

THE STATE OF ALASKA
DEPARTMENT OF HEALTH AND SOCIAL SERVICES
DIVISION OF HEALTH CARE SERVICES



STATE HIE COOPERATIVE AGREEMENT PROGRAM
STRATEGIC AND OPERATIONAL PLAN UPDATE

July 20, 2012

Version .1.1

Prepared by:



6263 North Scottsdale Road, Suite 200
Scottsdale, AZ 85250
(480) 423-8184
www.cognosante.com



REVISION HISTORY

Version Number	Date	Reviewer	Comments
Version 1.0	06/08/2012		Submission to ONC
Version 1.1	07/20/2012		Revisions per ONC Comments



TABLE OF CONTENTS

1	DOCUMENT PURPOSE	1
1.1	Document Organization	1
2	CHANGES TO HIE STRATEGY	2
2.1	Overall HIE Strategy including Phasing	7
2.1.1	Alaska HIE Strategy November 2010	7
2.1.2	2012 Alaska HIE Strategy Updates.....	8
3	GOVERNANCE	9
3.1	Governance Description	9
3.2	Structure.....	11
3.2.1	HIT Governance Roles and Functions	13
3.2.2	AeHN Board Roles and Responsibilities	14
3.2.3	State HIT Coordinator.....	15
3.2.4	State HIT Program Office	16
3.2.5	AeHN Organizational Structure.....	17
3.2.6	Advisory Workgroups.....	19
3.2.7	Operational Workgroups.....	20
3.3	2012 Governance Update.....	21
4	TECHNOLOGY	21
4.1	Overview of Alaska Approach.....	21
4.2	Technology Architecture	22
4.3	HIE Technical Components	24
4.4	Interoperability.....	26
4.5	HIE Standards	27
4.6	2012 Technology Update.....	28
4.6.1	HIE Implementation in Alaska.....	28
4.6.2	Description of Direct Messaging Service Implementation	30
4.6.3	State of Alaska HIT Systems Integration with HIE	31
4.6.4	Western States Consortium.....	34
5	FINANCE	34
5.1	Current Funds at 2010.....	34
5.2	Background	34
5.3	Building and Sustaining Health Information Exchange.....	36
5.4	Funding Strategies	36
5.5	2012 Finance Update	37
6	BUSINESS AND TECHNICAL OPERATIONS	37
6.1	Preparatory Activities.....	37
6.2	Key Personnel.....	38
6.3	Outreach and Communications	39
6.3.1	Outreach Committee	39
6.3.2	Key Messages.....	39



6.3.3	Target Audiences	40
6.3.4	Outreach and Education Tools	40
7	LEGAL AND POLICY	42
7.1	Background	42
7.2	Legal Domain Roles and Responsibilities	42
7.3	Privacy	43
7.3.1	Consent Model	44
7.3.2	Privacy Impact Assessment.....	45
7.3.3	Required Agreements for Patient Protection.....	45
7.3.4	Participation Agreement	46
7.3.5	Data Sharing Agreements	47
7.4	Security	48
7.4.1	Administrative Safeguards.....	48
7.4.2	Physical Safeguards.....	48
7.4.3	Technical Safeguards.....	49
7.4.4	Organizational Requirements	49
7.4.5	Breach Notification – HHS Interim Final Rule	49
8	2012 PIN PRIORITY STRATEGIES	50
8.1	Strategies for ePrescribing	50
8.2	Strategies for Structured Lab Results Exchange	50
8.3	Strategies for the Exchange of Continuity of Care Documents	51
9	SUSTAINABILITY PLAN	52
9.1	Creating Conditions and Demand for Health Information Exchange	52
9.1.1	Medicaid Health care Delivery Pilots.....	52
9.1.2	Patient Centered Medical Homes	52
9.1.3	EPrescribing Expansion.....	53
9.1.4	Office of Children’s Services Developmental Screening	53
9.1.5	Health Care Commission Recommendations	53
9.2	Business Sustainability of Services directly Offered or Enabled	55
9.3	Business Sustainability.....	55
9.4	Direct Secure Messaging Sustainability Plan.....	56
10	TRACKING PROGRESS	57
11	PRIVACY AND SECURITY FRAMEWORK.....	60
11.1	State Privacy and Security Framework.....	60
11.2	Alaska HIE Privacy and Security Framework.....	60
11.3	PIN-HIE-003 Requirements.....	61
11.3.1	Stakeholder Awareness of Approach to Privacy and Security.....	63
11.3.2	Alignment, Gaps, and Remediation	64
12	PROJECT MANAGEMENT PLAN	76
12.1	Direct Secure Messaging Schedule.....	76
12.2	HIE Implementation Schedule	77
12.3	Sustainability Plan Schedule	77



12.4 Risk Management and Mitigation.....78

13 EVALUATION PLAN82

13.1 HIE Performance Evaluation Plan83

13.2 Subsequent Program Evaluation83

13.2.1 HIE Program Assessment83

13.2.2 Methodology and Approach.....87

13.2.3 Assessment Criteria Definition.....88

13.2.4 Assessment Activities.....89

13.3 Lab Exchange Approach and Strategies.....90

13.3.1 Lab Survey90

13.3.2 Lab Webinar91

13.4 Pharmacies Participating in EPrescribing Approach and Strategies92

13.4.1 Pharmacy Survey92

13.4.2 Monthly Surescripts Data Review93

APPENDIX A – PRIVACY IMPACT ASSESSMENT RESULTS97

APPENDIX B – SUSTAINABILITY PLAN MINIMUM REQUIREMENTS 102

APPENDIX C – REFERENCED AEHN POLICIES AND PROCEDURES..... 105

APPENDIX D – ASSESSMENT CRITERIA106

APPENDIX E – HIE STAKEHOLDERS114

APPENDIX F – LAB WEBINAR POLLING.....115

APPENDIX G – ACRONYMS119

LIST OF FIGURES AND TABLES

Figure 1 Alaska HIT Projects..... 8

Figure 2: HIE Governance12

Figure 3: Alaska eHealth Network Board.....13

Figure 4: State HIT Program Office.....16

Figure 5: State Designated Entity.....18

Figure 6: Statewide Technical Architecture22

Figure 7: HIE Overview24

Figure 8: Alaska eHealth Network Health Information Exchange (HIE) Solution*29

Figure 9: Alaska Direct Messaging Service Implementation.....30

Figure 10: State of Alaska HIT Interface Engine Logical Architecture.....32

Figure 11: P&S Remediation Timeline75

Figure 12 HIT Project Schedule76

Figure 13 : Direct Secure Messaging Project76

Figure 14: HIE (Resume) Implementation Plan77

Figure 15: Sustainability Plan Update78



Figure 16: Surescripts Data Mapping March 2012 Data94
Table 1: Changes to Alaska HIE Strategy 3
Table 2: Participation Agreement Topics.....47
Table 3: DSM Operating Expenses and Income.....56
Table 4: Tracking Program Progress.....58
Table 5: AeHN Guiding Privacy Principles62
Table 6: Privacy and Security Domain Alignment.....65
Table 7: Timeline for Addressing Privacy and Security Domain Gaps74
Table 8 - HIE Risks79
Table 9: Overall Assessment Finding Dashboard.....84
Table 10: Assessment Areas of Focus Mapped to ONC Domains.....88
Table 11: March 2012 Pharmacy Analysis93
Table 12: Alaska Zip Codes without ePrescribing Matches95



1 DOCUMENT PURPOSE

The State of Alaska as the grantee for the State Health Information Exchange (HIE) Cooperative Agreement provides this document to satisfy the requirement to submit an annual update to the Strategic and Operational Plans (SOP) submitted at the inception of the grant agreement.

This document follows the requirements described in the Program Information Notice (PIN) ONC-HIE-PIN-002 issued February 8, 2012, setting forth the Annual Update submission information.

The organization of the document is described in the section below.

1.1 Document Organization

The information in the sections below combine the content from the Alaska Health Information Technology (HIT) Strategic Plan (*Master HIT Strategic Plan vNov2010.doc*), the Alaska HIT Operations Plan (*Master HIT Operations Plan vNov2010.doc*) and the Alaska HIT Strategic Plan Addendum (*HIE 2011 State Plan Addendum v 1.5*) in the domain specific sections as well as the planning sections.

The Landscape information from the strategic plan is not updated nor included in this document.

The requirements outlined in the PIN to document changes in strategy are included in the narrative of each domain in a section labeled "2012 Update."

The requirements prescribed in the PIN to describe the current PIN Priority Strategies are included in Section 8.

The PIN requirements to present the Sustainability Plan are addressed in Section 9.

The table for tracking progress on key meaningful use HIE capabilities in their state and setting annual goals is included in Section 10.

The description of the approach to assess the Privacy and Security Framework, identified Gaps and plans to address the gaps are included in Section 11.

The description of the plans to evaluate the HIE Operations, the Lab Survey conducted in December 2011 and the Pharmacy Survey conducted in January 2011 are included in Section 13 and related appendices.



2 CHANGES TO HIE STRATEGY

This section includes both a table and narrative. The table contains only changes; the narrative contains a description of the previous and current strategies as well as the changes. This section combines the previous three documents into this one plan.



Table 1: Changes to Alaska HIE Strategy

Domain/Sections	Short Description of Approved portion of SOP that Grantee is proposing to change (include page numbers)	Proposed Changes	Reason for the Proposed Changes	Budget Implications of Proposed Changes
Overall HIE Strategy including Phasing		Update the strategy to include the implementation and rollout of Direct Secure Messaging (DSM) prior to the implementation of the HIE services		
Governance	Section 3 of this document and Section 6.1 page 57 of the HIT Strategic Plan document submitted in November 2010	Updated organization charts for: HIT Governance, State HIT Office, Alaska eHealth Network (AeHN) Board, and the State Designated Entity	Changes in the structure of the Alaska DHSS, changes in the AeHN personnel, and changes in the State HIT office.	None identified
Technology	Section 4 of this document and Section 6.3 page 69 of the HIT Strategic Plan document submitted in November 2010 Section 5.5 page 49 of the HIT Operations Plan submitted in November 2010 Section 3.5 page 14 of the HIT Strategic Plan Addendum v1.5 submitted	Describes the implementation components of the HIE implementation Describes the details of the state's DSM implementation Describes the plans for State of Alaska systems integration with the HIE	These details were not available at the time of the previous plan submission DSM was implemented in 2012. These plans were developed in 2011, after the previous plan submission.	



Domain/Sections	Short Description of Approved portion of SOP that Grantee is proposing to change (include page numbers)	Proposed Changes	Reason for the Proposed Changes	Budget Implications of Proposed Changes
	in March 2011			
Financial	<p>Section 5 of this document and Section 6.2 page 64 of the HIT Strategic Plan document submitted in November 2010</p> <p>Section 5.4 page 43 of the HIT Operations Plan submitted in November 2010</p>	Remove previous Sustainability plan strategies, fees, and estimates	Including in this document the plan to develop a Program Sustainability plan that will provide updated information regarding strategies, fees and estimates based on the planning described in Section 9	Unknown
Business Operations	<p>Section 6 of this document and Section 6.4 page 72 of the HIT Strategic Plan document submitted in November 2010</p> <p>Section 5.6 page 54 of the HIT Operations Plan submitted in November 2010</p>	SDE is re-negotiating the contract with AeHN to allow the SDE additional interaction with the HIE vendor and to hold AeHN accountable for specific deliverables that are required of the SDE in the PINs and required to document the program operations		Unknown
Legal/Policy	Section 7 of this document and Section 6.5 page 77 of the HIT Strategic Plan document submitted in November 2010	<p>Document alignment with Health and Human Services (HHS) Privacy & Security Framework</p> <p>Incorporation of technical</p>	<p>Data sharing initiatives within DHSS</p> <p>Release of PIN-HIE-003</p>	



Domain/Sections	Short Description of Approved portion of SOP that Grantee is proposing to change (include page numbers)	Proposed Changes	Reason for the Proposed Changes	Budget Implications of Proposed Changes
	Section 5.7 page 60 of the HIT Operations Plan submitted in November 2010	standards for security	HIE vendor selected, known solution, DSM implementation	
Strategies for ePrescribing	4.4.1 page 44 of the HIT Strategic Plan document submitted in November 2010 3.1 page 11 of the HIT Strategic Plan Addendum v1.5 submitted in March 2011	Included Alaska Pioneer Homes plans to participate in ePrescribing to support Medicare providers meeting Meaningful Use	New initiative since previous submission of SOP	None
Strategies for Structured Lab Results Exchange	3.2 page 12 of the HIT Strategic Plan Addendum v1.5 submitted in March 2011	Pilot a point-to-point Lab Exchange solution that includes Direct as the data transport mechanism	Participation in ONC sponsored Lab Summit (May 2012). Details to follow the completion of the Summit.	
Sustainability	The Core document is required as a part of the first SOP update. Changes will be indicated in subsequent SOP update.			
Privacy and Security Framework	The Core document is required as a part of the first SOP update. Changes			



Domain/Sections	Short Description of Approved portion of SOP that Grantee is proposing to change (include page numbers)	Proposed Changes	Reason for the Proposed Changes	Budget Implications of Proposed Changes
	will be indicated in subsequent SOP update.			
Evaluation Plan	The Core document is required as a part of the first SOP update. Changes will be indicated in subsequent SOP update.			



2.1 Overall HIE Strategy including Phasing

The State of Alaska initiated Health Information Exchange (HIE) in July 2009, prior to the inception of the American Recovery and Reinvestment Act (ARRA) and the Office of the National Coordinator (ONC) Cooperative Agreement Program. The State continues to support the HIE Program and participate in the development of the HIE Program Strategy. The strategy put forth in the Strategic Plan submitted to ONC in November 2010 is outlined in Section 2.1.1 below; updates to the strategy are included in Section 2.1.2.

2.1.1 Alaska HIE Strategy November 2010

The State Designated Entity (SDE) vision for the future of HIT is a multi-year vision that consists of existing and planned projects and initiatives that will significantly contribute to Alaska's healthcare transformation. The vision for HIT demonstrates the SDE's aspirations to develop improvements in delivery, cost containment and outcomes in healthcare management. By leveraging implementation of new technologies such as a modernized Medicaid Management Information System (MMIS), extending web based access to providers and recipients, Electronic Health Records (EHRs), and HIE networks, SDE will do its part in supporting a healthcare system for Alaska that places individual Alaskans, their families and communities at the center of their healthcare experience and ultimately shift the focus from treatment to prevention.

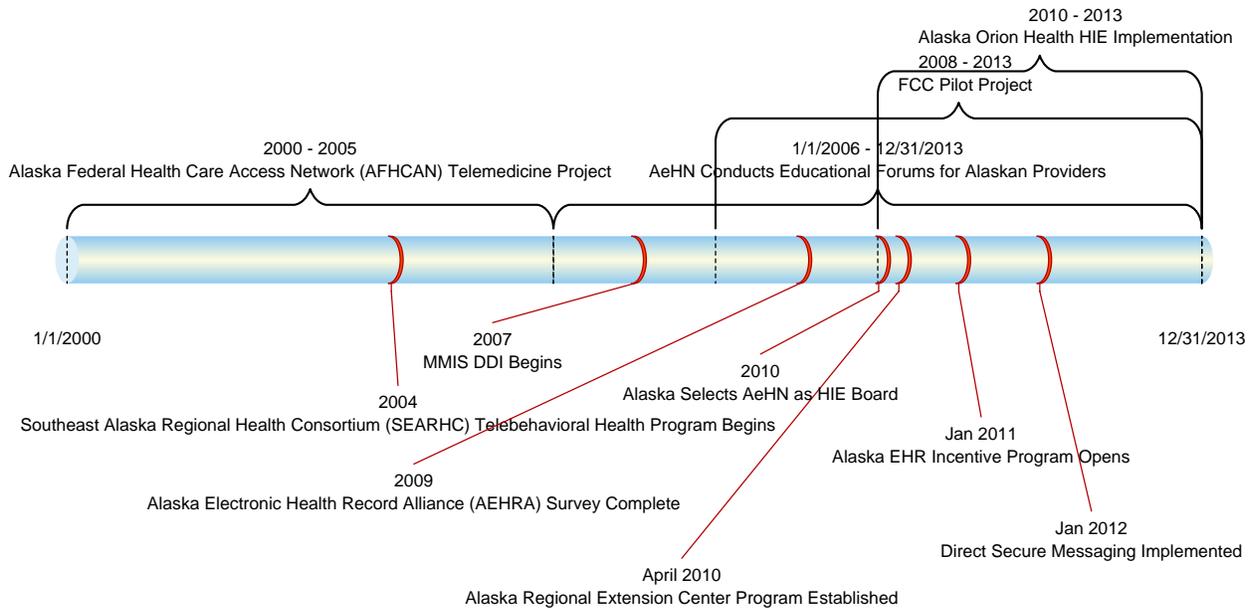
The ultimate goal of the state of Alaska is to improve access to healthcare and quality of healthcare for Alaskans. Specifically, the mission of the DHSS is to promote and protect the health and well-being of all Alaskans.

The Alaska Health Care Commission (AHCC) identified HIT – HIE, EHR and telemedicine/telehealth - as an essential cornerstone of healthcare delivery system transformation for Alaska because it is required for successful implementation of virtually all potential specific strategies for healthcare improvement – from cost and quality transparency, to fraud reduction, to supporting evidence-based clinical practice. The AHCC recommended that the Governor and Alaska Legislature take an aggressive approach to supporting adoption, utilization, and potential funding of HIT, including HIE, EHR and telemedicine/telehealth that promise to increase efficiency and protect privacy.

In order to resolve the barriers to interoperability and create an integrated Electronic Medical Record (EMR) system, the AeHN is working towards development of a functional statewide HIE service. HIE is the coordination of appropriate electronic health information for the health needs of patients and providers. HIE tools organize, integrate, and retrieve data from existing sources of multiple electronic health records associated with a single patient using secure data transfer. Security of confidential patient information is governed by patient and facility permission levels.

A number of state and federal initiatives have been implemented or are planned, to support efforts to improve utilization of electronic health information in the management of healthcare needs in Alaska statewide. The key initiatives are depicted in Figure 1 below.

Figure 1 Alaska HIT Projects



2.1.2 2012 Alaska HIE Strategy Updates

Beginning in November 2011, AeHN and Orion Health developed plans to implement Direct Secure Messaging (DSM) to provide an immediate solution supporting the exchange of summary of care documents among health care professionals in Alaska. DSM was implemented in January of 2012, with the first “live” messages exchanged in March 2012. At June 1, 2012 over 480 Direct mailboxes have been provisioned to hospitals, primary care practitioners, State staff and other health care professionals planning to exchange health information. Due to the level of effort required to quickly implement and support the DSM rollout, efforts to expand the HIE pilot stalled in December 2011. AeHN and the SDE plan to restart the HIE pilot, evaluate the previous HIE rollout approach in the fall of 2012. As discussions regarding the HIE Sustainability Plan are finalized, the SDE expects to receive input that would further refine the HIE implementation schedule and functionality.

In addition, the SDE is participating in the development of a Lab Exchange Pilot using DSM to distribute lab results. Information regarding the pilot participants is included in Section 8.2 of this document. Further details regarding this pilot, currently in the design phase, will be included in a future addendum to this plan.

AeHN and the SDE will develop a Program Sustainability plan that will provide updated information regarding adoption strategies, fees and revenue estimates based on the planning described in Section 9 of this document.



3 GOVERNANCE

3.1 Governance Description

The State has entered into several agreements with the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator (ONC) for Health Information Technology (HIT) that require the State to coordinate all health information technology efforts. The Governor of Alaska named Alaska Department of Health and Social Services (DHSS), Division of Health Care Services (DHCS) as the SDE to implement Alaska's Health Information Exchange (HIE) under the ONC Cooperative Agreement Program. DHSS has selected the vendor Alaska eHealth Network (AeHN) to be the non-profit governing board that will procure and manage Alaska's HIE.

As the SDE, State HIT Coordinator and AeHN begin to define the stakeholder relationships and technologies essential for success, the following guiding principles will form a basis for subsequent decision-making and will keep all decisions tied into central themes. These principles introduced by the Markle Foundation¹ and adapted for use by the Alaska HIE will ensure that all SDE, State HIT Coordinator and AeHN decisions consistently focus on the goals of improving community health and implementing technological interoperability.

- *Openness and Transparency*
There should be a general policy of openness about developments, practices, and policies with respect to personal data. Individuals should be able to know what information exists about them, the purpose for which it is being used, who can access and use it, and where it resides. All work of DHCS and the State HIT Coordinator will be part of the public domain, except for any information that would jeopardize the security of the system.
- *Purpose Specification and Minimization*
The purposes for which personal data are collected should be specified at the time of collection, and the subsequent use should be limited to those purposes or others that are specified on each occasion of change of purpose.
- *Collection Limitation*
Personal health information should only be collected for specified purposes, should be obtained by lawful and fair means and, where possible, with the knowledge or consent of the individual.
- *Use Limitation*
Personal data should not be disclosed, made available, or otherwise used for purposes other than those specified.
- *Individual Participation and Control*
Individuals should control access to their personal information. Individuals should be able to obtain from each entity that controls personal health data, information about whether or not the entity has data relating to them. Individuals should have the right to:
 - Have personal data relating to them communicated within a reasonable time (at an affordable charge), and in a form that is readily understandable;

¹ From http://www.markle.org/markle_programs/healthcare/index.php

- Be given reasons if a request (as described above) is denied, and to be able to challenge such denial; and
- Challenge data relating to them and have it rectified, completed, or amended if found to be inaccurate.
- *Data Integrity and Quality*

All personal data collected should be relevant to the purposes for which they are to be used and should be accurate, complete, and current.
- *Security Safeguards and Controls*

Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, unauthorized use, modification, or disclosure.
- *Accountability and Oversight*

Entities in control of personal health data must be held accountable for implementing these information practices.
- *Remedies*

Legal and financial remedies must exist to address any security breaches or privacy violations. Breach policies are drafted and will need to be adopted as the HIE project moves forward.
- *Make it “Thin”*

Only the minimum number of rules and protocols essential to widespread exchange of health information should be specified as part of a Common Framework. It is desirable to leave to the local systems those things best handled locally, while specifying at a statewide or national level those things required as universal in order to allow for exchange among subordinate networks.
- *Avoid “Rip and Replace”*

Any proposed model for health information exchange must take into account the current structure of the health care system. While some infrastructure may need to evolve, the system should take advantage of what has been deployed today. Similarly, it should build on existing Internet capabilities, using appropriate standards for ensuring secure transfer of information.
- *Separate Applications from the Network*

The purpose of the network is to allow authorized persons to access data as needed. The purpose of applications is to display or otherwise use that data once received. The network should be designed to support any and all useful types of applications, and applications should be designed to take data in from the network in standard formats. This allows new applications to be created and existing ones upgraded without re-designing the network itself.
- *Decentralization*

Data stays where it is generated. The decentralized approach leaves clinical data in the control of those providers with a direct relationship with the patient, and leaves judgments about who should and should not see patient data in the hands of the patient and the physicians and institutions that are directly involved with his or her care.
- *Federation*

The participating members of a health network must belong to and comply with agreements of a federation. Federation, in this view, is a response to the organizational difficulties presented by the fact of decentralization. Formal

federation with clear agreements builds trust that is essential to the exchange of health information.

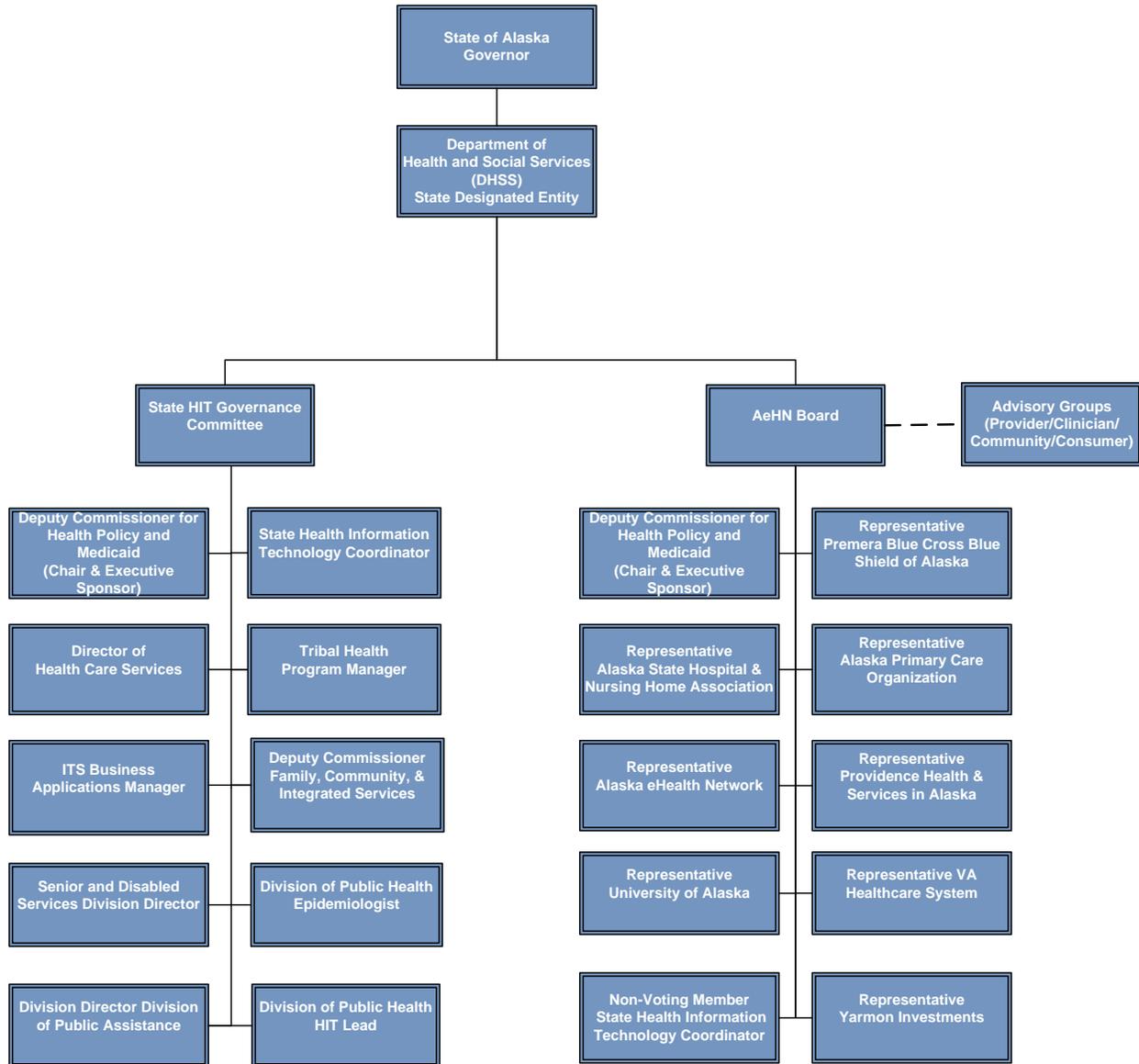
- **Flexibility**
Any safe and secure hardware or software can be used for health information exchange as long as it conforms to a Common Framework of essential requirements. The network should support variation and innovation in response to local needs. The network must be able to scale and evolve over time.
- **Privacy and Security**
All health information exchange, including in support of the delivery of care and the conduct of research and public health reporting, must be conducted in an environment of trust, based upon conformance with appropriate requirements for patient privacy, security, confidentiality, integrity, authentication, audit, and informed consent. Alaska will utilize the information gleaned from participating in the ONC national Health Information Security and Privacy Collaboration (HISPC) project to guide privacy policies and procedures.
- **Accuracy**
Accuracy in identifying both a patient and his or her records with little tolerance for error is an essential element of health information exchange. There must also be feedback mechanisms to help organizations to fix or “clean” their data in the event that errors are discovered.
- **Interoperability**
Interoperability of electronic health records will take into account the ability to move health information securely and utilizing national standards from a State HIE to a national HIE through participation in a Nationwide Health Information Network (NwHIN) when this service becomes available.
- **Meaningful Use**
DHCS as well as the Regional Extension Centers (REC) will require compliance with federal and state requirements established for the “meaningful use” of electronic health records when this criterion becomes available.
- **Leverage Resources**
The DHCS will leverage the existing resources that were developed through federal and private funding sources, including HISPC privacy and security policies/documents and Federal Communications Commission (FCC) broadband rollout.

3.2 Structure

AeHN conducted a review of more than 100 Regional Health Information Organization (RHIO) and HIE projects in other states to guide the structure and organization of the program. Special lessons were drawn from intensive study of sustainable models in states with needs and goals similar to those of Alaska. The structure for Alaska will consist of a State HIT Governance Committee composed of key staff from DHSS, particularly from DHCS, and the AeHN Board which is filled by volunteers from stakeholder groups as shown below. The State HIT Governance Committee will set the vision and direction for the State of Alaska. The AeHN Board will establish protocols for decision-making and communicating with SDE Executive Management, and soliciting feedback from its advisory workgroups. In addition to these boards there is also the general structure of the AeHN Operational team included in Figure 2 below.

Overall, this structure will create a health information organization that is consistent with federal and state guidance.

