy disks, backup tapes, CD-ROMs, zip drives, portable hard drives and PDAs.

4. HealthInfoNet must have adequate backup systems that ensure that all EPHI can be recovered following a disaster or media failure. These systems must be regularly tested.

5. Backup of EPHI on HealthInfoNet information systems and electronic media, together with accurate and complete records of the backup copies and documented restoration procedures, must be stored in a secure remote location, at a sufficient distance from the facility to escape damage from a

disaster at or near HealthInfoNets database warehouse..

6. Backup copies of EPHI stored at a secure, remote location must be accessible to authorized HealthInfoNet employees or their stewards for prompt retrieval of the information.
7. The backup media containing EPHI at the remote backup storage site must be given an appropriate level of physical and environmental protection consistent with the standards applied to EPHI physically at HealthInfoNet.
8. Restoration procedures for HealthInfoNet electronic media and information systems containing EPHI must be regularly tested to ensure that they are effective and that they can be completed within the time allotted in HealthInfoNet's disaster recovery plan.
9. The retention period for backup of EPHI on HealthInfoNet information systems and electronic media and any requirements for archive copies to be permanently retained must be defined and documented.
10. Risk analysis should be used to determine and document the maximum amount of loss that may occur if backup of HealthInfoNet information systems and electronic media is disrupted. Such analysis should be used to determine if all appropriate and reasonable measures are being used to backup HealthInfoNet information systems and electronic media.

WORKSTATION USE ADMINISTRATIVE MANUAL	POLICY # 23	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
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DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Implement policies and procedures that specify the proper functions to be performed, the manner in which those functions are to be performed, and the physical attributes of the surroundings of a specific workstation or class of workstations that can access EPHI.”*

Policy Summary: HealthInfoNet workstations must be used only for authorized purposes. Workforce members must not use HealthInfoNet workstations to engage in any activity that is either illegal under local, state, federal, or international law or is in violation of HealthInfoNet policy. Access to HealthInfoNet workstations with EPHI must be controlled and authenticated.

HealthInfoNet workstations containing EPHI will be located in physically secure areas and their display screens must be positioned so as to prevent unauthorized viewing of EPHI. HealthInfoNet workforce members will activate their workstation locking software whenever they leave their workstation unattended for 15 minutes or more. Workstations removed from HealthInfoNet premises will be protected with security controls equivalent to those for on-site workstations.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately use and protect its workstations.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Physical Safeguards

Regulatory Type:	Standard
Regulatory Reference:	45 CFR 164.310(b)
Policy Authority/ Enforcement:	HealthInfoNet's Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.
Related Policies:	Workstation Security
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet workstations will be used only for authorized purposes: to support the research, education, clinical, administrative, and other functions of HealthInfoNet. Such use demonstrates respect for intellectual property, ownership of data, security controls, and individuals' rights to privacy.2. All workforce members who use HealthInfoNet workstations will take all reasonable precautions to protect the confidentiality, integrity, and availability of EPHI contained on the workstations.3. Workforce members will not use HealthInfoNet workstations to engage in any activity that is either illegal under local, state, federal, or international law or is in violation of HealthInfoNet policy.4. Activities that workforce members will not perform while using HealthInfoNet workstations include, but are not limited to:<ul style="list-style-type: none">• Violations of the rights to privacy of protected healthcare information of HealthInfoNet's Participating Organization's patients.• Violations of the rights of any person or company protected by copyright, trade secret, patent, or other intellectual property or similar laws or regulations. This includes, but is not limited to, the installation or distribution of "pirated" or other inappropriately licensed software products.• Unauthorized copying of copyrighted material, including but not limited to digitization and distribution of photographs from magazines, books, or other copyrighted sources and copyrighted music.• Purposeful introduction of malicious software onto a workstation or network (e.g., viruses, worms, Trojan horses).• Actively engaging in procuring or transmitting material that is in violation of HealthInfoNet sexual harassment or hostile

workplace policies.

- Making fraudulent offers of products, items, or services.
- Purposefully causing security breaches. Security breaches include, but are not limited to, accessing electronic data that the workforce member is not authorized to access or logging into an account that he or she is not authorized to access. HealthInfoNet employees that perform this activity as part of their defined job are exempt from this prohibition.
- Performing any form of network monitoring that will intercept electronic data not intended for the workforce member. HealthInfoNet employees that perform this activity as part of their defined job are exempt from this prohibition.
- Circumvent or attempt to avoid the user authentication or security of any HealthInfoNet workstation or account. Employees that perform this activity as part of their defined job are exempt from this prohibition.

5. Access to all HealthInfoNet workstations containing EPHI will be controlled with a username and password or an access device such as a token.

6. Access to all HealthInfoNet workstations with EPHI will be authenticated via a process that includes, at a minimum:

- Unique user IDs that enable users to be identified and tracked. Group IDs may only be used to access HealthInfoNet workstations not containing EPHI.
- The prompt removal of workstation access privileges for workforce members whose employment or contracted service with HealthInfoNet has ended.
- Verification that redundant user IDs is not issued.

7. All password-based access control systems on HealthInfoNet workstations will mask, suppress, or otherwise obscure the passwords so that unauthorized persons are not able to observe them.

8. HealthInfoNet workforce members will not share passwords with others. If a HealthInfoNet workforce member believes that someone else is inappropriately using a user-ID or password, they will immediately notify the HealthInfoNet Security Coordinator.

9. Where possible, the initial password(s) issued to a new HealthInfoNet workforce member will be valid only for the new user's first logon to a workstation. At initial logon, the user will be required to choose another password. Where possible, this same process will be used when a workforce member's workstation password is reset.

10. HealthInfoNet workstations containing EPHI will be physically located in such a manner as to minimize the risk that unauthorized individuals can gain access to them.

11. The display screens of all HealthInfoNet workstations containing EPHI will be positioned such that information cannot be readily viewed through a window, by persons walking in a hallway, or by persons waiting in reception, public, or other related areas.

12. HealthInfoNet Security and Privacy Officer approved anti-virus software will be installed on workstations to prevent transmission of malicious software. Such software will be regularly updated.

13. HealthInfoNet workforce members will activate their workstation locking software whenever they leave their workstation unattended for 15 minutes or more. HealthInfoNet workforce members will log off from or lock their workstation(s) when their shifts are complete.

14. Connections from one workstation to another computer will be logged off after the session is completed.

15. Workstations removed from HealthInfoNet premises will be protected with security controls equivalent to those for on-site workstations.

16. Special precautions will be taken with portable workstations such as laptops. The following guidelines will be followed with such systems:

- EPHI will not be stored on a portable workstation unless such information is appropriately protected. HealthInfoNet Security and Privacy Officer approved encryption should be used.
- Locking software for unattended laptops will activate after 15 minutes.
- HealthInfoNet portable workstations will be carried as carry-on (hand) baggage when workforce members use public transport. They will be concealed and/or locked when in private transport (e.g., locked in the trunk of an automobile).

WORKSTATION SECURITY	POLICY #24	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE:	REVIEW:	
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HIPAA Security

Rule Language: *“Implement physical safeguards for all workstations that access EPHI, to restrict access to authorized users.”*

Policy Summary:

HealthInfoNet will prevent unauthorized access to workstations that access EPHI while maintaining the access of authorized employees.

Purpose:

This policy reflects HealthInfoNet’s commitment to prevent unauthorized physical access to workstations that can access EPHI while ensuring that authorized workforce members have appropriate access.

Scope/Applicability:

This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category:

Physical Safeguards

Regulatory Type:

Standard

Regulatory Reference:

45 CFR 164.310(c)

Policy Authority/ Enforcement:

HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies:

Workstation Use

Renewal/Review:

This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated

as needed.

Procedures:

1. HealthInfoNet will prevent unauthorized physical access to workstations that can access EPHI and ensure that authorized workforce members have appropriate access.
2. HealthInfoNet workstations containing EPHI will be located in locations that minimize the risk of unauthorized access to them.
3. HealthInfoNet workforce members will take reasonable measures to prevent viewing EPHI on workstations by unauthorized persons. Such measures include but are not limited to:
 - Locating workstations and peripheral devices (printer, modem, scanner, etc.) in secured areas not accessible to unauthorized persons.
 - Positioning monitors or shielding workstations so that data shown on the screen is not visible to unauthorized persons.
5. The level of physical protection provided for HealthInfoNet workstations containing EPHI will be commensurate with that of identified risks. An assessment of the risks to HealthInfoNet workstations that can access EPHI will be conducted at least annually. The risk assessment report will be securely maintained.
6. Unauthorized HealthInfoNet workforce members will not attempt to gain physical access to workstations that can access EPHI.
7. HealthInfoNet workforce members will report loss or theft of any access device (such as a card or token) that allows them physical access to HealthInfoNet areas having workstations that can access EPHI.
8. All HealthInfoNet portable workstations will be securely maintained when in the possession of workforce members. Such workstations will be handled as carry-on (hand) baggage on public transport. They will be concealed and/or locked when in private transport (e.g., locked in the trunk of an automobile).

DEVICE AND MEDIA CONTROLS	POLICY # 25	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Implement policies and procedures that govern the receipt and removal of hardware and electronic media that contain EPHI into and out of a facility, and the movement of these items within the facility.”*

Policy Summary: EPHI on HealthInfoNet information systems and electronic media must be protected, accounted for, properly stored, backed up and disposed of in accordance with specific procedures. These controls must be in place for hardware and electronic media into, out of and within the facility.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately control information systems and electronic media containing EPHI moving into, out of and within its facilities.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Physical Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.310(d)(1)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies: Accountability

Data Backup and Storage

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. EPHI located on HealthInfoNet information systems or electronic media will be protected against damage, theft, and unauthorized access. This includes both EPHI received by HealthInfoNet and created within HealthInfoNet. EPHI must be consistently protected and managed through its entire life cycle, from origination to destruction.
2. Information systems and electronic media for which this policy applies include, but are not limited to, computers (both desktop and laptop), floppy disks, backup tapes, CD-ROMs, zip drives, portable hard drives and PDAs.
3. All HealthInfoNet electronic media that contains EPHI will be clearly marked as confidential and should have a tracking number attached to it.
4. HealthInfoNet will regularly conduct a formal, documented process that ensures consistent control of all electronic media and information systems containing EPHI that is created, sent, received or destroyed by HealthInfoNet.
5. At least annually, HealthInfoNet will conduct an organization-wide inventory to identify all of its information systems and electronic media that contain EPHI. Inventory results will be documented and stored in a secure manner, e.g. on a computer with appropriate file access permissions or in a locked drawer.
6. Access to information systems and electronic media containing EPHI at HealthInfoNet will be provided only to authorized HealthInfoNet and Participating Site workforce members who have a need for specific access in order to accomplish a legitimate task.
7. HealthInfoNet workforce members will not attempt to access, duplicate or transmit electronic media containing EPHI for which they have not been given appropriate authorization.
8. All HealthInfoNet information systems and electronic media containing EPHI will be located and stored in secure environments that are protected by appropriate security barriers and entry controls. The level of these controls should be commensurate with identified risks to the electronic media and information systems.
9. All HealthInfoNet information systems and electronic media containing EPHI will be disposed of securely and safely when no longer

required.

10. As defined in HealthInfoNet's Accountability policy, all information systems and electronic media containing EPHI that are received or removed from HealthInfoNet or move within its facilities will be appropriately tracked and logged.

11. As defined in HealthInfoNet's Data Backup and Storage policy, backup copies of all EPHI located on HealthInfoNet information systems or electronic media will be regularly made and stored securely.

ACCOUNTABILITY	POLICY # 26	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Maintain a record of the movements of hardware and electronic media and any person responsible therefore.”*

Policy Summary: All movement of HealthInfoNet information systems and electronic media containing EPHI into, out of, and within its facilities must be appropriately tracked and logged. HealthInfoNet workforce members must be held responsible for the movement of such items.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately track and log the movements of EPHI on information systems and electronic media and to hold HealthInfoNet workforce members accountable for such movement.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*
 This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Physical Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Device and Media Controls Standard

Regulatory Reference: 45 CFR 164.310(d)(2)(iii)

Policy Authority/Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy

Related Policies: Device and Media Controls
Data Backup and Storage

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. All movement of HealthInfoNet information systems and electronic media containing EPHI into and out of its facilities will be tracked and logged. Those responsible for such movement will take all appropriate and reasonable actions to protect EPHI. This includes both EPHI received by HealthInfoNet and created within HealthInfoNet.
2. Information systems and media for which this policy applies include, but are not limited to, computers (both desktop and laptops), floppy disks, backup tapes, CD-ROMs, zip drives, portable hard drives and PDAs.
3. Workforce members should use only HealthInfoNet approved and tracked electronic media to store EPHI.
4. EPHI will not be stored on HealthInfoNet workforce member home computers.
5. Appropriate HealthInfoNet management will authorize the use or sending of any information system or electronic media containing EPHI outside HealthInfoNet's premises. Such authorization will be tracked and logged. At a minimum, such tracking and logging will provide the following information:
 - Date and time of movement of system or media
 - Brief description of person using or sending EPHI on system or media
 - Brief description of where EPHI is to be sent or how used
 - Name of person authorizing such transaction

Information should be regularly reviewed and stored in a secure manner, e.g. on a computer with appropriate file access permissions or in a locked drawer.

6. All receipt of electronic media and information systems containing EPHI from outside HealthInfoNet premises (e.g. from the public or business partners) will be tracked and logged. At a minimum, such tracking and logging will provide the following information:
 - Date and time EPHI received
 - Name of application(s) receiving EPHI

Such information will be reviewed as needed to maintain system security.

7. HealthInfoNet employees and affiliates who move electronic media or information systems containing EPHI are responsible for the subsequent use of such items and will take all appropriate and reasonable actions to protect them against damage, theft, and unauthorized access.

DATA BACKUP AND STORAGE ADMINISTRATIVE MANUAL	POLICY # 27	
APPROVED BY:	ADOPTED:	
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Create a retrievable, exact copy of EPHI, when needed, before movement of equipment.”*

Policy Summary: All EPHI on HealthInfoNet information systems and electronic media must be regularly backed up and securely stored. Backup and restoration procedures must be regularly tested

Purpose: This policy reflects HealthInfoNet’s commitment to backup and securely store all EPHI on its information systems and electronic media.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Physical Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Device and Media Controls Standard

Regulatory Reference: 45 CFR 164.310(d)(2)(iv)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy in accordance with Connectria’s Data Backup Policy.

Related Policies: Device and Media Control
Accountability

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

- Procedures:
1. Backup copies of all EPHI on HealthInfoNet electronic media and information systems will be made regularly. This includes both EPHI received by HealthInfoNet and created within HealthInfoNet.
 2. Information systems and electronic media for which this policy applies include, but are not limited to, computers (both desktop and laptops), floppy disks, backup tapes, CD-ROMs, zip drives, portable hard drives and PDAs.
 3. HealthInfoNet will have adequate backup systems that ensure that all such EPHI can be recovered following a disaster or media failure. These systems will be regularly tested.
 4. Backup of EPHI on HealthInfoNet information systems and electronic media, together with accurate and complete records of the backup copies and documented restoration procedures, will be stored in a secure remote location, at a sufficient distance from HealthInfoNet facilities to escape damage from a disaster at HealthInfoNet.
 5. Backup copies of EPHI stored at secure remote locations will be accessible to authorized HealthInfoNet employees and designated contractors for timely retrieval of the information.
 6. The backup media containing EPHI at the remote backup storage site will be given an appropriate level of physical and environmental protection consistent with the standards applied to EPHI physically at HealthInfoNet.
 7. Backup and restoration procedures for HealthInfoNet electronic media and information systems containing EPHI will be regularly tested to ensure that they are effective and that they can be completed within a reasonable amount of time.
 8. The retention period for backup of EPHI on HealthInfoNet information systems and electronic media and any requirements for archive copies to be permanently retained will be defined and documented.
 9. All HealthInfoNet information systems containing EPHI not located physically on site will be defined under the respective 3M or Connectria Data Backup and Storage policies.

ACCESS CONTROL	POLICY # 28	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	Under Review
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	Under Review
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement policies and procedures for electronic information systems that maintain EPHI to allow access only to those persons or software programs that have been granted access rights as specified in the Information Access Management Standard.”*

Policy Summary: HealthInfoNet must purchase and implement information systems that comply with HealthInfoNet’s Information Access Management policy. HealthInfoNet information systems must support a formal process for granting appropriate access to HealthInfoNet information systems containing EPHI. Access to HealthInfoNet information systems containing EPHI must be limited to HealthInfoNet and Participating Site workforce members and software programs having a need for specific information in order to accomplish a legitimate task.

Purpose: This policy reflects HealthInfoNet’s commitment to purchase and implement information systems that comply with HealthInfoNet’s information access management policies.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: *Technical Safeguards*

Regulatory Type: *Standard*

Regulatory Reference: *45 CFR 164.312(a)(1)*

Policy Authority/Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies:	Unique User Identification Automatic Logoff Encryption and Decryption Information Access Management Access Authorization Access Establishment and Modification Access Control and Validation Procedures
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. HealthInfoNet will purchase and implement information systems that comply with HealthInfoNet's information access management policy.2. All current HealthInfoNet information systems that do not currently comply with HealthInfoNet's information access management policy will be identified and evaluated according to HealthInfoNet's risk analysis process.3. As appropriate, HealthInfoNet information systems will support one or more of the following types of access control to protect the confidentiality, integrity and availability of EPHI contained on HealthInfoNet information systems:<ul style="list-style-type: none">• User based• Role based• Context based4. HealthInfoNet information systems will support a formal process for granting appropriate access to HealthInfoNet information systems containing EPHI. At a minimum, the process will include:<ul style="list-style-type: none">• Procedure for granting different levels of access to HealthInfoNet information systems containing EPHI.• Procedure for tracking and logging authorization of access to HealthInfoNet information systems containing EPHI.• Procedure for regularly reviewing and revising, as necessary, authorization of access to HealthInfoNet information systems containing EPHI.5. Neither HealthInfoNet workforce members and software programs can be granted access to information systems containing EPHI until properly authorized.6. As appropriate, security controls or methods that allow access to HealthInfoNet information systems containing EPHI will include, at a

minimum:

- Unique user identifiers (user IDs) that enable persons and identities to be uniquely identified. User IDs will not give any indication of the user's privilege level. Group identifiers will not be used to gain access to HealthInfoNet information systems containing EPHI. When unique user identifiers are insufficient or inappropriate, group identifiers may be used to gain access to HealthInfoNet information systems not containing EPHI.
- A secret identifier (password).
- The prompt removal or disabling of access methods for persons and entities that no longer need access to HealthInfoNet EPHI.
- Verification that redundant user identifiers are not issued.

7. Access to HealthInfoNet information systems containing EPHI will be limited to HealthInfoNet and Participating Site workforce members and software programs that have a need to access specific information in order to accomplish a legitimate task.

8. HealthInfoNet and Participating Site workforce members will not provide access to HealthInfoNet's information systems containing EPHI to unauthorized persons.

9. Appropriate HealthInfoNet information system owners or their designated delegates will regularly review workforce member and software program access rights to HealthInfoNet information systems containing EPHI to ensure that access is granted only to those having a need for specific information in order to accomplish a legitimate task. Such rights will be revised as necessary.

10. All revisions to HealthInfoNet workforce member and software program access rights will be tracked and logged. At a minimum, such tracking and logging will provide the following information:

- Data and time of revision
- Identification of workforce member or software program whose access is being revised
- Brief description of revised access right(s)
- Reason for revision

This information will be securely maintained.

11. As defined in HealthInfoNet's Unique User Identification policy, access to HealthInfoNet information systems will be via user identifiers that uniquely identify workforce members and enable activities with each identifier to be traced to a specific person or entity.

12. As defined in HealthInfoNet's Automatic Logoff policy, HealthInfoNet workforce members will end electronic sessions between information systems that contain or can access EPHI when such sessions are finished, unless they can be secured by an appropriate locking

method.

13. As defined in HealthInfoNet's Encryption and Decryption policy, where risk analysis shows it is necessary, appropriate encryption will be used to protect the confidentiality, integrity and availability of EPHI contained on HealthInfoNet information systems.

UNIQUE USER IDENTIFICATION	POLICY # 29	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Assign a unique name and/or number for identifying and tracking user identity.”*

Policy Summary: Access to HealthInfoNet information systems must be via user identifiers that uniquely identify workforce members and enable activities of each identifier to be traced to a specific person or entity. When unique user identifiers are insufficient or inappropriate, group identifiers may be used to gain access to HealthInfoNet information systems not containing EPHI.

Purpose: This policy reflects HealthInfoNet’s commitment to assign a unique name or number to identify and track the identity of workforce members who access HealthInfoNet information systems.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Technical Safeguards

Regulatory Type: REQUIRED Implementation Specification for Access Control Standard

Regulatory Reference: 45 CFR 164.312(a)(2)(i)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this.

Related Policies: Access Control
Automatic Logoff
Encryption and Decryption

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet information systems will grant users access via unique identifiers that:
 - identify workforce members or users, and
 - allow activities performed on information systems to be traced back to a particular individual through tracking of unique identifiers.
2. Unique identifiers will not give any indication of the user's privilege level.
3. Unique identifiers can include but are not limited to:
 - Biometric identification
 - Workforce member names
 - Exclusive numbers (e.g. PIN)
4. HealthInfoNet user accounts will start with the first letter of the first name and end with the entire last name of the workforce member. This username will serve to access all accounts.
5. Group user identifiers will not be used to gain access to HealthInfoNet information systems that contain EPHI. When unique user identifiers are insufficient or inappropriate, group identifiers may be used if the users that have access to these group credentials are documented. These identifiers may only be used to gain access to HealthInfoNet information systems that do not contain EPHI.
6. Standard user naming practices (e.g. first initial, last name) will not be used for HealthInfoNet workforce members who require access to highly sensitive HealthInfoNet information systems (e.g. firewalls, core routers). Such practices can enable an attacker to target certain user names. Instead, a HealthInfoNet Security and Privacy Officer approved user naming practice will be used to create user names for such users.

AUTOMATIC LOGOFF	POLICY # 30	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Implement electronic procedures that terminate an electronic session after a predetermined time of inactivity.”*

Policy Summary: HealthInfoNet workforce members must terminate electronic sessions by logging out of information systems that contain or access EPHI unless the information system is secured by an approved locking method.

Purpose: This policy reflects HealthInfoNet’s commitment to develop and implement procedures for terminating electronic sessions on information systems that contain or access EPHI.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Technical Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Access Control Standard

Regulatory Reference: 45 CFR 164.312(a)(2)(iii)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy. in accordance with HealthInfoNet’s Auditing Policy.

Related Policies: Access Control
Encryption and Decryption
Unique User Identification

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

- Procedures:
1. HealthInfoNet workforce members will end electronic sessions on information systems that contain or can access EPHI when such sessions are completed, unless the information system is secured by an appropriate locking method, e.g. a password protected screen saver.
 2. Electronic sessions on information systems that contain or can access EPHI and which lack appropriate locking methods will be automatically terminated after 15 minutes of inactivity.
 3. Exceptions to HealthInfoNet's information system required inactivity timeout must be approved by HealthInfoNet's Security and Privacy Officer after risk analysis has been conducted.
 4. HealthInfoNet workforce members will activate their workstation locking software whenever they leave their workstation unattended for 15 minutes or more.
 5. HealthInfoNet workforce members will log off from or lock their workstation(s) when their shift is complete.

ENCRYPTION AND DECRYPTION	POLICY # 31	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE:	REVIEW:	
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HIPAA Security Rule *“Implement a mechanism to encrypt and decrypt EPHI.”*
 Language:

Policy Summary: Where risk analysis shows it is necessary, appropriate encryption must be used to protect the confidentiality, integrity, and availability of EPHI contained on HealthInfoNet information systems. HealthInfoNet must protect all cryptographic keys against modification and destruction; secret and private keys must be protected against unauthorized disclosure. HealthInfoNet must have a formal, documented process for managing the cryptographic keys used to encrypt EPHI on HealthInfoNet information systems.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately use encryption to protect the confidentiality, integrity and availability of EPHI contained on HealthInfoNet information systems.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

 This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Technical Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Access Control Standard

Regulatory Reference: 45 CFR 164.312(a)(2)(iv)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy in accordance with HealthInfoNet’s Encryption Policy.

Related Policies:	Access Control Automatic Logoff Unique User Identification
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none">1. When risk analysis indicates it is necessary, appropriate encryption will be used to protect the confidentiality, integrity, and availability of EPHI contained on HealthInfoNet information systems. The risk analysis will also be used to determine the type and quality of the encryption algorithm and the length of cryptographic keys.2. At a minimum, HealthInfoNet's risk analysis will consider the following factors when determining whether or not specific EPHI must be encrypted:<ul style="list-style-type: none">• The sensitivity of the EPHI• The risks to the EPHI• The expected impact to HealthInfoNet functionality and work flow if the EPHI is encrypted• Alternative methods available to protect the confidentiality, integrity and availability of the EPHI3. All encryption used to protect the confidentiality, integrity and availability of EPHI contained on HealthInfoNet information systems will be approved by HealthInfoNet's Security and Privacy Officer.4. Encryption should be used to protect the confidentiality, integrity, and availability of EPHI stored on HealthInfoNet portable workstations (i.e. laptops, etc.).5. Encryption should be used to protect the confidentiality, integrity, and availability as specified in HealthInfoNet's <u>Transmission Security policy</u>.6. No HealthInfoNet workforce member will implement encryption of data without the knowledge and approval of the Security and Privacy Officer.7. The Security and Privacy Officer will maintain documentation with regards to when encryption is utilized.

AUDIT CONTROLS	POLICY # 32	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
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HIPAA Security Rule Language: *“Implement hardware, software, and/or procedural mechanisms that record and examine activity in information systems that contain or use EPHI.”*

Policy Summary: HealthInfoNet must be able to record and examine significant activity on its information systems that contain or use EPHI. Appropriate hardware, software, or procedural auditing mechanisms must be implemented on HealthInfoNet information systems that contain or use EPHI. The level and type of auditing mechanisms that must be implemented on HealthInfoNet information systems that contain or use EPHI must be determined by HealthInfoNet’s risk analysis. Logs created by audit mechanisms implemented on HealthInfoNet information systems must be reviewed regularly. HealthInfoNet must develop and implement a formal process for audit log review.

Purpose: This policy reflects HealthInfoNet’s commitment to use appropriate audit controls on its information systems that contain or use EPHI.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Technical Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.312(b)

Policy Authority/Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy in accordance with HealthInfoNet’s Auditing Policy.

Related Policies:

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet will be able to record and examine significant activity on its information systems that contain or use EPHI. HealthInfoNet will conduct a risk analysis to identify and define what constitutes “significant activity” on a specific information system.

2. Appropriate hardware, software, or procedural auditing mechanisms will be implemented on HealthInfoNet information systems that contain or use EPHI. At a minimum, such mechanisms will provide the following information:

- Date and time of significant activity
- Origin of significant activity
- Identification of user performing significant activity
- Description of attempted or completed significant activity

3. The level and type of auditing mechanisms that will be implemented on HealthInfoNet information systems that contain or use EPHI will be determined by HealthInfoNet’s risk analysis process. Events that should be audited can include but are not limited to:

- Access of certain data (e.g. sensitive EPHI like HIV or mental health records)
- Use of certain software programs or utilities
- Use of a privileged account
- Information system start-up or stop
- Failed authentication attempts

4. Logs created by audit mechanisms implemented on HealthInfoNet information systems will be reviewed regularly. The frequency of such review will be determined by HealthInfoNet’s risk analysis process. At a minimum, the risk analysis will consider the following factors:

- The importance of the applications running on the information system
- The value or sensitivity of the data on the information system
- The extent to which the information system is connected to other information systems

5. HealthInfoNet will develop and implement a formal process for audit log review. At a minimum, the review process will include:

- Definition of which workforce members will review logs
- Procedure for defining how significant log events will be

identified and reported

- Definition of audit record retention criteria

6. When possible, HealthInfoNet workforce members should not review audit logs that pertain to their own system activity.

7. When possible, HealthInfoNet information systems' real-time clocks will be set to an agreed upon standard time so that audit events are synchronized.

INTEGRITY	POLICY # 33	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement policies and procedures to protect EPHI from improper alteration or destruction.”*

Policy Summary: HealthInfoNet must appropriately protect the integrity of all EPHI contained on its information systems. HealthInfoNet must implement a formal, documented process for appropriately protecting the integrity of all EPHI contained on its information systems. Only properly authorized and trained HealthInfoNet workforce members may access and use EPHI on HealthInfoNet information systems. Methods used to protect the integrity of EPHI contained on HealthInfoNet information systems must ensure that the value and state of the EPHI is maintained and protected from unauthorized modification and destruction.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately protect the integrity of all EPHI contained on its information systems.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Technical Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.312(c)(1)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies: Mechanism to Authenticate EPHI

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet will appropriately protect the integrity of all EPHI contained on its information systems. Such EPHI will be protected from improper alteration or destruction.
2. HealthInfoNet will perform regular risk analysis to determine the appropriate means to protect the integrity of all EPHI contained on its information systems. At a minimum, HealthInfoNet's risk analysis will consider the following factors when defining what mechanisms will be implemented to protect the integrity of EPHI contained on HealthInfoNet information systems:
 - The sensitivity of the EPHI
 - The risks to the EPHI
 - The expected impact to HealthInfoNet functionality and work flow if these mechanisms are used to protect the integrity of the EPHI
3. HealthInfoNet will implement a formal, documented process for appropriately protecting the integrity of all EPHI contained on its information systems. At a minimum, the process must include:
 - A procedure for ensuring that the methods and controls used to protect integrity are effective and do not significantly impact HealthInfoNet functionality and workflow.
 - A procedure defining how HealthInfoNet will detect and report instances of attempted or successful improper alteration or destruction of HealthInfoNet EPHI.
 - A procedure defining how HealthInfoNet will respond to instances of attempted or successful improper alteration or destruction of HealthInfoNet EPHI.
 - A procedure defining when and how unnecessary HealthInfoNet EPHI can be destroyed. Such destruction will be conducted only by properly authorized HealthInfoNet workforce members.
4. Only properly authorized and trained HealthInfoNet workforce members may access and use EPHI on HealthInfoNet information systems. Such access and use will be provided only to HealthInfoNet workforce members having a need for access to specific EPHI in order to accomplish a legitimate task.
5. Such access and use will be clearly defined and documented and be regularly reviewed and revised as necessary.
6. Methods used to protect the integrity of EPHI contained on HealthInfoNet information systems will ensure that the value and state of

the EPHI is maintained and it is protected from unauthorized modification and destruction. Such controls include but are not limited to:

- Digital signatures
- Encryption

7. All methods used to protect the integrity of EPHI contained on HealthInfoNet information systems will be approved by HealthInfoNet's Security and Privacy Officer.

PERSON OR ENTITY AUTHENTICATION	POLICY # 34	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement procedures to verify that a person or entity seeking access to EPHI is the one claimed.”*

Policy Summary: HealthInfoNet must authenticate all persons or entities seeking access to HealthInfoNet EPHI before access is granted. HealthInfoNet must use an appropriate and reasonable system(s) to ensure that only properly authenticated persons and entities access its EPHI.

Purpose: This policy reflects HealthInfoNet’s commitment to ensure that all persons or entities seeking access to HealthInfoNet EPHI are appropriately authenticated before access is granted.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions below.

Regulatory Category: Technical Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.312(d)

Policy Authority/Enforcement: HealthInfoNet’s Security Official is responsible for monitoring and enforcement of this policy, in accordance with Procedure #(TBD).

Related Policies: Password Use and Management
Log-in Monitoring
Security Awareness and Training

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures: 1. HealthInfoNet must create and implement a formal, documented process for verifying the identity of a person or entity before granting them access to EPHI. The process must be regularly reviewed and revised as necessary.

2. At a minimum, HealthInfoNet’s authentication process must include the following:

A. HealthInfoNet will be responsible for creating and maintaining concerto user accounts.

a. Each site will create or modify an existing account authorization form for the purpose of allowing access HealthInfoNet. Each site will also establish a list of authorized individual(s) for any questions HealthInfoNet may have in the creation of the new accounts. The individual(s) will also serve as the liaison between HealthInfoNet and the end user. The individual(s) at each site will be responsible for sending HealthInfoNet the access authorization form for each account to be created. The form is to include: a case sensitive user logon name, the user’s full name, the role level access being requested for the user, a valid email address associated with the organization and the organization the user is associated with.

B. HealthInfoNet has defined 4 roles in concerto.

HIN Role	Description	Associated User Categories By Title
Clinician	access to all patient information	Medical Doctor (M.D.) Doctor of Osteopathy (D.O.) Nurse Practitioner (N.P) P.A. (Physician Assistant)
Clinician Administrative	access to all patient information	Registered Nurse (R.N.) Licensed Practical Nurse (L.P.N.) Medical Assistant (M.A.) Nurse Assistant (N.A.) Respiratory Therapist (R.T.) Registered Pharmacist (R.Ph.) Unit Secretary Selected Medical Records Staff Home Health Case Manager

		Selected IT Support Staff
Auditor	Access limited to audit reports	Security Officers Security Support Staff
Help Desk	Access limited to user maintenance	Key Help Desk Personnel

- C. HealthInfoNet will create an account for each user with the appropriate role and a temporary password. This temporary password will be transferred by an email communication, to the end user. This password will expire after the first initial login. At the time of the first login the user will be forced to change their password. HealthInfoNet will have no knowledge of this password, nor have the ability to retrieve it.
- D. Password administration will be handled primarily by each sites help desk structure. HealthInfoNet will provide support to each help desk when it is needed. End users should only contact their own help desk.
 - a. HealthInfoNet will work with each site to determine individuals that will have the ability to reset user passwords. These individual(s) will be responsible for resetting passwords at their respective sites. If for some reason these individual(s) are unable to reset the password, the help desk should contact HealthInfoNet for further help. (passwords will be handled as a priority 2 call)
 - b. Passwords must follow the minimum standards outline in the HealthInfoNet Password policy. Passwords are not to be shared and each account will be tied to an individual.
 - c. The passwords must meet at least meet the following requirements, anything stricter shall be applied in accordance with each organizations policies.
 - i. Be at least 8 characters long

- ii. Contain at least one numeric and one alpha character

E. Inactive Accounts

- a. When any site inactivates an account on their systems for any reason they should notify HealthInfoNet as soon as possible, so that HealthInfoNet can deactivate the account in the portal. This includes disciplinary actions, accounts that have been compromised, account maintenance, and any other activity that may affect user's rights to access patients in HealthInfoNet.