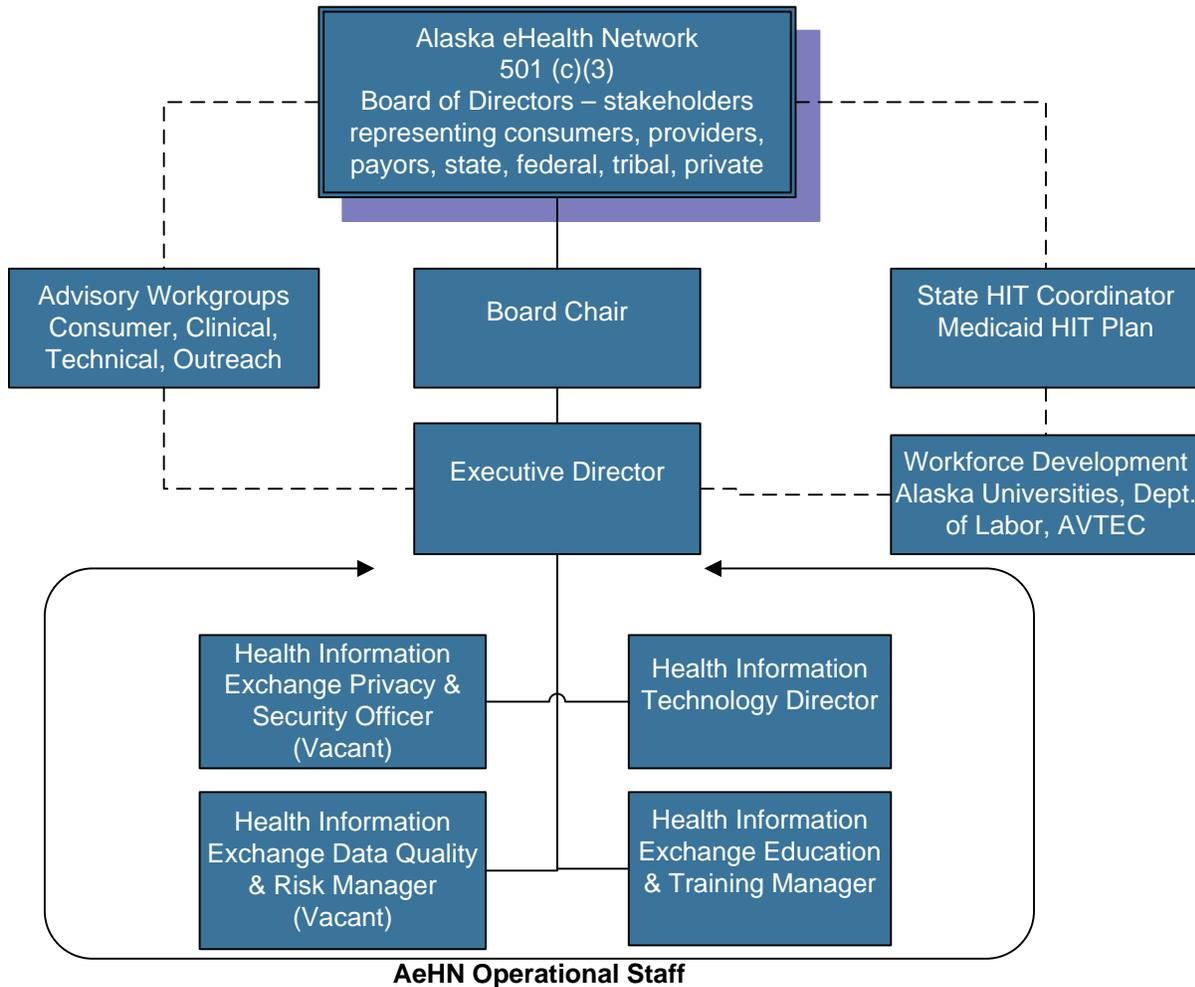
Figure 2: HIE Governance



AeHN will report directly to the SDE on HIE implementation and other activities as required by state and federal legislation. The Executive Director of AeHN and the State HIT Coordinator will work jointly to advance the use of connected health information technology and ensure meaningful use of electronic health records throughout Alaska. AeHN will provide data to SDE to ensure that the State Medicaid HIT Plan (SMHP) is implemented in line with CMS requirements.

AeHN's non-profit status will allow Alaska to solicit and optimize government subsidies, foundation grants and private donations as primary funding strategies during startup and initial operations for the Alaska HIE. Various subscriber fees will also be solicited, with emphasis on insurers, tribal entities and Medicaid as initial targets.

Figure 3: Alaska eHealth Network Board



3.2.1 HIT Governance Roles and Functions

The State HIT Governance Committee key roles and functions are:

- Executive sponsorship for the project
- Approve the overall project charter
- Set the strategic vision and direction for HIT



- Provide timely project direction to ensure DHSS business requirements and interests are represented
- Decision authority for major (>\$100k) change to cost, schedule, scope or resource allocation during the project
- Communicate and distribute information to DHSS, the Administration, and the Legislature
- Set project priority amount competing department level initiatives
- Review project progress by meeting with project director/manager, and contractors monthly against planned timeframes, specifically:
 - Review project status
 - Request changes to State regulations as necessary to support implementation
 - Ensure commitment of participants and all stakeholders
 - Ensure commitment of appropriate resources
 - Encourage and facilitate organizational change

Executive Sponsor key roles and functions are:

- Provides executive support and liaison to department executives
- Conducts monthly contract management meetings as required with vendor(s)
- Conducts quarterly executive review meetings with vendor
- Reviews progress and executive-level risks and addresses elevated project issues
- Reviews major scope changes and requests for contract changes
- Approves executive-level external project communications
- Oversees project budget and expenditures
- Reviews and decides management-level escalated issues, proposed major project scope changes and project risks

3.2.2 AeHN Board Roles and Responsibilities

The AeHN Board key roles and responsibilities are:

- Establish protocols for decision making and communicating with DHSS
- Solicit feedback from advisory workgroups
- Review and ratify operational structures
- Help DHSS develop strategic and operational plans
- Prepare and maintain all budget and oversee financial aspects of the Alaska HIE and report this data to DHSS
- Report all HIE implementation and other HIT activities to DHSS



- Will work jointly with the State HIT Coordinator and DHSS to advance the use of connected health information technology and ensure meaningful use of electronic health records throughout Alaska

3.2.3 State HIT Coordinator

The State HIT Coordinator, Paul Cartland, plays a critical role in the partnership between SDE, AeHN, NwHIN, ONC and Alaskan stakeholders. The State HIT Coordinator not only manages Alaska's HIT projects, but is also a voting member of the State HIT Governance Committee and is a non-voting member of the AeHN Board. The State HIT Coordinator will help communicate SDE vision for the State of Alaska and provide coordination between all stakeholders.

The State HIT Coordinator key roles and functions are:

- Approve project structure, coordinate project resources
- Manage project and project team
- Manage and review project status, budget, staff assignments and resource needs
- Provide status and other requested reports to the State HIT Governance Committee
- Report progress, escalate appropriate issues, and implement State HIT Governance Committee's recommendations/decisions/directives
- Communicate regularly with other DHSS project managers (e.g., vendor project managers, Deputy Project Manager, Independent Verification and Validation (IV&V) Manager)
- Coordinate communications between teams
- Oversee and monitor project progress by meeting with the project director/managers on regular basis to review assessment progress against planned timeframe; specifically:
 - Review the project status information in advance of meetings
 - Provide decisions, as needed, representing all system users
 - Monitor project milestone and deliverable progress
 - Provide approval/acceptance authority for sign-off at milestone/deliverable completion
 - Provide review and approval for detail scope, change, and issue management items, recommending required funding
 - Remove obstacles to the assessment progress, providing decision/resolution in cases of unrecognized issues
 - Provide recommendation/direction to project director and managers when project is at risk, off schedule, or out of scope
 - Administer issue and change request process
- Oversee project management processes (structure, plan, control, assess, report, and conclusion)

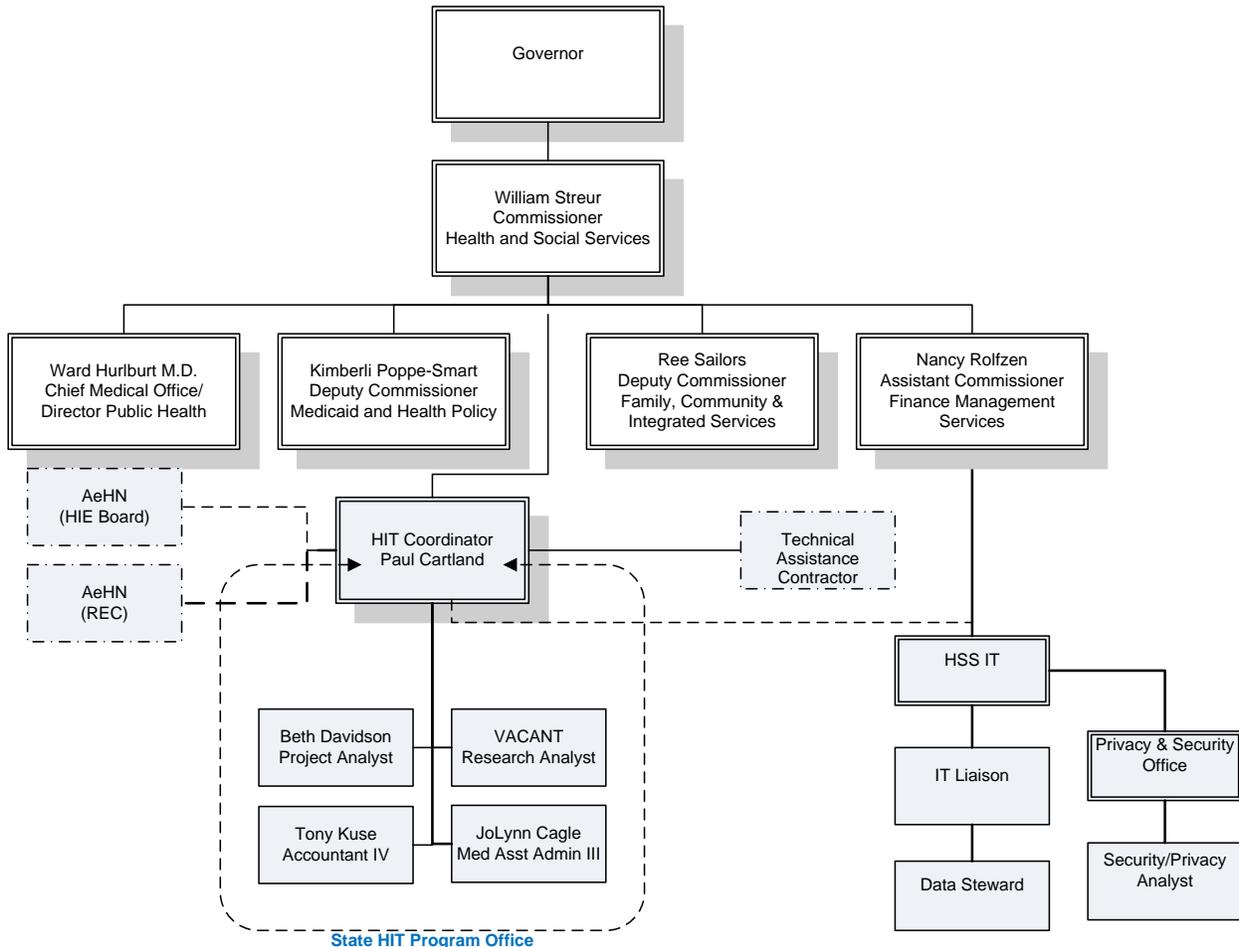
3.2.4 State HIT Program Office

The State HIT Program Office is managed and directed by the State HIT Coordinator. The State HIT Program Office will be actively involved with the EHR Incentive Payment Program, HIE program and product implementation and coordination and collaboration with state HIT projects.

DHSS manages the Medicaid EHR Incentive Payment Program for Alaska using resources located in the HIT Program Office (Office). The Office will support the review and approval of Provider Incentive Program requests by potentially eligible providers. The Office will also provide coordination and State-level oversight of the REC (AeHN).

The Office will oversee the activities of the AeHN Board of Directors and Executive Director and staff to ensure that the responsibility as the SDE is carried out in accordance with the expectations and commitments of the State.

Figure 4: State HIT Program Office



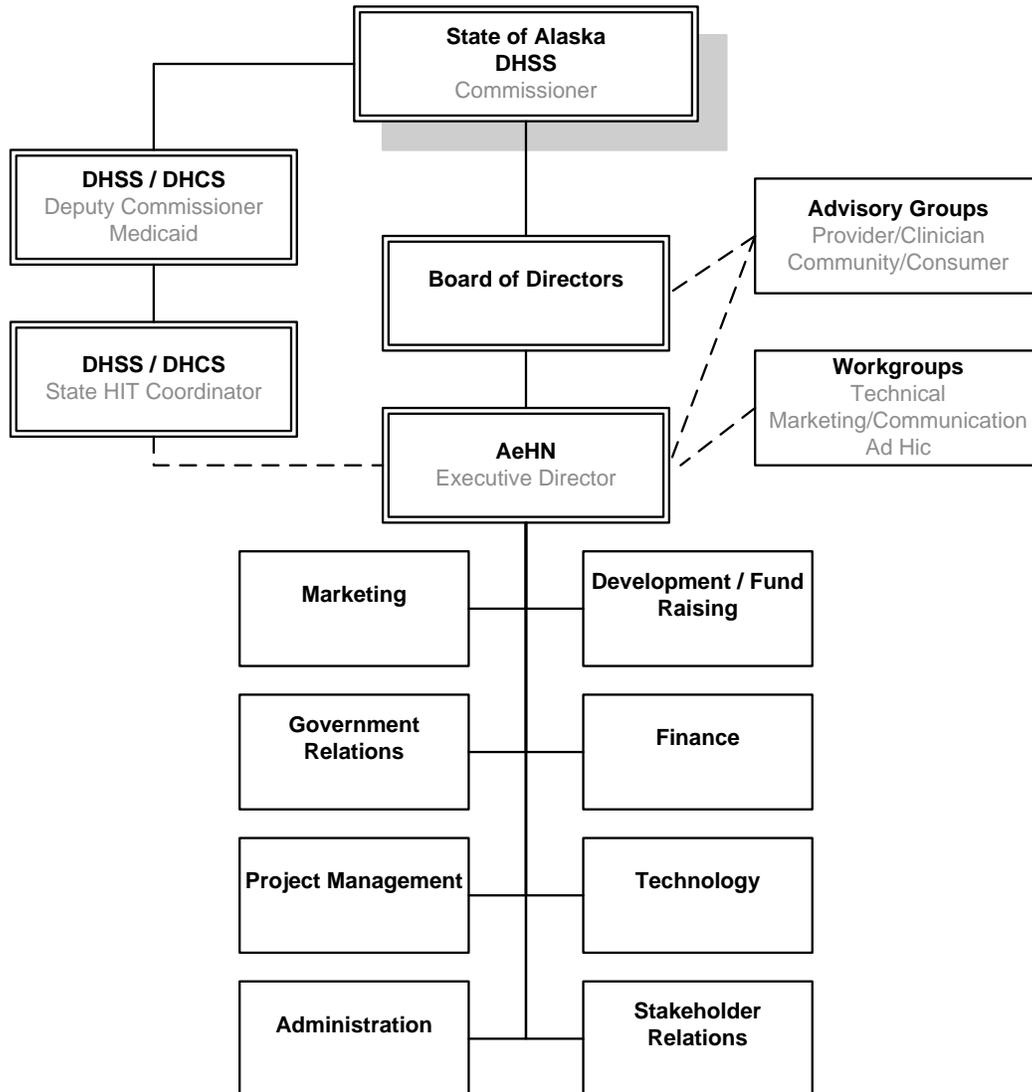


3.2.5 AeHN Organizational Structure

The Alaska HIE Governance Model describes a health information organization that is consistent with federal and state guidance. The Alaska HIE complies with Alaska not-for-profit regulations and is a qualified 501(c)(3) entity with a Board of Directors made up of key stakeholders from the community and health care leaders. Organization bylaws define the governance and set organizational policy. The organizational charter of the Alaska HIE reflects the mission and vision of the initial planning partners.

The Board establishes protocols for decision-making, communicating with the Alaska HIE executive management, and solicits feedback from its advisory workgroups. The Board has reviewed and ratified the operational structure illustrated in Figure 5.

Figure 5: State Designated Entity



Board positions are filled by volunteers from the stakeholder groups defined by Alaska Senate Bill 133 enacted as AS 18.23.310. The Board must include representation from each of the following areas:

- Commissioner, DHSS
- Hospitals and nursing home facilities
- Private medical providers
- Community –based primary care providers
- Federal health care providers



- Alaska tribal health organizations
- Health insurers
- Health care consumers
- Employers or businesses
- Non-voting liaison to the Board of Regents of the University of Alaska
- Non-voting liaison to the State commission established to review health care policy (AHCC)

The DHSS Commissioner is responsible for ensuring the AeHN board meets the requirements of the legislation. The Commissioner, or a DHSS Commissioner appointed representative, is a voting member of the board.

3.2.5.1 Decision-making Authority

The AeHN Board of Directors approves the budget and all major capital expenditures with specific level of authority designated to the Executive Director as determined and set forth within the bylaws.

The AeHN Board of Directors has hired an Executive Director to manage operations. The Executive Director is responsible for recruiting and staffing the operational positions, working with the Board to implement the strategic plan for the Alaska HIE, and leading the development and implementation of selected technologies and monitor daily operations. The Executive Director prepares and maintains the budget and oversees all financial aspects of the Alaska HIE.

The AeHN Board reports directly to the SDE and State HIT Coordinator on HIE implementation and other activities as required by state legislation. The Executive Director of the Alaska HIE and the State HIT Coordinator work jointly to advance the use of connected health information technology and ensure meaningful use of electronic health records throughout Alaska. Alaska HIE will provide appropriate health and provider data to the State HIT Coordinator to ensure that the SMHP is implemented in line with CMS requirements.

3.2.6 Advisory Workgroups

Advisory Workgroups have been convened from volunteers among the community and participating stakeholders to provide guidance and input to the AeHN Board of Directors (BOD). Alaska HIE Advisory workgroups are responsible for developing standards, policies and processes and providing guidance to the AeHN Board of Directors. Workgroup members have been recruited from AeHN member organizations. The formal structure and membership of the Advisory Workgroups are determined by the AeHN BOD.

Current and future advisory workgroups include:

- Consumer Advisory Group: This volunteer group is comprised of interested community members who review the guiding principles and services of the Alaska HIE and provide



feedback and suggestions that enable the Alaska HIE to gain the support of the community. Consumer engagement will ensure that the directions established are accepted by the community leading to a high adoption and utilization rate. This advisory group is the forum for community participation and feedback on content and services.

Responsibility/Focus Areas:

- Review and advise on all policies and procedures related to the confidentiality of the HIE clinical data and the privacy protection for patients
- Address HIPAA, State law requirements as well as other federal and State guidelines and initiatives, and public health data laws
- Recommend roles and responsibilities relating to protecting health information
- Recommend educational strategies to ensure consumer confidence in the HIE
- **Clinical Advisory Group:** This group is comprised of clinicians, health care leaders and payers who participate in the review of functionality, connectivity, standards, privacy and security, and provide feedback on the services and practices of the Alaska HIE for providers and their patient clients.

Responsibility/Focus Areas:

- HIE Functionality
- Portal Standardization

The SDE and AeHN will work collaboratively with additional workgroups involved in health information technology and health information exchange as needed.

3.2.7 Operational Workgroups

Operational Workgroup – AeHN has created several critical workgroups to assist in the operational management of the HIE. It is recommended that each workgroup be chaired by a board member. However, if that is not possible, the board of directors can delegate the chair authority to a director-level position within AeHN.

Legal Workgroup – This group is responsible for reviewing the policies and procedures as related to privacy, security, potential risk and compliance with federal and state legal requirements. The Legal Workgroup advises the Executive Director and the Board regarding issues related to potential risk to the organization and to DHSS.

Technology Workgroup – This group consists of members from key provider, clinician and stakeholder organizations. The Technology Workgroup works with the hardware and software vendors and AeHN staff to agree upon and publish information technology infrastructure specifications, connectivity standards, policies and guidelines. The Workgroup will also be a forum for joint resolution of issues and strategic thinking to recommend suggestions for improvements

Education and Communications Workgroup – This group would be responsible for the coordination and communication between AeHN, DHSS and the HIE partners on consumer



engagement, strategy and operational issues. This Workgroup is one of the primary drivers for a coordinated message to multiple stakeholders. The Group will also recommend strategies that promote awareness, understanding and interest in EHRs and HIE among providers, patients and other consumers.

3.3 2012 Governance Update

In the preceding sections, the organization charts have been updated where necessary to reflect changes in the individuals in key roles. Vacant positions have been updated as well.

Additional members have been added to the State HIT Governance Committee to reflect organizational changes within the DHSS and expanded emphasis on HIT activities.

Updates to the names of advisory groups and committees have been updated to reflect committees currently in place based upon the AeHN website.

4 TECHNOLOGY

4.1 Overview of Alaska Approach

The SDE's technical infrastructure will support Alaska's HIE vision and objectives. SDE and AeHN will be collaborating and using resources from NwHIN; management information systems such as the Medicaid Management Information System (MMIS) and Division of Public Health (DPH) immunization and disease reporting systems; Department of Defense (DoD); Department of Veterans Affairs (VA); and other stakeholders to implement the Alaska HIE and ensure that appropriate standards and certifications are met. This relationship will facilitate communication and marketing between all stakeholders, allowing Alaska to implement a quality HIE that incorporates master patient indexes, data registry, data translation and interoperability services to not only ensure meaningful use of electronic health records, but also improve health care outcomes for all Alaskans.

Figure 6: Statewide Technical Architecture



HIE vendor demos started the week of August 30, 2010. There were many demo evaluation participants who scored each demo. Evaluation participants were a mix of DHSS staff, DHCS staff, AeHN staff, providers, hospital representatives and other stakeholders. Evaluation participants were expected to score each demo, but participants' scores only count if they attended and scored every demo session. A smaller group of stakeholders, a proposal evaluation committee, reviewed all evaluation scores and determined two vendors that were recommended to the AeHN Board for final selection. At this point in time, the AeHN board has begun negotiations of a contract with the final selected HIE vendor. Once an HIE vendor contract is signed, the technical infrastructure section of this plan will be updated accordingly for the vendor's specific architecture.

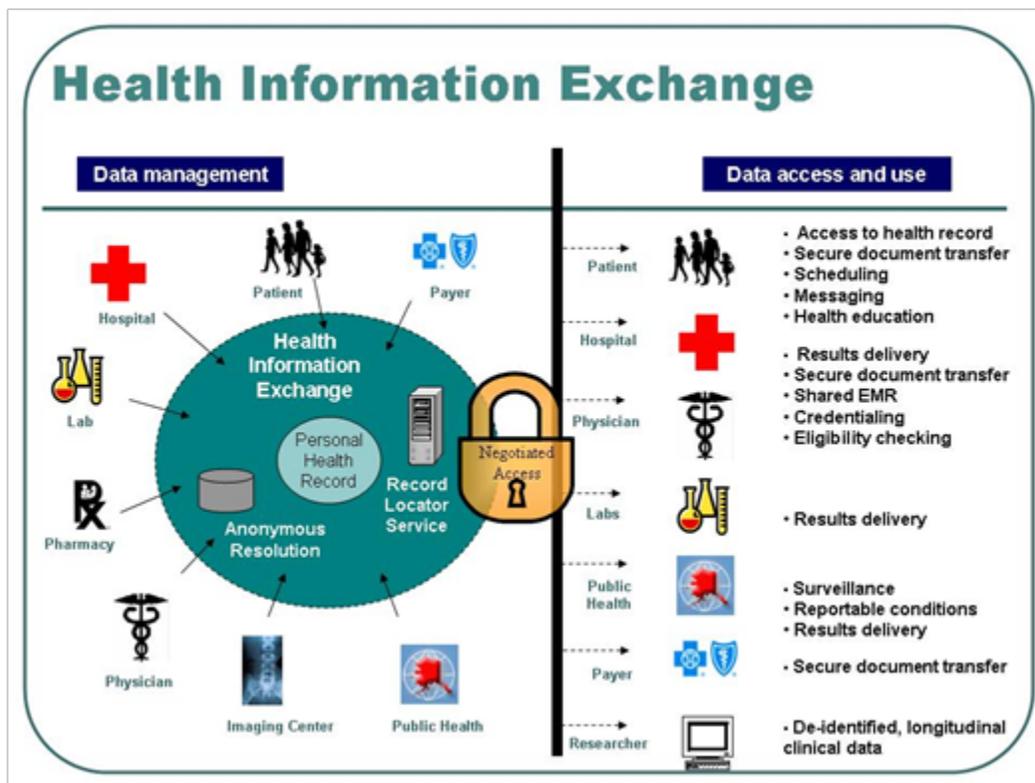
4.2 Technology Architecture

Core HIE services are intended to provide the primary infrastructure that supports:



1. Enterprise Master Patient Index (MPI) secured through anonymous resolution or other encryption algorithm, uniquely identifying the correct patient, ensuring that access to the right information about the right patient is correct, thus increasing confidence in the exchange capability. This allows Alaska HIE participants to search for a specific patient's records at another facility commensurate with appropriate patient and other required approvals.
2. Health Information Exchange (HIE) messaging service, which transfers medical information, provides for authorized inquiries and receipt of medical information utilizing an interface engine or other mechanism for data translation. For authorized Treatment, Payment and Operations (TPO) functions, the HIE will connect providers anywhere in Alaska to the necessary health data defined under the Health Insurance Portability and Accountability Act (HIPAA) wherever it may be located. This service would automatically support electronic medication reconciliation and patient demographics, for non-TPO HIE. The HIE will support transfer of health information to authorized recipients based on consumer consent (Alaska Senate Bill 133 requires an opt-out default). The HIE can push or pull data.
3. An audit trail which ensures all transactions will be completely auditable and reportable, and provides reports to any data owner on request.
4. A privacy management function which supports the ability for consumers to determine which providers and payers can access personal health care information. The privacy management function will also be used for the consumer to make choices about other data functions.
5. Composite record viewing which provides software to temporarily view or print patient composite information for participating organizations which do not have an EHR that can provide this service. Patient information summary application will be based on the Continuity of Care Document (CCD) which presents combined and/or juxtaposed information from one or more source of patient information.
6. Secure Data Repositories which will allow Alaska HIE participants to receive, accumulate, and analyze information about their beneficiary population based on HIPAA and other applicable laws.
7. Secure messaging capability from various types of organizations including: providers, payers, vendors, and public health workers to individuals based on preferences and health status.
8. Electronic Prescribing which is a recognized solution for reducing medication errors. The Alaska HIE solution will allow providers to utilize ePrescribing and medication reconciliation.

Figure 7: HIE Overview



4.3 HIE Technical Components

Clinical Portal

A modern, secure web-based physician portal is the foundation of an HIE. The Clinical Portal ensures that the right information is accessible by the appropriate users at the right time by providing a single point of access to a unified view of patient information across the organization. Depending on the clinician's role and place of work, this can include patient records and medical histories, laboratory and radiology results, ECG/EKG data, medication records, and any other applications that have been integrated into the portal.

The Clinical Portal includes world-class privacy and security standards for effective health information exchange while still protecting the patient's right to privacy.

Integration Engine

The Integration Engine combines powerful messaging capabilities with a simple and easy to use interface, which means HIT administrators can quickly and easily create interfaces with new health care organizations, agencies and national programs.

The Integration Engine standards based technology enables it to integrate existing information systems within an organization, without the costly need to replace, as well as being able to



connect to other regional networks such as the Centers for Disease Control and Prevention (CDC), Medicare and private laboratories.

Clinical Data Repository (CDR)

The CDR is a data repository designed specifically for the health care industry. It enables the creation and maintenance of a secure, single patient record that can be securely accessed and updated by hospital clinicians and administrators and authorized external parties like primary care providers, insurers, social services agencies and specialist consultants. The data repository is maintained separately from the Enterprise Master Patient Index (EMPI) and Record Locator Service (RLS) to add an additional layer of security.

Enterprise Master Patient Index (EMPI)

The EMPI solution embeds Initiate Systems Catalyst EMPI application, which includes two major software components: Initiate Catalyst Platform and a prebuilt patient registry used to solve a variety of identify management needs and founded upon Initiate's heralded algorithm matching excellence. The EMPI delivers single, trusted and complete version of records in real-time and enables users to obtain a complete and accurate view of all data associated with persons, objects, locations and events.

Health HIE Module

A typical HIE is comprised of many individual systems sharing clinical information. In order for these systems to communicate efficiently, an HIE relies on systems using trusted data exchange standards. These systems are increasingly communicating summaries of clinical data in a CCD format, as described by Certification Commission for Health Information Technology (CCHIT), Health Information Technology Standards Panel (HITSP), HIE and "meaningful use" criteria.

The HIE module supports bi-directional document exchange in CCD-format as a way to integrate with EMR/EHR, Personal Health Record (PHR), and ePrescribing systems throughout the HIE

The CCD contains the most relevant administrative, demographic, and clinical content about a patient covering one or more health care encounters. Clinicians can use a CCD message to quickly and easily share key patient summary data with each other, with other systems, and with the patient. This allows the next health care provider to clearly understand what is known about the patient, and what care has already been given. This knowledge can help to improve the care of the patient by reducing redundant or unnecessary clinical care.

Notifications and Subscriptions Module

Notifications and Subscription Management is a key feature of the HIE solution that enables real-time alerting in response to information flowing through the HIE. With patients visiting multiple health care organizations throughout their community, it is important to keep authorized clinicians informed about the patient's ongoing care and treatment regardless of where they are in the system. Notification tools allow the HIE to distribute relevant alerts and clinical information while still keeping the providers in control. At its core, notifications is a subscription and delivery engine specifically targeted for the HIE.