- F. Changes to roles, privileges and any other account management function not specified by this policy will be the responsibility of HealthInfoNet. HealthInfoNet will work with the authorized personnel at each site in order to facilitate any of these changes.

3. HealthInfoNet must use an appropriate and reasonable system(s) to ensure that only properly authenticated persons and entities access its EPHI. Such systems can include but are not limited to:

- Biometric identification systems
- Password systems
- Personal identification number (PIN) systems
- Telephone callback systems
- Security token systems

4. When applicable, such authentication system(s) must include, at a minimum:

- Unique user identifiers (user IDs) that enable persons and entities to be uniquely identified. User IDs must not give any indication of the user's privilege level. Group identifiers must only be used when unique user identifiers are insufficient or inappropriate. Group identifiers must be reviewed and approved by appropriate management. Group identifiers must not be used to gain access to HealthInfoNet information systems containing EPHI.
- A secret identifier (password)
- The prompt removal or disabling of authentication methods for persons and entities that no longer need access to HealthInfoNet EPHI.
- Verification that redundant user identifiers are not issued.

5. All authentication methods must meet the defined standard(s) of the HealthInfoNet Security and Privacy Officer. The Security and Privacy Officer must provide HealthInfoNet employees with regular training and awareness about the authentication standard(s).

6. All authentication data, such as passwords and PINs, must be protected with appropriate access controls to prevent unauthorized access.
7. All password and PIN based authentication systems on HealthInfoNet information systems must mask, suppress, or otherwise obscure the passwords and PINs so that unauthorized persons are not able to observe them.
8. Methods (e.g. password or PIN) for authentication to HealthInfoNet information systems must not be built into logon scripts. All exceptions must be reviewed and approved by appropriate management.
9. HealthInfoNet employees must not share or reveal their authentication methods to others. Sharing an authentication method means the authorized user assumes responsibility for actions that another party takes with the disclosed method. A HealthInfoNet employee who believes that their authentication method is being inappropriately used must immediately notify his or her manager.
10. HealthInfoNet employees must immediately report the loss or theft of an access method (e.g. key card or security token) to appropriate management.
11. *To prevent authentication by unauthorized persons, HealthInfoNet employees must activate their workstation locking software whenever they leave their workstation unattended for 15 minutes or more. Locking or timeout software must activate on all other HealthInfoNet information systems after 15 minutes or more of inactivity.*
12. Authentication attempts to all HealthInfoNet information systems must be limited to no more than 5 attempts in 10 minutes. Authentication attempts that exceed the limit must result in:
 - The event being logged; and
 - Notification of appropriate HealthInfoNet personnel.

TRANSMISSION SECURITY	POLICY # 35	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement technical security measures to guard against unauthorized access to EPHI that is being transmitted over an electronic communications network.”*

Policy Summary: HealthInfoNet must appropriately protect the confidentiality, integrity, and availability of all data it transmits over electronic communications networks. Unless risk analysis indicates that there is not significant risk when sending HealthInfoNet data over an electronic communications network, the data must be sent in encrypted form and have controls for safeguarding the integrity of the data. HealthInfoNet must implement a formal, documented process for how HealthInfoNet data that requires encryption and integrity controls will be transmitted over electronic communications networks.

Purpose: This policy reflects HealthInfoNet’s commitment to appropriately protect the confidentiality, integrity, and availability of all data that it transmits over electronic communications networks.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category: Technical Safeguards

Regulatory Type: Standard

Regulatory Reference: 45 CFR 164.312(e)(1)

Policy Authority/ Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies: Integrity Controls
Encryption

Renewal/Review: This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet will appropriately protect the confidentiality, integrity and availability of all data it transmits over electronic communications networks.
2. Unless risk analysis indicates that there is not significant risk when sending HealthInfoNet data over an electronic communications network, the data will be sent in encrypted form and have controls to safeguard the integrity of the data. HealthInfoNet Information Security Office will approve all encryption and integrity controls prior to their use.
3. Encryption and integrity controls will always be used when highly sensitive HealthInfoNet data such as passwords are transmitted over electronic communications networks.
4. As described in HealthInfoNet's Encryption policy, when risk analysis indicates it is necessary, appropriate encryption will be used to protect the confidentiality, integrity, and availability of HealthInfoNet data transmitted over electronic communications networks.
5. As described in HealthInfoNet's Integrity Controls policy, when risk analysis indicates it is necessary, appropriate integrity controls will be used to protect the confidentiality, integrity, and availability of HealthInfoNet data transmitted over electronic communications networks.

ENCRYPTION	POLICY # 36	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	Under Review
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	Under Review
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language:

“Implement a mechanism to encrypt EPHI whenever deemed appropriate.”

Policy Summary:

When risk analysis indicates it is necessary, appropriate encryption must be used to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over electronic communications networks. HealthInfoNet must protect all cryptographic keys against modification and destruction; secret and private keys must be protected against unauthorized disclosure. HealthInfoNet must have a formal, documented process for managing the cryptographic keys used to encrypt HealthInfoNet data transmitted over electronic communications networks.

Purpose:

This policy reflects HealthInfoNet’s commitment to appropriately use encryption to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over electronic communications networks.

Scope/Applicability:

This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category:

Technical Safeguards

Regulatory Type:

ADDRESSABLE Implementation Specification for Transmission Security Standard

Regulatory Reference:

45 CFR 164.312(e)(2)(ii)

Policy Authority/ Enforcement:

HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies:

Transmission Security
Integrity Controls

Renewal/Review:

This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant

related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. When risk analysis indicates it is necessary, appropriate encryption will be used to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over electronic communications networks. The risk analysis will also be used to determine the type and quality of the encryption algorithm and the length of cryptographic keys.

2. At a minimum, HealthInfoNet's risk analysis will consider the following factors when determining whether or not encryption will be used when sending specific data over an electronic communications network:

- The sensitivity of the data
- The risks to the data if they are not encrypted
- The expected impact to HealthInfoNet functionality and work flow if the data are encrypted
- Alternative methods available to protect the confidentiality, integrity and availability of the data
- The ability of the recipient of the data to decrypt the data received

3. Encryption will always be used when highly sensitive HealthInfoNet data such as passwords are transmitted over electronic communications networks.

4. All encryption used to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over an electronic communications network will be approved by HealthInfoNet's information security office.

5. HealthInfoNet will have a formal, documented process for managing the cryptographic keys used to encrypt HealthInfoNet data transmitted over electronic communications networks. Its secret and private keys will be protected against unauthorized disclosure. At a minimum, the cryptographic key management process must include:

- A procedure for generating keys for different cryptographic systems
- A procedure for distributing keys to intended users and then activating them
- A procedure for enabling authorized users to access stored keys
- A procedure for changing and updating keys
- A procedure for revoking keys
- A procedure for recovering keys that are lost or corrupted
- A procedure for archiving keys
- Appropriate logging and auditing of cryptographic key management

6. When possible, HealthInfoNet cryptographic keys will have defined

activation and deactivation dates.

INTEGRITY CONTROLS	POLICY # 37	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	Under Review
	REVISED:	
SUPERCEDES POLICY:	REVIEWED:	Under Review
DATE: October 1, 2010	REVIEW:	
	PAGE:	

HIPAA Security Rule Language: *“Implement security measures to ensure that electronically transmitted EPHI is not improperly modified without detection until disposed of.”*

Policy Summary: When risk analysis indicates it is necessary, appropriate integrity controls must be used to protect the confidentiality, integrity, and availability of HealthInfoNet data transmitted over electronic communications networks. HealthInfoNet’s integrity controls must ensure that the value and state of all transmitted data is maintained and the data is protected from unauthorized modification. All such integrity controls must be approved by HealthInfoNet’s Information Security Office.

Purpose: This policy reflects HealthInfoNet’s commitment to use appropriate integrity controls to protect the confidentiality, integrity, and availability of HealthInfoNet data transmitted over electronic communications networks.

Scope/Applicability: This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.

This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix .

Regulatory Category: Technical Safeguards

Regulatory Type: ADDRESSABLE Implementation Specification for Transmission Security Standard

Regulatory Reference: 45 CFR 164.312(e)(2)(i)

Policy Authority/Enforcement: HealthInfoNet’s Executive Director and Security and Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies:	Transmission Security Encryption
Renewal/Review:	This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.
Procedures:	<ol style="list-style-type: none"> 1. When risk analysis indicates it is necessary, appropriate integrity controls will be used to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over electronic communications networks. 2. At a minimum, HealthInfoNet's risk analysis will consider the following factors when determining whether or not integrity controls will be used when sending specific data over an electronic communications network: <ul style="list-style-type: none"> • The sensitivity of the data • The risks to the data • The expected impact to HealthInfoNet functionality and work flow if the data are sent with integrity controls • The ability of the recipient of the data to check the integrity of the data that were sent 3. Integrity controls will always be used when highly sensitive HealthInfoNet data such as passwords are transmitted over electronic communications networks. 4. HealthInfoNet's integrity controls will ensure that the value and state of all transmitted data is maintained and the data is protected from unauthorized modification. Such controls include but are not limited to: <ul style="list-style-type: none"> • Checksums • Message authentication codes • Hash values 5. All integrity controls used to protect the confidentiality, integrity and availability of HealthInfoNet data transmitted over an electronic communications network will be approved by HealthInfoNet's Security and Privacy Officer.

BREACH NOTIFICATION POLICY	POLICY #38	
ADMINISTRATIVE MANUAL		
APPROVED BY:	ADOPTED:	Currently Under Review
SUPERCEDES POLICY:	REVISED:	
	REVIEWED:	Currently Under Review
DATE:	REVIEW:	
	PAGE:	

HIPAA Security
Rule Language:

Policy Summary: HealthInfoNet will maintain the privacy and security of PHI in compliance with the Privacy and Security Rule. When the identity or the covered entity that disclosed the PHI to HealthInfoNet is clear to HealthInfoNet, HealthInfoNet will provide appropriate notice of a Breach of Unsecured PHI to the covered entity. When the identity of the covered entity that disclosed the PHI to HealthInfoNet is unclear to HealthInfoNet, HealthInfoNet will provide appropriate notice of a Breach of Unsecured PHI in violation of its Policies and Procedures or the HIPAA Privacy Rule.

Purpose: This policy reflects HealthInfoNet’s commitment to report the acquisition, access, use or disclosure of protected health information (PHI) that compromises the security or privacy of the PHI in violation of the Privacy Rule.

Scope/Applicability: *This policy is applicable to all departments that use or disclose electronic protected health information for any purposes.*
This policy’s scope includes all electronic protected health information, as described in Definitions presented in Appendix.

Regulatory Category:

Regulatory Type:

Regulatory Reference: *Section 13402 of Title XIII (Health Information Technology for Economic and Clinical Health Act) of the American Recovery and Reinvestment Act of 2009*

Policy Authority/Enforcement: HealthInfoNet’s Executive Director and Security Officer/Privacy Officer are responsible for monitoring and enforcement of this policy.

Related Policies: Risk Analysis
Risk Management
Security Incident Procedures
Information System Activity Review

Renewal/Review:

This policy is to be reviewed annually to determine if the policy complies with current HIPAA Security regulations. In the event that significant related regulatory changes occur, the policy will be reviewed and updated as needed.

Procedures:

1. HealthInfoNet will determine how to secure PHI, including electronic PHI (ePHI).
2. HealthInfoNet will assess its areas of risk for the acquisition, access, use or disclosure of PHI. This risk assessment may include the following steps:
 - Identification of potential threats to the privacy and security of PHI
 - Identification of areas of vulnerability
 - Analysis of existing security controls
 - Determination of the likelihood of risks
 - Analysis of the impact of a potential Breach
 - Determination of areas of risk (type and amount)
 - Security control recommendations
3. HealthInfoNet will put in place reasonable systems to detect Breaches of PHI.
4. When a member of the HealthInfoNet's workforce (Member) determines that there may have been an acquisition, access, use or disclosure of PHI by it in violation of HealthInfoNet's Policies and Procedures or the HIPAA Privacy Rule, the Member will immediately notify the Privacy Officer ("PO"). The PO will document the date of the potential Breach.
5. The PO or his/her designee will determine whether PHI was unsecured. This requires the PO to determine whether the PHI was deidentified or rendered unusable, unreadable, or indecipherable to unauthorized individuals through the use of a technology or methodology that is specified by DHHS (for example, PHI that was not encrypted or properly destroyed is unsecured).
6. When the identity of the covered entity that disclosed the PHI to HealthInfoNet is clear to HealthInfoNet, HealthInfoNet will provide notice of a Breach of Unsecured PHI to the covered entity.
7. When the identity of the covered entity that disclosed the PHI to HealthInfoNet is unclear to HealthInfoNet, HealthInfoNet will take the following steps:
 - The PO or his/her designee will determine whether PHI was used or disclosed in an unauthorized manner.

- The PO or his/her designee will determine and document whether the unauthorized use or disclosure compromises the security or privacy of PHI.
 - The PO or his/her designee will conduct an appropriate investigation into the circumstances of the Breach and determine whether the Breach poses a significant risk of financial, reputational, or other harm to the individual.
8. If the PO determines that: 1) the PHI was used or disclosed in an unauthorized manner; 2) the unauthorized use or disclosure compromised the security or privacy of PHI; and 3) the Breach posed a significant risk of financial, reputational, or other harm to the individual, the PO or his/her designee will provide appropriate notice of the Breach.
9. The PO, or his her designee, will provide individual notice to the person whose Unsecured PHI was Breached. The PO will provide notice without unreasonable delay, which will be within sixty (60) calendar days of discovering the Breach. The notice will comply with the following standards:
- The notice will be in plain language and provided in writing by first-class mail at the last known address of the individual;
 - The notice will include a description of the types of PHI that were breached (for example, name and telephone number);
 - The notice should inform the individual of ways to protect himself/herself from potential harm from the Breach;
 - The notice should include a brief description of the steps HealthInfoNet is taking to investigate the Breach, to mitigate harm to individuals, and to protect against further Breaches;
 - The notice should include contact procedures for individuals to ask questions or learn additional information, including a toll-free telephone number, an e-mail, website, or postal address;
 - A notice involving minors may be made to the parent/legal guardian and a notice for a deceased individual should be made to the personal representative of the individual;
 - If HealthInfoNet does not have enough contact information to provide written notice, and the Breach involves fewer than ten (10) individuals, HealthInfoNet may provide substitute notice by telephone, e-mail or other means;
 - If HealthInfoNet does not have enough contact information

to provide written notice, and the Breach involves more than ten (10) individuals, HealthInfoNet will have a toll-free telephone number available for at least ninety (90) days for individuals to use to learn whether their Unsecured PHI may have been included in the Breach.

The PO will document that a Breach of Unsecured PHI has occurred and document the notice that was given and the date such notice was given.

10. When the Breach involves five hundred (500) or more individuals who are residents in a state, the PO or his/her designee will notify prominent local media outlets (for example, notification in this circumstance may occur through a press release) and document the notification that was given. The PO or his/her designee will notify DHHS immediately (and in no case more than sixty (60) calendar days after discovering such Breach) when the Breach involves five hundred (500) or more individuals.
11. The PO or his/her designee will discipline members of the workforce in appropriate circumstances when there has been a Breach of unsecured PHI. The PO or his/her designee will take any other appropriate action in accordance with the HealthInfoNet's Policies or Procedures. See the "Employee Sanction Policy" (Policy 5) for more details.
13. The PO or his/her designee will arrange for appropriate training for Members regarding the Breach notification requirements and document that such training has occurred.

Appendix E: HealthInfoNet's Business Associate Agreement

BUSINESS ASSOCIATE AGREEMENT

THIS BUSINESS ASSOCIATE AGREEMENT ("Agreement") is made this 17th day of February, 2010, by and between HealthInfoNet ("Business Associate"), and _____, a Maine nonprofit corporation ("Covered Entity").

RECITALS

WHEREAS, Covered Entity will disclose certain information to Business Associate pursuant to the Participant Agreement which may constitute Protected Health Information; and

WHEREAS, Covered Entity and Business Associate have entered into one or more Business Associate Agreements in accordance with the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191, and the regulations promulgated under 45 C.F.R. Parts 160 and 164, as amended (the "Privacy Rule" and "Security Rule") (which are collectively referred to herein as "HIPAA"); and

WHEREAS, the Health Information Technology for Economic and Clinical Health Act, Public Law 111-005, and the regulations promulgated thereunder, as amended (the "HITECH Act"), amend certain requirements under HIPAA and extend certain requirements under HIPAA to business associates; and

WHEREAS, Covered Entity and Business Associate intend to protect the privacy and provide for the security of Protected Health Information disclosed to Business Associate in compliance with HIPAA; the HITECH Act; 22 M.R.S.A. § 1711-C ("Maine Confidentiality Law"); 10 M.R.S.A. § 1346 et seq. ("Maine's Notice of Risk to Personal Data Act") and other applicable laws and regulations governing the privacy and security of Protected Health Information; and

WHEREAS, Business Associate and Covered Entity wish to comply at all times with HIPAA, the HITECH Act, Maine's Confidentiality Law, Maine's Notice of Risk to Personal Data Act and other applicable laws and regulations governing the privacy and security of Protected Health Information; and

WHEREAS, Section 5.05 of the Participant Agreement requires Business Associate and Covered Entity to comply with the terms of the Business Associate Agreement attached thereto as Exhibit D and Business Associate and Covered Entity desire to cancel all Business Associate Agreement(s) previously entered into by the parties and replace such Business Associate Agreement(s) with this Agreement.

NOW, THEREFORE, in consideration of the mutual agreements, covenants, terms and conditions herein contained and as a condition precedent to Business Associate continuing to provide services to Covered Entity, Business Associate and Covered Entity hereby agree as follows:

1. **Definitions.**

Capitalized terms used but not otherwise defined herein shall have the meanings provided under HIPAA and the HITECH Act, as amended.

2. **Obligations of Business Associate.**

- (a) **Limitations on Uses and Disclosures of Protected Health Information.** Business Associate shall not and shall ensure that its employees, contractors, and agents do not use or disclose Protected Health Information in any manner that would constitute a violation of HIPAA, the HITECH Act, Maine Confidentiality Law, or other applicable law or regulation governing the privacy of Protected Health Information. Business Associate may use or disclose Protected Health Information only as permitted under the terms of this Agreement and the Participant Agreement and as permitted by HIPAA and Maine Confidentiality Law or as required by law, but shall not otherwise use or disclose Protected Health Information.
- (b) **Permitted Uses and Disclosures Under Participant Agreement.** Except as otherwise limited in this Agreement, Business Associate may use or disclose Protected Health Information on behalf of, or to provide services to, Covered Entity only for the purposes authorized by Covered Entity in the Participant Agreement or through specific written instruction, if such use or disclosure would not violate HIPAA, the HITECH Act, Maine Confidentiality Law, or other applicable law or regulation governing the privacy and security of Protected Health Information.
- (c) **Permitted Uses and Disclosures for Management and Administration of Business Associate.**
- (i) **Permitted Uses.** Except as otherwise limited in this Agreement, Business Associate may use Protected Health Information for the proper management and administration of Business Associate or to carry out its legal responsibilities or for the data aggregation purposes relating to the Health Care Operations of Covered Entity.
- (ii) **Permitted Disclosures.** Except as otherwise limited in this Agreement, Business Associate may disclose Protected Health Information for the proper management and administration of Business Associate, provided that the disclosures are required by law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and be used or further disclosed only as required by law or for the purpose for which it was disclosed to the person, and the person agrees to and notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached. Business Associate shall obtain and maintain a written agreement with each person to whom information is disclosed pursuant to which such person agrees to be bound by the same restrictions, terms and conditions that apply to Business Associate pursuant to this Agreement.
- (iii) **Reporting Violations of Law.** Business Associate may use Protected Health Information to report violations of law to appropriate Federal and State authorities, consistent with 42 C.F.R. § 164.502(j)(1).
- (d) **Minimum Necessary Information.** Business Associate represents that, to the extent it requests or receives disclosure of Protected Health Information from Covered Entity, such request or receipt shall be limited to the Minimum Necessary Protected Health Information required by Business Associate to adequately provide Covered Entity with

the services described in Section 2(b). Business Associate shall limit, to the extent practicable, its use and disclosure of Protected Health Information to the information contained in the Limited Data Set under HIPAA, or, if more information is needed, to the Minimum Necessary to accomplish the intended purpose of such use or disclosure as defined under HIPAA. Business Associate shall keep itself informed of and comply with current guidance issued by the Secretary of the U.S. Department of Health and Human Services with respect to what constitutes the Minimum Necessary information.

- (e) **Safeguards Against Misuse of Information.** Business Associate shall use appropriate safeguards to prevent use or disclosure of Protected Health Information other than as permitted under this Agreement. In addition, Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to Business Associate of a use or disclosure by Business Associate, or its employees, contractors, or agents in violation of this Agreement.

- (f) **Prohibition on Remuneration.** Business Associate shall not receive remuneration directly or indirectly in exchange for Protected Health Information, except with the prior written consent of Covered Entity and as permitted by the HITECH Act. Notwithstanding the foregoing, this provision shall not prohibit payment by Covered Entity for services provided by Business Associate pursuant to the Participant Agreement or another separate services agreement between Business Associate and Covered Entity.

- (g) **Reporting of Disclosures of Protected Health Information.** In the event of any unauthorized access, use or disclosure of Protected Health Information received from one participating Covered Entity that is in violation of HIPAA, the HITECH Act, Maine Confidentiality Law, Maine's Notice of Risk to Personal Data Act, or other applicable law, or in violation of the terms of this Agreement, Business Associate shall promptly report such unauthorized access, use or disclosure to Covered Entity. Such report shall be made without unreasonable delay but in no event later than ten (10) business days after discovery by Business Associate of such breach. Each report of a breach shall include, to the extent possible, the following information: (i) a description of the facts pertaining to the breach, including without limitation, the date of the breach and the date of discovery of the breach, (ii) a description of the Protected Health Information involved in the breach, (iii) the names of the individuals who committed or were involved in the breach, (iv) the names of the unauthorized individuals or entities to whom Protected Health Information has been disclosed, (v) a description of the action taken or proposed by the Business Associate to mitigate the financial, reputational or other harm to the individual who is the subject of the breach, and (vi) provide such other information as Covered Entity may reasonably request including, without limitation, the information, data and documentation required by Covered Entity to timely comply with the HITECH Act. In such event, if such unauthorized access, use or disclosures results from the act or omission of the Business Associate, then the Covered Entity may by written notice require the Business Associate to perform all applicable breach notification responsibilities pursuant to the HITECH Act. In the event of any unauthorized access, use or disclosure of Protected Health Information received from more than one participating Covered Entity in violation of HIPAA, the HITECH Act, Maine Confidentiality Law, Maine's Notice of Risk to Personal Data Act, or other applicable law, or in violation of the terms of this Agreement, Business Associate shall perform all applicable breach notification responsibilities, including without limitation,

providing affected individuals with notice of a breach of unsecured Protected Health Information without unreasonable delay, which in no case shall be later than sixty (60) calendar days after its discovery of such breach. The party responsible for providing notification of a breach shall pay all costs and expenses of performing the breach notification responsibilities.

- (h) **Administrative Requirements.** Business Associate agrees to comply with the administrative requirements imposed on it, in its capacity as a business associate, by HIPAA and the HITECH Act.
- (i) **Access to Information.** Business Associate shall make Protected Health Information maintained by Business Associate or its agents or subcontractors available to Covered Entity within ten (10) business days of a request by Covered Entity to enable Covered Entity to fulfill its obligations under HIPAA. In the event any individual requests access to Protected Health Information directly from Business Associate, it shall forward such request to Covered Entity within five (5) business days. Covered Entity shall determine whether and to what extent access shall be granted or denied and shall notify the individual requesting access of its decision. Said determination shall be the sole responsibility of Covered Entity. If Business Associate maintains an Electronic Health Record, Business Associate shall provide such information in electronic format to enable Covered Entity to fulfill its obligations under the HITECH Act.
- (j) **Availability of Protected Health Information for Amendment.** Promptly upon receipt of a request from Covered Entity to amend an individual's Protected Health Information or a record regarding an individual, Business Associate shall either provide such information or record to Covered Entity for amendment and incorporate any such amendments in the Protected Health Information as required by 45 C.F.R. § 164.526 in the possession or under the control of Business Associate, or make such amendments to said Protected Health Information as may be directed, in writing, by Covered Entity. If any individual requests such amendment of Protected Health Information directly from Business Associate or its agents or subcontractors, Business Associate shall notify Covered Entity in writing of the request within five (5) business days.
- (k) **Availability of Internal Practices, Books and Records.** Business Associate agrees to make available to Covered Entity its internal practices, books and records relating to the use and disclosure of Protected Health Information received from, or created or received by Business Associate on behalf of Covered Entity or, at the request of Covered Entity, to the Secretary for the purpose of verifying Business Associate's compliance with HIPAA and the HITECH Act.
- (l) **Documentation of Disclosures.** Business Associate agrees to document disclosures by it and its subcontractors or agents, of Protected Health Information and other information related to such disclosures as would be required for Covered Entity to respond to a request by an individual for an accounting of disclosures of Protected Health Information in accordance with 45 C.F.R. § 164.528. If Business Associate disclosed Protected Health Information through an Electronic Health Record, Business Associate shall document disclosures by it and its subcontractors or agents of Protected Health Information for Treatment, Payment and Health Care Operations and maintain such information for a period of three (3) years from the date of the disclosure.

- (m) **Accounting of Disclosures.** Within ten (10) business days of receipt of a notice from Covered Entity of a request for an accounting of disclosures of Protected Health Information, Business Associate and its subcontractors and agents shall make such information available to Covered Entity. Notwithstanding the foregoing, Covered Entity may, at any time, run an audit report of disclosures made by HealthInfoNet for Protected Health Information received from Covered Entity. If an individual requests such accounting directly from Business Associate or its subcontractors or agents, Business Associate shall provide the individual with an accounting of Business Associate's disclosures within sixty (60) calendar days of its receipt of the individual's request and provide Covered Entity with a copy of such accounting at the same time.
- (n) **Safeguards.** Business Associate shall implement administrative safeguards (45 C.F.R. § 164.308), physical safeguards (45 C.F.R. § 164.310) and technical safeguards (45 C.F.R. § 164.312) in accordance with the Security Rule that reasonably and appropriately protect the confidentiality, integrity and availability of Electronic Protected Health Information ("ePHI") that Business Associate creates, receives, maintains or transmits on behalf of Covered Entity and appropriate documentation of such safeguards (45 C.F.R. § 164.316). In addition, Business Associate shall ensure that any agent or subcontractor to whom it provides ePHI agrees, in writing, to implement reasonable and appropriate safeguards to protect such ePHI.
- (o) **Incident Reports.** Business Associate shall notify Covered Entity, in writing, of any security incident within ten (10) business days of becoming aware of such incident. "Security Incident" shall mean a suspected or actual unauthorized access, use, disclosure, modification, or destruction of information or interference with systems operations in an information system used by or on behalf of Business Associate in the performance of services under this Agreement.
- (p) **Compliance with Existing Law.** Business Associate acknowledges and agrees that, as of the effective dates for such provisions, Business Associate shall comply with each provision of HIPAA, the HITECH Act, or other applicable law, that extends a HIPAA requirement to business associates. The parties shall comply with and take any further action, including amendment of this Agreement, required to ensure continued compliance with HIPAA, the HITECH Act, Maine Confidentiality Law and any other applicable federal or state law as amended from time to time. Covered Entity may terminate the Participant Agreement upon thirty (30) days written notice in the event Business Associate does not take such action to ensure compliance with applicable federal and state law as amended.

3. **Obligations of Covered Entity.**

- (a) **Notice of Privacy Practices.** Covered Entity agrees to provide individuals with notice of its privacy practices and obtain acknowledgment of receipt thereof in compliance with 45 C.F.R. § 164.520. In addition, Covered Entity shall promptly provide Business Associate with a copy of its privacy practices in accordance with 45 C.F.R. § 164.520, as well as any modifications thereto.
- (b) **Changes In or Revocation of Permission by Individuals.** Covered Entity shall promptly notify Business Associate, in writing, of any changes in, or revocation of, an

individual's permission to use or disclose Protected Health Information, if such changes or revocation affects Business Associate's permitted or required uses and disclosures.

- (c) **Covered Entity's Agreements to Restrict Use or Disclosure.** In the event Covered Entity agrees to restrict the use and/or disclosure of Protected Health Information in accordance with 45 C.F.R. § 164.522, it shall promptly notify Business Associate, in writing, of the nature and extent of said restriction.

4. **Term and Termination.**

- (a) **Term.** The term of this Agreement shall commence on the date written above and shall terminate when all Protected Health Information received by Business Associate or created or received by Business Associate on behalf of Covered Entity, is returned to Covered Entity, or destroyed at the request of Covered Entity.
- (b) **Termination for Cause.** In compliance with HIPAA, including without limitation 45 C.F. R § 164.504(e)(2)(iii), Covered Entity shall be entitled to take any one or more of the following actions whenever it reasonably determines that Business Associate has breached a material provision of this Agreement:
 - (i) Immediately terminate any agreement between Covered Entity and Business Associate pursuant to which Business Associate provides services to or on behalf of Covered Entity which requires Business Associate to have access to and/or use of Protected Health Information;
 - (ii) Immediately cease further disclosure of Protected Health Information to Business Associate; and/or
 - (iii) Notify Business Associate, in writing, of the existence of such breach and give Business Associate an opportunity to cure upon mutually agreeable terms. In the event Business Associate fails, for any reason, to cure the breach, or in the event Covered Entity reasonably believes that Business Associate and Covered Entity are unable to mutually agree on the terms of cure, Covered Entity may immediately terminate any agreement between Business Associate and Covered Entity which requires Business Associate to have access to and/or use of Protected Health Information.
- (c) **Return of Protected Health Information.** Upon the request of Covered Entity, Business Associate shall return all Protected Health Information received from Covered Entity or created or received by Business Associate on behalf of Covered Entity and which Business Associate maintains in any form or over which it has control. Alternatively, with the prior written consent of Covered Entity, Business Associate may destroy said Protected Health Information. Destruction shall include destruction of all copies including backup tapes and other electronic backup medium.

5. **Notices.**

All notices pursuant to this Agreement must be given in writing and shall be effective when received if hand-delivered or when sent by overnight delivery service, facsimile or U.S. Mail to the appropriate address of the receiving party.

6. **Miscellaneous.**

- (a) **Cooperation.** Each party shall notify the other party of any and all incidents, untoward occurrences, or claims made arising out of its services hereunder. The parties shall cooperate in any investigation of claims or incidents to the extent that doing so does not jeopardize a party's own professional liability insurance coverage.
- (b) **Survival.** The respective rights and obligations of the parties under this Agreement shall survive the expiration, cancellation or termination of all contracts, agreements, or other arrangements or dealings between Business Associates and Covered Entity pursuant to which Protected Health Information is disclosed to or used by Business Associate. Without limiting the generality of the preceding sentence, Business Associate's obligation to protect the privacy of Protected Health Information shall be continuous and shall survive any such expiration, cancellation or termination.
- (c) **Indemnification.** The parties acknowledge that Section VII of the Participant Agreement requires Business Associate and Covered Entity to indemnify each other as provided for under Section VII.
- (d) **Interpretation.** Any ambiguity in this Agreement shall be interpreted to permit Covered Entity to comply with HIPAA, the HITECH Act and the regulations thereunder, Maine Confidentiality Law and other applicable law and regulation. This Agreement shall be interpreted as broadly as necessary to implement and comply with HIPAA and the HITECH Act. The parties agree that any ambiguity in this Agreement shall be resolved in favor of a meaning that complies with and is consistent with HIPAA and the HITECH Act. The parties agree that individuals who are the subject of Protected Health Information are not third-party beneficiaries of this Agreement.
- (e) **Prior Agreements.** This Agreement shall cancel and supersede all other Business Associate Agreement(s) between the parties.
- (f) **Entire Agreement.** This Agreement constitutes the entire agreement of the parties with regard to the subject matter hereof, and no amendments or additions to this Agreement shall be binding unless in writing and signed by both parties. It is expressly understood and agreed that no verbal representation, promise or condition, whether made before or after the signing of this Agreement, shall be binding upon any of the parties hereto.
- (g) **Governing Law.** This Agreement shall be governed in all respects whether as to validity, construction, capacity, performance or otherwise, by the laws of the State of Maine except to the extent preempted by HIPAA and the HITECH Act.
- (h) **Severability.** In the event that any provision of this Agreement violates any applicable statute, regulation or rule of law in any jurisdiction that governs this Agreement, such provision shall be ineffective to the extent of such violation without invalidating any other provision of this Agreement.
- (i) **Headings.** The section headings in this Agreement are included solely for convenience and shall not affect, or be used in connection with, the interpretation of this Agreement.