Users can subscribe to pre-defined events such as a hospital admission and subsequent discharge, or finalized laboratory results available for review using the Clinical Portal. As messages flow through the HIE, they trigger alerts, messages, or document exchanges delivered to a portal messaging inbox, e-mail account, iPhone, or an EMR system.

The notifications tools improve efficiencies allowing for better clinical outcomes and reducing health care costs by ensuring that each provider has access to a comprehensive dataset when treating the patient.

4.4 Interoperability

The key components of interoperability include:

Record Locator Service (RLS): The Alaska HIE provides a record locator service independent from each institution's clinical databases. The RLS serves as a type of proxy for patient demographics and accurate record linking across all institutions in the region. RLS standardization enables health care applications to use an interface application to identify, access, and use disparate terminologies. For cost efficiency, there will be one RLS which holds the universe of records that can be queried using the RLS service. The lack of clinical data at the RLS protects the RLS from theft of clinical data, and allows interactions to be optimized for a single, simple case.

The RLS participates in two types of transactions. First, the addition, modification, or deletion of listed patient record locations from the entities that store patient data and second, requests for information about a particular patient from entities that want those locations.

All transactions to and from the RLS are logged and audited. The RLS must have a valid SSL certificate, and may only communicate with requestors who support encrypted web communications (https). The RLS is designed to take a query from authorized users in the form of demographic details. The RLS supports synchronous queries where the data is returned in a single round trip and asynchronous queries where the data is delivered in a new session some time after the original query.

Anonymous Resolution: Larger health care institutions operate a Master Patient Index to keep track of patients and their records. When more than one institution in a region participates, multiple problems arise with matching patient records. Anonymous resolution provides matching algorithms necessary to join individual patient records and minimize incidental disclosure (presenting a false match) while protecting the identity of the patient through encryption. A "Break the Glass" procedure in which a physician or other inquirer can request an emergency exception to allow examination of records below the minimum probability level requires authorization and review.

Messaging Services: All message senders/receivers are authorized and authenticated. All messages are signed, encrypted actively acknowledged or rejected by the receiver in real time. All messages must meet conformance tests for use case specific standards that can support the exchange of clinical information between disparate information systems capable of different levels of interoperability.



Interfaces to Legacy and EHR Systems: The Alaska HIE maintains a logical separation of clinical from demographic (identifying) data. The RLS itself does not hold clinical data or metadata. All clinical data is controlled by the entities that created the data, or who hold copies because they provide patient care. In order to provide interoperability of health data between disparate systems, it is necessary to maintain interfaces and an interface engine for compatible data transfers.

Data storage: The technology design of the Alaska HIE assumes that the clinical data itself may be served from cached or other copied versions of the "live" clinical data. The RLS also assumes that it is acceptable to centralize the physical storage of this data, to control costs and guarantee service levels. However, the data itself is controlled by the providing institution which functions as the authoritative data source.

Centralized Servers: The SDE, State HIT Coordinator and AeHN understand that not all providers participating in HIE will choose to maintain the infrastructure necessary for interoperability. For these circumstances the Alaska HIE provides a centralized server that collects data from the EHR location site as needed. The hosted clinical data is segregated from the RLS for security purposes.

Network Connectivity: The combination of increased size and heterogeneity of Alaska's health care networks is making inter-network management extremely difficult. The AeHN and the Technology Work Group are working on standard protocols for all network devices, identify peering standard and design a common platform for connectivity to a statewide health care network.

Auditing and Reporting: An audit log is maintained of all entities that have published records on behalf of an individual patient and all users that have received record locations in response to requests regarding an individual patient.

4.5 HIE Standards

A statewide, stakeholder representative Technology Committee provides oversight in the selection of standards utilized by the HIE. The committee is guided by the NHIN interoperability standards and will develop a reference table of standards which may become part of the reference table. Current standards that may be included in the reference tables include:

- Message Standards – Health Level 7 (HL7)(2.5.1,2.5.x etc.), Extensible Markup Language (XML)
- Document Standards – CCR, CCD
- Language Standards – LOINC, SNOMED® (Systematized Nomenclature of Medicine), International Classification of Diseases and Related Health Problems, Ninth and Tenth Revision (ICD-9, ICD10), RxNorm, National Council for Prescription Drug Programs (NCPDP)



SDE, State HIT Coordinator and AeHN participants have been engaged in previous ONC funded efforts to encourage standardization of HIT. During the HISPC, Alaska participated in the exchange of CCD records between private providers utilizing message and document standards established by HITSP.

The HISPC project also provided an opportunity for the AeHN to develop policies and agreements for health data transactions based on Data Use and Reciprocal Support Agreements (DURSA). These agreements were trialed across multiple state settings during the project. The SDE, State HIT Coordinator and AeHN will follow future actions of ONC to ensure that policies continue to meet national guidelines

4.6 2012 Technology Update

Since the Alaska Strategic and Operational plans were approved in 2011, AeHN has contracted with an HIE vendor, completed a pilot HIE integration and implemented Direct Secure messaging to support the exchange of referrals, clinical data and CCDs among over 300 Alaskan providers. In addition, the State of Alaska IT department has identified a solution to connect the State's HIT systems to the HIE product. The sections below describe these technical accomplishments in more detail.

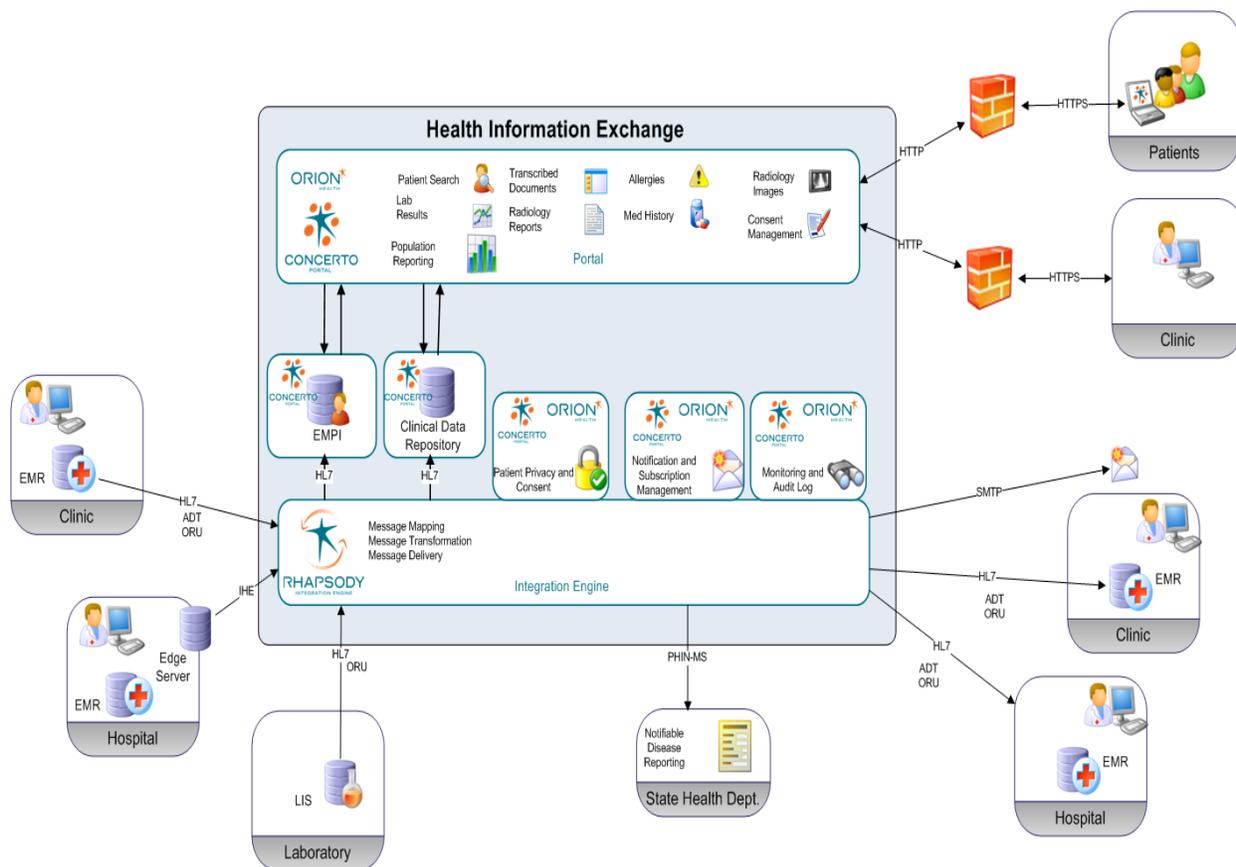
4.6.1 HIE Implementation in Alaska

The Orion Health information Exchange Solution is the selected HIE vendor for Alaska. Orion Health provides a centralized HIE model that allows facilitates the Exchange of clinical data between care givers. Orion supports syntactical and semantic mapping of clinical data resulting in standardized, "analytically ready" data that is presented in common clinical nomenclature for clinicians. The Orion system also supports the creation of Continuity of Care Documents (C32) that allows the bi-directional sharing of either encounter-based or patient summary CCDs. The current implementation of the Orion HIE includes the following components:

- Orion HIE Security Module
- Orion HIE Authorization Module
- Orion Rhapsody Interface Engine
- Orion Master Patient Index and Record Locator Service (RLS)
- Orion Centralized Data Repository
- Orion Concerto Clinical Viewer

Within the Orion Concerto Clinical Viewer, clinicians will have the ability, once the Orion Direct Implementation is completed, to push CCD documents using the link to the Direct Secure Messaging to other participating providers.

Figure 8: Alaska eHealth Network Health Information Exchange (HIE) Solution*



Copyright © 2010 Orion Health Inc. used with Permission

Orion Health has set up a development, production and testing environment to support the implementation of the statewide HIE. In summer 2011, Orion Health, AeHN, two clinics and one hospital in Fairbanks, Alaska, conducted a pilot of the HIE on boarding process. Data from the clinics and the hospital was evaluated and loaded into the HIE clinical repository. Interfaces for these facilities were developed and tested supporting the following Health Level 7 (HL7) messages:

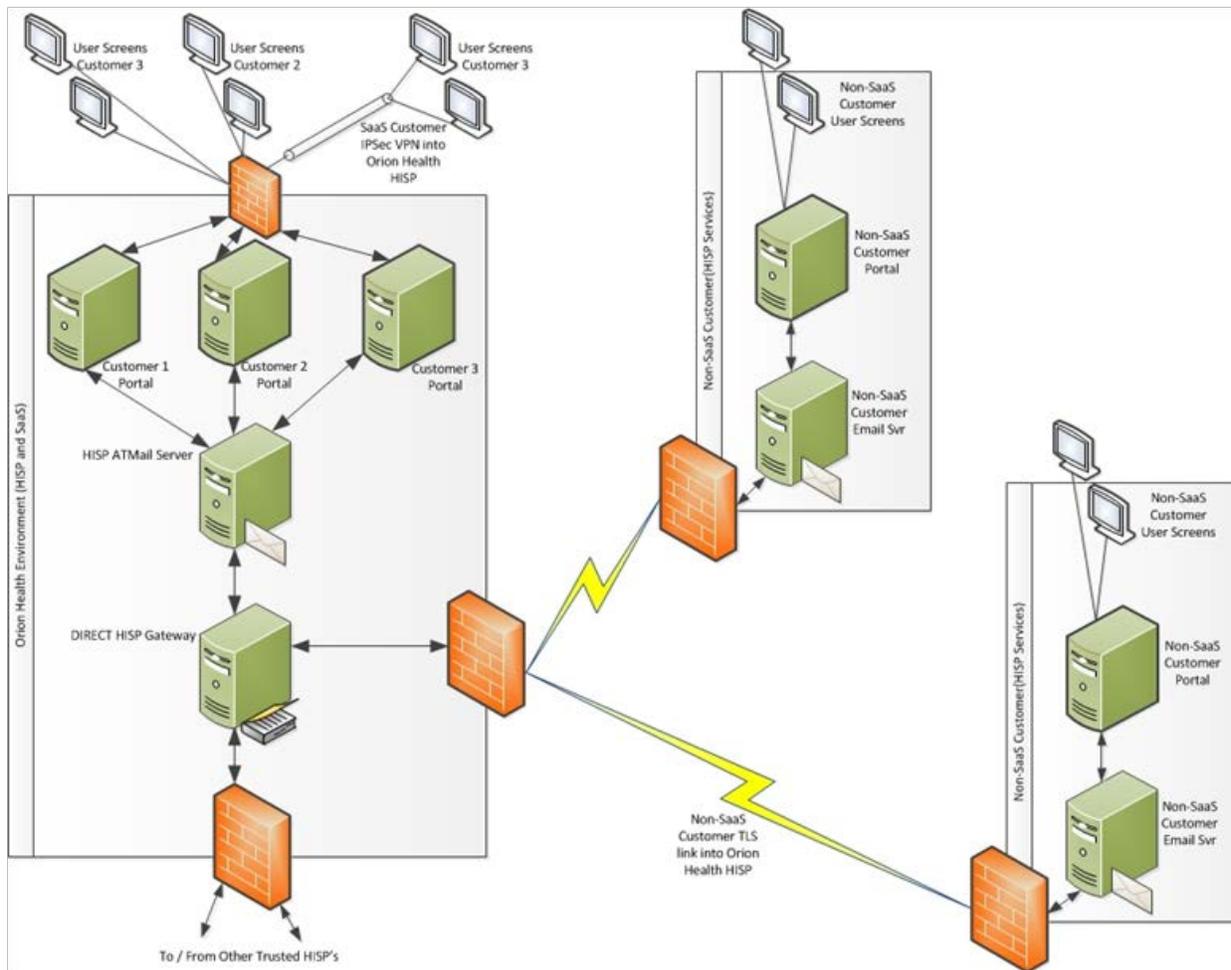
- Admit discharge transfer (ADT)
- Observation result (Unsolicited) (ORU)
- Pharmacy/treatment encoded order (RDE)
- Scheduling information unsolicited (SIU)

Further HIE implementation activities were placed on hold in November 2011 to focus on the Direct Secure Messaging implementation.

4.6.2 Description of Direct Messaging Service Implementation

In order to reduce implementation risks and promote rapid clinician adoption of the Direct solution, Alaska has selected to implement the HISP independent of the current Alaska HIE. The selected Alaska HISP vendor, Orion Health, has completed the initial the implementation of the HISP. The initial implementation of the Direct architecture, depicted below in Figure 9, allows trusted users to exchange secure messages containing referrals, clinical data and CCDs.

Figure 9: Alaska Direct Messaging Service Implementation



Originally, Orion Health had proposed to support the Direct messaging service through a partnership with MaxMD. Orion Health discovered technical limitations with this approach and evaluated alternatives, working directly with the ONC and other HISP organizations. The agreed-upon alternative approach is that Orion Health has become a self-managed HISP for DIRECT services and no longer deploys a partner for the secure communications. The Orion Health HISP has incorporated the DIRECT project open source software and, as such, is now a certified HISP with the ONC. In addition, the new implementation of the Orion Health Direct



product will improve the capability to track and report on usage, and simplify the management of Portal Users and DIRECT users.

DHSS is also evaluating through limited pilot use of Direct Secure Messaging (DSM), ability to replace the “YouSendit” functionality. DSM provides full encryption of the message and the payload, where “YouSendit” encrypts only the attachment.

4.6.3 State of Alaska HIT Systems Integration with HIE

The State’s objectives for the HIE Program is described as: “Widespread access to an Alaska-wide Health Information Exchange (HIE) system that improves quality, safety, outcomes and efficiency in health care by making vital data available to patients, providers and payers when and where they need it.”

In order for Alaska to realize the state objectives, the State’s health systems must connect and exchange data in an integrated and secure fashion. Currently, the State systems that can provide the data needed to support Alaska’s HIE goal are isolated systems with little to no interoperability. To achieve Alaska’s goals, the following State systems need to be integrated with the statewide HIE solution.

- The Master Client Index (MCI)
- The MyAlaska.com portal, providing citizen authentication
- The Master Provider Index (MPI), planned by the State, but yet to be implemented
- The Laboratory Information System (LIMS) supporting the State Labs
- AK-STARS, the public health disease reporting system
- VacTrAK, the public health immunization registry

Alaska has closely examined several options for how to integrate the state systems and the HIE solution. Based on the options, Alaska has determined to move forward with connecting the disparate state data systems through an independent Interface Engine (IE) using Microsoft BizTalk. This will allow Alaska to create an independent hub for orchestration, routing, and transformation of data.

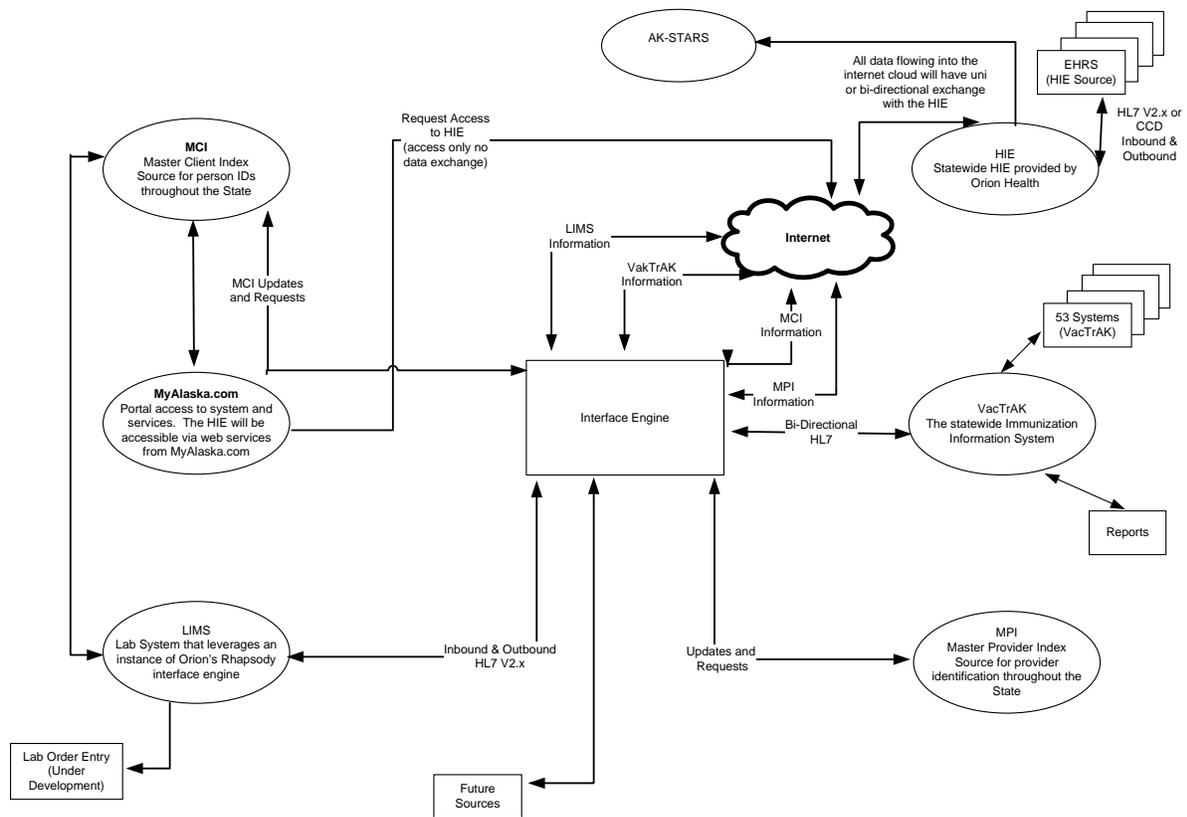
Benefits to Alaska for using this approach:

- Allows Alaska to leverage existing DHSS IT knowledge base and staff by using the State’s BizTalk I/E (a separate instance than that used in the Orion HIE infrastructure). Alaska has current experience with BizTalk and has staff experienced in the implementation of the product.
- Ensures independence from any particular state system. It provides a single point to manage all interfaces and all translation and transformation functions, without having to rely on the capabilities of individual components.
- Ensures independence from the HIE infrastructure and the support issues. The State, therefore, manages priorities for creating and maintaining interfaces to State components.

- Leverages the power of the Interface Engine to provide connectivity and support message exchange with

The following diagram depicts the Logical Architecture of the Interface Engine implementation for Alaska:

Figure 10: State of Alaska HIT Interface Engine Logical Architecture



Alaska plans to develop the Interface Engine technical implementation in 2012, beginning with the components that support providers to become Meaningful Users of HIT.

4.6.3.1 Master Client Index Expansion

One of the key integrations for this phase of the project is the integration of state systems with the Master Client Index (MCI). Alaska is in the process of building a comprehensive Master Client Index. Alaska has already implemented the Visionware-Multivue product as the core technology of the MCI. Multivue provides a proven MCI solution and is currently implemented as part of the HIE solutions for Alabama, Kentucky, and Wyoming. Alaska, like other states, has multiple databases and programs that track, store, and provide information about individual citizens. Each of these systems has their own exclusive set of data elements used to uniquely identify citizens. Each system also has a methodology for collecting demographic data, and



standards for data quality, which often makes it difficult to uniquely and correctly identify the individuals (patients) across disparate systems and create a “holistic” comprehensive view of individuals, the services they receive, and their needs. Additionally, individuals often move, change names, or have a number of life-changing events that occur, further complicating efforts to accurately combine information about a given individual.

Alaska is in the process of integrating multiple data sources, demographic information, and client identifier information from multiple systems. The MCI will integrate across a number of Alaska programs and systems, including the Medicaid Eligibility Information System (EIS), Department of Justice Management Information System (JOMIS), Online Resource for the Children of Alaska (ORCA), the Permanent Fund Dividend (PFD), and Alaska Behavioral Health and Substance Abuse System (AKAIMS), to name a few. This approach supports the HIE efforts, with a broad, common view of an individual client and a strong basis for uniquely identifying individuals.

The next step in this process is to link several key state Public Health databases to the MCI solution, including:

- Alaska LIMS
- VacTrAK
- AKStars

While other State IT assets will also be considered for future MCI integration, these three systems have been given priority in order to support the ability of providers to become meaningful users of certified electronic health record technology. Integrating these systems into the MCI will support tracking of public health measures as well as address the mandates from ONC to address laboratory interoperability and electronically updating immunization registries. Alaska feels that moving forward with the integration of these systems into the MCI is a high priority for the expansion of the Alaska HIE.

4.6.3.2 Alaska LIMS

The Alaska Lab Information System is a Chemware product. The State has developed a provider portal that will soon be available for providers to submit orders and receive results. Integration with the HIE would allow providers to order labs and receive lab results electronically through HIE from an EHR, providing an improvement over the portal solution for providers with an EHR solution. Currently one provider has access to the portal.

4.6.3.3 VacTrAK

VacTrAK, the Alaska Immunization registry is a Scientific Technologies Corporation (STC) product. VacTrAK is capable of sending and receiving HL7 messages. Currently, a number of Alaskan providers have point to point interfaces with VacTrAK to manage immunization records and vaccine inventory. An important benefit to future Alaskan HIE users is to understand patient immunization “status” and submit required immunization records to the State registry. In addition to reducing the burden on individual providers, patients could rely upon CCDs to contain up-to-date immunization records, rather than maintaining paper records.



4.6.3.4 AK Stars

AK Stars is also an STC product; AK Stars receives reports of State-required disease reporting. Integration between Alaska LIMS and AK Stars automates State-required disease reporting for lab results identified within the State labs. The solution leverages Rhapsody to route transactions to AK Stars and the CDC. Integration of AK Stars with the HIE would reduce the burden on providers to support separate reporting.

4.6.4 Western States Consortium

The Pacific Northwest Health Policy Consortium (noted in the Strategic Plan Section 5.8 page 56) was unsuccessful in its grant proposal. The group was renamed the Western States Consortium and a new proposal was submitted in August 2011. The group plans to work across multiple states to overcome policy challenges to the exchange of health information between states. Delegates from Oregon, California, Arizona, Hawaii, Utah, Nevada, Alaska, New Mexico and the Indian Health Service intend to focus on the practical and technical barriers to ensuring the privacy and security of interstate exchange, with a particular focus on using and possibly combining at a regional level, state-level provider directories and trust services, to promote privacy and security and facilitate interstate exchange.

The Western States Consortium has developed mutual agreements that will enable a common provider index definition, supporting future exchange among the participating states. All states in the group are collaborating on the definition; California and Oregon are expected to pilot the shared directory in 2012; the remainder of the states will follow.

5 FINANCE

5.1 Current Funds at 2010

Funds estimated to be available at 2010 through 2013 included:

- \$3.6M, ONC Regional Extension Center – EHR assistance for providers
- \$3M, HIE for State of Alaska – Provides interoperability for providers
- \$10M, FCC Rural Health Care Pilot – Provides network connectivity to rural and urban non-profits

On April 6th, 2010, AeHN received \$3,632,357 from the ARRA to establish one of 60 nationwide health information technology RECs.

5.2 Background

The primary challenge for most HIEs across the country is developing and implementing strategies to achieve financial sustainability. Many HIEs have successfully obtained initial grant funding to initiate their projects, but grant funding is not a long-term solution for HIE financial sustainability. Recurring revenue streams must be developed to operate and grow HIE services. Generating a reliable revenue stream is dependent on demonstrating value and benefit to stakeholders and users.



Since HIEs are essentially still in the early stages, the incidence of documented return on investment generated by a HIE is still limited. On the other hand, a large body of research indicates that HIT can dramatically reduce health care costs. Stakeholders must collaborate to jointly define and assess the potential value created by the Alaska HIE. This value assessment will guide development of an appropriate fee-based model to generate sustainable revenue for the Alaska HIE.

The AeHN in collaboration with the SDE and State HIT Coordinator will continue its work to identify long-term funding to become the neutral entity that creates and operates HIE between key stakeholders.

The eHealth Initiatives – Connecting Communities Toolkit defines the following Common Principles regarding finance, incentives, and values obtained from HIE:

1. The HIE functions selected by community-based entities will be the decision of each individual community-based entity following a thorough evaluation of community-based needs and opportunities for health and health care efficiency improvement on a local level. The expectation when choosing these functions is that the entire community will eventually participate.
2. HIEs will need to rely upon a sustainable business model for survival. The sustainable business model will be built upon a combination of prudent resource management and revenues contributed by the stakeholders who benefit from the health benefits and efficiency improvements of the HIE.
3. Incentives—either direct or indirect—are defined as upfront funding or changes in reimbursement to encourage and acquire and use HIT. In order to be effective, incentives—either indirect or direct—should:
 - Engage key stakeholders in the development—payers, purchasers and clinicians
 - Focus on quality and performance, improved patient health outcomes, the HIT infrastructure required to support improvements and efficiencies, and the sustainability of HIE within communities
 - Reward the use of clinical applications that are interoperable, using agreed-upon data standards and over time require that the interoperability of such applications be leveraged
 - Avoid reductions in reimbursement that would have the effect of discouraging providers from acquiring and using HIT
 - Address not only the implementation and usage (not purchase) of HIT applications but also the transmission of data to the point of care
 - Encourage coordination and collaboration within the region or community
 - Seek to align both the costs and benefits of HIE/HIT and be of meaningful amounts to make a positive business case for providers to invest the resources required to acquire and use HIT for ongoing quality improvement
 - Transition from a focus on reporting of measures that rely on manual chart abstraction and claims data to measures that rely on clinical data sources and



connectivity of standards-based, interoperable HIT applications at the point of care

These principles provide the framework for the development of a sustainable business model for the Alaska HIE.

5.3 Building and Sustaining Health Information Exchange

Support in varying levels will be sought from foundations, investors, state and federal agencies, tribal entities, consumer organizations, businesses, members of the AeHN Steering Committee (hospitals, employers, insurance companies, and the State Health Commission), physicians, and other caregivers. Sources of funding for a HIE can be segregated into two main categories:

1. **Partner Funding:** Partner funding includes grants and donations generally provided one-time or as a lump sum. Contributions may be monetary or in-kind. Sources are government agencies (both federal and state) and philanthropic entities (foundations, etc.).
2. **Ongoing Fees**
 - a. **Transaction Fees:** Transaction fees are charged based on usage (user logins, pages viewed, etc.). In order to implement transactional fees, sophisticated tracking mechanisms must be implemented to support billing. Transaction-based fees may discourage usage because fees increase with usage. Organizations experiencing budget constraints may discourage HIE usage, thereby decreasing the effective value of the HIE service.
 - b. **Subscription Fees:** Subscription fees are a very straightforward approach to generating revenue and represent a manageable and preferred alternative. Subscriptions do not discourage usage since fees charged are independent of utilization. Subscription fees are challenging because they require a good understanding of startup and operating costs. Developing a fair distribution of fees across various users must be aligned with the benefits those users will receive in order to cover HIE costs.
 - c. **Consumer Fees:** With consumers assuming more and more of the financial burden related to their health care, they are becoming increasingly more intent on also managing their health care information. Personal Health Records are gaining momentum as part of this increase in health care consumerism. Additionally, consumer access to a HIE may encourage new features that allow consumers to define which health care providers may query their records. Increased access to clinical records by lay consumers will also require transformation of those records into terms more understandable to the general population. Consumer fees may be paid directly by consumers or be partly or fully subsidized by employers and payers (including the government, e.g. Medicare and Medicaid)

5.4 Funding Strategies

The initial State Cooperative Agreement Strategic Plan identified a set of funding strategies including partner funding and ongoing subscription and transaction fees. The plan to develop a



Sustainability Plan will review these strategies and ensure that there is alignment between the funding strategies, the HIE functionality and the participants' ability to support the fee structures. While the funding strategies described in the initial Strategic Plan are expected to be validated, the Sustainability Plan resulting from the expanded effort will contain additional detail in addition to renewed commitment from the stakeholder groups.