- (j) **Parties.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.
- (k) **Effective Date.** The particular provisions of this Agreement shall become effective as of the date or dates established by the U.S. Department of Health and Human Services or the United States Congress for the effectiveness of the particular provision. All other provisions of this Agreement shall be effective as of the day and year first written above.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective duly authorized officers or representatives as of the day and year first written above.

WITNESS:

BUSINESS ASSOCIATE

By _____
Its

COVERED ENTITY

By _____
Its

Appendix F: Maine HIT Steering Committee Appointment Letter



JOHN E. BALDACCI
GOVERNOR

STATE OF MAINE
GOVERNOR'S OFFICE OF HEALTH POLICY AND FINANCE
15 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0078



TRISH RILEY
DIRECTOR

TO: Trish Riley

FROM: Jim Leonard, Director Office of the State Coordinator for HIT

RE: Recommendations to the Governor for Appointments to the Health Information Technology Steering Committee

Date: June 1, 2010

On April 6th, 2010, Governor Baldacci signed an Executive Order creating the Health Information Technology Steering Committee to advise the Office of the State Coordinator for HIT (OSC). We have solicited nominees through the acting Steering Committee and through other interested parties and have received many suggestions.

The OSC also received suggestions to add two additional seats to the Steering Committee- one for an individual with expertise in health disparities and representing the State's racial and ethnic minority communities, and one for an individual with expertise in health policy. We agree with both suggestions and recommend amending the Executive Order to add these two seats.

After review of the nominees received, we recommend that the Governor appoint the following individuals for membership.

- The Commissioner of Labor, or designee
 - Melanie Arsenault, Director, Bureau of Employment Services, Maine DOL
- The Director of the Office of Information Technology, or designee
 - Jim Lopatosky, Associate CIO-Applications
- The Director of the Dirigo Health Agency/Maine Quality Forum, or designee
 - Karynlee Harrington, Executive Director, DHA
- The Director of DHHS/CDC or designee
 - Steven Sears, MD, State Epidemiologist, Maine CDC

- The Director of DHHS/MaineCare Services, or designee
 - Tony Marple, Director, Office of MaineCare Services
- The Director of the Maine Health Data Organization, or designee
 - Alan Prysunka, Executive Director, MHDO
- The Director of the Office of the State Coordinator for Health Information Technology
 - James Leonard, Director, OSC
- The Executive Director or designee of the State’s designated health information exchange organization
 - Devore Culver, Chief Executive Officer, HealthInfoNet
- One individual with expertise in health information exchange and/or health information technology
 - Barry Blumenfeld, MD, Chief Information Officer, MaineHealth
- Two individuals representing health care providers
 - Paul Klainer, MD, Internist and Medical Director, Knox County Health Clinic
 - Sandy Putnam, RN, MSN, FNP, Nursing Coordinator, Virology Treatment Center, Maine Medical Center
- One individual representing home health providers
 - Julie Shackley, President/CEO, Androscoggin Home Care & Hospice
- One individual representing hospital systems
 - David Winslow, Vice President, Finance, Maine Hospital Association
- One individual representing federally qualified health care centers
 - Kevin Lewis, Chief Executive Director, Maine Primary Care Association
- One individual with expertise in health care quality
 - Lisa Letourneau, MD, MPH, Executive Director, *Quality Counts*
- One individual representing behavioral health providers
 - John Edwards, Ph.D, Psychologist and IT Projects Manager, Aroostook Mental Health Center
- One representative of consumers
 - Nancy Kelleher, State Director, AARP
- One individual with expertise in the insurance industry
 - Katherine Pelletreau, Executive Director, Maine Association of Health Plans
- One individual representing a business or businesses
 - David Tassoni, Senior Vice President of Operations, athenahealth, Inc.
- One individual with expertise in health care data information
 - Catherine Bruno, FACHE, Vice President and Chief Information Officer, Eastern Maine Healthcare Systems
- A representative of the university system
 - Tom Hopkins, University of Maine System
- A representative of the community college system
 - Dr. Barbara Woodlee, President, Kennebec Valley Community College

Additional Seats in Amended Executive Order:

- An individual representing the State's racial and ethnic minority communities
 - Perry Ciszewski
- An individual with expertise in health law or health policy
 - Philip Saucier, Esq.

Appendix G: Contract Between HIN and the Office of the State Coordinator for HIT

Encumbrance # CT 07A 20100521%6273
OCS Agreement # CT 07A 20100521%6273
Vendor/Customer # VC0000106326

AGREEMENT TO PURCHASE SERVICES

BETWEEN

STATE OF MAINE OFFICE OF THE STATE COORDINATOR FOR HEALTH INFORMATION TECHNOLOGY AND HEALTHINFONET

This Agreement to Purchase Services (“Agreement”), made this ____ day of _____, 2010, is by and between the State of Maine, Office of the State Coordinator for Health Information Technology (“OSC”), 148 State House Station, Augusta, Maine 04333-0148 and HealthInfoNet (“HIN”) P.O. Box 360, 16 Association Drive, Manchester, Maine 04350-0360. This agreement is for the period from July 1, 2010 (“the Effective Date”) to June 30, 2014.

WITNESETH, that for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Department, HIN hereby agrees with the Department to furnish all qualified personnel, facilities, materials and services and, in consultation with the Department, to perform the services, study or projects described in Rider A, and under the terms of this Agreement.

The following Riders and Attachments are hereby incorporated into this Agreement and made part of it by reference:

Rider A – Specifications of Work to be Performed
Rider B – Payment and Other Provisions
Rider C – Rider B Exception
Rider G – Identification of Country in Which Contracted Work Will Be Performed
Attachment 1 -- Participant Agreement (generic)
Attachment 2 -- Funding Opportunity Announcement
Attachment 3 – HIE Cooperative Agreement
Attachment 4 -- HIN Corporate Bylaws
Attachment 5 -- Business Associate Agreement (generic)
Attachment 6 -- HIN List of Board Members
Attachment 7 – HIN Consumer Opt-Out Election Process

WITNESSETH, that this contract is consistent with Executive Order 17 FY 08/09 or a superseding Executive Order, and complies with its requirements.

IN WITNESS WHEREOF, OSC and HIN, by their representatives duly authorized, have executed this agreement in one original copy.

OFFICE OF STATE COORDINATOR OF HEALTH INFORMATION TECHNOLOGY

By: _____
James Leonard, Director of the Office of State Coordinator for Health Information Technology

And

HEALTHINFONET

By: _____
Devore Culver, Executive Director

Total Agreement Amount: \$4,083,054

Approved: _____
Chair, State Purchases Review Committee

Rider A

Specifications of Work to be Performed

WHEREAS, HealthInfoNet, a Maine non-profit corporation, maintains and operates an integrated electronic clinical health information sharing network established for the purpose of enabling Participants (defined in Article I below) to exchange Protected Health Information, (defined in Article I below) to advance health care access, safety, quality and cost efficiency; and

WHEREAS, on February 17, 2009 President Obama signed into law the American Recovery and Reinvestment Act, P.L. 111-5, codified at 42 U.S.C. §§17921 et. seq. (“ARRA”), which includes the Health Information Technology for Economic and Clinical Health Act (the “HITECH Act”); and

WHEREAS, the HITECH Act provides significant federal funding for investments in health information technology and health information exchange to improve the quality and efficiency of health care and also includes additional national standards to safeguard the privacy, security, accuracy, integrity and replicability of electronic protected health information; and

WHEREAS, the United States Department of Health and Human Services, Office of the National Coordinator for Health Information Technology, recently awarded the State of Maine Governor’s Office of Health Policy and Finance a health information exchange grant, Grant Award No. 90HT0010/10, and entered into a cooperative agreement pursuant to such grant (collectively “HIE Cooperative Agreement”), to advance electronic health information exchange in Maine; and

WHEREAS, the HIE Cooperative Agreement requires the establishment of an Office of State Coordinator for Health Information Technology and identifies HealthInfoNet as the Maine health information exchange; and

WHEREAS, Maine Gov. John E. Baldacci designated HealthInfoNet as the State’s health information exchange and, by Executive Order effective April 6, 2010, established the Office of State Coordinator for Health Information Technology in the Governor’s Office of Health Policy and Finance (“OSC”); and

WHEREAS, the State of Maine has established Maine’s Statewide Health Information Exchange Strategic and Operational Plans which identify, as one objective, the establishment of a statewide electronic health information exchange technically designed to link all Maine health care providers to advance health care access, safety, quality and cost efficiency in the care of individual patients and populations; and

WHEREAS, the OSC now seeks to implement the objectives of the Office of National Coordinator for Health Information Technology or its successor, as articulated by the HIE

Cooperative Agreement and Maine's Strategic and Operational Plans by entering into an agreement with HealthInfoNet to further develop and continue the operation of Maine's statewide electronic health information exchange; and

WHEREAS, HealthInfoNet and the Participants intend to protect the privacy and provide for the security of Protected Health Information in compliance with the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191, and the regulations promulgated under 45 C.F.R. Parts 160 and 164 (the "Privacy Rule" and "Security Rule") (which are collectively referred to herein as "HIPAA"), as supplemented by the HITECH Act and regulations promulgated thereunder, and as otherwise amended; 22 M.R.S.A. Section 1711-C ("Maine Privacy Law"); and 10 M.R.S.A. Section 1346, et seq. ("Maine's Notice of Risk to Personal Health Data Act") and other applicable law.

NOW, THEREFORE, in consideration of the mutual agreements, covenants, terms and conditions herein contained, the parties hereby agree as follows:

ARTICLE I -- DEFINITIONS

The following terms are defined and govern this Agreement:

"Breach" shall have the same meaning as set forth in Title XIII, Subtitle D -Privacy, § 13400 et seq. of The American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5, as codified at 42 U.S.C. §§17921 et. seq.) and 45 CFR §164.402. "Health Information Exchange" or "Network" or "HIE" shall mean the hardware, software, and services provided by HealthInfoNet in pursuit of its mission to establish, govern, and sustain an integrated electronic clinical health information sharing network.

"Health Information Exchange" or "Network" or "HIE" shall mean the hardware, software, and services provided by HealthInfoNet in pursuit of its mission to establish, govern, and sustain an integrated electronic clinical health information sharing network.

"Individual" shall mean a person who is the subject of Protected Health Information, and shall have the same meaning as defined in 45 CFR §160.103 and shall include a person who qualifies a personal representative in accordance with 45 CFR §164.502(g).

"Participant" means a hospital, physician group practice or other entity, or any individual, that (i) provides healthcare services in the State of Maine to patients, and (ii) has executed or otherwise agreed to comply with the terms and conditions of a participant agreement with HealthInfoNet, the current form of which is attached hereto.

Protected Health Information ("Protected Health Information" or "PHI") shall have the same meaning as the term "protected health information" in 45 CFR §160.103, limited to the individually identifiable health information created or received by HealthInfoNet.

“**Subcontractor**” shall mean any third party including but not limited to consultants, subcontractors, independent contractors and vendors that either party to this Agreement uses to perform any of its obligations under this Agreement.

“**Treatment**” shall have the same meaning as the term “treatment” in 45 CFR §164.103, namely, the provision, coordination, or management of health care and related services by one or more health care providers, including the coordination or management of health care by a health care provider with a third party, consultation between health care providers relating to a patient, or the referral of a patient from one health care provider to another.

“**User**” or “**End User**” shall mean an employee of or other person under the control of a Participant who is authorized by the Participant to access and use the Network in accordance with the terms and conditions of HIN’s participant agreement in effect at the time.

“**Workforce Member**” shall have the same meaning as the term “workforce” in “45 C.F.R. §160.103, namely employees, volunteers, trainees and other persons whose conduct, in the performance of work for a Participant, is under the direct control of the Participant, whether or not they are paid by the Participant.

ARTICLE II -- SERVICE TASKS AND DELIVERABLES

A. Responsibilities of HealthInfonet

Unless a different date is indicated for the commencement of performance of a specific responsibility below, HIN shall commence performance of the following responsibilities by the Effective Date of this Agreement and continue such performance until the earlier of the completion of the specific responsibility or the termination or expiration of this Agreement.

1. Privacy and Security of PHI in the Health Information Exchange

a. HIN shall develop and maintain comprehensive privacy and security policies that comply with applicable federal and Maine law, including HIPAA, as supplemented by the HITECH Act; Maine Privacy Law; and Maine’s Notice of Risk to Personal Health Data Act. HIN shall operate the HIE in compliance with all applicable federal and Maine laws and regulations.

b. HIN shall make PHI available to Users for the purpose of Treatment and Health Care Operations.

c. HIN shall comply with the participant agreement in effect at the time. HIN shall take reasonable measures to enforce the terms of the participant agreement which obligate each Participant to enforce the privacy and other provisions of the participant agreement with respect to its Users and any other Workforce Member.

d. HIN shall develop, manage and maintain business associate agreements with the Participants. HIN shall abide by its HIPAA Business Associate Agreement, the current form of

which is attached hereto. Further, in the event of a Breach involving PHI in its possession or under its control, HIN will abide by the breach notification requirements under all applicable federal and state laws and regulations, including 42 U.S.C. §17932 and any regulations promulgated by the Secretary of the U.S. Department of Health and Human Services thereunder. The parties acknowledge and agree that, an incident involving a person who intentionally acquires, accesses or uses Protected Health Information in a manner that violates the Privacy Rule which compromises the privacy or security of the PHI pursuant to the HITECH Act or the regulations promulgated thereunder, constitutes a Breach.

e. HIN shall conduct regular internal audits for compliance with applicable Maine and federal privacy and security laws and regulations. HIN shall obtain an annual external security audit of the health information exchange system from a recognized, independent technology audit firm.

f. HIN shall maintain User authorization, authentication and audit processes/functionality to manage, validate and document system access by Users.

2. Technical Design

a. By or before December 31, 2010, HIN shall develop and implement a technical design for the Health Information Exchange that is scalable and will support statewide participation by all residents and health care providers in the State of Maine. Notwithstanding the foregoing, HIN shall have no obligation to provide a health care provider with access to the Network until the health care provider signs a written participant agreement with HealthInfoNet. HIN shall develop and execute participant agreements with health care providers to support and expand participation in the Health Information Exchange.

b. HIN shall develop, implement, and maintain physical connections and technical interfaces to the Health Information Exchange that allow all Participants access the Health Information Exchange.

c. HIN shall develop and maintain redundant data centers that allow real-time replication of clinical data content received by HIN from the Participants.

d. HIN shall maintain business associate agreements with the Participants.

e. HIN shall review and revise its security model for managing secure data transfer and User access in order to maintain the security of HIE.

f. HIN shall maintain an explicit mechanism to ensure review and adoption of the U.S. Department of Health and Human Services' interoperability standards as well as engagement with ONC and participation in the National Health Information Network, if HealthInfoNet is ready and desires such engagement and participation.³

Governance of the Health Information Exchange

a. HIN's Board of Directors shall include public and private stakeholders including, but not limited to, stakeholders representing state government, public health agencies, hospitals, employers, health care providers, payers and consumers. HIN's Board of Directors shall include a representative from the OSC, and no less than three (3) other public members appointed by the Governor.

4. Financial Responsibilities

a. HIN shall provide its Board of Directors with bi-monthly financial reports including a balance sheet and a projected budget/actual expense report.

b. Consistent with the requirements of the HIE Cooperative Agreement and grant, HIN will provide a ten (10) percent match of those federal funds requiring such match in accordance with the outline approved by ONC and document and report that match in a manner necessary to satisfy federal reporting requirements.

c. Consistent with the requirements of the HIE Cooperative Agreement, HIN shall allocate forty (40) percent of the amount paid to HIN pursuant to this Agreement to its interstate tasks and sixty (60) percent of the amount paid to HIN pursuant to this Agreement to its intrastate tasks. HIN shall track, document and report that allocation to the OSC in a manner necessary to satisfy the OSC's federal reporting requirements.

d. HIN shall conduct its business in accordance with standard accounting procedures and shall obtain an annual external financial audit from an independent accounting firm.

5. Collaboration with the OSC and Other State Agencies

a. HIN and the OSC each shall collaborate with the other and with the Office of National Coordinator to facilitate the statewide exchange of electronic health information. This collaboration shall include the participation of the HIN CEO and/or his representative as a member of the State HIT Committee, as a resource to the OSC's standing committee(s), and upon the reasonable request of the OSC, in such other activities agreed to by the parties.

b. HIN and the OSC each shall collaborate with the other to promote public awareness and education about the State HIT plan by the participation of the HIN CEO or his/her representative with the OSC in activities such as panels, town hall meetings and speaker presentations, as reasonably requested by the OSC and upon reasonable notice, provided such activities occur no more frequently than once a month. Notwithstanding the foregoing, the parties may mutually agree to participate in additional public education activities.

c. HIN shall work closely with MaineCare as HIN executes its information system planning and implementation activities in order to coordinate HIN's connectivity with MaineCare. The HIN CEO and/or his representative shall participate in HIT meetings with representatives from MaineCare as agreed to by the parties.

d. HIN shall coordinate with the Maine Office of Information Technology to facilitate the compatibility of data of the HIE system with related state data systems.

e. HIN shall collaborate with the Adoption and Implementation Committee established by OSC to support alignment across HIE Cooperative Agreement activities.

f. HIN shall collaborate with the Privacy Security and Regulatory Committee established by the OSC to analyze state laws regarding the exchange of clinical health information.

g. HIN shall collaborate with the Consumer Committee established by the OSC to address consumer safety and privacy and security concerns.

h. HIN shall collaborate with the Financial Planning and Sustainability Committee established by the OSC to develop a business and sustainability plan for continuing its statewide operations and provide the OSC with a copy of such plan.

i. HIN shall collaborate with the Quality and Systems Improvement Committee to support initiatives for broad health systems improvements.

j. HIN shall collaborate with the OSC to answer question from consumers about the HIE, including information about the opt-out process.

6. Further Development of the Health Information Exchange

a. HIN shall develop a comprehensive schedule for the implementation of HealthInfoNet's Operation Phase. HIN shall review the schedule with the OSC Director and present such schedule to the HIT Steering Committee on a bi-annual basis. HealthInfoNet shall provide the OSC with an updated schedule of the Operation Phase on a quarterly basis.

b. HIN shall convene a group of interested parties to share applications, directories, and data sources for the Health Information Exchange and shall invite the OSC to participate as a member of such group.

c. By January 1, 2011, HIN shall develop a marketing and communication plan to expand participation in the Health Information Exchange and provide a copy of such plan to the OSC.

d. HIN shall develop the HIE operations to:

- (i) include the Continuity of Care Record data set, excluding advance directives, as the initial scope of clinical data content in the HIE;
- (ii) provide semantic data mapping to achieve data standardization for critical categories of clinical content;

- (iii) create key statewide registries including a master patient index, a master provider index and a patient-centered clinical data summary;
 - (iv) connect to the state public health information structure of the Maine Centers for Disease Control to support automated reporting of clinical data for public health surveillance and population management; and
 - (v) define consumer principles for privacy and security management practices. The standardized statewide master patient index maintained by HIN will support the integration and aggregation of person-centric clinical content received from Participants. In developing the HIE operations, HIN will coordinate with the Maine Department of Health and Human Services (DHHS) to identify opportunities for mutual benefit consistent with strategic and operational informatics plans, such as data-sharing for population management and service and program planning.
- e. HIN will conduct regular maintenance of the clinical database.
- f. In collaboration with the OSC and upon the recommendation of the HIN Technical and Professional Practice Advisory Committee, the HIN Board of Directors shall review and consider expanding the data content in the HIE to include insurance information and radiology images; provided however, the addition of such data content is technically feasible and financially sustainable and consistent with the State HIT Plan.
- g. HIN shall develop a statewide, secure messaging capability in the HIE.
- h. HIN shall coordinate with Participants to support the development of inter-organizational clinical decision support rules.
- i. HIN shall review the need for the HIE system to be capable of exporting documents and/or reports to in-state clients.
- j. HIN shall standardize the data content it receives from Participants in compliance with existing national standards, including the meaningful use criteria, as such standards evolve from time to time.
- k. HIN shall exchange clinical data in a manner that supports the Participants' achievement of the "meaningful use" criteria including the quality reporting standards.
- l. HIN shall apply for health information exchange certification within one year after such certification process becomes available and provide the OSC with a copy of its application for certification. Notwithstanding the foregoing, if the HIN Board of Directors determines that HIN should not apply for such certification, HIN will not be required to apply for the certification unless: (i) the terms of a federal grant or agreement condition the receipt of federal financial incentives upon such certification; or (ii) such certification is required by applicable law. If HIN fails to obtain or maintain such certification when it is required, HIN will

take prompt action to address any and all deficiencies identified in the certification process within the time frame prescribed by the certifying body.

m. HIN shall support and promote e-prescribing by including medication history profiles in the HIE.

n. HIN shall manage the opt-out process in the Health Information Exchange. HIN shall not display or otherwise make available to Participants PHI, other than demographic information, about Individuals who have opted-out of the Network.

o. HIN shall encourage Participants to communicate with their patients about the operation of the Network and their right to opt-out of the Network. HIN shall make available to Participants its educational materials about the Network.

p. HIN shall encourage Participants to train Users and other Workforce Members to answer questions from consumers about the HIE, including information about the opt-out process.

q. HIN shall maintain a toll-free telephone number in order to allow consumers to opt-out of participation in the HIE by telephone. HIN's website, <http://www.hinfont.org>, shall also allow consumers to opt-out on-line.

7. Performance Standards

a. HIN shall keep the master patient index and master provider index up to date as of the last recorded registration event.

b. HIN shall provide Participants with a secure data connection.

c. HIN shall provide health care Participants with access to the HIE twenty-four (24) hours a day, seven (7) days a week with certain exceptions for maintenance and other disruptions. Such access will be available at a reliability rate consistent with the participant agreement in effect at the time. Time spent on scheduled system upgrades/preventative maintenance time and widespread general internet outages beyond the control of HIN shall not be included in the calculation of the reliability rate.

d. HIN shall provide Participants with Help Desk support service twenty-four (24) hours a day, seven (7) days a week. HIN, or its subcontractor, shall log all Help Desk calls/requests and their resolution.

e. HIN shall provide Individuals with customer service support eight (8) hours (normal business hours) a day, Monday through Friday with the exception of state and federal holidays.

f. HIN shall provide Participants and Users of the health information exchange with a send/receipt response time of six (6) seconds or less 99.98% of the time with certain exceptions consistent with the participant agreement in effect at the time.

g. HIN shall provide appropriate content intake turn time for clinical data content with and without errors consistent with the terms of the participant agreement in effect at the time.

8. Consumer Education

a. HIN shall organize and engage in an expanded and ongoing program of consumer education about the HIE, including the advantages and risks of participation by consumers in the HIE and the options and process for consumers to opt-out of participation in the HIE. HIN shall coordinate with the OSC, provider organizations, consumer advocacy organizations, business and payer organizations, state agencies and state departments involved in health care and health care delivery.

b. HIN shall create and make available to the OSC and to the public educational materials designed to inform consumers about HIN and to enable them to make a decision as to whether to participate in the HIE. HIN shall maintain consumer opt-out policies that comply with all applicable federal and Maine law. Any modification to HIN's consumer opt-out policies and procedures may occur only after approval by the HIN Board of Directors upon its review of a recommendation by HIN's Consumer Advisory Committee. The Board of Directors' authority to accept or reject the Committee's recommendation is not limited by this provision. HIN shall use reasonable efforts to comply with such policies. A copy of HIN's opt-out policies and procedures is attached hereto.

c. HIN's education materials shall expressly include the following information:

- (i) reference the right of the consumer to determine whether to participate in HIN;
- (ii) inform the consumer about the purpose and operation and of the HIE, the types of PHI in the HIE and the risks and benefits of participating in HIN;
- (iii) inform the consumer that he/she can receive medical treatment without participating in HIN;
- (iv) provide the contact information to report errors in the clinical data content to HIN; and
- (v) outline the process for opting-out of participation in HIN.

9. Reporting Responsibilities

Unless otherwise provided below, HIN shall perform the following reporting obligations outlined by or before fourteen calendar days prior to any relevant due date for any report that the OSC is required to provide to the ONC.

a. HIN shall provide such programmatic and financial information as is necessary for the OSC to timely comply with its ARRA reporting responsibilities, and to meet ARRA requirements for transparency and accountability as the OSC may reasonably request.

b. HIN shall provide the OSC with a copy of its annual financial audit of the HIE system as is necessary for the OSC to timely comply with the Office of Management and Budget's auditing requirements.

c. HIN shall provide a financial status report to the OSC on an annual basis in order to allow the OSC to timely submit its annual State financial status report to the Office of National Coordinator.

d. HIN shall provide the OSC with the minutes of any and all HIN Board retreats and meetings, which minutes shall include an attendance report.

e. HIN shall provide the OSC with copies of any or all participant agreements, at the written request of the OSC, within thirty (30) days of its receipt of such request. HIN shall provide the OSC with a copy of any Subcontractor agreement for services provided by HIN under the terms of this Agreement within thirty (30) days after entering into such agreement, provided, however, that HIN may reasonably redact in its judgment proprietary technical information and detailed pricing schedules, provided that the Subcontractor agreement, or information from HIN accompanying the copy of said agreement, provides to the OSC the real or estimated cost of the contract to HIN per quarter each fiscal year of the agreement..

f. HIN shall monitor service and system performance and provide the OSC with service level progress reports on a quarterly basis.

g. HIN shall timely provide the OSC with monthly activity reports addressing the volume of access to the HIE and the percentage of health care providers in Maine who are participating in HIN. Such reports will include a financial expenditure report such as that which HIN provides to the HIN Board of Directors that supports the development of a statewide governance and policy structure and the development of the State's health information exchange capacity, except that the financial information provided to the OSC shall be updated monthly.

h. HIN will timely provide to the OSC documentation to evidence that it has met the state match requirements in the HIE Cooperative Agreement.

i. HIN will provide its Board of Directors with a copy of its annual security audit for review and develop an action plan for response to any issues that may be highlighted in the security audit. Within 30 days of the review of the annual security audit by the HIN Board of Directors, HIN will provide a written summary of both the findings of the audit and the action plan that has been authorized by the HIN Board.

10. Contingency Plan for Use and Disclosure of Participant Information

By or before January 1, 2011, HIN shall establish a contingency plan approved by its Board of Directors that provides for: i) the continued use of the data content in the HIE for a defined period of time consistent with the terms of the existing participant agreement upon the occurrence of the contingencies specified in this Paragraph; and ii) the return or destruction of the data content in the HIE after the expiration of the period of time for continued use of the data upon the occurrence of the contingencies specified in this Paragraph, provided there is no successor entity to operate the HIE. Such contingency plan shall become effective in the event of: (i) the bankruptcy of HIN; (ii) the merger or consolidation of HIN; (iii) the dissolution of HIN; or (iv) HIN ceases to conduct its operations in the ordinary course.

ARTICLE III -- MISCELLANEOUS

A. Condition Precedent

As a condition precedent to this Agreement, HIN has provided the OSC with copies of all technical services agreements with Subcontractors related to the operation of the HIE that will be in force and effect during the term of this Agreement or any portion thereof.

B. Captions

Captions of sections used in this Agreement are for the purpose of facilitating ease of reference only and shall not be construed to infer contractual construction of language.

RIDER B
METHOD OF PAYMENT AND OTHER PROVISIONS
AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA)

1. **AGREEMENT AMOUNT** \$4,083,054
2. **INVOICES AND PAYMENTS** The Office of the State Coordinator for Health Information Technology (OSC) will pay HealthInfoNet (the “Provider”) as follows:
 - 2.1 Total payments, in accord with the attached payment schedule, not to exceed \$4,083,054 and made upon receipt of approved invoices.
 - 2.2 The OSC reserves the right to base approval of invoices upon review of progress by HealthInfoNet staff towards the completion of the tasks identified.
 - 2.3 Payments are subject to the Provider's compliance with all items set forth in this Agreement and subject to the availability of funds. The OSC will process approved payments within 30 days.
 - 2.4 Starting in February of 2011, the OSC shall hold back 10 percent of the amount monthly invoiced. Thereafter, during a quarter, the OSC either shall release any amounts held back under this provision during any quarter prior to the immediately preceding quarter, or shall determine in its sole discretion that HIN’s performance is unsatisfactory regarding one or more deliverables in Rider A and provide written notice of such to HIN. Notice is effective on the date of mailing or hand delivery.
3. **BENEFITS AND DEDUCTIONS** If the Provider is an individual, the Provider understands and agrees that he/she is an independent contractor for whom no Federal or State Income Tax will be deducted by the OSC, and for whom no retirement benefits, survivor benefit insurance, group life insurance, vacation and sick leave, and similar benefits available to State employees will accrue. The Provider further understands that annual information returns, as required by the Internal Revenue Code or State of Maine Income Tax Law, will be filed by the State Controller with the Internal Revenue Service and the State of Maine Bureau of Revenue Services, copies of which will be furnished to the Provider for his/her Income Tax records.
4. **INDEPENDENT CAPACITY** In the performance of this Agreement, the parties hereto agree that the Provider, and any agents and employees of the Provider shall act in the capacity of an independent contractor and not as officers or employees or agents of the State.
5. **OSC'S REPRESENTATIVE** The Agreement Administrator shall be the Director of the OSC during the period of this Agreement. He/she has authority to curtail services if necessary to ensure proper execution. He/she shall certify to the OSC when payments under the Agreement are due and the amounts to be paid. He/she shall make decisions on all claims of the Provider.

6. **AGREEMENT ADMINISTRATOR** All reports, correspondence and related submissions from the Provider shall be submitted to:

Name: James Leonard
Title: Director, Office of the State Coordinator for Health Information Technology
Address: **Governor's Office of Health Policy Finance
Office of the State Coordinator for Health Information Technology
State House Station 15
Cross Building
Augusta, ME 04333**

This individual is designated as the Agreement Administrator on behalf of the OSC for this Agreement, except where specified otherwise in this Agreement.

7. **CHANGES IN THE WORK** The OSC may order changes in the work, the Agreement amount being adjusted accordingly. Any monetary adjustment or any substantive change in the work shall be in the form of an amendment, signed by both parties and approved by the State Purchases Review Committee. Said amendment must be effective prior to execution of the work.

8. **SUBCONTRACTING AND ASSIGNMENT**. The Provider shall not assign or otherwise transfer or dispose of its right, title and interest in this Agreement without the express written consent of the OSC. The Provider shall not subcontract, or make a sub-grant for, all or any portion of the work to be performed under this Agreement without the express written consent of the OSC. The consent of the OSC to any assignment or subcontract or sub-grant shall not relieve the Provider of its responsibility for performance of the work. The Provider shall include in any subcontract or sub-grant the terms of this Agreement set forth in Sections 1 to 36.

9. **EQUAL EMPLOYMENT OPPORTUNITY** During the performance of this Agreement, the Provider agrees as follows:

a. The Provider shall not discriminate against any employee or applicant for employment relating to this Agreement because of race, color, religious creed, sex, national origin, ancestry, age, physical or mental disability, or sexual orientation, unless related to a bona fide occupational qualification. The Provider shall take affirmative action to ensure that applicants are employed and employees are treated during employment, without regard to their race, color, religion, sex, age, national origin, physical or mental disability, or sexual orientation.

Such action shall include but not be limited to the following: employment, upgrading, demotions, or transfers; recruitment or recruitment advertising; layoffs or terminations; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Provider agrees to post in conspicuous

places available to employees and applicants for employment notices setting forth the provisions of this nondiscrimination clause.

b. The Provider shall, in all solicitations or advertising for employees placed by or on behalf of the Provider relating to this Agreement, state that all qualified applicants shall receive consideration for employment without regard to race, color, religious creed, sex, national origin, ancestry, age, physical or mental disability, or sexual orientation.

c. The Provider shall send to each labor union or representative of the workers with which it has a collective bargaining agreement, or other agreement or understanding, whereby it is furnished with labor for the performance of this Agreement a notice to be provided by the contracting agency, advising the said labor union or workers' representative of the Provider's commitment under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Provider shall inform the OSC of any discrimination complaints brought to an external regulatory body (Maine Human Rights Commission, EEOC, and Office of Civil Rights) against their agency by any individual as well as any lawsuit regarding alleged discriminatory practice.

e. The Provider shall comply with all aspects of the Americans with Disabilities Act (ADA) in employment and in the provision of service to include accessibility and reasonable accommodations for employees and clients.

f. Contractors and subcontractors with contracts in excess of \$50,000 shall also pursue in good faith affirmative action programs.

g. The Provider shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Agreement so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

h. The Provider shall comply with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and other civil rights laws applicable to providers of Federal financial assistance.

10. **EMPLOYMENT AND PERSONNEL** The Provider shall not engage any person in the employ of any State Department or Agency in a position that would constitute a violation of 5 MRSA § 18 or 17 MRSA § 3104. The Contractor shall not engage on a full-time, part-time or other basis during the period of this Agreement, any other personnel who are or have been at any time during the period of this Agreement in the employ of any State Department or Agency, except regularly retired employees, without the written consent of the State Purchases Review

Committee. Further, the Provider shall not engage on this project on a full-time, part-time or other basis during the period of this Agreement any retired employee of the Governor's Office who has not been retired for at least one year, without the written consent of the State Purchases Review Committee. The Provider shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Agreement so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

11. **STATE EMPLOYEES NOT TO BENEFIT** No individual employed by the State at the time this Agreement is executed or any time thereafter shall be admitted to any share or part of this Agreement or to any benefit that might arise there from directly or indirectly that would constitute a violation of 5 MRSA § 18 or 17 MRSA § 3104. No other individual employed by the State at the time this Agreement is executed or any time thereafter shall be admitted to any share or part of this Agreement or to any benefit that might arise there from directly or indirectly due to his employment by or financial interest in the Provider or any affiliate of the Provider, without the written consent of the State Purchases Review Committee. The Provider shall cause the foregoing provisions to be inserted in any subcontract for any work covered by this Agreement so that such provisions shall be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

12. **WARRANTY** The Provider warrants that it has not employed or contracted with any company or person, other than for assistance with the normal study and preparation of a proposal, to solicit or secure this Agreement and that it has not paid, or agreed to pay, any company or person, other than a bona fide employee working solely for the Provider, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon, or resulting from the award for making this Agreement. For breach or violation of this warranty, the OSC shall have the right to annul this Agreement without liability or, in its discretion to otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

13. **RECORD RETENTION AND INSPECTION** The Provider shall retain during the term of this Agreement and for such subsequent period as specified under Maine Uniform Accounting and Auditing Practices for Community Agencies ("MAAP") rules all records, in whatever form, that directly pertain to, and involve the work to be performed under this Agreement. The Provider shall permit the OSC or any authorized representative of the State of Maine, and the United State Controller General or his representative or the appropriate inspector general appointed under Section 3 or 8G of the Inspector General Act of 1998 or his representative (a) to examine such records; and (b) to interview any officer or employee of the Provider or any of its subcontractors or sub-grantees regarding the work performed under this Agreement. The Provider shall furnish copies of such records upon request. The Provider shall include in any subcontract or sub-grant the provisions of this Section.