5.5 2012 Finance Update

Current Funds

Current funds planned to be available to the Alaska HIE program through 2014 include:

- \$4,963,063 ONC State HIE Cooperative Agreement Program Grant Award
- \$2,727,500 State of Alaska appropriation for HIE
- \$1,200,000 State of Alaska HIE Program Appropriation, SFY 2012
- \$3,300,000 State of Alaska HIE Deployment appropriation SFY2013

The Sustainability Plan for the HIE Program as well as the HIE implementation in Alaska are under development. A detailed discussion of this plan and expectations of the plan are included in Section 9 of this document. Revenue projections from membership, subscription and other fees will be adjusted with the revision and approval of the Sustainability Plan.

The State of Alaska and AeHN are in the process of renegotiating their contract; the negotiations are expected to be completed in May 2012. The contract between Orion Health and AeHN may also require revision based upon the outcomes of the process to define the program's Sustainability Plan. Each of these activities may impact the program's operational budget. However, the specific revisions are unknown at this time.

6 BUSINESS AND TECHNICAL OPERATIONS

6.1 Preparatory Activities

Statewide initiatives that will be leveraged for the operations of the Alaska HIE include:

- *Activities of the HIT REC* – to assist providers in the selection and implementation of electronic health records (EHRs), work flow redesign and ongoing support to ensure meaningful use of EHRs
- *Denali Commission Broadband Mapping and Access Project* - to identify broadband funded efforts and to identify gaps in broadband coverage
- *Federal Communications Commission (FCC) Rural Health Care Pilot Project* – to connect disparate health care networks across the state including rural networks and non-profit urban networks, and provide Internet 2 connection for broadband link to Continental U.S. state health care entities
- *University of Alaska HIT Program Expansion* – to prepare and train workforce for rapid deployment and use of EHRs



- *HISPC* – to address federal and state issues related to security and privacy of health information when utilized in electronic health records and transferred via a health information exchange network
- *HRSA Technology Grant* – to provide health information exchange pilot for Alaska Native serving entities
- *Health Information Exchange Request for Information* – to identify interested vendors and current solutions and to inform the Request for Proposal to select an HIE Vendor
- *Master Patient Index (MPI)* – to identify and authenticate patients records across the state

The State of Alaska DHSS has selected AeHN to manage the Alaska HIE and will provide funding to continue the development of an HIE infrastructure. Private funds have also been secured to develop this HIE initiative. The Alaska HIE will follow changes to both federal and state regulations as well as other issues that might influence its development. The primary objectives of the Alaska HIE are:

- Provide a PHR as the vehicle for patients to access and maintain their health records to become better informed, active participants in their health care
- Provide the core infrastructure to allow health information exchange within a secure, patient controlled environment
- Provide clinicians anywhere in Alaska access to patient data to support clinical decisions
- Establish funding required to sustain long term self-sufficient operations
- Develop an independent organization to provide long term contract operation of the above services
- Implement the outreach and communications plan targeted towards enrolling 85% of Alaskans.

6.2 Key Personnel

The Alaska HIE operates with a minimum staff. Most services are outsourced or consolidated with existing Alaska HIT functions. At a minimum the following personnel have been hired or have been recruited in the first year of operations:

AeHN Executive Director – This position will manage the operations of the HIE and work as the liaison between Alaska Medicaid and Alaska HIE participants.

AeHN Health IT Director – This position is responsible for implementation of applications within the AeHN and will work with vendor to provide documentation and user materials, testing and process deliverables. This person is also responsible the private network and internet (Virtual Private Network (VPN)) connections between partners and the telecommunications companies

HIE Data Quality & Risk Manager – This position is responsible for data quality management and the program's risk management.



Office Manager – This position supports the project team by managing documents and meeting minutes, and provides team office administrative support and logistics.

HIE Privacy and Security Officer – This position is responsible for establishing, implementing and monitoring privacy and security policy, procedures.

6.3 Outreach and Communications

Marketing, communication and consumer education are core strategies to the success of the Alaska HIE. The AeHN marketing and communications plan has the following underlying strategic goals:

- To spread the story of the Alaska HIE and the positive benefits of an interoperable Personal Health Record for every Alaskan
- To build partnerships and relationships with patients and providers of health services throughout Alaska
- To strengthen AeHN's role as the state representative for HIE
- To position the Alaska HIE as an example of best practices in the HIE arena, the agency of choice for patients, payers and providers for sharing health data
- To support the Alaska HIE and all its service programs with strong, well-targeted marketing materials through a variety of media
- To create a unified, identifiable brand ensuring any representative of the SDE, State HIT Coordinator and AeHN is familiar with the Alaska HIE vision and carries the same consistent message

6.3.1 Outreach Committee

An Outreach Committee and a Consumer Advisory Group provide input into the development of the materials for outreach and education. The Consumer Advisory Group also provides key insight to the Outreach Committee identifying areas of interest to the key target audience – the consumer. The Consumer Advisory Group provides key insight into planning and will focus on the needs and perspectives of the consumer.

Other key components of the plan are to achieve broad clinician use of EHR data at the point of care. Clinicians need to understand the need for transparency of health care performance information as targeted by the legislature and be comfortable encouraging patients to become active participants in their own health care plans.

6.3.2 Key Messages

All marketing and communications strategies strive to carry these key messages:

- Informed patients reduce the load on the health care system
- Privacy and security of health information is paramount
- Improved health status of Alaskans means fewer lost work days, lower health infrastructure costs and a better quality life



- Clear, appropriate information leads to safe and timely patient care with fewer medical errors and quick response to epidemics and bioterrorism
- Immediate access to all necessary patient information decreases medical staff workload, leading to lower costs

6.3.3 Target Audiences

- Patients and consumers of health care services
- Physicians, clinicians and health care providers
- Payers and insurers
- Employers
- Public Health Departments
- Government Agencies
- Alaska Legislators
- Pharmacies
- Foundations
- Media
- Federal organizations, including the Indian Health Service, Department of Health and Human Services (DHHS, CMS and CDC)
- National organizations
- Other HIEs

6.3.4 Outreach and Education Tools

All marketing and communication tools have been developed to deliver the message of secure, private health information exchange. When necessary, the tools have been targeted to the specific audience.

Newsletter

AeHN has been producing a quarterly newsletter since January 2008. The newsletter promotes HIT activities from across the state, identifies the goals and objectives of the HIE effort and the funding objectives, and keeps providers informed of state and national initiatives and requirements. The newsletter includes contact information for membership and identifies a web site for frequent updates and Really Simple Syndication (RSS) feeds. The newsletter is distributed to clinicians, health care providers and large consumer groups such as American Association of Retired Persons (AARP).

Internet

Increasing Internet penetration has led to the incorporation of the World Wide Web into a global media strategy alongside print and audiovisual media. In order to provide immediate updates and a forum for public comment, web pages are updated frequently as activities unfold. Public forums allow a variety of users to express comments and concerns related to HIE while also



allowing for the accurate dissemination of information about the Alaska HIE. Site visitors are also able to sign up for an electronic version of the printed monthly newsletter here.

Press Releases

News releases and media stories go out to all statewide news media and to professional organizations to announce the effort and provide web contact information. All news releases and the website include the benefits of the EHR/HIE for the public.

Advertisements

Current advertisements are targeted toward providers to ensure the broadest possible participation in the Alaska HIE. Once the PHR is ready for outreach, the staff will develop an advertising campaign utilizing newspaper, direct mail, magazine, web, radio and television venues to reach all consumers in the state.

Regional Kick Off Conferences

(Joint event co-sponsored with the REC) Regional kick off events are planned in the three major population locations: Anchorage, Fairbanks and Juneau. These will be public forums to provide information and education regarding the personal health record, deliver the results of the EHR pilot, provide the selected vendors a forum for presentations and workshops, promote the adoption of EHRs statewide, and solicit public comment and feedback.

Consumer Subscription Application Utilities

The Outreach and Communications Workgroup works closely with consumers to ensure that web applications are continually updated with consumer driven web functionality. Ongoing support for the Alaska HIE product depends on the development of fresh, relevant web tools for accessing health information incorporated as they become available.

Printed Collateral: Brochures, FAQs, and Subscription Applications

A marketing packet of materials for use in promoting the personal health record and interoperability with EHRs has been developed. Mass mailings of materials to consumer groups and physician offices will put the materials in the hands of the consumers.

Presentations

The SDE, State HIT Coordinator and AeHN staffs are available for presentation at various events and meetings throughout the state, and will maintain a list of speakers and their availability. Speakers are provided with an outline of key elements to encourage a standard message.

Other tools include sponsorship marketing, cooperative marketing with partners of the Alaska HIE, pod casts, weblogs, streaming video, interactive web materials, and vendor fairs.

7 LEGAL AND POLICY

7.1 Background

The State of Alaska received funds through Research Triangle International (RTI) to participate in the HISPC project, working in close conjunction with 33 states on privacy and security issues related to the exchange of health information. This effort, part of a nationwide grant funded by the Agency for Health Research and Quality (AHRQ) and the ONC for HIT, helped form the basis for the State legislation (Senate Bill 133, now AS 18.23.310) that established the Alaska HIE. The policies and agreements developed under HISPC continue to be refined to meet ARRA requirements for HIE and meaningful use of EHRs through ongoing legal solutions and standardization activities that include:

- Organizing support among legislators, identifying sponsors and encouraging legislative efforts to standardize Alaska laws regarding confidentiality and medical records
- Drafting sample language for uniform medical records statutes and regulations, including updates to current laws when necessary
- Enacting laws and regulations in support of HIE and EHRs, exploring the possibility of immunity or statutory limitation on liability, such as a cap on damages for the HIE and participating providers
- Reviewing and, when necessary, enacting state laws regarding the privacy and security of health information and available safeguards and penalties
- Identifying applicable legal exceptions and safe harbors from fraud and abuse liability for providers and patients

7.2 Legal Domain Roles and Responsibilities

AeHN, the non-profit organization contracted to develop the Alaska HIE, has established two primary workgroups that support the Legal Domain:²

- **The Legal Work Group**, consisting of AeHN staff, consulting subject matter experts (SMEs) from the health information technology and provider communities, and the State HIT Coordinator, hold the leadership role in the legal and policy matters affecting the State HIE, such as identifying and mitigating barriers to health information exchange. AeHN continually works to ensure its efforts are aligned with the Health and Human Services (HHS) Privacy and Security Framework through its own set of guiding privacy principles as documented in the Network Responsibilities AeHN Policy 2.500. These principles are modeled on the Nebraska Health Information Initiative Privacy Rules, and the Connecting For Health "Model Privacy Rules and Procedures for Health Information Exchange," with a number of differences based on state law, physical and technical safeguards available through AeHN, and AeHN's unique operating environment.
- **The Privacy and Security Compliance Work Group** addresses privacy and security issues related to HIE within the state and between states, issues of noncompliance with

² Reference: AeHN Workgroup Policy 4.100



federal and state laws and policies applicable to HIE, adherence to AeHN Privacy and Security Policies, and management of an annual external security audit of the health information exchange system from a recognized, independent technology audit firm. The DHSS Security Officer is a member of this work group.

These two work groups, together with the Consumer Advisory Group, have oversight for HIE privacy and security policies, processes, and agreements with assistance from the AeHN Legal Counsel and Technology Committee as needed. AeHN may also engage legal counsel experienced in contractual and health care law in the State of Alaska to provide guidance in the development of trust agreements, letters of intent to participate and subscriber fees along with the contractual agreements between the parties.

The State HIT– Governance Committee, Deputy Commissioners, and DHSS Commissioner Streur are the leadership who approve privacy and security policy from the State perspective. State decisions affecting the HIE flow from the Commissioner (or his designee, the State HIT Coordinator) to the AeHN Board of Directors (BOD) and staff for incorporation into existing or additional policies and procedures as necessary.

The HIE Vendor (Orion Health) is required to comply with certain privacy and security requirements through its contract with AeHN. Orion Health’s performance is closely reviewed by AeHN staff and the Privacy and Security Compliance Work Group (a DHSS group) and Legal Committee. Regular security reports can be produced by Orion Health and provided to Participants upon request.

The AeHN BOD, in its role supporting HIE Governance, approves operational privacy and security policies related to the HIE. The AeHN Privacy and Security Officer, as designated in AeHN Procedure 2.206, is the single AeHN employee assigned final responsibility for the confidentiality, integrity, and availability of the ePHI held by AeHN, including the HIE. The AeHN Privacy and Security Officer will report to the AeHN Board on a regular basis to help ensure compliance with all privacy and security policies.

7.3 Privacy

Building appropriate privacy protections into the design of the State HIE is crucial to gaining the necessary public trust to make it successful. Privacy focuses on the individual’s ability to control the collection, use, dissemination, and disposition (when no longer needed) of their personally identifiable information (PII) while security provides the mechanisms to ensure confidentiality and integrity of information, and the availability of IT systems. Adequate security controls help protect an individual’s privacy, but are insufficient protection on their own – they must work in conjunction with the individual’s ability to control access to his/her own PII.

The HHS Privacy and Security Framework, established in 2008, enumerates principles to address the privacy and security challenges related to electronic health information exchange, regardless of the legal framework that may apply to a particular organization. In addition to emphasizing the need for adequate security safeguards, HHS has adopted the following principles, realizing that HIPAA and State law, as applicable, also provide implementation of these principles:



1. **Individual Access:** Consumers should be provided with a simple and timely means to access and obtain their personal health information in a readable form and format.
2. **Correction:** Consumers should be provided with a timely means to dispute the accuracy or integrity of their individually identifiable health information, and to have erroneous information corrected or to have a dispute documented if their requests are denied.
3. **Openness and Transparency:** The policies, procedures, and technologies that directly affect individuals and/or their individually identifiable health information should be open and transparent.
4. **Individual Choice:** Individuals should be provided a reasonable opportunity and capability to make informed decisions about the collection, use, and disclosure of their individually identifiable health information.
5. **Collection, Use, and Disclosure Limitation:** Individually identifiable health information should be collected, used, and/or disclosed only to the extent necessary to accomplish a specified purpose(s) and never to discriminate inappropriately.
6. **Data Integrity:** Persons and entities should take reasonable steps to ensure that individually identifiable health information is complete, accurate, and up-to-date to the extent necessary for the person's or entity's intended purposes and has not been altered or destroyed in an unauthorized manner.
7. **Accountability:** These principles should be implemented, and adherence assured, through appropriate monitoring and other means, and methods should be in place to report and mitigate non-adherence and breaches.

7.3.1 Consent Model

In an effort to avert any potential concerns regarding personal privacy, and to avoid any possible conflict with legal privacy requirements mandated by HIPAA and the State of Alaska (i.e., Senate Bill 133, now AS 18.23.310), Alaska HIE has adopted a default "opt-out" state for all consumer participants. Opt-in and opt-out are defined as:

- Opt-in: The consumer must elect to share health care information securely across the HIE, subject to appropriate auditing and monitoring capabilities.
- Opt-out: A consumer's health care information is automatically shared across the HIE unless the consumer explicitly requests to be removed from the data sharing system.

This means that each consumer will have to personally and intentionally change their sharing option in order for their health data to be removed from the health information exchange.

Accordingly, AeHN will implement an aggressive, positive communication and marketing program to encourage Alaska residents to remain in the system. It will also work assertively and cooperatively with clinicians and communities across the state to identify and implement any changes necessary to allow a default condition of opt-out for Alaska residents. It will be crucial to ensure that consumers understand the detriments of opting out, and that proper policies and procedures are in place to ensure that consumers' choices are recognized and respected. The Consumer Advisory Workgroup will play a key role in enacting these policies and procedures and protecting the rights of Alaskans.



7.3.2 Privacy Impact Assessment

To further understand the impacts of privacy and alignment with the HHS Privacy and Security Framework, the State undertook in winter 2011, a privacy impact assessment related to the sharing of PII/PHI across State systems. The HIE was not included as a system, but the sharing of data by the Medicaid environment was clearly a lens through which the sharing of information was viewed.

This activity established prioritized set of key questions that represent decision points and clarifying activities that the State should address during subsequent activities regarding the sharing of State data, many of which are similar to the issues and risks being faced by the AeHN as it establishes a Privacy and Security Framework for the State HIE, such as secondary disclosure of PII/PHI and the activities needed to maintain data quality and integrity. The activity also raised the question of which State systems selected as the foundation for data sharing should utilize the State HIE.

A similar review will be undertaken by AeHN regarding the HIE to formulate a definitive approach to these principles that are also enumerated in ONC-PIE-003. Resultant actions will include:

- Policies, processes, and procedures, where required, will be established to allow individuals access to their own information held by the HIE and to request corrections as appropriate
- Policies, processes, and procedures will be documented that allow for the disposition of PII data when no longer needed, as well as retention schedules for this data
- Where appropriate, the HIE and/or the system that consume information from the HIE will include the capability to retrieve an individual's information and present it in an understandable format (e.g., human readable CCD)
- Consumers should be provided with clear notice of what information is being collected by the HIE, the purpose of the collection, and how the information is to be used and shared, including some instances such as various registries where the collection of information is mandatory and no information regarding the collection is forthcoming

7.3.3 Required Agreements for Patient Protection

The Alaska HIE Governance Board has reviewed and approved the following documents and policies for implementation incorporating the updated HIPAA requirements and adapting to the current needs of the health care community:

- Privacy and Confidentiality Policy
- Policy and Procedure for Addressing Breaches of Confidentiality
- Identification and Authorization Policy
- Participation Agreements for Provider, Consumer, Payer, Government (non-payer, such as CDC) and business associates of Participants (i.e., Providers)

The AeHN Legal and Privacy and Security Compliance Work Groups will continue to:



- Identify standards including a standard list of demographic information for patients to assist in their identification and authentication
- Standardize authorization policies and procedures across all participant organizations
- Standardize policies, procedures and training regarding general confidentiality of all patient information, including financial and other personal information including, but not limited to health information
- Standardize policies, procedures and training regarding use and disclosure of health information in accordance with federal law (including HIPAA) and state law
- Standardize policies and procedures regarding reporting and mitigating unauthorized access to records
- Standardize policies and procedures regarding ongoing auditing and monitoring, including patient access to monitor their own records
- Implement guidance and policies for appropriate patient use of the HIE, including patient rights with regard to health information
- Identify proper access and permission levels for patients and varying levels of staff
- Draft data use policies to identify appropriate uses of data for public health

7.3.4 Participation Agreement

The AeHN HIE will not be accessed by any individual or organization without a prior-executed Participant Agreement. Participants will be asked to sign a standard Participant Agreement, which may be tailored to the specific needs of an organization through addendums. The Participant Agreement enumerates terms and conditions, with particular attention to the responsibilities of AeHN and the responsibilities of constituents. These responsibilities are further detailed in the Network Responsibilities AeHN Network Policy 2.500.

A standard Participant Agreement has been developed that addresses the:

1. Treatment of a patient of or by Participant.
2. Payment for health care services.
3. Health care Operations.
4. Mitigation of a breach of confidentiality or unauthorized access of PHI.
5. Auditing and monitoring compliance of Participant's Users
6. Providing information as required by law or regulation.

In addition to standard contractual language such as official contacts, warranties, and extension terms, the participation agreement addresses the topics in the table below regarding commitment of the various parties involved in the HIE:



Table 2: Participation Agreement Topics

HIE Commitments	Participant Commitments	Relationships Between the HIE and Participant	Data Use
<ul style="list-style-type: none"> • Services currently available • Access mechanisms and security • Reliability (e.g. service level commitment) • Quality assurance • Monitoring • Security levels • Appeals process • Constituent support and service • Implementation and training 	<ul style="list-style-type: none"> • Confidentiality • Privacy compliance • Security compliance • User requirements 	<ul style="list-style-type: none"> • Business associate language • Business Associate Language • Integrity of hardware, software and networks • Process to address breaches 	<ul style="list-style-type: none"> • Ownership • Data types (content) to be exchanged • Acceptable use and online behaviors (individual records, aggregate reporting, data mining, external reporting) • Disposal of data

7.3.5 Data Sharing Agreements

Through participation in the Inter-Organizational Agreements (IOA) Collaborative (a part of the Alaska HISPC project) with five other states, Alaska developed both public entity-to-public entity, private entity-to-private entity, and public entity-to-private entity Data Sharing Agreements (DSAs). One of the primary goals in drafting the DSAs was to enable the secure flow of information between parties, with special attention paid to the privacy of such information. The DSAs were also specifically drafted to avoid the need for significant negotiation between the parties. Further legal work will transform these DSAs to be used as trust agreements between the various participants in the HIE to facilitate intra- and interstate electronic HIE. Tailoring, negotiating and procuring these agreements will be a responsibility of AeHN and the SDE.

The AeHN will:

- Tailor Business Associate agreements to HIE purposes and only use as necessary and appropriate for the parties involved
- Provide education regarding proper use and application of business associate agreements
- Determine whether it would be more successful to allow patients and providers to opt-in or opt-out, and which system would be more efficient and cost effective
- Standardize forms for use by all participating organizations and patients
- Determine whether it would be beneficial to enter into DSAs with other states and outside organizations, and if so, assist in negotiating such agreements



The AeHN will be responsible for obtaining the signed DSAs from participating organizations.

Data use policies to identify uses of data for public health will also be developed and implemented as required by state and federal law. Additional policies and procedures related to the sharing of Public Health data were identified during the Privacy Impact Assessment (PIA) sessions in winter 2011. AeHN will further develop these policies and procedures by:

- Setting minimum authorization standards for all participant organizations
- Standardizing policies, procedures and training regarding general confidentiality of all patient information, including financial and other personal information including, but not limited to health information
- Standardizing policies, procedures and training regarding use and disclosure of health information in accordance with HIPAA and state law, including use and disclosure by personal representatives and/or health care power of attorneys
- Identifying proper access and permission levels for varying levels of staff

The summarized results of the PIA are included in Appendix A.

7.4 Security

Security works with privacy to ensure that the protective safeguards are in place by establishing a catalog of practices consistent with the HIPAA Security Rule except in those cases where state law preempts by providing stricter privacy protections. The AeHN will incorporate any forthcoming guidance on HIPAA, particularly the technical safeguards guidance described in the HITECH Act. **Note:** See the Privacy and Security Framework Gap analysis for proposed actions and updates related to the Security Safeguards.

7.4.1 Administrative Safeguards

AeHN has established administrative safeguards, supported by policies and procedures covering the following topics:

- Security Management Process, including risk analysis and management
- Assigned Security Responsibility
- Workforce Security
- Information Access Management
- Security Awareness and Training
- Security Incident Procedures
- Contingency Plan
- Evaluation

7.4.2 Physical Safeguards

AeHN has established physical safeguards, supported by policies and procedures relating to:



- Facility Access Controls
- Workstation Use
- Workstation Security
- Device and Media Controls

7.4.3 Technical Safeguards

AeHN has established technical safeguards, supported by related policies and procedures, and incorporated the resulting requirements into the technical infrastructure. The policies and procedures describe:

- Access Control
- Audit Controls
- Integrity of Data
- Person or Entity Authentication
- Transmission Security

The Alaska HIE will incorporate a Public Key Infrastructure (PKI) or other mechanisms as deemed necessary to support digital signature and encryption in its messaging services.

7.4.4 Organizational Requirements

Business Associate Agreement language was incorporated into the Participant Agreement through exhibits to that agreement.

There may be situations where it is appropriate to enter into a Business Associate Agreement separate from the Participant Agreement (e.g., vendor will be providing services to AeHN and may thus see protected health information, but is not a Participant in the HIE.) In this case, AeHN will:

- Tailor Business Associate agreements to HIE purposes and only use as necessary and appropriate for the parties involved
- Provide education regarding proper use and application of business associate agreements

7.4.5 Breach Notification – HHS Interim Final Rule

AeHN Procedure 2.409 establishes the breach notification process with respect to the HHS interim breach rule (Ref: HITECH Act § 13402, Notification in the case of breach). AeHN is exploring whether this policy/procedures needs to be revised and expanded to further protect consumer health data and comply with state and federal reporting requirements, particularly the pending Omnibus Rule (now in clearance) and the Alaska Personal Information Protection Act.

DHSS and AeHN are also developing breach notification procedures that include the processes established by the selected HIE vendor, Orion Health.

8 2012 PIN PRIORITY STRATEGIES

8.1 Strategies for ePrescribing

The State of Alaska is applying the following strategies to support expansion of ePrescribing as a key health information exchange capability:

- Monitoring the ePrescribing capabilities of the pharmacies on a monthly basis
- Completed ePrescribing survey to a) validate the Surescripts data and b) identify barriers to ePrescribing by pharmacies (See also Section 13.3.1 describing ePrescribing survey conducted in December 2011)
- The HIT Program Office is working closely with Providence Health Systems, the VA in Alaska, the DoD in Alaska and ANTHC to develop periodic ePrescribing data where the Surescripts network data is not available. Each of these entities relies heavily on ePrescribing and allows paper or fax based prescriptions on an exception basis.
- The HIT Program Office is also working closely with the Pioneer Homes Administration, as described in Section 9.2.3 to monitor the implementation of upgraded pharmacy software, including e-prescriptions and integration with an electronic Medication Administration Record solution. Practitioners with patients in the Pioneer Homes facilities will be able to send electronic prescriptions to the Pioneer Homes pharmacy; nurses working in the facilities will have access to pharmacy orders even when the pharmacy is closed at night and on weekends.

8.2 Strategies for Structured Lab Results Exchange

Alaska participated in a Lab Summit sponsored by ONC on May 30-31, 2012 and is developing a pilot project to support the exchange of structured lab results using Direct.

The Lab Summit team includes representatives from:

- HIT Program Office, State of Alaska
- State Lab, State of Alaska
- Chemware (State Lab LIMS vendor)
- Providence Health Services Hospital Lab
- La Touche Pediatrics
- Allscripts (La Touche Pediatrics EHR vendor)
- Orion Health (State of Alaska HIE & Direct HISP vendor)
- Anchorage Neighborhood Health Center
- Orchard Software (Anchorage Neighborhood Center LIS Vendor)

As the pilot plan is further refined this plan will be updated with the details of the technical solution and pilot performance measurements.



8.3 Strategies for the Exchange of Continuity of Care Documents

AeHN has worked through the contract with Orion Health to implement Direct Secure Messaging in Alaska. Orion Health is providing Health Information Service Provider (HISP) services to AeHN. AeHN has collaborated with the State HIT Program Office to identify appropriate use cases and develop training materials. The primary use case initially promoted is a referral from a primary care physician to a specialty practice. Several variations of the basic referral use case have been developed since the implementation in January 2012.

As of May 15, 2012, over 300 individual mailboxes have been provisioned and over 60 unique users have exchanged live messages. Although the exact payload of each message is not available, some providers report that they are exchanging CCDs extracted from their EHR solutions. Orion Health reported in March 2012 that they would be a “self-managed HISP for DIRECT services and no longer deploy a partner for the secure communications”. Orion Health further noted that more robust reporting capabilities would be available to customers in the fall.

State of Alaska participants include staff from Division of Juvenile Justice, Division of Behavioral Health, Senior Disability Services, Division of Public Health, Alaska Psychiatric Institute and the Health Information Technology office. These users are piloting the DSM solution to determine if it is a viable alternative to YouSendIt which currently supports the exchange of secure email messages. DSM offers an advantage over YouSendIt by encrypting messages as well as the attachments.



9 SUSTAINABILITY PLAN

9.1 Creating Conditions and Demand for Health Information Exchange

The DHSS vision states: “All individuals and families are healthy, safe & productive.” The DHSS Mission statement is: “To promote and protect the health and well-being of Alaskans.” “The overriding theme for the future direction of the Alaska Department of Health & Social Services is helping individuals and families create safe and healthy communities.”³ This theme is consistent with the goals and objectives of the ONC and CMS.

The state Medicaid agency is a critical participant in the expansion of health information exchange and improvements in health information technology in Alaska. The Department’s participation in exchange began prior to the enactment of the ARRA and will continue to expand in the coming years.

Alaska has identified several key exchange opportunities that support the goals and objectives of the state and are aligned with the strategies of the ONC. The projects supporting health information exchange and the ONC PIN priorities are described in the sections below.

9.1.1 Medicaid Health care Delivery Pilots

The DHSS is taking steps to improve access to quality health care in Alaska. Alaska Medicaid provides health insurance coverage to approximately 18 percent of Alaska’s population. As in other states, Alaska’s Medicaid program is challenged to meet increasing costs and demands for services. The following strategies are designed to allow for systemic improvements in both access and service delivery:

- Promoting technology for sustainable and effective health care delivery.
- Supporting workforce development
- Enhancing management of high-cost health needs
- Improving quality and access of care for underserved populations
- Promoting rural infrastructure development

One of the Alaska Medicaid program’s key challenges is to develop new comprehensive Medicaid regulations that clarify coverage and payment rules for the program and provide for greater accountability for both the department and health care providers. The DHSS is currently in the process of developing new rate model pilots that will be piloted in late 2012. These models change the Medicaid delivery system from a service based model to one that will be tied to providers’ quality and performance measures and will require the tracking of recipients across the health care delivery system, including behavioral health. HCS expects providers will expand the use of electronic health records and depend upon tools such as Direct Secure Messaging and HIE to support recipient care coordination and improvements in health outcomes.