14. **ACCESS TO PUBLIC RECORDS** As a condition of accepting a contract for services under this section, a contractor must agree to treat all records, other than proprietary information, relating to personal services work performed under the contract as public records under the

freedom of access laws to the same extent as if the work were performed directly by the OSC. For the purposes of this subsection, "proprietary information" means information that is a trade secret or commercial or financial information, the disclosure of which would impair the competitive position of the contractor and would make available information not otherwise publicly available. Information relating to wages and benefits of the employees performing the personal services work under the contract and information concerning employee and contract oversight and accountability procedures and systems are not proprietary information. The Provider shall maintain all books, documents, payrolls, papers, accounting records and other evidence pertaining to this Agreement and make such materials available at its offices at all reasonable times during the period of this Agreement and for such subsequent period as specified under Maine Uniform Accounting and Auditing Practices for Community Agencies (MAAP) rules. The Provider shall allow inspection of pertinent documents by the OSC or any authorized representative of the State of Maine or Federal Government, and shall furnish copies thereof, if requested. This subsection applies to contracts, contract extensions and contract amendments executed on or after October 1, 2009.

15. **TERMINATION** The performance of work under the Agreement may be terminated by the OSC in whole, or in part, whenever for any reason the Agreement Administrator shall determine that such termination is in the best interest of the OSC. Any such termination shall be effected by delivery to the Provider of a Notice of Termination specifying the extent to which performance of the work under the Agreement is terminated and the date on which such termination becomes effective. The Agreement shall be equitably adjusted to compensate for such termination, and modified accordingly.

16. **GOVERNMENTAL REQUIREMENTS** The Provider warrants and represents that it will comply with all governmental ordinances, laws and regulations.

17. **GOVERNING LAW** This Agreement shall be governed in all respects by the laws, statutes, and regulations of the United States of America and of the State of Maine. Any legal proceeding against the State regarding this Agreement shall be brought in State of Maine administrative or judicial forums. The Provider consents to personal jurisdiction in the State of Maine.

18. **STATE HELD HARMLESS** The Provider agrees to indemnify, defend and save harmless the State, its officers, agents and employees from any and all claims, costs, expenses, injuries, liabilities, losses and damages of every kind and description (hereinafter in this paragraph referred to as "claims") resulting from or arising out of the performance of this Agreement by the Provider, its employees, agents, or subcontractors. Claims to which this indemnification applies include, but without limitation, the following: (i) claims suffered or incurred by any contractor, subcontractor, materialman, laborer and any other person, firm, corporation or other legal entity (hereinafter in this paragraph referred to as "person") providing work, services, materials, equipment or supplies in connection with the performance of this Agreement; (ii) claims arising out of a violation or infringement of any proprietary right, copyright, trademark, right of privacy or other right arising out of publication, translation, development, reproduction, delivery, use, or disposition of any data, information or other matter furnished or used in connection with this Agreement; (iii) Claims arising out of a libelous or

other unlawful matter used or developed in connection with this Agreement; (iv) claims suffered or incurred by any person who may be otherwise injured or damaged in the performance of this Agreement; and (v) all legal costs and other expenses of defense against any asserted claims to which this indemnification applies. This indemnification does not extend to a claim that results solely and directly from (i) the OSC's negligence or unlawful act, or (ii) action by the Provider taken in reasonable reliance upon an instruction or direction given by an authorized person acting on behalf of the OSC in accordance with this Agreement.

19. **NOTICE OF CLAIMS** The Provider shall give the Contract Administrator immediate notice in writing of any legal action or suit filed related in any way to the Agreement or which may affect the performance of duties under the Agreement, and prompt notice of any claim made against the Provider by any subcontractor which may result in litigation related in any way to the Agreement or which may affect the performance of duties under the Agreement.

20. **APPROVAL** This Agreement must have the approval of the State Controller and the State Purchases Review Committee before it can be considered a valid, enforceable document.

21. **LIABILITY INSURANCE** The Provider shall keep in force a liability policy issued by a company fully licensed or designated as an eligible surplus line insurer to do business in this State by the Maine Department of Professional & Financial Regulation, Bureau of Insurance, which policy includes the activity to be covered by this Agreement with adequate liability coverage to protect itself and the OSC from suits. Providers insured through a "risk retention group" insurer prior to July 1, 1991 may continue under that arrangement. Prior to or upon execution of this Agreement, the Provider shall furnish the OSC with written or photocopied verification of the existence of such liability insurance policy.

22. **NON-APPROPRIATION** Notwithstanding any other provision of this Agreement, if the State does not receive sufficient funds to fund this Agreement and other obligations of the State, if funds are de-appropriated, or if the State does not receive legal authority to expend funds from the Maine State Legislature or Maine courts, then the State is not obligated to make payment under this Agreement.

23. **SEVERABILITY** The invalidity or unenforceability of any particular provision or part thereof of this Agreement shall not affect the remainder of said provision or any other provisions, and this Agreement shall be construed in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

24. **INTEGRATION** All terms of this Agreement are to be interpreted in such a way as to be consistent at all times with the terms of Rider B (except for expressed exceptions to Rider B included in Rider C), followed in precedence by Rider A, and any remaining Riders in alphabetical order.

25. **FORCE MAJEURE** The OSC may, at its discretion, excuse the performance of an obligation by a party under this Agreement in the event that performance of that obligation by that party is prevented by an act of God, act of war, riot, fire, explosion, flood or other

catastrophe, sabotage, severe shortage of fuel, power or raw materials, change in law, court order, national defense requirement, or strike or labor dispute, provided that any such event and the delay caused thereby is beyond the control of, and could not reasonably be avoided by, that party. The OSC may, at its discretion, extend the time period for performance of the obligation excused under this section by the period of the excused delay together with a reasonable period to reinstate compliance with the terms of this Agreement.

26. **SET-OFF RIGHTS** The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any monies due to the Provider under this Agreement up to any amounts due and owing to the State with regard to this Agreement, any other Agreement, any other Agreement with any State department or agency, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Controller.

27. **WHISTLEBLOWER PROTECTIONS**

a. Section 1553 of Title XV of Division A of the ARRA prohibits all non-federal providers of American Recovery and Reinvestment Act (ARRA) funds, including the State of Maine, and all contractors and grantees of the State of Maine, from discharging, demoting or otherwise discriminating against an employee for disclosures by the employee that the employee reasonably believes are evidence of (1) gross mismanagement of a contract or grant relating to ARRA funds; (2) a gross waste of ARRA funds; (3) a substantial and specific danger to public health or safety related to the implementation or use of ARRA funds; (4) an abuse of authority related to implementation or use of ARRA funds; or (5) a violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to ARRA funds. The Provider must post notice of the rights and remedies available to employees under Section 1553 of Title XV of Division A of the ARRA.

b. This term must be included in all subcontracts or sub-grants involving the use of funds made available under the ARRA.

The State of Maine is committed to ensuring that American Recovery and Reinvestment Act funds are used for authorized purposes without fraud, waste, error, or abuse. Any individual with direct knowledge that Recovery Funds are being misused, whether by fraud, waste, error, and/or abuse in the application and utilization of these funds, should report their observations to the ARRA Fraud Hotline at **1-866-224-3033** or by email to ARRA.Hotline@Maine.gov.

28. **WAGE REQUIREMENTS** All laborers and mechanics employed by contractors and subcontractors on projects funded in whole or in part with funds available under the ARRA shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality, as determined by the United States Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40 of the United States Code. (See ARRA Sec. 1606). The Secretary of Labor's determination regarding the prevailing wages applicable in Maine is available at <http://www.gpo.gov/davisbacon/me.html>.

29. **REPORTING REQUIREMENT** Not later than ten calendar days after the end of each calendar quarter, the State must submit a report that, at a minimum, contains the information specified in Section 1512 of Division A, Title XV of the ARRA. It is imperative all contracts involving the use of ARRA funds include requirements that the Provider supply the State with the necessary information to submit these reports to the federal government in a timely manner. The Provider shall report no less than quarterly. Additionally the Provider should be prepared to report more frequently at the State's request. The Provider's failure to provide complete, accurate and timely reports shall constitute an "Event of Default". Upon the occurrence of an Event of Default, the state OSC may terminate this contract upon 30 days prior written notice if the default remains uncured within five calendar days following the last day of the calendar quarter, in addition to any other remedy available to the OSC in law or equity.

30. **AVAILABILITY OF FUNDING** The Provider acknowledges that the programs supported with temporary federal funds made available by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 will not be continued with state financed appropriations once the temporary federal funds are expended.

31. **FALSE CLAIMS ACT** The Provider shall promptly refer to an appropriate federal inspector general any credible evidence that a principal, employee, agent, contractor, subgrantee, subcontractor or other person has committed a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving those funds.

32. **CONFLICTING REQUIREMENTS** If the ARRA requirements conflict with State of Maine requirements, then ARRA requirements control.

33. **COMPETITIVE FIXED PRICE CONTRACTS** The Provider, to the maximum extent possible, shall award any subcontracts funded, in whole or in part, with Recovery Act funds as fixed-price contracts through the use of competitive procedures.

34. **SEGREGATION OF FUNDS** The Provider shall segregate obligations and expenditures of Recover Act funds from other funding. No part of funds made available under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 may be comingled with any other funds or used for a purpose other than that of making payments for costs allowable under the ARRA.

35. **JOB POSTING** The Provider will post any jobs that it creates or seeks to fill as a result of this agreement. Providers will post to Maine Career Centers

(<http://www.mainecareercenter.com>) not withstanding any other posting they might make. Any advertisements posted by the provider for positions pursuant to this contract must indicate the position is funded with ARRA funds.

36. **BUY AMERICAN REQUIREMENT** – The provider acknowledges and agrees that:

- a. The Buy American provision in Section 1605 of Division A, Title XVI of the ARRA requires that all “iron, steel and manufactured goods used in the construction, alteration, maintenance or repair of a “public building or public work funded in whole or in part by funds made available under the ARRA be “produced in the United States,” unless this requirement is waived by the appropriate federal agency.
- b. Iron and steel are “produced in the United States” if all of the manufacturing processes, except metallurgic processes involving refinement of steel additives, take place in the United States. Iron or steel used as components or subcomponents of manufactured goods used in an ARRA-funded project; however, do not have to be “produced in the United States.” Manufactured goods are “produced in the United States” if the manufacturing occurs in the United States (there is no requirement about the origin of the components or subcomponents of the manufactured goods).
- c. The Buy American requirement may be waived by federal agencies in the following circumstances only: (1) application of the Buy American requirement would be inconsistent with the public interest; (2) iron, steel and the relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; (3) or inclusion of iron, steel or manufactured goods produced in the United States will increase the cost of the overall project by more than 25 percent.
- d. As used in this Section, “steel” means any alloy that includes at least 50 percent iron, between .02 and 2 percent carbons, and may include other elements. “Manufactured good” means a good brought to the construction site for incorporation into the building or work that has been – (1) processed into a specific form and shape; or (2) combined with other raw material that has different properties than the properties of individual raw materials. “Public building or public work” means a public building of, and a public work of, the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State regional or interstate entities which have governmental functions).

37. **RECOVERY ACT LOGO** The Provider is receiving funding under the American Recovery and Reinvestment Act of 2009 (Recovery Act). Any product or service resulting from this award shall display the Recovery Act Logo in a manner that informs the public that the project is a Recovery Act investment. The ARRA logo may be obtained at the following website:

<http://www.recovery.gov/?q=content/president-and-vice-president-unveil-new-recovery-emblem-download-available>

38. **ENTIRE AGREEMENT** This document contains the entire Agreement of the parties, and neither party shall be bound by any statement or representation not contained herein. No waiver shall be deemed to have been made by any of the parties unless expressed in writing and signed by the waiving party. The parties expressly agree that they shall not assert in any action relating to the Agreement that any implied waiver occurred between the parties which is not expressed in writing. The failure of any party to insist in any one or more instances upon strict performance of any of the terms or provisions of the Agreement, or to exercise an option or election under the Agreement, shall not be construed as a waiver or relinquishment for the future of such terms, provisions, option or election, but the same shall continue in full force and effect, and no waiver by any party of any one or more of its rights or remedies under the Agreement shall be deemed to be a waiver of any prior or subsequent rights or remedy under the Agreement or at law.

RIDER C
EXCEPTIONS TO RIDER B

1. The language set forth in Section 15 of Rider B is supplemented as follows:

If the OSC terminates this Agreement in its entirety, it shall pay any monthly installment already due and owing for services performed by HIN and a pro-rated amount of the next month's installment based upon the number of days HIN provided services prior to the effective date of termination.

The performance of work under this Agreement may be terminated by HIN for non-payment by the OSC in breach of this Agreement. Any such termination shall be effected by delivery to the OSC of a Notice of Termination specifying the extent to which performance of the work under the Agreement is terminated and date on which such termination becomes effective. The Notice of Termination shall provide the OSC an opportunity of at least 30 days to correct the non-payment prior to termination of performance.

2. The following language is added as a new Section 39 of Rider B:

39. **NO THIRD PARTY BENEFICIARIES** The parties specifically intend that nothing in this Agreement, either express or implied, is intended to confer any benefits, rights or remedies under or by reason of this Agreement, upon any person or entity other than the State of Maine, including the OSC, and HIN and to their respective successors and permitted assigns.

3. The following language is added as Section 40 of Rider B:

40. **LIMITATION OF LIABILITY** Except with respect to a party's indemnification obligations under Rider B, in no event shall either party be liable to the other for lost profits or any other indirect, consequential, special, punitive, exemplary or incidental damages, even in the event of the fault, tort (including negligence), misrepresentation, strict liability, breach of contract or breach of warranty of such party, and even if it has been advised of the possibility of such damages. These limitations upon damages and claims are intended to apply without regard to whether other provisions of this Agreement have been breached or have proven ineffective.

Appendix F: State of Maine HIE Privacy and Security Framework

Maine Health Information Exchange Privacy and Security Framework¹⁶

The State of Maine has made great strides in developing policies and procedures to support a public/private secure HIE network. HealthInfoNet (HIN), the designated statewide health information exchange organization, working in collaboration with the State Attorney General, the Office of the State Coordinator for HIT (OSC), and its own private/public Board, has assured that data use agreements, business associate agreements, and vendor contracts have been executed in a manner that is appropriate, legal, and supports the vision of HIE in the State.

HIN has developed privacy and security policies consistent with federal guidance and specific to Maine State Law, to assure the privacy and security of all patient data being exchanged (Appendix D of the approved statewide HIE Strategic and Operational Plane includes HIN's Administrative and Safeguard Policies and Procedures). HIN and the State have been long time participants of the Health Information Security and Privacy Collaborative (HISPC) and have used this participation to review and, where possible, harmonize Maine State Law and Regulations with the goals of HIE. In addition, as a result of the HITECH act and the formation of a legal working group within the Office of the State Coordinator for HIT (OSC), HIN and OSC have been closely collaborating to assure alignment of all HIE polices to the Nationwide Privacy and Security Framework for the Electronic Exchange of Individually Identifiable Health Information¹⁷ as well as federal summaries of laws and regulations pertaining to confidentiality, privacy and security¹⁸. Moreover the changes in the Health Insurance Portability and Accountability Act (HIPAA) have required a revision in policies such as breach notification. The HIN breach Notification Policy in Appendix D of the Strategic and Operational Plan represents that change.

Finally, as noted above, the OSC and HIN are engaging New Hampshire and the other New England States in interstate HIE planning efforts. Maine has been working closely with New Hampshire to begin addressing differing state laws that may impede appropriate HIE in medical trading areas that cross state borders. Leveraging such work as the "Policy Strategies for Advancing Interstate Health Information Exchange A Report to the State Alliance for e-Health"¹⁹ released by the National Governors Association in October 2009 as well as the support

¹⁶ **This framework describes the privacy and security framework for the State of Maine and HealthInfoNet. Specific detail as to the policies and procedures in place at HealthInfoNet are referenced throughout this document and can be found in Appendix D of the ONC approved Maine Statewide Health Information Exchange Strategic and Operational Plan.**

¹⁷ Nationwide Privacy and Security Framework:

http://healthit.hhs.gov/portal/server.pt?open=512&objID=1173&parentname=CommunityPage&parentid=34&mode=2&in_hi_userid=10732&cached=true

¹⁸ Summary of Selected Federal Laws and Regulations Addressing Confidentiality, Privacy and Security:

http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11113_911059_0_0_18/Federal%20Privacy%20Laws%20Table%202026%2010%20Final.pdf

¹⁹ Policy Strategies for Advancing Interstate Health Information Exchange. A Report to the State Alliance for e-Health. October 2009: <http://www.nga.org/Files/pdf/0910EHEALTHHIEREPORT.PDF>

of the New England States Consortium of Systems Organizations (NESCSO), shared project proposals are currently under development across the New England region in collaboration with New York.

As a result of these efforts, agreements and policies are in place in Maine, allowing 16 hospitals, a large group practice, MaineCare and the MCDC to actively exchange patient information today. To achieve statewide HIE scale, the State and HIN will continue to partner in assuring the alignment of state privacy laws and regulations that may impede the electronic sharing of PHI especially for those who need it most. HIN has developed a comprehensive business associate agreement (BAA) for all participants in the statewide HIE. The current HIN BAA is provided in Appendix E of the final Strategic and Operational Plan.

In November 2009, a Legal Working Group (LWG) was created by the HIT Steering Committee to address the Legal and Policy Domain requirements in the State HIT Plan as required by the Office of the National Coordinator for HIT (ONC). Specifically, the group was charged with addressing: privacy and security issues related to HIE within the state, and between states; any plans to analyze and/or modify state laws, as well as communications and negotiations with other states to enable exchange; addressing the development of policies and procedures necessary to enable and foster information exchange within the state and interstate; the use of existing or the development of new trust agreements among parties to the information exchange that enable the secure flow of information; and how the state will address issues of noncompliance with federal and state laws and policies applicable to HIE. The LWG included representatives of National Association of Mental Illness of Maine (NAMI-ME), HIV providers and advocates, the Maine Hospital Association, the Maine Medical Association, Maine Family Planning, the Attorney General's Office, HealthInfoNet, the Maine Civil Liberties Union, and private health attorneys, among others.

Like many states, Maine has state laws that provide heightened privacy protection for certain types of health information, specifically for HIV/AIDS and mental health information. The LWG reviewed laws relevant to the group's charge, including provisions of ARRA/HITECH (including the HIPAA amendments), Maine's General Privacy Law, Maine's HIV Privacy Law, and Maine's Mental Health Privacy Law. There was not unanimous agreement on the LWG's recommendations, and the group agreed that the review and analysis of existing state law is an on-going process. The group did however begin to coalesce around areas that should be addressed to support the use of HIE, either as possible amendments to Maine's privacy laws or as recommended changes in HealthInfoNet's practices (see further reference to these recommendations in the HIE Strategic and Operational Plan). The LWG recommended that the OSC continue working on these issues together with the HIT Steering Committee, and present legislation in the first month of the 125th Legislature in 2011. The LWG also recommended that this work continue through the new committee structure constituted under the HIT Steering Committee (HITSC).

Consistent with the Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information, HealthInfoNet (HIN) has implemented privacy and security protections essential to establishing public trust. Moreover, to assure trust in the HIE and

the accountability of HIN to these policies, the State of Maine's contract with HIN for the HIE cooperative agreement requires the following:

Privacy and Security of PHI in the Health Information Exchange

11. HIN shall develop and maintain comprehensive privacy and security policies that comply with applicable federal and Maine law, including HIPAA, as supplemented by the HITECH Act; Maine Privacy Law; and Maine's Notice of Risk to Personal Health Data Act. HIN shall operate the HIE in compliance with all applicable federal and Maine laws and regulations.
12. HIN shall make PHI available to Users for the purpose of Treatment and Health Care Operations.
13. HIN shall comply with the participant agreement in effect at the time. HIN shall take reasonable measures to enforce the terms of the participant agreement that obligates each Participant to enforce the privacy and other provisions of the participant agreement with respect to its Users and any other Workforce Member.
14. HIN shall develop, manage and maintain business associate agreements with the Participants. HIN shall abide by its HIPAA Business Associate Agreement, the current form of which is attached hereto. Further, in the event of a Breach involving PHI in its possession or under its control, HIN will abide by the breach notification requirements under all applicable federal and state laws and regulations, including 42 U.S.C. §17932 and any regulations promulgated by the Secretary of the U.S. Department of Health and Human Services thereunder. The parties acknowledge and agree that, an incident involving a person who intentionally acquires, accesses or uses Protected Health Information in a manner that violates the Privacy Rule which compromises the privacy or security of the PHI pursuant to the HITECH Act or the regulations promulgated thereunder, constitutes a Breach.
15. HIN shall conduct regular internal audits for compliance with applicable Maine and federal privacy and security laws and regulations. HIN shall obtain an annual external security audit of the health information exchange system from a recognized, independent technology audit firm.
16. HIN shall maintain User authorization, authentication and audit processes/functionality to manage, validate and document system access by Users.

The contract with HIN also includes the following requirements regarding collaboration with existing and new committee structures:

17. HIN shall collaborate with the Privacy Security and Regulatory Committee established by the OSC to analyze state laws regarding the exchange of clinical health information.
18. HIN shall collaborate with the Consumer Committee established by the OSC to address consumer safety and privacy and security concerns.
19. HIN shall collaborate with the Financial Planning and Sustainability Committee established by the OSC to develop a business and sustainability plan for continuing its statewide operations and provides the OSC with a copy of such plan.

20. HIN shall collaborate with the Quality and Systems Improvement Committee to support initiatives for broad health systems improvements.

21. HIN shall collaborate with the OSC to answer question from consumers about the HIE, including information about the opt-out process.

Finally, the HIN contract includes provisions for leveraging HIE technologies procured to support state government efficiencies. “The standardized statewide master patient index maintained by HIN will support the integration and aggregation of person-centric clinical content received from Participants. In developing the HIE operations, HIN will coordinate with the Maine Department of Health and Human Services (DHHS) to identify opportunities for mutual benefit consistent with strategic and operational informatics plans, such as data-sharing for population management and service and program planning.”

These contractual requirements define the relationship between HIN and State Government while allowing flexibility for growth and innovation. Below, the eight principles of the Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information are described in reference to the HIE activities in Maine.

Individual Access – Currently access to the HIN systems require that end users (providers) to authenticate in to their local organizational network infrastructure prior to accessing the HIN systems. Upon launching HIN from their internal system they are then again faced with another security level of asking for their passwords.

To authenticate the provider, the HIN system holds usernames and passwords for all participants. Each user is assigned an account ID that will allow them to login 24/7. Once authenticated, the user’s access is controlled according to their role (e.g., physician, nurse, pharmacist, administrator, etc.). When accessing a patient for the first time, each user is required to “break the glass” and document their relationship to the patient (primary care provider, consultant, etc.). This relationship is maintained for four days. After four days, users accessing the same patient are required to “break the glass” again.

Each step of this process is logged in an Audit table. No shared accounts are allowed in HIN, in order to provide accountability. All access to HIN is granted by HIN through the request of designated security officers at each site.

The user requires a computer with a web browser installed. The user is first required to log into the system with a unique user name and password combination. When login is complete, the user can search for the required patient using either the patient identifier or the patient demographics. Once the patient is found, the record is displayed to the user according to the user’s security privileges and the patient’s recorded consent.

User audit logs are monitored daily for a number of factors including but not limited to, failed authentication attempts, number of logins, number of patients accessed over a time period, number of accesses of a single patient, patients viewed, name similarities between user and patient, and reason(s) given to view the patient(s). These reports can be called ad hoc through the HealthInfoNet portal via an easy to use Graphical Interface. Each participant has identified at least one security officer at their site that has access to the Ad hoc audit log reporting

functionality, to use at their discretion. HealthInfoNet provides logs to sites on an as needed basis; some sites request daily summaries of activity.

Currently HIN does not have in place a mechanism allowing individual (consumer) access to personal, identifiable, health information. This information is available from the provider sites as is required by HIPAA. HIN is currently developing a personal health record (PHR) architecture that will allow consumers to access and view personal health information contained in the HIN clinical data repository and to collect and store personally entered health information. The HIN PHR will be presented to the HIN Consumer Advisory Committee and focus groups convened across four regions of the state in November 2010. The results of the focus groups will be written up and presented to the HIN Board of Directors and OSC as well as the development team in December 2010. HIN's intends to be able to deploy this PHR application by the second quarter of 2011.

As the State Medicaid Health IT Plan (SMHP) has been developed there has been a focus on empowering individuals to exercise control over their personal data. The goal is to establish consent management controls that allow MaineCare members to have more control over their data being collected and used by MaineCare. Currently the SMHP is being finalized with additional information on the planning efforts regarding the consent processes for MaineCare.

Correction – Individuals can dispute the accuracy or integrity of their individual identifiable health information and have erroneous information corrected or their dispute documented if their request is denied. These processes are currently managed by all participating healthcare organizations in the State. As HIN is a “steward” of participant organization data, HIN does not change or manipulate participant organization data beyond mapping local coded data to national standards.

The state SMHP includes mechanisms that allow individual access to their personal, identifiable, health information collected by MaineCare and an ability to dispute the accuracy or integrity of that information. There will be provisions made for MaineCare members to comment on corrections to data that were requested and denied. A plan to allow the general population access to their data for purposes described above is under review by HIN.

Openness and Transparency – A community-based Board of Directors with public and private representation oversees HealthInfoNet (HIN). In addition, the membership of the HIN Consumer Advisory Committee is comprised of citizens, consumer advocates, consumer organizations, legal experts, health educators, privacy officers, public health professionals, and interested parties with experience and expertise in consumer participation and privacy protection in health information technology systems. A member of the HIN Board chairs the Committee. The Committee has been responsible for reviewing and advising on all policies and procedures related to the confidentiality of the HIN clinical data and the privacy protection for patients. The Committee has addressed HIPAA, State law requirements as well as other federal and State guidelines and initiatives, and public health data laws. This committee has been instrumental in the development of the opt-out provision for patient participation in HIN. The state has also provided the active participation of both the OSC and HIN with the consumer advisory council to assure openness and transparency includes groups affected. All HIN Board and Committee

meetings are open to the public. Dates and locations of the meetings are posted on the HIN website and meeting minutes are posted 7 days after each meeting.

The State of Maine has created a public/private Health Information Technology Steering Committee (HITSC) to provide governance over the development and deployment of its Statewide HIE Strategic and Operational Plan. This committee has been meeting monthly since March of 2009. This committee held the responsibility for developing the HIE plan as required by ONC and used town-hall meetings and open distribution processes to get feedback on the plan prior to its submission to ONC for approval. The final plan is posted on the Governor's Office of Health Policy and Finance website and the contact information for the State Coordinator for HIT is provided.

Individual Choice - A consumer consent process for participation in the statewide HIE enables consumers to opt out of the exchange. When a consumer opts out, clinical content on the individual is deleted from the clinical data repository and a flag is set in the system blocking the addition of new clinical data for that individual. An audit process is run daily to assure that there is no clinical information associated with any consumer who has elected to opt out of participation in the exchange.

The contractual arrangement between OSC and HIN also includes the following provisions related to consumer education.

Consumer Education

- a) HIN shall organize and engage in an expanded and ongoing program of consumer education about the HIE, including the advantages and risks of participation by consumers in the HIE and the options and process for consumers to opt-out of participation in the HIE. HIN shall coordinate with the OSC, provider organizations, consumer advocacy organizations, business and payer organizations, state agencies and state departments involved in health care and health care delivery.
- b) HIN shall create and make available to the OSC and to the public educational materials designed to inform consumers about HIN and to enable them to make a decision as to whether to participate in the HIE. HIN shall maintain consumer opt-out policies that comply with all applicable federal and Maine law. Any modification to HIN's consumer opt-out policies and procedures may occur only after approval by the HIN Board of Directors upon its review of a recommendation by HIN's Consumer Advisory Committee. The Board of Directors' authority to accept or reject the Committee's recommendation is not limited by this provision. HIN shall use reasonable efforts to comply with such policies. A copy of HIN's opt-out policies and procedures is attached hereto.
- c) HIN's education materials shall expressly include the following information:
 - i) Reference the right of the consumer to determine whether to participate in HIN;
 - ii) Inform the consumer about the purpose and operation and of the HIE, the types of PHI in the HIE and the risks and benefits of participating in HIN;
 - iii) Inform the consumer that he/she can receive medical treatment without participating in HIN;

- iv) Provide the contact information to report errors in the clinical data content to HIN;
and
- v) Outline the process for opting-out of participation in HIN.

Collection, Use, and Disclosure Limitation - The HIN Participation Agreement (provided in Appendix E of the Statewide HIE Strategic and Operational Plan) sets forth conditions of use of personal identifiable health data by participating providers in the exchange. The agreement specifies access, appropriate use, and responsibilities of providers using the HIE. Consistent with HIPPA, a “break the glass” policy requires providers to establish a treatment relationship with the individual whose record is being viewed. An audit trail is made of all persons that access treatment information. Language contained in the states contract with its vendor specifically identifies the responsibilities of the HIE related to data collection, use and disclosure limitations.

Data Quality and Integrity – Policies, software, and essential personnel are required for a HIE to assure data quality and integrity. HIN uses a mapping system that allows legacy data to be included in the record providing clinical value. By taking advantage of mapping rather than using standard only input, participants ensure that all of their legacy data can continue to be useful.

HIN uses its enterprise master patient index (EMPI) enhanced record-matching logic to address the problem of duplicate records and help prevent duplicates from ever entering the EMPI. This logic has the following capabilities:

- Intelligently compares a multitude of data elements;
- Anticipates possible mistakes and variations in data entry;
- Matches records even when their individual data elements are not exactly the same; and
- Helps overcome the inconsistencies created by variations in registration practices across multiple systems.

When a single identifier, such as an enterprise identification number (EIN) or a facility ID/medical record combination, is not available for a record search, or no exact match for the identifier is found, the EMPI uses probabilistic matching logic rules to examine and compare many different data fields within the record. Before a new record is ever added to the EMPI, the matching logic searches and thoroughly compares the incoming data with the existing demographic data contained in the EMPI. The matching logic can quickly calculate the probability of a record match and presents the user with the information needed to determine if two records belong to one patient. Matching one patient record to another consists of the following steps:

- Normalizing all incoming data elements;
- Querying the EMPI’s patient records and building a candidate list;
- Scoring the candidates to indicate the probability of a record match;
- Sorting the candidates by their scores and arranging them for the user from highest to lowest probability; and
- Returning the best candidate(s) to the user.

HIN has in place security analysts whose functions and responsibilities include safeguarding information and the information system assets against unauthorized use, disclosure,

modification, and damage or loss. These analysts manage the authorization of access by end users to the HIN clinical data repository and support routine system audits. They also support the development and maintenance of security related policies and procedures. Database managers also play a critical role by maintaining data content and data quality in core HIN databases including the clinical data set, statewide master person index, and provider index.

Safeguards – To assure trust in the HIE, Maine’s contract with HIN specifies the responsibilities and actions expected related to privacy and security of personal health information. HIN has in place audit functions, personnel, and policies described above that provide assurance and protection of personal health information.

All connections to HIN are provided through a port-to-port VPN tunnel. The firewall is in a state of implicit deny, and only access rules created by the discretion of HIN are allowed. There are no direct Internet facing servers. All traffic located in these IPSEC tunnels are encrypted in SSL, as another layer of security. The HIN data center also employs a tipping point device that inspects packet flow at the application layer in order to detect any anomalies. No external programs are allowed to make calls directly to the HIN database, at this time. All servers are located in a datacenter that has appropriate physical and technical barriers to limit access. The current data center meets all SAS 70 requirements, and is annually audited by a third party. (The Statewide HIE Strategic and Operational Plan includes more detail on the specific safeguards in place for PHI being exchanged)

Accountability – HIN includes multiple accountability mechanisms to assure that data is shared appropriately and that monitoring mechanisms are in place to mitigate inappropriate and nefarious use, system access, and breach. HIN conducts weekly audits of general system use and daily review of audit logs as described above. HIN also employs continuous automated identification of potentially inappropriate events. When such events occur, the event is flagged and appropriate staff members are identified on a 24 /7 basis. In addition, bi-annually, HIN uses an independent national organization to conduct a system wide attack to identify potential systemic security weaknesses. HIN’s policies and procedures as defined in the Statewide HIE Strategic and Operational plan in Appendix D outline all the specific policies and procedures as related to HIPAA and other Federal and State laws and regulations.

The State’s contract HIN includes a number of accountability provisions including strict monitoring of the performance of contract terms and imposing a 10% holdback should the vendor not perform to contract.