9.1.2 Patient Centered Medical Homes

³ http://www.hss.state.ak.us/publications/DHSS_AnnualReport.pdf



An RFP was released December 28, 2011, requesting consulting services for the DHSS on the development of medical homes, with proposals due January 19, 2012. The consultant is assisting the DHSS in evaluating models of medical homes suited to Alaska's unique circumstances, a plan for establishing criteria for pilot projects and recruitment of at least four pilot sites: urban, rural, tribal, and non-tribal. Integrated mental health services will be a part of the pilots.

These pilots are expected to expand the use of electronic health records and collaboration among Alaskan providers on behalf of their clients.

9.1.3 EPrescribing Expansion

Pioneer Homes is developing the ability to leverage ePrescribing and electronic medication tracking that will contribute to greater participation in health information exchange. The Pioneer Homes Pharmacy uses Prodigy Data Systems, Inc (PDS) as the pharmacy software vendor. PDS will use the Surescripts network for ePrescribing transactions. In addition, the pharmacy is in the process of an electronic Medication Administration Record (eMAR) system procurement that will be integrated with the PDS. The eMAR will allow nursing staff access to the electronic medication orders that would otherwise only be available in the pharmacy, during regular business hours. Pioneer Homes' practitioners are anticipating the ability to deliver e-prescriptions to the facility's pharmacy in concert with new Medicare Meaningful Use requirements. In addition, the facilities will also gain compliance with ePrescribing and medication administration agreements with the VA.

9.1.4 Office of Children's Services Developmental Screening

The Office of Children's Services is supporting a pilot of an Infant learning tool for standardized developmental screening. This tool, developed by Brooks Publishing, is a web-based questionnaire for children (ages birth to three years old) that provides developmental screening. The program is working with 17 grantees across the State that act as hubs that can grant sublicenses to individual providers. The questionnaire is automatically scored, identifying where there may be a need for developmental services. The provider can initiate a referral for developmental services available within the Department to provide assistance to families in securing services to meet those needs. The results of the assessment are available electronically for the participating developmental service delivery providers. In some cases, the results are also printed and faxed to the service providers in a traditional referral pattern.

9.1.5 Health Care Commission Recommendations

DHSS is considering two additional "policy levers" that have been recommended by the Alaska Health Care Commission.

9.1.5.1 All-Payer Claims Database

The Alaska Health Care Commission's 2011 Report recommended that the State perform a study of the feasibility of implementing an All-Payer Claims Database (APCD) in Alaska. The State expects to release an RFP to conduct the feasibility study in the second quarter 2012. APCDs are large-scale databases that systematically collect and aggregate claims data from public and private payers. The Commission and the State recognize that APCDs are valuable



sources of information about outpatient services and health care payments for those states that have implemented them. The Commission identified the following areas where an APCD may support the State's cost containment and health care quality improvements:

- Support public reporting on price and quality of health care services
- Analyze population health management efforts of providers and payers
- Support clinical performance measurement reporting for payers
- Measure clinical quality improvement efforts by providers
- Quantify community health analyses by public health officials
- Design and implementation of payment and delivery system reforms for policy makers
- Assess health care utilization, cost and quality trends for hospital and community health planners

An APCD can also serve to minimize the reporting burden on health care providers as the aggregated data from payers is an efficient alternative to collecting data directly from individual providers.

Alaska will work with the Health Care Commission and other stakeholders to seek methods to include Medicare, Medicaid, Commercial payers and self-insured companies in the APCD.

9.1.5.2 Mandated Participation in the State's Hospital Discharge Database

The Health Care Commission further recommended that the State encourage "full participation" in the Hospital Discharge Database by each of Alaska's hospitals. The information in the Hospital Discharge database is used to support needs assessment, policy development, planning, program evaluation, and tracking of health status. The current participation in the database is voluntary and includes inpatient discharge data from 10-17 of the State's 25 Acute Care and Critical Access hospitals. Alaska is considering mandating participation in this database.



9.2 Business Sustainability of Services directly Offered or Enabled

The Grantee shall also submit a thorough and thoughtful business plan for the sustainability of any services directly offered or funded by the Grantee. The starting place for this plan is not “how do I generate enough income to maintain my organization at the current level of operation” but rather “which services will fill market gaps, and offer valuable, affordable exchange options that will be widely adopted and used.” This plan should:

- a. Offer a clear description of services offered and fees for those services to different participants.
 - i. Describe how these fees were set, including adoption assumptions.*
 - ii. Include data on the current adoption and use.**
- b. Provide evidence that there is demand for these services from participants
 - i. Describe who will be adopting services and to perform what exchange tasks*
 - ii. Describe how services will provide value in a competitive market**

As a condition of the grant, ONC expects that all grantees will meet the Meaningful Use exchange needs of eligible providers, including those serving Medicaid patients and rural and underserved communities. We recognize that there is a potential tension between offering services that are self-sustaining and servicing communities and providers with the fewest resources.

One way Grantees can resolve this tension is by offering affordable and easy-to-adopt exchange options.

9.3 Business Sustainability

A viable Business Sustainability Plan is critical to the success of the Alaska HIE initiative.

The Governor and State Legislature have a clear understanding of the future benefits of the HIE and the pivotal role that health care management plays in the state. As a result, the State has invested both politically (through the enactment of Senate Bill 133, now AS 18.23.310) and financially in this initiative.

AeHN has been directed by the HIT Coordinator to develop a Business Sustainability Plan. The State HIT Coordinator has specified the contents of the plan (Appendix B) and is actively working with AeHN to carry out the activities necessary to develop a viable plan. The Business Sustainability Plan is currently constrained by certain decisions made prior to the inception of the Cooperative Agreement that may need to be revisited by the stakeholders.

1. Identify key stakeholder groups and participants in those groups.
2. Convene meetings with the individual stakeholder groups to identify critical HIE functionality, and determine the economic value of each function.



3. Analyze the HIE functionality identified by the stakeholder groups compared to the planned implementation of the Orion Health software solution, identifying any gaps and/or functionality no longer deemed desirable.
4. Establish HIE participation fee structures to agree with the costs associated with the desired functionality and the value identified by the stakeholder groups.
5. Create a mechanism to add or remove features in the future using this repeatable process.

The steps in this plan are included in the Project Plan provided in Section 11.

As noted in the Project Plan, certain of the activities to support the development of a viable sustainability plan are underway. In particular, stakeholder groups have been meeting to discuss the features that will be economically supported by payers, providers and other stakeholders.

9.4 Direct Secure Messaging Sustainability Plan

AeHN has contracted with Orion Health to provide DSM and act as the initial Alaska HISP as outlined in detail in Section 8. The primary costs associated with the implementation and support of DSM are included in the table below.

Table 3: DSM Operating Expenses and Income

	2012	2013	Two year total
Estimated Income	90,000	90,000	
Estimated Expenses:			
Orion	100,000		100,000
AeHN Staffing	80,000	80,000	160,000
Help Desk	10,000	10,000	20,000
Total Expenses	190,000	90,000	280,000
Income less Expenses	(100,000)	0	(100,000)

AeHN has proposed a fee structure of \$100 per DSM account for “non-Members”. Alaska estimates that approximately 1400 DSM accounts would be required to support the recovery of the initial costs and cover the on-going two year expenses.(as reflected in Table 3 above).The State is reviewing the viability of this plan as it is unlikely that an additional 600 fee based accounts will be established. The State will propose alternate fee structures to ensure a sustainable model is in place.



Note that the State of Alaska has made a commitment to reimburse AeHN for up to \$100,000 for the first 1000 DSM accounts established.

10 TRACKING PROGRESS

This section contains the table HIE Performance Measure data as required by ONC.

As indicated in the State HIE PIN released on February 8, 2012, State HIE cooperative agreement recipients are responsible for tracking progress on key meaningful use HIE capabilities in their state and setting annual goals toward which they will work.

The data for the measures included in the table are generated from three different data sources:

- **2011 National Ambulatory Medical Care Survey (NAMCS) EMR Supplement:** The National Center for Health Statistics conducts this survey of physicians who work in ambulatory care settings annually by mail.
- **2011 American Hospital Association Annual Survey's Health IT Supplement:** The American Hospital Association administers this annual survey of hospital Chief Information Officers (CIOs) online and by mail. We report on non-federal acute care hospitals.
- **Surescripts:** A leading e-prescription network

The program will have difficulty establishing annual targets until such time as the 2012 survey data for the national surveys is available in order to determine the impact of program efforts on these metrics.



Table 4: Tracking Program Progress

Program Priority		Report in first SOP Update June 7, 2012		Report January 2013	
		Status as of December 2011	Target for December 2012	Status as of December 2012	Target for December 2013
1.	% of pharmacies participating in ePrescribing	93.30%	92.79%		
2.	% of labs sending electronic lab results to providers in a structured format	50%	52.63%		54.63% ¹
3.	% of labs sending electronic lab results to providers using LOINC	Unknown at this time ²			Unknown at this time ²
4.	% of hospitals sharing electronic care summaries with (a) unaffiliated hospitals and (b) unaffiliated providers	16.08%	20.00% ³		24.00%
5.	% of ambulatory providers electronically sharing care summaries with other providers	29.48%	31.00%		36.00%
6.	Public Health agencies receiving ELR data produced by EHRs or other electronic sources in HL7 2.5.1 format with LOINC and SNOMED®	0% ⁴	0%		100% ⁴
7.	Immunization registries receiving electronic immunization data produced by EHRs in HL7 2.3.1 or 2.5.1 formats using CVX codes.	100% ⁵	100%		100%
8.	Public Health agencies receiving electronic syndromic surveillance data from hospitals produced by EHRs in HL7 2.3.1 or 2.5.1 formats (using CDC reference guide)	0% ⁶	100% ⁶		100% ⁶
9.	Public Health agencies receiving electronic syndromic surveillance ambulatory data produced by EHRs in HL7 2.3.1 or 2.5.1 formats.	0% ⁷	0%		0% ⁷

¹The State estimates that the percentage will increase by approximately two percentage points based upon anticipated results of the Lab Pilot.

²The initial surveys of Alaskan Labs did not collect sufficient detail regarding LOINC capabilities. A follow up survey is planned in August 2012 that will gather additional information regarding coding standards.



³Detailed data from the 2011 American Hospital Association Annual Survey's Health IT Supplement is not available to the HIT Program Office; therefore there is not a clear understanding of the Hospitals that ARE reporting exchange of electronic care summaries. The Alaska program is tracking hospitals participating in DSM as having this capability. Alaska has 25 hospitals, 4 are participating in DSM, and each incremental hospital represents 4% of the total.

⁴Alaska Division of Public Health has one LIMS system that will be capable of receiving electronic data.

⁵Alaska has one Immunization registry that is currently receiving electronic immunization data produced by EHRs.

⁶The Alaska DHSS Division of Public Health does not currently participate in the CDC syndromic surveillance program, with the exception of one hospital using BioSense. Alaska has applied for acceptance into a BioSense project that will expand this participation.

⁷Alaska understands that the BioSense tool does not currently accommodate ambulatory reporting; this target may be adjusted in the future when this feature becomes available.



11 PRIVACY AND SECURITY FRAMEWORK

The State of Alaska HIE policy and security framework is comprised of the following:

- All relevant statewide policies and practices adopted by recipients relative to the Statewide HIE
- All relevant policies and practices for health information exchange services funded in whole or in part with federal cooperative agreement funds that represent the HIE Privacy and Security Framework

11.1 State Privacy and Security Framework

The State Privacy and Security Framework relating to the Statewide HIE is guided by Senate Bill 133, enacted into law as Sec. 18.23.300 seq. that established the creation of a health information exchange for the State of Alaska. Section 18.23.310 of this legislation deals with the confidentiality and security of information. The law prescribes that:

- (a) The department shall establish appropriate security standards to protect the transmission and receipt of individually identifiable information contained in the system established under AS 18.23.300.
- The standards must:
 - Establish controls over access to and collection, organization, and maintenance of records and data that protect the confidentiality of the individual who is the subject of a health record
 - Establish a secure and traceable electronic audit system for identifying access points and trails
 - Be able to meet the most stringent applicable federal or state privacy law governing the protection of the information contained in the system
 - Allow for a patient who is the subject of a health record contained in the system to a) opt out of the system, b) consent to the distribution of the patient's records contained in the system, c) to be notified of a violation of any confidentiality provisions, and d) be able to view upon request an audit report as to who accessed to that individual's records

The State HIE is providing services to covered entities. HIPAA does not preempt State laws that relate to the privacy of individually identifiable health information (IHII) and are more stringent than its regulatory provisions. DHSS is currently updating its HIPAA preemption analysis from 2007 to develop a consolidated set of regulations around the sharing of PII/PHI in the State of Alaska and from which State policies and practices relative to the State's use of the HIE will be established.

11.2 Alaska HIE Privacy and Security Framework

The relevant policies and procedures for health information exchange services funded in whole or in part with federal cooperative agreement funds that represent the HIE Privacy and Security



Framework have, for the most part, been developed by AeHN and can be found here <http://www.ak-ehealth.org/aeHN-policies-and-procedures>. Policies and Procedures noted in this document are included in Appendix C for reference, however are reflective of those items available on the website in May 2012. Additional security procedures and detailed practices are available upon request. These policies and procedures have been reviewed and reference against the various domains in the PIN in the sections below.

11.3 PIN-HIE-003 Requirements

The ONC-HIE-PIN-003, dated March 22, 2012, provides Privacy and Security Framework Requirements and Guidance for the State Health Information Exchange Cooperative Agreement Program. The following section is based the guidance included in the PIN "Appendix A" that outlines two templates. These templates help to determine which domains and specific guidance are applicable to the HIE architectural approach that a Cooperative Agreement grant recipient is taking and therefore must be addressed.

The State of Alaska is currently, through its contractor AeHN, implementing DSM, an HIE architectural model that is considered point-to-point directed exchange. Therefore, the subsequent analysis required by this PIN is limited to the following Privacy and Security Domains:

- Openness and Transparency
- Collection, Use and Disclosure Limitation
- Safeguards
- Accountability

The remaining domains, however, will be reviewed and accommodated as the State continues its initiative to expand services and store, assemble or aggregate individually identifiable health information in a hybrid, federated model. Proposed activities are mentioned for those optional Privacy and Security Domains in Alignment Description of Approach as per the PIN-003.

The overall approach to the AeHN Privacy and Security Framework is addressed by its interpretation of fair information practice principles (FIPPs) as exemplified in its guiding privacy principles, documented in Network Responsibilities 2.500. It is applicable to all elements of the Framework.

These Network Responsibilities are modeled on the Nebraska Health Information Initiative Privacy Rules, and the Connecting For Health "Model Privacy Rules and Procedures for Health Information Exchange," with a number of differences based on state law, physical and technical safeguards available through the State, AeHN, and Alaskan unique operating environments.



Table 5: AeHN Guiding Privacy Principles

Privacy Principle	Description
Openness and Transparency	Clarity about procedures, policies, developments, and technology concerning the handling of protected health information is vital to protecting privacy. Individuals should be able to understand what information exists about them, how the personal information is used, and how they can control use of that information.
Purpose Specification and Minimization	Access to and use of patient health information must be limited to the type and amount necessary to accomplish specified permitted purposes. Minimizing the use of patient health information will help decrease the amount of privacy violations, which may occur when data is collected for one legitimate reason and then reused for different or unauthorized purposes.
Disclosure Limitation	Personal health information should be made available through the AeHN System to Participants only by lawful means. Electronic collection of protected information may be confusing to most individuals. Individuals should be educated about the potential health and treatment benefits as well as risks to their protected health information that are associated with participation in the System. Individuals deciding not to participate should have the opportunity to know the System-wide effect of such decision and the potential disadvantages.
Access and Use Limitations	Personal health information should be obtained by one Participant from the System only pursuant to mutual agreement (included in the Participant Agreement) that the information is being accessed for qualifying purposes of the requesting Participant. Information recipients may use and disclose protected health information obtained through the System only for purposes and uses consistent with the Participant Agreement and consistent with their obligations as covered entities under HIPAA. Certain exceptions, such as for law enforcement or public health, may warrant reuse of information for other purposes. However, when information obtained by a Participant through the System is used for purposes other than those for which the information was originally obtained from the System, the Participant so using or disclosing the information should first apply the rules applicable to it as a covered entity under HIPAA and as a contracting Participant.
Individual Participation and Control	Consistent with the scope of individual rights in HIPAA, individuals should have the right to request and receive in timely and intelligible manner information regarding various parties that may have that individual's specific health information. Individuals have a vital stake in personal protected health information, such rights enable individuals to make informed decisions about participation and provide another means to monitor for inappropriate access, use and disclosure of protected health information. Individual participation promotes information quality, privacy, and confidence in privacy practices.
Data Integrity and Quality	Health information should be detailed, complete, appropriate, and current to guarantee its value to the various parties. The effective delivery of quality health care depends on complete health information. Therefore, the System must maintain the integrity of protected health information and individuals must be allowed to view information about them and request to amend such health information so that it is accurate and complete.



Privacy Principle	Description
Security Safeguards and Controls	In an era of increased computer and Internet-related crime, security safeguards are vital to privacy protection. Electronic environments could be susceptible to cyber-crime without adequate controls. Such controls are put in place to prevent information loss, corruption, unauthorized use, modification, and disclosure. Safeguards that can be implemented include information scrubbing, identity management tools, hashing, auditing, authenticating, and other means to ensure information privacy. Privacy and security safeguards should be coordinated for the protection of patient health information.
Accountability and Oversight	Privacy protections have less value to an individual if privacy violators are not held accountable for failing to follow procedures relating to such privacy protections. Participants are unlikely to fully trust the System and fully participate if they believe other Participants are not applying the same rules and being held to the same standard of accountability. User and workforce training, privacy audits, and other oversight tools can help to identify and address privacy violations and security breaches by conditioning participation and access authority on compliance with these and the individual Participant's privacy policies, by excluding from participation those who violate privacy requirements, and by identifying and correcting weaknesses in privacy and security safeguards.
Remedies	To ensure privacy protection there must be legal and financial remedies that hold violators accountable for failing to comply with System policies. Such remedies will give individuals confidence in the organization's commitment to keeping protected health information private, and mitigate any harm that privacy violations may cause individuals. As a condition of continued participation, all Participants in the System must have a common duty to participate in investigation, mitigation and remediation steps for the integrity of the System.
Reliance on Covered Entity Rules and Enforcement	While AeHN should have a number of core policies and procedures for the benefit and confidence of all Participants, AeHN should not try to replace policies, procedures and methods already adopted by Participants as covered entities under HIPAA. AeHN should identify, disseminate and enforce only those policies and procedures necessary for coordination of privacy breach response and other mitigating measures, but should recognize that existing Participant policies govern in all other areas.

11.3.1 Stakeholder Awareness of Approach to Privacy and Security

Stakeholders and the public are made aware of the approach, policies, and practices in a uniform manner across all Privacy and Security Domains using the following practices:

- All AeHN policies are available on the AeHN website at: <http://www.ak-ehealth.org/aehn-policies-and-procedures> and in accordance with AeHN Transparency Policy, Alaska eHealth Network Policy 1.300, where interested parties may request to be notified by AeHN staff about AeHN's activities, including meeting information and materials,



announcements and open solicitations. Interested parties may also sign up for inclusion on an email distribution list through the AeHN website.

- Specific, detailed procedures that are sensitive in nature, such as security procedures and the specific details of the implemented technical controls, are available upon request to approved requesters
- Awareness is accomplished through the Outreach and Education Workgroup to include the AeHN Newsletter and social media (e.g., the AeHN Facebook page)

11.3.2 Alignment, Gaps, and Remediation

Table 5 below summarizes the AeHN Privacy and Security Framework and its alignment with the Security and Privacy Framework outline in ONC-HIE-PIN-003. Timelines for the proposed approach to addressing each gap are provided in Table 6.

.



Table 6: Privacy and Security Domain Alignment

Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
<p>Openness and Transparency: There should be openness and transparency about policies, procedures, and technologies that directly affect individuals and/or their individually identifiable health information.</p>	<p>This Domain is primarily addressed by Network Responsibilities Policy 2.500 with the following rules:</p> <p>a. AeHN Rule 200 re: Notice of Privacy Practices. Currently this rule pushes the Notice of HIE Privacy Practices back to the Participant. This rule also sets forth the sample wording for a Participant participating in the State HIE to include in their Notice of Privacy Practices. The language is not specific for merely the use of Direct Secure Messaging and may not have to be. AeHN places the onus on the Provider to distribute this information to the individual.</p> <p>b. AeHN Rule 400 re: Access to and Use and Disclosure of Information. According to this rule, the capability to</p>	<p>Gap: AeHN may need to elaborate further on a general, publically available “notice of data practices” that covers the specific policies that have been developed that pertain to this Domain.</p> <p>Gap: Allowing the Provider to include AeHN specific wording in their Notice of Privacy Practices without requesting a copy be provided to AeHN potentially leaves the door open to misstatement and issues in the case of an incident or breach involving the HIE.</p> <p>Gap: The suggested wording to be included by the Participant in their Notice of Privacy Practice <u>does not include</u> suggested wording about the ability for individuals to request and review documentation as to who has accessed their information or to whom</p>	<p>Develop and Publish Notice of Data Practices: A general “notice of data practices” should be made available and prominently placed either on the initial landing page on the AeHN site, the specific landing page for the HIE (i.e., http://www.ak-ehealth.org/health-information-exchange-hie), or within its landing page for AeHN policies and procedures.</p> <p>Amend Network Responsibilities Policy 2.500, AeHN Rule 200 re Notice of Privacy Practices: Amend the present policy language to require a Participant provide a copy of the language regarding the HIE that the Participant includes in their Notice of Privacy Practices be provided to AeHN for its review and reference.</p> <p>Amend Network Responsibilities Policy 2.500, AeHN Rule 200 re Notice of Privacy Practices: Amend the suggested wording to be included by the Participant in their Notice of Privacy Practice <u>to include</u> suggested wording about the ability for individuals to request and review documentation as to who has accessed</p>

⁴ See also Table 4.

⁵ See Table 6: Timeline for Addressing Privacy and Security Domain Gaps for proposed timeline.



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
	<p>request the documentation on disclosures is (or will be) available. AeHN's auditing capability, yet to be developed per the posted version of this policy, will "document which Participants posted and accessed the information about an individual through the System and when such information was posted and accessed".</p> <p>However, this rule states that "each Participant shall be responsible to account only for its own disclosures" and that "all requests for an accounting of disclosures will be forwarded back to the Participants to address for their respective patients". There is no provision that an individual may request an aggregated accounting of disclosures related to the individual and all involved Participants can be requested from AeHN.</p>	<p>it has been disclosed.</p> <p>Gap: The ONC guidance for this domain suggests that information should be accessible to people with disabilities (i.e., follow Section 508 and possibly similar State of Alaska requirements). The AeHN website supports access to HIE privacy information but its design does not appear to address Section 508 requirements.</p> <p>Gap: There does not appear to be a provision for an individual to request a consolidated Notice of Disclosures related to the HIE. It could be argued that this is not required until the HIE can "store, assemble or aggregate IIHI. However, there is the distinct possibility that an individual would request a log of all related Direct messages pertaining to their treatment.</p>	<p>their information or to whom it has been disclosed. This will also need to be backed up by AeHN policy and procedural changes related to an individual requesting Notice of Disclosure directly from AeHN. See Gap below.</p> <p>Address how to make HIE privacy information accessible to an individual with disabilities. This would include information such as privacy policies and the Notice of Data Practices. Remediation could consist of procedures and/or web site redesign to meet Section 508 requirements.</p> <p>Update Network Responsibilities Policy 2.500, AeHN Rule 400 re: Access to and Use and Disclosure of Information: Address this issue immediately in policy and procedure as relates to Direct Secure Messaging. Consider additional impact when the HIE starts to store, assemble or aggregate IIHI as well as future requirements for functionality within the Patient Portal.</p>



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
<p>Collection, Use and Disclosure Limitation: Individually identifiable health information should be collected, used and/or disclosed only to the extent necessary to accomplish a specified purpose and never to discriminate inappropriately. This information should only be collected, used or disclosed to accomplish a specific purpose, and purposes of information exchange should be specified</p>	<p>This Domain mainly addressed by Network Responsibilities Policy 2.500 with the following two rules:</p> <ul style="list-style-type: none"> • AeHN Rule 400 re: Assess to and Use and Disclosure of Information. This rule establishes the purposes for which a Participant can use requested protected health information through the HIE. It further specifies that “A Participant may request and use protected health information through the [HIE] only if the Participant has or has had or is about to have the requisite relationship with the individual whose protected health information is being accessed and used.” The rule goes on to list the permissible purposes of which treatment is one. • AeHN Rule 600 Minimum Necessary supports the rule that a Participant can only access the information needed from the HIE that is needed for the intended purpose of the request. 	<p>Gap: The specific elements outlined in the ONC PIN guidance (i.e., applicability to de-identified data, public health officials receiving the data, and cases where the patient has authorized access to his/her for treatment of another patient, such as a relative) should be addressed by AeHN in these policies.</p>	<p>Review appropriate policies for inclusion of needed detail on collection, use, and disclosure limitations and update as needed</p> <p>Provide appropriate training to HIE Participants on collection, use, and disclosure limitations, both for Direct Secure Messaging and other services, on the overall policies and procedures related to the privacy elements of this Framework</p>
<p>Safeguards: Individually</p>	<p>AeHN is adhering to the HIPAA Security Regulation in the</p>	<p>A review of the current policies and procedures made available by AeHN</p>	



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
<p>identifiable health information should be protected with reasonable administrative, technical and physical safeguards to ensure its confidentiality, integrity and availability and to prevent unauthorized or inappropriate access, use or disclosure.</p>	<p>development of their policies and procedures and establishment of safeguards. Key documents for Safeguards include the following AeHN Network Policies:</p> <ul style="list-style-type: none"> • Introduction to Security Policies (2.000) • Administrative Safeguards (2.200) • Physical Safeguards (2.300) • Technical Safeguards (2.400) • Supporting security procedures • Network Responsibilities (2.500) <p>In addition, the HIE technical solution for Secure Direct Messaging supports:</p> <ul style="list-style-type: none"> • Per PIN Guidance for this Domain regarding encryption: "HIE entities should provide for the exchange of already encrypted IIHI, encrypt IIHI before exchanging it, and/or establish and make available encrypted channels through which electronic health information exchange could 	<p>and using the State HIE Security Checklist as a guide revealed the following gaps:</p> <p>Gap: AeHN should have completed a preliminary assessment of risks and vulnerabilities to thoroughly evaluate privacy and security risks and vulnerabilities and use this information to steer the subsequent development of policies and procedures.</p> <p>Gap: Many procedures, such as security procedure 2.404 on Encryption and Decryption that are dependent on risk analysis which has not been documented and will likely be supplanted to comply with Safeguard Domain guidance regarding encryption.</p> <p>Gap: "Addressable implementation specifications" allow flexibility for an entity implementing (or not implementing) certain elements in the HIPAA Security Regulation. However, the decisions must be supported by documentation as to why the specification is not reasonable and appropriate for the entity. This supporting documentation can include the results from the risk analysis, risk mitigation strategy, security measures</p>	<p>Perform preliminary risk assessment to establish baseline requirements and priorities for appropriate safeguards and controls.</p> <p>Update security procedures after completion of risk assessment. See subsequent gaps under this Domain.</p> <p>Determine which addressable specifications apply to the State HIE as part of the preliminary risk analysis and document in State HIE Security Checklist as authoritative source</p>



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
	<p>take place.” With the September implementation of the Orion Health Direct solution, the “YouSendit” functionality will be replaced by DSM. DSM provides full encryption of the message and the payload, where “YouSendit” encrypts only the message.</p> <ul style="list-style-type: none"> • Currently, the AeHN is focused on the implementation of DSM which uses assurance Level 2 in accordance with guidance from NIST 800-63 version 1.0.23 	<p>already in place, and the cost of implementation.</p> <p>Gap: Some procedures named within the policies and/or other procedures (e.g., Sanctions), such as sanction procedures need to be further developed. Procedures also appear generic and, in some instances, still retain the source information from which they were adopted.</p> <p>Gap: HIE Privacy and Security Procedures should be available in a coordinated manner to ensure that the overall security objectives are met</p>	<p>Determine which security procedures are required, prioritize development, and tailor existing procedures to the actual requirements of the operational Alaska HIE (e.g., use of Direct Secure Messaging) to ensure completeness of the security procedures.</p> <p>Develop HIE Privacy and Security Operations Handbook that lays out key activities related to the AeHN HIE Privacy and Security Framework with specific topics targeted to the role of the user. At a minimum, topics should include:</p> <ul style="list-style-type: none"> • Risk Analysis and Management <ul style="list-style-type: none"> ○ Risk Assessment and Evaluation Approach ○ Risk Management ○ Initial and Updated Outcomes • System Life Cycle Security Planning and Management <ul style="list-style-type: none"> ○ Configuration Management/Change Control ○ System Acceptance Test/Security ○ Review & Assessment of Security Controls • AeHN Security Documentation Update and Availability Procedures • Privacy and Security in Business/Operation to include at a minimum:



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
			<ul style="list-style-type: none"> ○ Consumer authorization/consent procedures ○ Workforce clearance, awareness, and training ○ Access and authorization ○ Physical concerns ○ Incident reporting and breach notification ○ Contingency planning and “work-arounds” when HIE services are available
<p>Accountability: These principles should be implemented, and adherence assured, through appropriate monitoring and other means and methods should be in place to report and mitigate non-adherence and breaches.</p>	<p>Throughout its policies, procedures, and agreements, AeHN is attentive to this Domain. Key documents for Accountability include:</p> <ul style="list-style-type: none"> • Administrative Safeguards (2.200) • Physical Safeguards (2.300) • Technical Safeguards (2.400) with supporting procedure Breach Notification 2.409 • Network Responsibilities (2.500) with supporting rules: <ul style="list-style-type: none"> ○ AeHN Rule 1000 re: Mitigation that outlines roles and responsibilities in the event of a breach ○ AeHN Rule 1100 re: Investigations; 	<p>Gap: It appears that a Direct Secure Messaging Subscriber may, but does not necessarily have to execute a complete Participant Agreement to participate in Direct Secure Messaging. The Direct Secure Messaging Subscriber agreement is not completely aligned with the Participant Agreement as it does not address non-compliance or potential breach. It should, at a minimum, follow best practices for email systems that carry sensitive information and should be aligned with the full Participant Agreement in those regards.</p> <p>Gap: AeHN would benefit from a coordinated ‘roadmap’ for how to handle possible incidents, either due to non-compliance or, real time events that require immediate action.</p>	<p>Update the DSM Subscriber Agreement to ensure alignment with other AeHN policies and practices related to non-compliance and breach notification. Establish Privacy and Security best practices for the use of DSM and train DSM Subscribers on these practices.</p> <p>Develop overall set of compliance and breach notification procedures drawn from all supporting documents Provide compliance and breach notification procedures to Subscribers/Participants as part of HIE on-boarding activities</p>



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
	<p>Incident Response System that outlines the response process in the event of an incident that may or may be an actual breach</p> <ul style="list-style-type: none"> • AeHN Rule 1200 re: Authorized User Controls • AeHN Rule 1300 re: Sanctions • Alaska eHealth Network: Participant Agreement • Orion contractual terms 		<p>Provide secure access to current version of the compliance and breach notification procedures, including points of notification and contact</p>
<p>Optional to Address: The State has implemented and is currently only operating to the HIE Architectural Model that is Point-to-Point Directed Exchange). The following Domains, however, will direct future efforts of DHSS and AeHN and hence have been included for completeness.</p>			
<p>Individual Access: Individuals should be provided with a simple and timely means to access and obtain their individually identifiable health information (IIHI) in a readable form and format.</p> <p>Correction: Individuals should be provided with a timely means to</p>	<p>The AeHN Legal and Privacy and Security Compliance Work Groups will be reviewing the impacts of these Domains, especially as individual access to information and correction are critical processes that must be supported by the Patient Portal as well as in preparation for the emphasis placed by the pending Meaningful Use legislation that emphasizes consumer access to IIHI.</p>	<p>Not applicable</p>	



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
<p>dispute the accuracy or integrity of their IHHI, and to have erroneous information corrected or to have a dispute documented if their requests are denied.</p>			
<p>Individual Choice: Individuals should be provided a reasonable opportunity and capability to make informed decisions about the collection, use and disclosure of their individually identifiable health information. Individuals should be able to designate someone (family</p>	<p>Currently, this Domain is addressed by in several policies that include the Consumer Opt Out Election Policy 2.100 and Network Responsibilities Policy 2.500 with the following rules:</p> <ul style="list-style-type: none"> • AeHN Rule 300: Individual Control of Information Available through the System which deals with an individual being able to “opt-out”. • AeHN Rule 900: Request for Restrictions <p>The AeHN Legal and Privacy and Security Compliance Work</p>	<p>Not applicable</p>	



Domain	Description of Approach ⁴	Description of Gaps	Approach to Addressing Gaps ⁵
<p>member, caregiver, domestic partner or legal guardian) to make decisions on their behalf. This process should be fair and not burdensome.</p>	<p>Groups will be reviewing the impacts of this Domain and Meaningful Choice on all AeHN policies and procedures, the Consumer Opt Out Election Policy 2.100, the Networks Responsibilities Policy 2.500, and these rules in particular for future phases of the State HIE implementation where the HIE will be storing, assembling, or aggregating IHII.</p>		
<p>Persons and entities should take reasonable steps to ensure that individually identifiable health information is complete, accurate and up to date to the extent necessary for the person's or entity's intended purposes and has not been altered or destroyed in an unauthorized manner</p>	<p>This is not yet applicable to the operational State HIE implementation (i.e., Direct Secure Messaging) but is under consideration by the AeHN Legal and Privacy and Security Compliance Work Groups for a) development of appropriate policies and procedures and b) any additional technical privacy and security controls required by the HIE technology vendor (Orion).</p>	<p>Not applicable</p>	



The overall timeline for complying with the recommended actions is approximately six months starting July 1, 2012 and is comprised of four main tasks. Table 6 gathers these actions in four major tasks.

Table 7: Timeline for Addressing Privacy and Security Domain Gaps

Privacy & Security Domain	Proposed Process to Close Gap
Task One: Documentation Review and Update. This includes all policies, procedures, and agreements that that been identified as needing revision to remediate an identified gap. The proposed changes to these documents do not require a privacy or security risk assessment in order to develop proposed languages and gain approval. The task decomposes into four subtasks: 1) develop and amend documents, 2) obtain approval, 3) publish documents and 4) provide or update training associated with document type, if necessary	
Openness and Transparency	Develop and Publish Notice of Data Practices
Openness and Transparency	Amend Network Responsibilities Policy 2.500, AeHN Rule 200 re Notice of Privacy Practices
Openness and Transparency	Update Network Responsibilities Policy 2.500, AeHN Rule 400 re: Access to and Use and Disclosure of Information
Collection, Use and Disclosure Limitation	Review policies for inclusion of needed detail on collection, use, and disclosure limitations and update policies as needed Provide appropriate training to HIE Participants on collection, use, and disclosure limitations
Accountability	Update the DSM Subscriber Agreement to ensure alignment with other AeHN policies and practices related to non-compliance and breach notification
Task Two: Improve Accessibility to Privacy and Security Information for Individuals with Disabilities. This task decomposes into three major activities: 1) determine approach (e.g., procedures, revision of AeHN website), 2) implement approach, and 3) disseminate information to HIE community.	
Openness and Transparency	Address how to make HIE privacy information accessible to an individual with disabilities.
Task Three: Conduct Preliminary Risk Assessment to establish baseline security and relate privacy requirements, justification for how to approach HIPAA addressable specifications, and priorities for updating existing security procedures. ⁶ This task decomposes into several activities: 1) conduct assessment, 2) analyze results, 3) document recommendations, 4) prioritize procedures, 5) update and publish procedures Results from the risk analysis will also be used to shape the compliance and breach notification procedures that need to be established.	
Safeguards	Perform preliminary risk assessment to establish baseline requirements and priorities for appropriate safeguards and controls. Update Security procedures after completion of risk assessment. Determine which addressable specifications apply to the State HIE Determine what security procedures are required, prioritize development, and tailor existing procedures
Accountability	Develop overall set of compliance and breach notification procedures

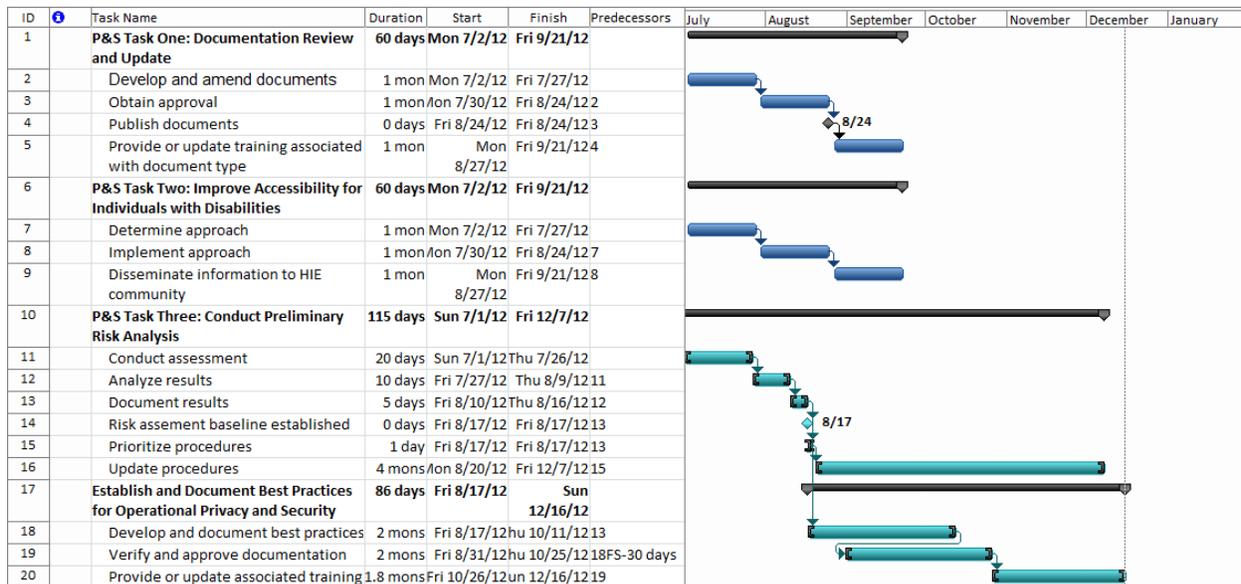
⁶ This preliminary assessment will be based on a review of existing documentation and inspection of HIE configuration; it will not include a vulnerability assessment or penetration test at this time, although the results from the preliminary assessment can be used as a basis for a third party vendor SOW engaged to perform such activities.



Privacy & Security Domain	Proposed Process to Close Gap
Task Four: Establish and Document Best Practices for Operational Privacy and Security to include an operations handbook, compliance and breach notification procedures established as part of the previous risk analysis, and especially for the use of DSM. The process for establishing and documenting best practices will be an outcome from Task Three and will include three activities: 1) develop and document best practices, 2) verify and approve documents, and 3) provide or update associated training, if required.	
Safeguards	Develop HIE Privacy and Security Operations Handbook
Accountability	Establish P&S best practices for the use of DSM and train Subscribers on these practices. Provide compliance and breach notification procedures to Subscribers/Participants as part of HIE on-boarding activities Provide secure access to current version of the compliance and breach notification procedures

Figure 11 shows a proposed timeline and dependencies for each P&S Task. These tasks will also be accommodated in the overall Project Plan.

Figure 11: P&S Remediation Timeline

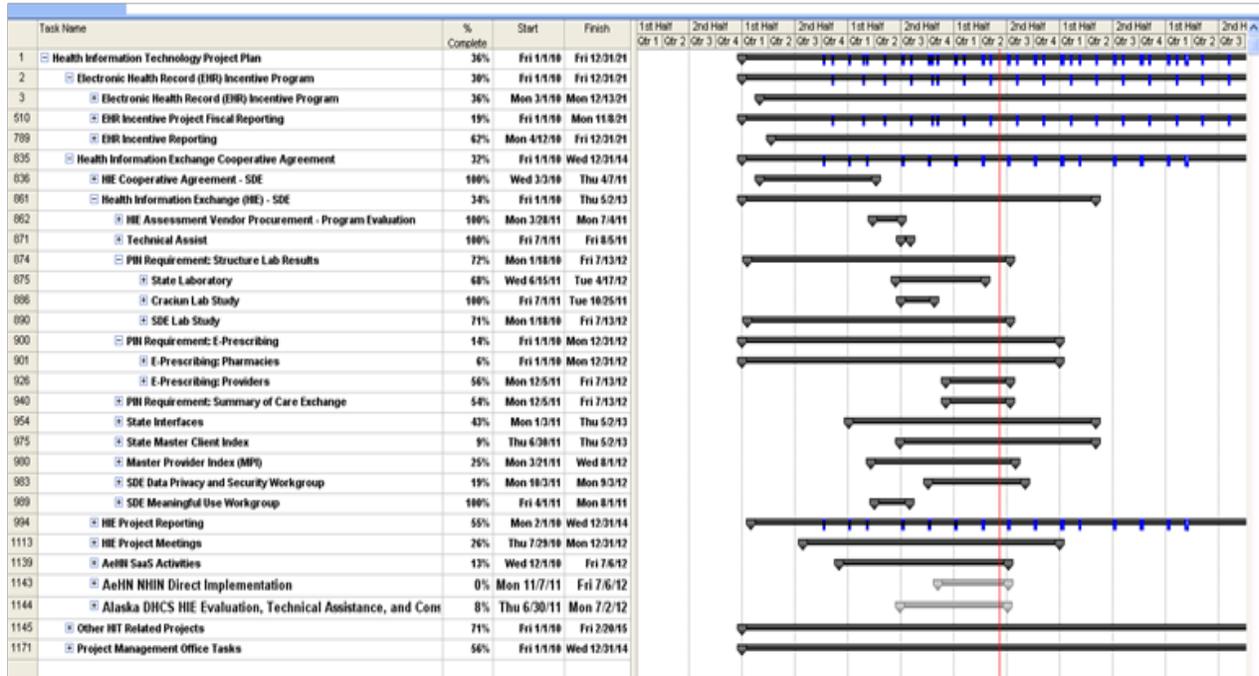




12 PROJECT MANAGEMENT PLAN

This section contains an updated project management plans for the HIE program.

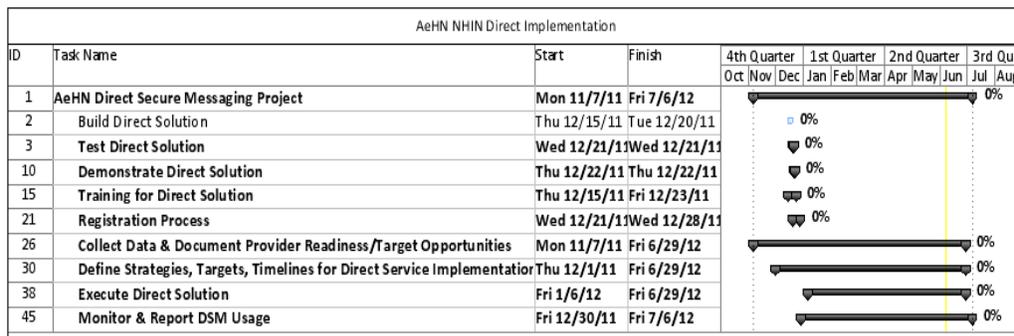
Figure 12 HIT Project Schedule



12.1 Direct Secure Messaging Schedule

AeHN worked with Orion Health to implement DSM support the exchange of CCD's and other communication between Alaska providers.

Figure 13 : Direct Secure Messaging Project

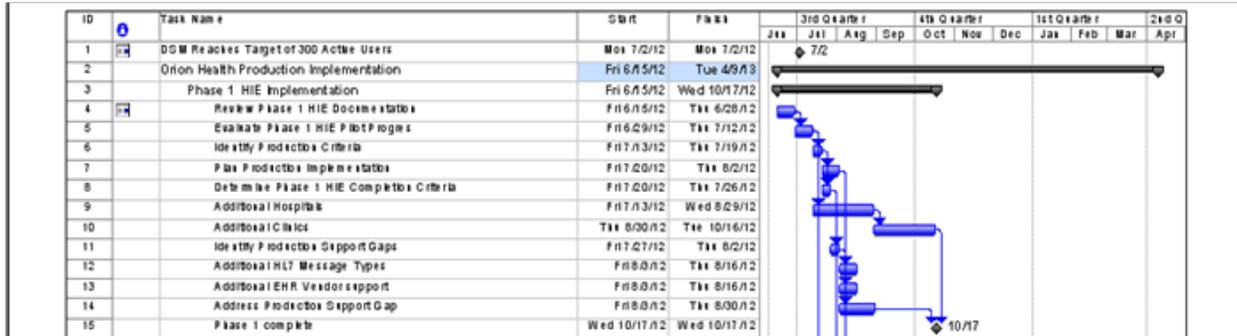




12.2 HIE Implementation Schedule

AeHN and the HIE vendor Orion Health made progress in 2011 on the implementation of the HIE SaaS project. However, beginning in November 2011, the implementation of DSM (depicted above) consumed the available resources of both AeHN and Orion Health. The HIE implementation effort is expected to be renewed once the DSM targets are met.

Figure 14: HIE (Resume) Implementation Plan

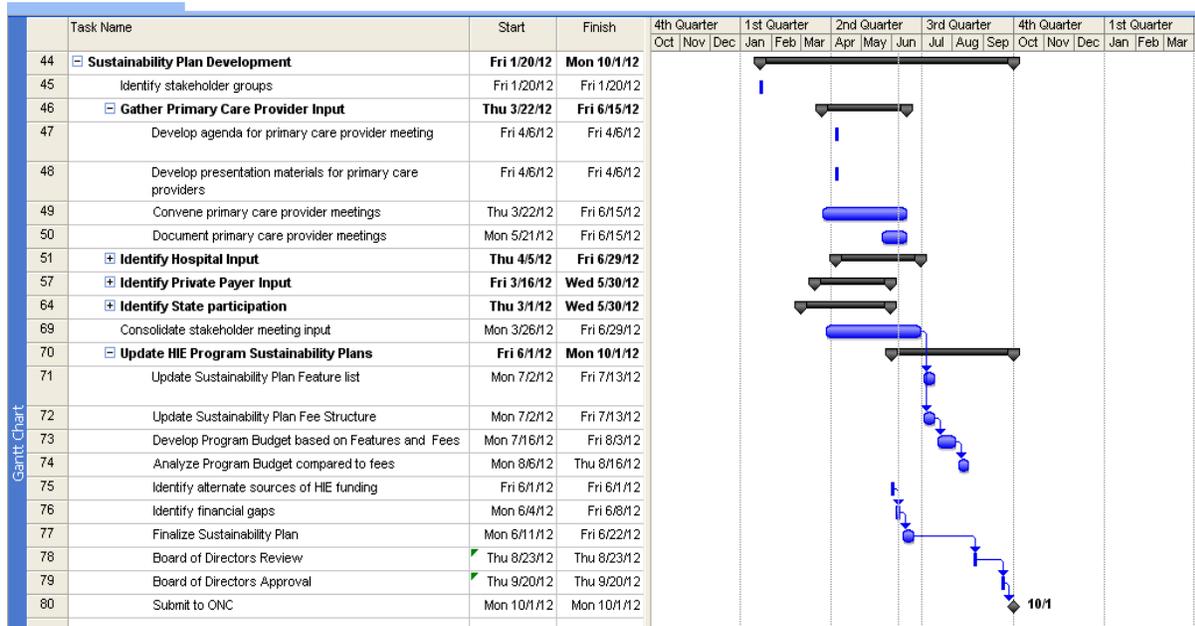


12.3 Sustainability Plan Schedule

Section 9 provides a description of the approach to developing a more robust HIE Program Sustainability Plan that will include participation from stakeholder groups based upon the product features necessary and available from the Orion Health HIE solution set. Figure 15: Sustainability Plan Update below captures the current plan development schedule.



Figure 15: Sustainability Plan Update



12.4 Risk Management and Mitigation

The State Designated Entity (SDE), AeHN and its governing board recognize that the largest risk to the successful deployment of HIE in Alaska is associated with its financial sustainability. Therefore the highest emphasis has been placed on developing the sustainable revenue stream and identifying associated risks and mitigations. Risks may often be avoided by successful offensive posturing. In business and economics, that simply translates to excellent communication and marketing strategies.

The AeHN is working on the following to minimize risk:

- Publicize (and brand) its products and services, along with their associated benefits, to create foundations of knowledge and support in communities.
- Use the media to share success stories and testimonials.
- Develop monitoring criteria for key trigger points to ensure timely response to issues.
- Seek endorsements from National organizations, State and local government, provider and consumer groups. Through endorsements, Alaska HIE will see the trust of the population.

The more the SDE and AeHN is associated with positive concepts—value, leadership, forward-thinking, front runner, pioneer, secure, private, less costly—the less distracting or debilitating any risks will become.



Despite such precautions, the following risks may potentially impact the State HIE’s ability to successfully achieve individual components of this operations plan. Mitigation options are offered to decrease or eliminate the risks.

Table 8 - HIE Risks

Potential Risk	Stakeholder Group	Mitigation Options
Funding and revenue are insufficient or taper off; costs outstrip available economic resources	Investors, Participants	<ul style="list-style-type: none"> • Ask stakeholders to sign Letters of Intent demonstrating commitment to participate and/or to match funds • Pursue additional federal, state and private sources of grants and endowments • Investigate additional services such as backup and hosting for small provider offices to offset costs and bring in additional revenues
Adoption rates for EHR technology is slower than expected	Providers	<ul style="list-style-type: none"> • Marketing for REC services to encourage adoption • Publicize success stories of EHR adoption • Offer alternative (or interim) services such as Direct Secure Messaging
Healthcare practitioners or consumers lose faith in the Alaska HIE’s ability to make PHRs and HIE a reality; bad press from other states bleeds over to taint Alaska HIE	Providers Consumers	<ul style="list-style-type: none"> • Identify a champion (entertainer, politician, clinician) who will speak on the Alaska HIE’s behalf and who will endorse the concepts • Tout the Alaska HIE ’s successes • Document connectivity implementation guidelines to inspire confidence that technological obstacles can be overcome • Document the achievements to date that speak to the Alaska HIE’s strengths thru the Newsletter and the website



Potential Risk	Stakeholder Group	Mitigation Options
Program alternatives are offered by competing organizations	Investors	<ul style="list-style-type: none"> Carefully distinguish the Alaska HIE's products and services from those of any competitor(s) and conduct extensive marketing campaign Cite the Alaska HIE's position as a neutral third party Work with key stakeholders to gain early participation and acceptance eliminating or reducing potential competition
Privacy or security incidents undermine faith in PHRs and healthcare data exchange	Consumers Providers Investors	<ul style="list-style-type: none"> Remain open and transparent as regards to privacy and security policies and procedures Create a marketing program which highlights the patient- centric model Demonstrate how Alaska HIE working with the Alaska Electronic Health Record Alliance (AEHRA), providers, payers and community members, have adopted national standards for privacy and security to prevent improper or accidental disclosure in order to protect consumers and clinicians
Computer viruses or other breaches compromise the data	Consumers Providers	<ul style="list-style-type: none"> Adopt national standards for privacy and security and implement best practices for data control and access Maintain disaster recovery procedures and "lock down" emergency policies for detection of intrusion
Clinical errors occur and Alaska HIE is blamed	Providers Consumers	<ul style="list-style-type: none"> Adopt national best practices for Regional Health Information Organizations (RHIOs) including audit trails
Loss of records because Alaska HIE goes out of business	Providers Consumers Investors	<ul style="list-style-type: none"> Provide provisions in the participation agreements with consumers, payers and providers which will govern the transition of data in the event of dissolution
Program alternatives are investigated by potential participants to	Providers Investors	<ul style="list-style-type: none"> Identify early incremental implementation opportunities that can be deployed and adopted quickly



Potential Risk	Stakeholder Group	Mitigation Options
expedite the process or reduce individual risk		
DSM adoption is limited due to workflow compatibility concerns by providers	Providers Investors	<ul style="list-style-type: none"> Identify though REC program participants providers whose workflow is less sophisticated and DSM will be accepted Monitor ONC support of EHR/Direct integration that will address workflow issues, ensure that providers are aware of these efforts
DSM adoption is limited due to stability issues	Providers Investors	<ul style="list-style-type: none"> Report and monitor all stability concerns to vendor. Ensure that Alaska solution current with vendor supplied software updates Maintain regular communication with the vendor at multiple levels to ensure adequate support



13 EVALUATION PLAN

The PIN outlines the requirements of the Evaluation Plan as noted in this section, it is included here for reference purposes only.

1. *Describe the approaches and strategies used to facilitate and expand health information exchange in the program priority areas and other areas as appropriate for the State's strategy. Program priority areas that must be included are:*
 - a. *Laboratories participating in delivering electronic structured lab results*
 - b. *Pharmacies participating in ePrescribing*
 - c. *Providers exchanging patient summary of care records*
2. *Identify and understand conditions that support and hinder implementation of those strategies (e.g. how did your governance model or engagement with stakeholders support your strategy to increase lab exchange activity in your state?)*
3. *Analyze HIE performance in each of the key program priority areas (e.g. where did your state/territory begin at the start of the program and how have you progressed?) Grantees with operation health information exchange underway are encouraged to assess participant adoption and use (e.g. measure provider adoption) and analyze its impact (e.g. assess impact on care transitions, patient safety and duplicate lab test ordering, etc.)*
4. *Assess how the key approaches and strategies contributed to progress in these areas, including lessons learned.*

The following elements are required for the evaluation plan that shall be submitted to ONC in the first annual SOP update:

- *Aims of the evaluation (as noted above), including key evaluation questions that the Grantee seeks to address.*
- *Evaluation framework to assess the aims (e.g. context, process, outcomes)*
- *Evaluation methods including:*

Study design: *describe the study design which shall include both qualitative and quantitative components. For quantitative analysis, the use of comparison or control groups or designs that assess change over time (pre-post) is suggested to enhance the validity of the findings.*



Study population: Describe the population to be included in the evaluation (e.g. providers, pharmacies, laboratories, etc.) Specify inclusion and exclusion criteria as appropriate, and the recruitment strategy

Data sources and data collection methods: Describe the data collection approach to answer key evaluation questions, which may include implementing surveys, analysis of existing survey data, focus groups, interviews and audit log data from HIE vendors.

Data analysis: Describe the analytic methods that will be used including sample size.

13.1 HIE Performance Evaluation Plan

This section describes the efforts conducted prior to the PIN release to evaluate the Alaska HIE Program operations. Additionally, sections follow that describe the activities to evaluate the State's lab exchange participation and capabilities, as well as pharmacy participation in ePrescribing. Each section describes the approach and methodology applied to conduct the evaluation or survey, the population evaluated and the criteria used to select the population. The results of the HIE Program Assessment; Lab Survey and Pharmacy Survey are included in appropriate appendices.

13.2 Subsequent Program Evaluation

The Alaska HIE program conducted the first annual program evaluation in the Fall 2010, receiving the report in October 2010. The initial evaluation did not have the benefit of the ONC HIE PIN-003 guidance regarding program evaluation available due to this timing. Subsequent evaluation activities will apply additional emphasis on the evaluation of the program's goals, achievements and strategies to support PIN priorities.

13.2.1 HIE Program Assessment

Cognosante has conducted an assessment of the Alaska HIE program as required under the ONC Statewide Health Information Exchange Cooperative Agreement Program. The Agreement requires an annual assessment of the program operation. The Alaska DHSS solicited a third party independent assessment. Cognosante was selected to conduct the Assessment. This document represents the results and recommendations of the Assessment of the Alaska HIE Program.

The Assessment Criteria was established based upon ONC's five Domains identified in the Funding Opportunity Announcement (FOA) on August 1, 2011. The assessment was conducted between August 1 and September 29, 2011. The assessment activities included document review, individual stakeholder interviews, group discussions (in particular with Orion Health), Internet research and discussions with HIT Program Office staff.

13.2.1.1 Findings

The assessment findings are detailed in this HIE Assessment Results and Recommendations document, organized by the ONC Domain areas in both visual (dashboard) and written formats.



Table 9: Overall Assessment Finding Dashboard

Domain	Overall Rating	Comments
Governance	RED	Three of five areas were assessed as Red, Yellow, and Green. Top concerns are: <ol style="list-style-type: none"> 1. Lack of stakeholder / community trust in governance process 2. Lack of transparency in the decision making process, generally due to restricted access to documentation surrounding the decision-related process and outcomes 3. Lack of consistent communication and reporting procedures
Finance	RED	Two of four areas were assessed as Red, the other two were not assessed (Grey). Top of concerns are: <ol style="list-style-type: none"> 1. Lack of sustainability plan. 2. Lack of clear value proposition to attract and retain HIE participants.
Technical Infrastructure	GREEN	Three of four areas are assessed as Green; one area was assessed as Yellow. Top concerns are: <ol style="list-style-type: none"> 1. No performance or availability SLAs have been established. 2. Processes and procedures for user provisioning, including role access determination, are delegated exclusively to administrators in participating organizations. 3. Consent is limited to opt-in, opt-out, and opt-out with break-the-glass capability.
Business and Technical Operations	YELLOW	Five out of nine areas were assessed as Yellow, three as Red, and one as Grey. Top concerns are: <ol style="list-style-type: none"> 1. No active risk management plan, process, or manager(s) on a high risk project 2. Project needs to clarify network infrastructure impacts on delivery of services
Legal/Policy	RED	Two of four areas were assessed as Red, two as Yellow. Top concerns are: <ol style="list-style-type: none"> 1. DHSS lacks a consensus-driven framework for HIE-related privacy, security, and legal concerns against which HIE operational policies and procedures can be aligned. 2. AeHN does not appear to have conducted a risk analysis of its business/technical operations and logical architecture to create policies and agreements specific to the services initially offered. 3. Existing AeHN documents are deficient in many areas such as establishing key roles and responsibilities, enforcement of sanctions, and the management process for creating and maintaining approved policies and procedures.

Key:	Red – Acute Concern	Yellow – Moderate Concern	Green – Positive	Grey – Not Assessed
-------------	----------------------------	----------------------------------	-------------------------	----------------------------



Cognosante finds that the Alaska HIE Program faces critical challenges in four of the five domains. Three domains (Governance, Finance and Legal/Policy) are rated as “Red” or having predominantly Acute Concerns, one (Business and Technical Operations) is rated “Yellow” or having Moderate concern and the final domain (Technical Infrastructure) is rated “Green” or Positive, having no significant concern.

13.2.1.2 Key Findings and Areas of Concern

DHSS and the Alaska eHealth Network (AeHN) have made substantial progress in establishing the Alaska HIE program under the direction of the ONC and the AeHN BOD in the first year of the Cooperative Agreement.

- Cognosante finds that the governance model is appropriate in size and representation, and in particular is in agreement with the design identified in Senate Bill 133, now AS 18.23.310, where the Alaska Legislature affirmed the program organization.
- Cognosante finds that the technical solution is well supported by Orion Health, in addition to the Software as a Service (SaaS) model proving to be appropriate for the state’s needs and technical capabilities. The assessment finds the technical infrastructure, architecture and standards are in alignment with the contractual and grant agreements and support the state’s identified requirements.

Cognosante identified several significant areas of concern.

Cognosante finds that there are areas that will require significant focused attention such as risk management, transparent decision making, financial sustainability and developing a defined privacy and security program; in order to successfully carry out the Strategic and Operational plans outlined in the grant application and subsequent plan updates. Cognosante specifically identified the following significant areas of concern:

- The existing governance decision-making and communication elements of the program lack the required level of transparency. Information regarding decisions, including both financial and programmatic decisions, is not readily available outside of the AeHN BOD members. This deficiency has and may continue to lead to diminished participation by key stakeholders that perceive a lack of influence over this process.
- The program has not formalized a communication management plan. The result appears to be a disproportionate focus on presentations regarding membership activities, coupled with diminished focus on the value, services and requirements of the HIE. Potential HIE participants may benefit from additional understanding of program operations from multiple communication delivery methods.
- The program has not been able to identify a financial sustainability plan. Both the State leadership and the ONC have been very clear that HIE operations will need to be self-supporting. Participants in the HIE must understand the ongoing costs of the service as well as the economic value available in order to maintain sufficient membership levels to sustain the considerable costs of SaaS and operational support identified by AeHN.



- The program has not formalized a risk management plan. The result appears to be reactive rather than proactive response to program issues.
- The program requires additional attention to the development of a formalized privacy and security plan. Given the sensitive nature of the information exchange it is essential that this plan be highly visible and garners the trust of a broad set of program stakeholders.

Many areas have been assessed as “Moderate Concern” these areas require additional monitoring and course correction to avoid a future assessment of “Acute Concern.”

13.2.1.3 Recommendations

Cognosante has documented over 30 individual recommendations for the State to consider in remediation and/or improvement of these concerns. Taken separately, these individual recommendations may appear overwhelming and somewhat disjointed. However, when taken in the context of the five ONC domains, Cognosante feels that these individual recommendations can contribute to an overall strategy and the development of a cohesive plan for definite improvement by the next annual assessment in 2012.

Cognosante recommends the following actions:

1. A senior HIT Program Office staff member should be empowered to concentrate on primary corrective actions and program oversight to ensure that the State can fulfill its obligations in the Cooperative Agreement.
2. DHSS should review the detailed findings and associated recommendations contained in this assessment and focus HIT Program Office efforts on the three “red” areas, revising project/program documents accordingly and establishing criteria that can be used by the State and its contractor, AeHN, to definitively measure progress towards the goals of that phase
3. DHSS should develop a remediation plan that increases the focus on the critical corrective actions that will directly result in improvements in how the Alaska eHealth Network (AeHN) non-profit entity meets its management responsibilities for Health Information Exchange (HIE). This plan will need to achieve a) improved oversight by the State into AeHN activities, b) greater accountability of AeHN to the State and stakeholders in its management of the HIE, and c) greater transparency of the governance and other processes to stakeholders and the HIE community at large.

Cognosante believes that additional focus on the critical corrective actions will result in improved State management of the HIE program.

13.2.1.4 Assessment Overview

This section presents an overall assessment of Alaska HIE program against the five essential domains defined by the ONC guidelines for HIE. The domains are:

1. Governance



2. Finance
3. Technical Infrastructure
4. Business and Technical Operations
5. Legal/Policy

This assessment is intended to provide a baseline from which the State's progress towards a mature and sustainable HIE can be monitored, evaluated on an annual basis and reported to stakeholders.

The recommendations contained in this document are based on the analysis, findings, and recommendations by Cognosante working in coordination with the State HIT Coordinator. Gaps and areas for improvement have been identified and recommendation made based on best practice. This document, therefore, is intended to provide the State of Alaska with recommendations based an assessment strategy that is repeatable and will take into account additional organizational, operational, and technical factors that are critical to successful HIE implementation and adoption.

13.2.1.5 Scope

Cognosante and DHCS defined the assessment scope to include all Alaska HIE Program operations and to specifically exclude financial operations (i.e., budgeting and financial audit topics) with the exception of the sustainability plan and exclude the responsibilities of AeHN as the Alaska REC.

13.2.1.6 Purpose

Developing the capacity for a Statewide HIE in Alaska is an incremental process that requires demonstrated progress across five essential domains as defined by ONC: governance, finance, technical infrastructure, business and technical operations, and legal/policy. The State is involved in planning and implementing activities to achieve HIE. The purpose of this document is to document the evaluation activities, findings and recommendations across all five HIE domains as guided by the goals, strategies and objectives of State HIE.

The Funding Opportunity Announcement (FOA) for the Cooperative Agreement requires the State to complete an annual self-assessment of the activities conducted under this program. The assessment will impact future program management and enable continuous improvements to the program. Additionally, ONC plans to collaborate with the states and provide technical assistance in order to ensure that lessons learned are implemented in a way that promotes quality and efficiency improvement through secure and appropriate electronic exchange of health information.

13.2.2 Methodology and Approach

This section describes the Alaska HIE Assessment methodology and approach as agreed upon by DHCS.



The assessment criteria were defined to support the ONC grant requirements as well as the contractual agreements between DHSS and AeHN. Cognosante selected the five domains defined by the ONC in the FOA.

Cognosante developed a set of desired documentation that represented information supporting the domain criteria. In addition, Cognosante identified key stakeholder positions that had experience with either the AeHN BOD or the program at large, these stakeholders would inform the assessment regarding perception, activities and communication penetration.

Cognosante focused the assessment information gathering on six key activities:

- Individual stakeholder interviews
- Review of key documentation
- Group question and answer sessions with Orion Health staff
- Internet research
- Interaction with AeHN Board of Directors at August meeting in person and September 2011 Annual meeting via conference line
- Discussions with the HIT Project Office to provide historical perspective and context

13.2.3 Assessment Criteria Definition

To support these activities, Cognosante leveraged the ONC expectations to develop an Assessment Criteria document that was submitted and approved as the basis of the assessment. An Outline of the information contained in the Assessment Criteria document is presented in Appendix D.

The assessment areas of focus criteria were subsequently mapped to the ONC Five Domains as follows:

Table 10: Assessment Areas of Focus Mapped to ONC Domains

Domain	Assessment Area of Focus
Governance	Governance
Finance	Sustainability
Technical Infrastructure	HIE Architecture and Standards
Business and Technical Operations	Project Management Procurement & Contracts Management Risk Management HIE Implementation HIT Program Alignment Meaningful Use
Legal/Policy	Privacy and Security

Stakeholder Analysis – Cognosante has identified stakeholders associated with the HIE program as depicted in Appendix E.



13.2.4 Assessment Activities

The sections below describe the detailed assessment activities, purpose and limitations.

13.2.4.1 Stakeholder Interviews

Cognosante conducted twenty individual stakeholder interviews to assess the perceptions of the HIE program operations; identify areas of program strength and areas of potential program weakness.

Cognosante recommends that a broader selection of interview candidates is provided for the next annual assessment including consumer focus groups and HIE participant and non-participant health care providers.

13.2.4.2 Documentation Reviews

Cognosante requested program artifacts that should be in place to support a program of the size and scope of the HIE implementation and maintenance effort. Most of the documentation was requested through the HIT Program Office from AeHN. AeHN agreed to provide the requested documentation, however Cognosante observes that the requests appeared both difficult to fulfill and in many cases, the documentation did not exist. Much of the documentation was provided in the last week of the assessment period, creating both a delay in the assessment report and a potentially incomplete review of each document. Further documentation was submitted after the Cognosante Project Manager informed the HIT Coordinator that additional documents could not be considered for this assessment period. Cognosante encourages AeHN and DHSS to continue to develop and collect these program documents in an organized, consistent manner.

Documents submitted relating to the operations of the REC were not considered relevant to the HIE Program Assessment.

13.2.4.3 Orion Health Sessions

Initially, Cognosante requested a set of standard technical documents. In the absence of these documents, Cognosante engaged in a series of discussions with the Orion Health team. Cognosante prepared a set of questions, further described in the Technical Domain Section of this document. The discussions with Orion Health regarding the technical infrastructure, application of national standards and technical aspects of privacy and security, were productive and well supported by Orion Health staff. Additionally, certain detailed technical documents were provided that were deemed too sensitive to retain by Cognosante or the State. Cognosante did leverage the overall technical concepts in these documents in completing this assessment.

13.2.4.4 Internet Research



Cognosante reviewed information available from AeHN and the State of Alaska to assess this aspect of public facing communication. In addition, Cognosante leveraged the considerable online resources made available by ONC, CMS and HISPC.

13.2.4.5 Interaction with AeHN Board of Directors

Cognosante was invited to present the Assessment Criteria and concepts at the August 2011 BOD meeting in Anchorage, Alaska. In addition, Cognosante staff participated in the AeHN BOD Annual meeting held in September, via conference line. In these meetings and the review of BOD meeting minutes, Cognosante staff was able to discern the general tenor of the BOD meetings. Several BOD members were among the 20 individual stakeholder interviews.

13.2.4.6 Discussions with HIT Program Office

During the Assessment, the State HIT Program Office provided background information, selected and provided introduction to interview candidates and provided program documentation for Cognosante's review. Due to the HIE program responsibility assigned to the State's HIT Coordinator as contract manager for the AeHN contract, the Coordinator is also assessed in this document related to the program oversight.

13.2.4.7 Reporting Tools

Cognosante developed a set of repeatable reporting tools that can be leveraged consistently in each annual assessment. The reporting tools include:

- Dashboard indicator for each "high level" area (Red Yellow Green Grey)
- Explanatory detailed assessment and assignment of status for each relevant bullet
- Set of recommended actions that should be monitored and included in the subsequent HIE assessment

13.3 Lab Exchange Approach and Strategies

13.3.1 Lab Survey

This section contains a description of the results and an analysis of the survey conducted by Cognosante on behalf of the Alaska HIE Program, during the week of December 12, 2011 of 62 labs around the State of Alaska to determine their implementation and use of Laboratory Information Management Systems.

Sixty-two labs were identified by the HIT Coordinator to contact with a set of nine questions.

High-level call results:

- Cognosante made an attempt to contact each of the labs on the list with the exception of Quest
- Forty-three of the contacted labs completed the survey



- Sixteen labs either declined to complete the survey or did not return repeated phone calls
- Quest and Laboratory Corporation of America locations (total of three) are not included in the results, the State has an understanding of these large corporate lab capabilities to exchange lab results

Survey results:

- Most labs (Thirty-one of thirty-eight) conducting clinical diagnostic testing reported having a Lab Information System (LIMS)
- Nearly 10% of the sample outsource at least some of their testing to Quest or Lab Corp
- The primary barrier cited to electronically exchanging structured lab results is the lack of system interoperability
- While over half of the labs report exchanging lab results externally using “electronic” means, most reported that the volume was less than 2% of the results. It should also be noted that respondents confused electronic exchange of results with faxing results.
- Survey participants identified a need for education and a desire for standardized LIMS solutions
- Of those labs contacted without a LIMS solution, most identified cost as the primary barrier to adopting a LIMS
- There was some interest in participating in National Lab initiatives

13.3.2 Lab Webinar

This section describes the results of the electronic polling conducted during the February 16th Lab Webinar conducted for Alaskan Labs. The purpose of the webinar was to increase the level of awareness regarding electronic lab exchange and provide an educational opportunity for the participants.

Over eighty lab managers were directly invited to attend the webinar.

Twenty-six participants registered for the webinar in advance.

Fourteen individuals participated in the webinar along with eight persons from the DHSS (HIT) Program Office, Deloitte, LLP and Cognosante, LLC.

13.3.2.1 Presentation Objectives and Approach

During the presentation, the participants were asked to respond to online polling questions to indicate their response.

The presenter was able to clarify several questions. The respondents were given about two minutes to respond to each question by clicking on the appropriate response.

The Lab Webinar Polling Results are included in Appendix F.



13.4 Pharmacies Participating in EPrescribing Approach and Strategies

13.4.1 Pharmacy Survey

This section contains a description of the Pharmacy survey conducted in December 2011.

This section includes the results and an analysis of the survey conducted by Cognosante during the week of December 19, 2011 of 12 pharmacies around the State of Alaska to determine their ability to participate in ePrescribing.

The HIT Coordinator identified twelve pharmacies to contact with a set of ten questions. The twelve pharmacies selected, according to the most recent Surescripts data, are all of the Alaska pharmacies that are not classified as “Medical Device Manufacturer” and that are not participating in the Surescripts network exchanging electronic prescriptions. The twelve non-participating pharmacies represent just over 11% of all Alaska pharmacies identified by Surescripts. Also excluded are federal pharmacies such as the VA and military bases. These pharmacies are supported nearly 100% by ePrescribing, unless they receive a prescription from an external provider that doesn’t participate in ePrescribing.

Survey response results:

- All pharmacies were contacted except **I Care Pharmacy**, whose phone has been disconnected. This pharmacy is apparently out of business.
- All 11 pharmacies contacted completed the survey

Survey results:

- Approximately 45% of the surveyed pharmacies indicated that they have ePrescribing capabilities
- Most pharmacies who have ePrescribing capability are at the early stages of adoption
- Some pharmacies who have the capability only use electronic transactions within their own organization; others have the capability but don’t use it, preferring instead to continue to use their manual processes
- When there is a federal or state mandate in place to communicate information electronically, the pharmacies comply. The main example mentioned by pharmacies is communication of immunization information, where electronic submission to the State is required. Pharmacies employ technology specific to communicating immunization information to achieve compliance; their ePrescribing systems are not used for this activity.

Survey notes:

- A pharmacist suggested that the State attend the annual Alaska Pharmacist Association convention in February in Anchorage. He stated that the pharmacists would be



interested in hearing about the State's efforts in electronic communication of health information, and would welcome an agenda item at the convention about this topic. He suggested contacting the executive director of the association to coordinate.

- A pharmacist shared that his business has dropped by about 90% due to “the federally funded start-up of a competing pharmacy in his town.” In addition to start-up funding, the competing pharmacy is reported to receive an ongoing discount on their drug purchases, making it impossible for the surveyed pharmacist to compete.

13.4.2 Monthly Surescripts Data Review

This section contains a description of the monthly Surescripts Data review, results and issues.

As Surescripts data becomes available through the HITREC portal, the pharmacy participation data for Alaska is downloaded and reviewed. The tables below illustrate the monthly analysis conducted on the Surescripts data made available.

Table 11: March 2012 Pharmacy Analysis

	March 2012
Total Pharmacies (Surescripts)	114
Pharmacies on Network Surescripts	(100)
Pharmacies Closed	(1)
Infusion Pharmacy	(1)
Government Pharmacies	(5)
Pharmacies categorized as Medical Device manufacturers	(3)
Non-participating target Pharmacies	4

Figure 16: Surescripts Data Mapping March 2012 Data

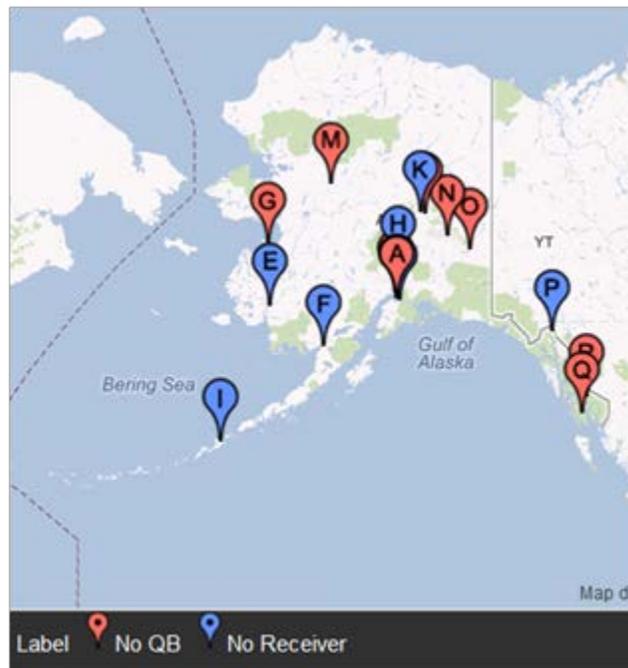


Figure 16: Surescripts Data Map shows:

- “No QB” – zip codes that have ePrescribing pharmacies; however, Surescripts data indicated that no providers have ePrescribing capabilities. The ten zip codes with this condition are included in Table 10 below along with the population of that zip code, based on the most recently available Census data (or estimate), and potential explanatory notes regarding the area. These rows are shaded in pink in the table.
- “No Receiver” – zip codes that have providers with ePrescribing capabilities; however the Surescripts data indicated that no pharmacies within the zip code have the ability to receive e-prescriptions. The eight zip codes with this condition are included in Table 10 along with the population of that zip code, based on the most recently available Census data (or estimate), and potential explanatory notes regarding that area. These rows are shaded blue in the table.



Table 12: Alaska Zip Codes without ePrescribing Matches

	City	ZIP	Population*	Surescripts "Condition"	Comments
A.	Anchorage	99511	0	No Surescripts Provider ePrescribing	PO Box only, likely Anchorage Airport
B.	Anchorage	99516	23,190	No Pharmacy accepting e- prescriptions	
C.	Anchorage	99518	9,950	No Surescripts Provider ePrescribing	
D.	Anchorage	99520	0	No Pharmacy accepting e- prescriptions	PO Box only, likely Anchorage Airport
E.	Bethel	99559	772	No Pharmacy accepting e- prescriptions	2 other zips for location
F.	Naknek	99633	206	No Pharmacy accepting e- prescriptions	
G.	Saint Michael	99659	8	No Surescripts Provider ePrescribing	
H.	Talkeetna	99676	1809	No Pharmacy accepting e	
I.	Unalaska	99685	3	No Pharmacy accepting e- prescriptions	PO Box Only
J.	Wasilla	99687	870	No Surescripts Provider ePrescribing	4 other zips for location
K.	Fort Wainwright	99703	448	No Pharmacy accepting e	Military Base
L.	North Pole	99705	20,107	No Surescripts Provider ePrescribing	Near Fairbanks
M.	Barrow	99723	697	No Surescripts Provider ePrescribing	PO Box Only 3 other zips for location
N.	Delta Junction	99737	1789	No Surescripts Provider ePrescribing	1 other zip for location
O.	Tok	99780	1562	No Surescripts Provider ePrescribing	1 other zip for location
P.	Invalid ZIP	99807	0		Invalid Zip code for the Prescriber



	City	ZIP	Population*	Surescripts “Condition”	Comments
Q.	Skagway	99840	68	No Pharmacy accepting e-prescriptions	PO Box Only
R.	Craig	99921	1906	No Surescripts Provider ePrescribing	PO Box Only
S.	Wrangell	99929	2424	No Surescripts Provider ePrescribing	PO Box Only
T.	Invalid Zip	99646	0	*Removed prior to mapping	Invalid Zip code for Prescriber

* Population estimates are based upon 2010 Census data where available, and 2009 data where the 2010 estimates are not yet published.

Alaska has identified a number of anomalies with the Surescripts data.

As noted in Table 10, at this time two of the zip codes are invalid. In addition, at least one pharmacy has been out of business since the first data review was conducted in December; this pharmacy remains on the list of “non-participating” Surescripts pharmacies.

In addition, the conditions identified by Surescripts do not take into account the proximity of either pharmacies or providers in other zip codes.

The locations in Table 10 can be divided generally into two categories:

Category One – At least one other zip code in the same city (9 locations) or military base with other pharmacy options nearby for prescribers as of March 2012. The Surescripts data does not account for prescribers and pharmacies within VA and DoD facilities or other internal ePrescribing solutions such as within Providence Health Services. The majority of prescriptions managed within these settings are electronic as well; however the information is not captured in the data available from Surescripts

Category Two – ePrescribing pharmacy or provider have no apparent local option (7) locations as of March 2012.

In December 2011, each of the pharmacies on the Surescripts list that was not participating in the Surescripts network (per November 2011 data) was surveyed to determine their ePrescribing status. Five of the eleven pharmacies reported that they did have ePrescribing capabilities; one pharmacy was an infusion pharmacy. The remaining five pharmacies were identified as potential targets for expansion of ePrescribing in Alaska.

Based upon the review completed, almost all the pharmacies in Alaska have ePrescribing capabilities. This includes both urban and rural pharmacies. Since most pharmacies have the capabilities in place, no further initiatives are necessary to assist the pharmacies in obtain the necessary infrastructure. DHCS will continue to monitor this data on a monthly basis and contact pharmacies that are not participating at least twice each year.



APPENDIX A – PRIVACY IMPACT ASSESSMENT RESULTS

Privacy Impact Assessment Outcomes

A popular standard mechanism for developing privacy policies in both the public and private sectors is the Fair Information Practice Principles, known informally as the FIPPs, first espoused in the 1973 U.S. Department of Health, Education and Welfare (HEW) report, *Records, Computers and the Rights of Citizens: Report of the Secretary's Advisory Committee on Automated Personal Data Systems*.⁷ In 1980, the Organization for Economic Cooperation and Development (OECD), using the HEW principles as a foundation, released the following eight principles in an effort to facilitate international trade.⁸ These eight principles are woven into the PIA template that was used for this assessment and analysis.

1. **Purpose Specification:** The purpose for the collection of personal information, why personal information is collected, should be stated no later than when the information is collected, and subsequent uses of the information should be limited to fulfillment of that purpose or to other compatible purposes and as are specified on each occasion of change of that purpose.
2. **Collection Limitation:** Careful review of how personal information is gathered is needed to avoid unnecessary collection of personal information. All data should be obtained by lawful and fair means. Personal information should be collected with the knowledge or consent of the information subject when possible and appropriate.
3. **Data Quality:** Personal data should be relevant to the purposes for which it is collected and used. To the extent necessary for those purposes, data should be accurate, complete and kept up-to-date.
4. **Use Limitation:** Data use and access should be limited by the purpose statement. Data can be used for purposes other than those identified in the purpose statement only with the consent of the information subject or by authority of law.
5. **Security Safeguards:** Based on an evaluation and risk of loss or unauthorized access to information, appropriate security safeguards should be implemented. These security measures should also guard against unauthorized destruction, modification, use or disclosure.
6. **Openness:** An agency should provide notice on how it collects, maintains, and disseminates data. There should be a general policy of openness about developments, practices and policies with respect to personal data. Means of establishing the existence and nature of personal data should be readily available along with the main purposes of use and the identity and usual residence of the data controller.

⁷ <http://www.ftc.gov/reports/privacy3/fairinfo.shtm>

⁸ http://www.oecd.org/document/18/0,3343,en_2649_34255_1815186_1_1_1_1,00.html



7. **Individual Participation:** Subjects should be allowed to review data about themselves and to correct if necessary. An individual should have the right to:
 - a. Obtain from the State (as data controller) or otherwise, confirmation of whether or not the State has data relating to him/her;
 - b. Have communicated to him/her data relating to him/her within a reasonable time; at a charge, if any, that is not excessive; in a reasonable manner; and in a form that is readily intelligible to him/her;
 - c. Be given reasons if a request made under subparagraphs(a) and (b) is denied, and to be able to challenge such denial; and
 - d. Challenge data relating to him/her and, if the challenge is successful to have the data erased, rectified, completed or amended.

8. **Accountability:** This provides oversight and enforcement of the other design principles. A data controller should be accountable for complying with measures which give effect to the principles stated above.

The Privacy Impact Assessment completed by the participating programs for the State of Alaska revealed several outcomes, summarized in the table below.

Principles and Outcomes

Principle	Outcomes by Principle
Purpose Specification	<ul style="list-style-type: none"> • Ensure written purpose statements are available for review by those individuals from which PII/PHI is being collected, especially for those programs that provide direct patient or consumer care • Ensure that all programs have a documented retention policy to support the current practices or align existing policy with the necessary retention period
Collection Limitation	<ul style="list-style-type: none"> • Document all instances where collection of PII/PHI is mandatory regardless of need for patient consent • Provide patient notification even where the collection of PII/PHI is mandated and patient consent is not required • Clarify rules around the collection and use of PII/PHI related to juveniles for all State programs and systems.
Data Quality	<ul style="list-style-type: none"> • Document by program procedures for data quality and chain of custody to the origination source • Collect and review these procedures to identify commonalities in requirements, process, and metadata for compliance with pending/proposed regulations
Use Limitations	<ul style="list-style-type: none"> • Address secondary use/disclosure of State-controlled data in policies and procedures
Security Safeguards	<ul style="list-style-type: none"> • Develop an overall security plan for each program • Document security safeguards implemented for the program's specific information system(s) in the program's security plan • Require each program to demonstrate how technical safeguards implemented in their system(s) a) support program policy and b) are cost



Principle	Outcomes by Principle
	effective within the constraints of the State’s technical infrastructure <ul style="list-style-type: none"> • Educate stakeholders on what security safeguards are implemented, what purpose each serves, and how the safeguard will manifest itself in the case of a breach or activity related to the privacy of data.
Openness	<ul style="list-style-type: none"> • Communicate a minimum level of information to individuals whose PII/PHI is collected by the State: <ul style="list-style-type: none"> ○ What information is being collected ○ Why it is being collected ○ How it will be used ○ Point of contact to address questions or concerns.
Individual Participation	<ul style="list-style-type: none"> • Educate workforce as to how modifications to PII/PHI are contested, verified, and accomplished according to the purpose of the program
Accountability	<ul style="list-style-type: none"> • Ensure a designated POC for privacy is assigned to each program and/or system • Ensure that program workforce and system users are aware of the penalties for the unauthorized use of PII/PHI data

The outcomes from the above analysis as well as recommendations from the deliverable “Privacy and Security Facilitation for Health Data Exchange” prepared by Cognosante lead to developing a common framework for data sharing within the State to include developing common policy, procedures, and forms that satisfied the majority of data sharing scenarios and use cases. The Approach to Develop Common Data Sharing Framework summarizes the recommended steps and approach to each.



Approach to Develop Common Data Sharing Framework

Step	Approach
<p>Prioritize involvement of State systems in data sharing</p>	<ul style="list-style-type: none"> • Classify information systems used by State programs: <ul style="list-style-type: none"> ○ Registry systems: Produce de-identified, aggregate data as output. PII/PHI at the individual level is maintained within the system but access to this information is strictly controlled and not available to the public, even the individual from which the information was collected ○ Service record systems: Provide individually identified records to authorized individuals for specific informational purposes or aggregate information for program reporting. In many cases, these systems are considered an authoritative source for the information although they are not considered the original source for that information. ○ Patient/consumer support systems: Used by providers to support patients at the point of service or care, which contain health-related information (e.g., electronic health or medical record, payment information related to diagnosis and treatment), and which may have an established bi-directional interface with other service- or health care systems. These systems are governed by HIPAA as relates to treatment, payment, or operations and access to information is governed by the applicable Notice of Privacy Practices. 1. Use assigned categories to first determine existing demand for access to the data each contains: <ol style="list-style-type: none"> 1. Service record systems = highest priority as they represent an authoritative source for information that is accessed by the largest number of users. 2. Patient/consumer support systems = next as these systems are actively being used daily in delivering health care services to patients and consumers. 3. Registry systems = lowest priority as the information they present, while important, does not carry the same immediacy as information needed for eligibility determination or medication management. • Rank specific systems within each category
<p>Develop standard processes and analyze exceptions</p>	<ul style="list-style-type: none"> • Develop 'standard' use cases • Determine privacy restrictions or limitations imposed by prioritized systems:: <ul style="list-style-type: none"> ○ Collection and use of PII/PHI related to juveniles ○ Secondary use of PII/PHI collected by the State
<p>Develop common framework (to include protocols, general policy with defined exceptions), and operational procedures/forms</p>	<ul style="list-style-type: none"> • Document activities for maintaining accurate PII/PHI across each State program, identifying commonalities in procedures and metadata that will be impacted by future requirements from the Office of the National Coordinator (ONC) and other regulatory bodies related to electronic PII/PHI sharing • Ensure developed policies and procedures can be supported by current or future security safeguards implemented by the State • Establish uniform procedures around data sharing of PII/PHI that demonstrates chain of custody and allows the process to be clearly articulated to the individual (i.e., data subject) whose data is being shared • Address any additional elements that have been identified to include: <ul style="list-style-type: none"> ○ Make sure program's written purpose statement is available to public ○ Ensure patient notification and education is available in all cases



Step	Approach
	<p>where PII/PHI is used or collected</p> <ul style="list-style-type: none">○ Establish awareness training for State workforce regarding the rules around handling of PII/PHI, the responsible contact for privacy matters, and penalties for unauthorized use
Identify State systems as 'early adopters' for the State HIE	<ul style="list-style-type: none">• Identify foundation programs and systems for participation in HIE• Conduct detailed privacy risk assessment for these initial systems to determine viability of being an 'early adopter'• Optionally conduct security assessment to determine whether there is a need for additional safeguards



APPENDIX B – SUSTAINABILITY PLAN MINIMUM REQUIREMENTS

The sustainability plan must identify the services and functions that the HIE will provide and the associated revenues and expenses that will provide ongoing financial support. The costs to develop and deliver the required services must be detailed in the plan. The fee structure that will compensate for the services and the additional revenue sources that will cover any differences must also be included. These components describe the methods by which the HIE program can be supported through development and maintenance; demonstrating the on-going financial viability of the program.

The Sustainability Plan should be developed as the result of significant stakeholder involvement in the determination of the appropriate features (which were developed for the RFP), as well as the economic value and resulting fee structure. Individual Alaska eHealth network (AeHN) board members have indicated that they are not in support of the fees to be assessed to their organizations. Philosophical support, without the associated financial support likely indicates potential agreement with the Model; however, a lack of agreement with the plan. This document outlines the minimum requirements of the sustainability plan.

Plan Sections

The sustainability plan should be patterned after a business plan that would be presented to any potential investor. The sustainability plan should be broken into six sections:

- 1) Business Needs
- 2) Value Proposition
- 3) Service Development
- 4) Service Delivery
- 5) Proposed Fee Structure
- 6) Finance

The expectations of each of the plan sections are outlined in the document sections that follow.

Business Needs

The Business Needs section should:

- a. Identify the various stakeholders by type. Suggested categories are:
 - i. Large hospital
 - ii. Small hospital
 - iii. Primary Care Provider or group with an EHR
 - iv. Primary Care Provider or group without an EHR



- v. Specialty care provider
 - vi. State government
 - vii. Commercial Payers
 - viii. Federal facilities such as Veterans Administration or Department of Defense
- b. Identify the business needs by type of stakeholder
- i. Include a prioritized list of services that each stakeholder group has expressed an interest in using
 - ii. Identify where available both short term and long term business needs of each stakeholder

Value Proposition

The Value Proposition section should:

- a. Identify the value of the individual services by stakeholder with sufficient detail and corroborative material to validate the assumptions
- b. Quantify the amount that the stakeholders would be willing to pay for the services they need
- c. Identify the mechanism to measure the assumed value by stakeholder group such that the model can be adjusted in the future

Service Development

The Service Development section should identify the costs to develop the services itemized sufficiently to enable the AeHN Board to make decisions about which services can be developed within the existing budget and which will need additional funding. This section should include:

- a. Itemized cost to develop the individual HIE services
 - i. Cost of licensing
 - ii. Cost of vendor customization
 - iii. Project management costs to oversee development and implementation of solution

Service Delivery

The Service Delivery section should identify the cost to deliver the services broken down sufficiently to be able to develop a fee structure by stakeholder type that covers the delivery cost



- a. Delivery costs include the costs to administer the system
- b. Delivery costs include the costs to maintain the system, but exclude enhancements or new services

Proposed Fee Structure

The proposed fee structure section should:

- a. Describe the type of fee structure (e.g. Subscription fees, transaction fees, utility fees) that will support the value proposition and service delivery costs described above.
- b. Provide a justification for the selected fee structure, relative to other fee options available to support the Board's review.
- c. Define fees by stakeholder type (if appropriate) or service as determined by the value proposition and service delivery costs.

Finance

The Finance section should include a budget for the next 3-5 years that shows by quarter:

- a. The development expenses by stakeholder type or service
- b. The delivery expenses by stakeholder type or service
- c. Anticipated revenue by source
 - a. Fee income should be itemized by stakeholder type
 - b. Other revenue should be classified by source
- d. Any shortfall between revenues and expenses

Additionally, the Finance section should include an evaluation by Service that describes:

- a. The total cost of ownership for the service
- b. The expected revenues generated by service
- c. Net difference between the cost of ownership and the expected revenues



APPENDIX C – REFERENCED AEHN POLICIES AND PROCEDURES

These policies and procedures are contained in an attached file (Alaska AEHN Policies 052012.doc)

Security

- Introduction to Security Policies (2.000)
- Consumer Opt Out Election Process (2.100)
- Administrative Safeguards (2.200)
- Physical Safeguards (2.300)
- Technical Safeguards (2.400)
- Network Responsibilities (2.500)

Privacy

- Privacy Policy (3.100)



APPENDIX D – ASSESSMENT CRITERIA

Purpose

The purpose of this deliverable is to establish a set of criteria with which to assess the Alaska Health Information Exchange (HIE) program. The criteria has been developed using the Office of the National Coordinator for Health Information Technology (ONC) Program Information Notices (PINs) and Collaborative Agreement, as well as the State's Strategic and Operational Plan and the contractual agreements with the HIE vendor and Alaska eHealth Network (AeHN), the entity providing oversight on the HIE implementation.

Assessment Objective:

Provide a non-biased, independent process for evaluation of the HIE program and system implementation that demonstrates progress across the five essential domains defined by the Office of the National Coordinator (ONC) guidelines for HIE:

1. Governance
2. Finance
3. Technical infrastructure
4. Business and technical operations
5. Legal/policy

Overall objectives include:

- key performance measures for both near-term and long-term measurement
- a baseline from which progress can be monitored and reported to stakeholders
- areas for improvement with recommendations based on best practice
- alignment with Alaska's State Medicaid Health Information Technology Plan (SMHP) and other statewide initiatives and projects
- a foundation for annual HIE system evaluations

Approach

- Review existing documentation including
 - Contracts
 - Project Schedules
 - Public websites
 - Meeting minutes
 - Charter and Bylaws
 - ONC Cooperative Agreement



- State’s Health Information Technology (HIT) Strategic and Operational Plans
 - Conducting multiple interviews with key stakeholders.
 - The interviews will be focused on the stakeholder’s expectations of the “to-be” state, knowledge and engagement in the HIE implementation, satisfaction of engagement with the HIE program and suggestions for improvements
 - Each interview will consist of a series of 4 – 10 questions depending on time allotments. Each interview will begin with the same 2 – 4 questions in order to establish a baseline, consistent set of feedback
 - The remain 2 – 8 questions will be specific to the individual(s) being interviewed
 - It is expected that up to 24 interviews will be needed to gain input from multiple stakeholder areas and entities.

Criteria Areas of Focus

The State defined assessment areas of focus criteria map to the Five Domain as follows

Domain	Assessment Area of Focus
Governance	Governance
Finance	Sustainability
Technical Infrastructure	HIE Architecture and Standards
Business and Technical Operations	Project Management Risk Management HIE Implementation
Legal/Policy	Privacy and Security HIT Program Alignment

The following general areas that support the five domains are considered as separate areas of focus.

- Reporting
- Performance Measures
- Meaningful Use Support Strategy

In following sections, the assessment areas of focus are outlined in more detail.

Governance

ONC Definition

- Convene health care stakeholders to create trust and consensus on an approach for statewide HIE
- Provide oversight and accountability of HIE to protect the public interest



- Develop and maintain a multi-stakeholder process to ensure information exchange among providers is in compliance with applicable policies and laws

State Assessment Criteria for Governance

- Structure: Size and Composition (Board, Committees)
 - Coordination Mechanisms: Roles, Task Forces, designed to facilitate mission accomplishment and efficient operations
 - Representation coverage (All required stakeholders represented)
 - Leadership roles for key HIE value chain activities such as technology
 - Vertical structures
 - Lateral coordination mechanisms
- Board “Governance IQ”⁹
 - Board Management Skills and Know How = Board Competency
 - Behavioral and Social Skills = Emotional Intelligence
 - Competency + Emotional Intelligence = High Governance IQ
- Other Governance Attributes
 - Transparency in decision making processes
 - Availability of meeting agendas, minutes decisions
 - Degree of board engagement (continuous and extensive)
 - Trust among top management team members
 - Formalization of decision making policies (extent to which key decision processes are documented)

Finance

ONC Definition

- Identify and manage financial resources necessary to fund health information exchange
- Include public and private financing for building HIE capacity and sustainability
- Include pricing strategies, market research, public and private financing strategies, financial reporting, business planning, audits, and controls

State Assessment Criteria for Sustainability

⁹ Based upon the “The District of Columbia Regional Health Information Organization (DC RHIO) Center for Health Information and Decision Systems (CHIDS), University of Maryland, Robert H. Smith School of Business HIE Evaluation Framework.



- Evaluation of HIE Sustainability Plans
 - Documentation of HIE Sustainability plan
 - Documentation of Plan monitoring
 - Measurement of actual to plan

Technical Infrastructure

ONC Definition

- Includes the architecture, hardware, software, applications, network configurations and other technological aspects that physically enable the secure technical services for HIE

State Assessment Criteria for HIE Architecture and Standards

- Can the HIE support, from a technical perspective, the business requirements, current and future, as identified by the key stakeholders?
 - What is the current HIE product architecture?
 - Does the HIE technology align with current and known upcoming standards, rulings and direction from the state and federal governments?
 - Security – authentication and authorization
 - Privacy and Confidentiality
 - Reporting
 - Generation of outbound data files, e.g., Continuity of Care Document (CCD)
 - Does the architecture support the availability needs of the various stakeholders?
- Does the planned technical implementation align with the Vendor's proposal?
 - Comparison between the proposed state included in the response to the Request for Proposal (RFP) and the actual deployment
 - What is included in the RFP and what are the associated additional services, i.e., services not included in the RFP cost, needed to achieve the vision outlined in the RFP?
- Will the planned approach align with the timeframes associated with the technical goals of the Alaska HIE?
- Will the HIE technology provide the flexibility and scalability to grow with the needs of Alaska?
- What is the roadmap for the next 3-5 years?
- What technical components of the HIE product provide flexibility?
- What technical components of the HIE product provide the scalability?



Business and Technical Operations

ONC Definition

- Includes procurement, identifying requirements, process design, functionality development project management, help desk, systems maintenance, change control, program evaluation and reporting

State Assessment Criteria for Project Management

Documentation of Project Plans

- Scope
- Schedule
- Budget

Documentation of Project Monitoring

- Documented scope management process
- Documented schedule and schedule variance reporting
- Documented budget management (authorization) and monitoring

State Assessment Criteria for Risk Management

- Written risk management process
- Documentation of risk management practice

State Assessment Criteria for HIE Implementation Processes

Education and Training

- How effective were the training processes? (or evidence of training plans)
- Are users able to utilize the tools with ease?

Adoption

- What proportion of intended users is actually using the system?
- What proportion of intended users has agreed to use the system?
- What is the plan for system expansion?
- What is the depth and breadth of system use (i.e., for how many transactions and across how many features)?
- To what degree do users intend to experiment with the system?

Technical Support

- Have adequate support structures been instituted?



- How long does it take to respond to a user assistance request

Legal/Policy

ONC Definition

- Includes policy frameworks, privacy and security requirements for system development and use
- Includes data sharing agreements, laws, regulations
- Includes multi-state policy harmonization activities.(e.g., Program Alignment, SMHP, Meaningful Use)State Assessment Criteria for Privacy and Security
- Assure trust of information sharing

(See also HIE Architecture and Standards)

State Assessment Criteria for Program Alignment

Alignment with Medicaid Program

- Degree to which Medicaid Programs are represented in program activities, decisions, opportunities (including waived and Behavioral Health programs)
- Degree to which Medicaid mandates/programs are considered

Alignment with Public Health Programs

- Degree to which Public Health Programs are represented in program activities, decisions, opportunities
- Degree to which Centers for Disease Controls and Prevention (CDC) mandates/programs are considered

Ensure Consistency with National Policies and Standards

- Documentation of program policies and standards
- Evidence of Alignment with National Policies
- Evidence of Alignment with National Standards

Executing Strategy for Supporting Meaningful Use

Monitor and track meaningful use HIE capabilities in the state

Has the state set the baseline, monitored, and reported on the following measures as required by the State HIE Program:

- % health plans supporting electronic eligibility and claims transactions
- % pharmacies accepting electronic prescribing and refill requests



- % clinical laboratories sending results electronically
- % health departments electronically receiving immunizations, syndromic surveillance, and notifiable laboratory results
- Has there been analysis and full understanding of the health information exchange currently taking place within the state?
- Has the state completed a gap analysis?
- Has the state or State Designated Entity (SDE) determined the needs to address these gaps to ensure options are available to eligible providers in the state who seek to meet the Stage 1 meaningful use requirements for HI
- Do these options include
 - ePrescribing?
 - delivery of structured lab results?
 - sharing patient care summaries across unaffiliated organizations?

Strategy to Meet Gaps in HIE Capabilities for Meaningful Use

- Building capacity of public health systems to accept electronic reporting of immunizations, notifiable diseases and syndromic surveillance reporting from providers.
- Enabling clinical quality reporting to Medicaid and Medicare.

Reporting

- Dashboard indicator for each “high level” area (Red Yellow Green)
- Explanatory detailed assessment and assignment of status for each relevant bullet.

Develop Performance Measures

As part of the evaluation design, Cognosante will develop performance measures that allow the Department of Health and Social Services (DHSS) to gauge the overall progress of the HIE as well as in specific areas of focus. Examples of possible performance measures include:

- Provider use of ePrescribing to support meaningful use
- Number of clinical summaries and/or discharge notes exchanged among treating providers, especially as part of transitions of care
- Number of clinical encounter notes exchange among treating providers as part of referrals
- Number of Immunizations reported to public health registries and (in later meaningful use stages) immunization histories requested
- Percentage of providers utilizing certified Electronic Health Records (EHRs)
- Number of Immunization records update electronically



- Percentage of providers participating in HIE services enabled by statewide directories or state services
- Percentage of pharmacies servicing people within the state that are actively supporting electronic prescribing and refill requests (this should also be worded from the provider perspective, pharmacies are ready, providers are not using the service)
- Percentage of new prescriptions ordered electronically.
- Percentage of clinical laboratories servicing people within the state that are actively supporting electronic ordering and results reporting (similar issue to above)
- Percentage of health plans supporting electronic eligibility and claims transactions (in later meaningful use stages)
- Percentage of clinical laboratories sending results electronically

HIE Stakeholders

Cognosante will conduct interviews with key stakeholders who can provide insight into the current HIE environment. An important aspect of the stakeholder interviews will be to solicit information regarding how to improve overall stakeholder participation. The groups identified in Table 1 on the following page are an initial set of HIE Stakeholders that may be leveraged to support the HIE Assessment.

The Stakeholders Groups can be segmented into six categories:

1. State Government Entities
2. Federal Entities
3. Patients
4. Health care Providers
5. Health care Solutions Providers
6. Support Organizations



APPENDIX E – HIE STAKEHOLDERS

State Government Entities	Federal Entities	Patients	Healthcare Providers	Stakeholder Groups
<ul style="list-style-type: none"> ▪ Office of the Governor ▪ Legislature ▪ HIE Board/Commission ▪ DHSS <ul style="list-style-type: none"> ○ Finance and Management Services ○ Commission on Aging ○ Mental Health Board ○ Behavioral Health ○ Bureau of Vital Statistics ○ Governor's Advisory Board on Alcoholism & Drug Abuse ○ Governor's Council on Disabilities & Special Education ○ Health Care Services ○ Juvenile Justice ○ Office of Children's Services ○ Office of Fetal Alcohol Syndrome ○ Public Assistance ○ Public Health ○ Senior and Disabilities Services 	<ul style="list-style-type: none"> ▪ CMS ▪ National Health Information Network (NHIN) ▪ HHS ONC ▪ US Department of Health and Human Services (HHS) ▪ HHS Substance Abuse and Mental Health Services Administration (SAMHSA) ▪ Regional Extension Centers (RECs) ▪ Health Information Technology Research Center (HITRC) ▪ Indian Health Service (IHS) 	<ul style="list-style-type: none"> ▪ Alaska Medicaid Beneficiaries 	<ul style="list-style-type: none"> ▪ Physicians ▪ Dentists ▪ Nurse Practitioners ▪ Nurse Midwives ▪ Physician Assistants ▪ Pharmacies ▪ Rural Clinics ▪ Community Health Centers ▪ Outpatient Health Programs ▪ Acute Care Hospitals ▪ Safety Net Providers 	<ul style="list-style-type: none"> ▪ AeHN ▪ Alaska Electronic Health Record Alliance (AEHRA) ▪ Alaska Federal Health Care Partnership ▪ Alaska Native Tribal Health Consortium ▪ Alaska Primary Care Association ▪ Alaska State Hospital and Nursing Home Association ▪ Foundations ▪ National Organizations ▪ Media

APPENDIX F – LAB WEBINAR POLLING

Lab Webinar Polling Results

Exchanging Lab Results

Questions 1-4 were asked in a series after the explanation of the purpose for electronic lab exchange, including improving health outcomes and meeting meaningful use, and a description of results of an earlier phone survey of labs on similar topics.

The sections below list each of the questions, the possible responses and the participant results.

Question 1 Non-Electronic Lab Results Distribution

Please estimate the proportion of lab results sent to external or non-affiliated providers using Non-electronic (Hard copy, fax or remote print, verbal, paper requisition) methods.

- a) 0-25
- b) 26-50
- c) 51-75
- d) 76-100

Non-Electronic Lab Results

Proportion Estimate	Number of Participants Selecting this proportion	Percentage of Participants Selecting this proportion*
0-25	6	50.0%
26-50	1	8.3%
51-75	1	8.3%
76-100	4	33.4%
Total	12	

*Percentages based upon the total responses rather than total webinar participants

Question 2 Labs Sending Electronic Results Externally

Is your lab sending lab results electronically to external or non-affiliated providers?

- a) Yes
- b) No
- c) Unknown

Labs Sending Electronic Results to External or Non-Affiliated Providers

Response	Sending Results Electronically to External Providers	Percentage of Participants
Yes	9	64.3%
No	4	28.6%
Unknown	1	7.1%
Total	14	

Question 3 Labs Considering Electronic Lab Results Distribution

If No -- Is your lab considering a method for sending structured lab results electronically?

- a) Yes
- b) No

NOTE: Some participants that did not respond to Question 2 (above) or did not respond “no” to Question 2, chose to respond to this question.

Labs Considering Electronic Results Distribution

Response	Participants Considering a Method to Send Electronic Lab Results	Percentage of Respondents*
Yes	6	86%
No	1	14%
Total	7	

* Percentages based upon the total responses rather than total webinar participants

Question 4 Receipt of Electronic Lab Orders

Is your lab receiving lab orders electronically from internal or affiliated providers?

- a) Yes
- b) No
- c) Unknown

Labs Receiving Orders Electronically

Response	Participants Receiving Lab Orders Electronically	Percentage of Respondents*
Yes	7	63.6%
No	4	36.4%
Unknown	0	0%
Total	11	

* Percentages based upon the total responses rather than total webinar participants

Electronic Exchange Solutions

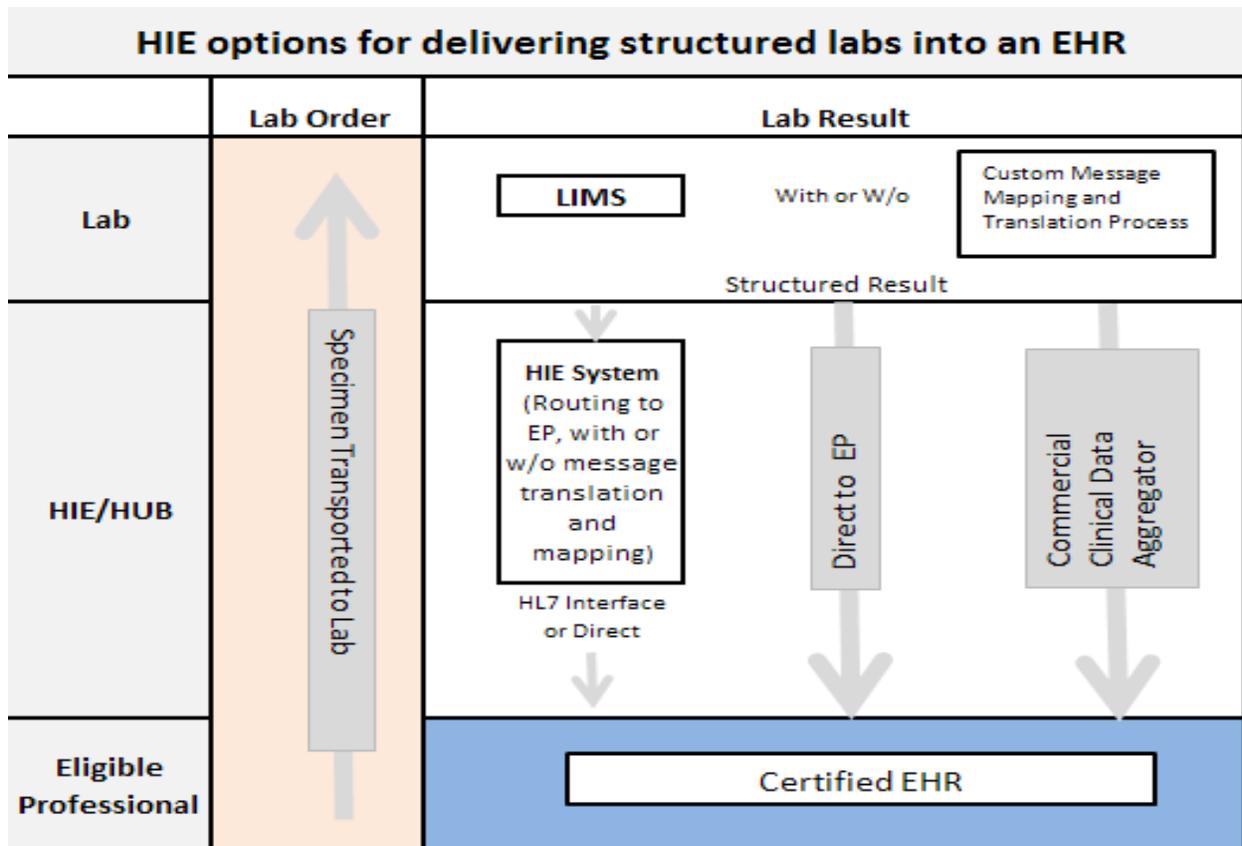
Information was presented in the webinar describing three potential technical solutions to support the exchange of electronic lab orders and results in Alaska.

The three solutions are depicted in the graphic the Lab Exchange Options (below) that was included in the webinar slides.

The three options presented are:

1. The **Direct Solution** which involves a simple email interface that is capable of securely routing the lab order and results without translation or mapping of the message.
2. The **Lab Hub** solution supports lab transport and advanced support of lab order Laboratory Information Management Systems (LIMS) integration. This solution meets basic lab needs and tends to be dedicated to labs only at this point.
3. A **Robust HIE** solution that includes mapping the lab order and lab result data prior to delivery. Can provide basic *and* more robust exchange requirements that will assist providers in meeting later stages of Meaningful Use (MU). Other services may also be linked into lab data, allowing for more complete and comprehensive patient records. Makes lab results available to HIE participants through a CCD.

Lab Exchange Options



Question 5 Preferred Electronic Exchange Solution

Of the three methods discussed during today’s presentation; please select which one that would work best for your organization.

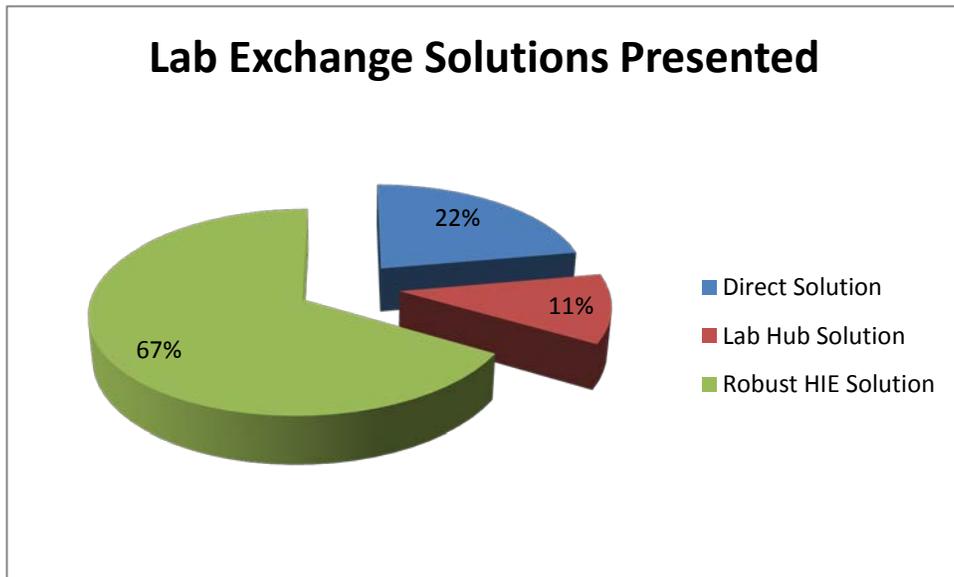
1. Direct Solution
2. Lab Hub Solution
3. Robust HIE Solution

Lab Exchange Solution Preference

Lab Exchange Solutions Presented	Participants Indicating a Solution	Percentage of Respondents*
Direct Solution	2	22.2%
Lab Hub Solution	1	11.1%
Robust HIE Solution	6	66.7%
Total	9	

* Percentages based upon the total responses rather than total webinar participants

Respondents' Lab Exchange Solution Preference



Lab Webinar Participation

Exchanging Results Electronically

The participant “facility” affiliation was developed from the attendee list and the registration list. The Clinical Laboratory Improvement Amendments (CLIA) Lab Type in the Webinar Participation Coverage table below was developed from the CLIA data made available by the CMS website.

Webinar Participation Coverage

CLIA Lab Type	Number of Participants	Percentage
FQHC	0	0%
Independent	0	0%
Hospital	12	85.7%
Public Health	2	14.3%
Total	14	

Notably, most participants represent Hospitals rather than Federally Qualified Health Centers (FQHCs) or Independent Labs. These results indicate a need to conduct additional outreach to FQHC and Independent labs.

APPENDIX G – ACRONYMS

The following acronyms are used throughout this document:

Acronym	Definition
AARP	American Association of Retired Persons
ADT	Admit Discharge Transfer
AeHN	Alaska eHealth Network
AHCC	Alaska Health Care Commission
AHRQ	Agency for Health Research and Quality
AKAIMS	Alaska Behavioral Health and Substance Abuse System
ANTHC	Alaska Native Tribal Health Consortium
APCD	All-Payer Claims Database
ARRA	American Recovery and Reinvestment Act
BOD	Board of Directors
CCD	Continuity of Care Document
CCHIT	Certification Commission for Health Information Technology
CDC	Centers for Disease Control and Prevention
CDR	Clinical Data Repository
CIO	Chief Information Officer
CLIA	Clinical Laboratory Improvement Amendments
CMS	Centers for Medicare and Medicaid Services
CRM	Contact Resource Management
CVX	Vaccination Codes
DHCS	Division of Health Care Services
DHSS	Department of Health and Social Services
DoD	Department of Defense
DSA	Data Sharing Agreement
DSM	Direct Secure Messaging
DURSA	Data Use and Reciprocal Support Agreements
ECG/EKG	Electrocardiogram
EHR	Electronic Health Record
EIS	Eligibility Information System
eMAR	electronic Medication Administration Record
EMPI	Enterprise Master Patient Index
EMR	Electronic Medical Record
FAQ	Frequently Asked Questions
FCC	Federal Communications Commission
FIPP	Fair Information Practice Principles
FOA	Funding Opportunity Announcement
FQHC	Federally Qualified Health Center
HHS	Health and Human Services
HIE	Health Information Exchange
HIPAA	Health Insurance Portability and Accountability Act
HISP	Health Information Service Provider
HISPC	Health Information Security and Privacy Collaboration
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health (Act)
HITSP	Health Information Technology Standards Panel
HL7	Health Level Seven
ICD-9, ICD-10	International Classification of Diseases and Related Health Problems, Ninth and Tenth Revision



Acronym	Definition
IE	Interface Engine
IIHI	Individually Identifiable Health Information
IOA	Inter-Organizational Agreements Collaborative
IRS	Internal Revenue Service
IT	Information Technology
IV&V	Independent Verification and Validation
JOMIS	Justice Management Information System
LIMS	Lab Information Management System
LIS	Lab Information System
LLC	Limited Liability Company
LLP	Limited Liability Partnership
MCI	Master Client Index
MD	Doctor of Medicine
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
MPI	Master Provider Index
NAMCS	National Ambulatory Medical Care Survey
NCPDP	National Council for Prescription Drug Programs
NwHIN	Nationwide Health Information Network
ONC	Office of the National Coordinator for Health Information Technology
ORCA	Online Resource for the Children of Alaska
ORU	Observation result (Unsolicited)
PDS	Prodigy Data Systems
PFD	Permanent Fund Dividend
PHI	Personal Health Information
PHR	Personal Health Record
PIA	Privacy Impact Assessment
PII	Personally Identifiable Information
PIN	Program Information Notice
PKI	Public Key Infrastructure
RDE	Pharmacy/treatment encoded order
REC	Regional Extension Center
RFP	Request for Proposal
RHIO	Regional Health Information Organization
RLS	Record Locator Service
RSS	Really Simple Syndication
RTI	Research Triangle International
SaaS	Software as a Service
SDE	State Designated Entity
SIU	Scheduling Information Unsolicited
SME	Subject Matter Expert
SMHP	State Medicaid HIT Plan
SNOMED®	Systematized Nomenclature of Medicine
STC	Scientific Technologies Corporation
TPO	Treatment, Payment and Operations
VA	U.S. Department of Veterans Affairs
VPN	Virtual Private Network
XML	Extensible Markup Language