

Alaska Health Information Technology Operations Plan

**Proposal for the Office of the National Coordinator
For Health Information Technology
Department of Health and Human Services
State Health Information Exchange Cooperative Agreement Program**

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1 Introduction

1.1 Overview

In May 2009, the Alaska legislature unanimously passed Senate Bill 133 (SB 133), a bill supporting the implementation of a statewide Health Information Exchange (HIE) system that is interoperable and compliant with state and federal specifications and protocols for exchanging health records and data. SB133 required the Department of Health and Social Services (DHSS) to establish a HIE with a non-profit governing board that represents Alaska's stakeholder communities. In April 2010, DHSS contracted with the Alaska eHealth Network (AeHN) to be the non-profit governing board that will procure and manage Alaska's HIE.

In March 2010 in accordance with the American Recovery and Reinvestment Act (ARRA), the Governor named DHSS, Division of Health Care Services (DHCS) as the State Designated Entity (SDE) to implement Alaska's HIE under the Office of the National Coordinator (ONC) Cooperative Agreement Program. The Governor also announced Mr. Paul Cartland as the State Health Information Technology (HIT) Coordinator.

In addition to SB 133, the Alaska Health Care Commission (AHCC) was established in December 2008 under Administrative Order 246 (A.O. 246), to address growing concerns over the condition of Alaska's healthcare system. In January 2010 the AHCC, in accordance with A.O. 246, provided a five year (2010 – 2014) strategic plan on transforming health-care in Alaska. The AHCC was chartered to provide recommendations to the governor and the state legislature for the development of a statewide plan to address quality, accessibility and availability of health care for all citizens of the state. The Commission envisions a healthcare system for Alaska that places individual Alaskans and their families at the center of their healthcare experience and focuses on creating health, not simply treating illness and injury.

The HIT Governance Committee was established in April 2010 to coordinate statewide health information technology efforts and to provide vision and oversight for all HIT programs in which DHSS participates. The committee addresses State project management and task responsibilities for successful coordination. DHSS has been in coordination with AeHN, who will procure and manage Alaska's HIE. In addition to being the non-profit governing board that will procure and manage Alaska's HIE, AeHN received funding in April 2010 from the ARRA to establish one of 60 nationwide HIT Regional Extension Centers (REC).

The SDE recognizes that it plays a significant role in transforming healthcare in Alaska. In developing its vision for HIT for the future, the SDE has aligned its goals with that of the AHCC and the HIT Governance Committee. The AHCC believes that access to good healthcare, both physical and mental, is essential to all Alaskan's ability to actively participate in and contribute to their families, schools, places of employment, and communities. The HIT governance committee supports implementation of HIT projects to improve affordability, accessibility, quality of health care, and improved health status of Alaskans.

SDE is promoting HIT development through support or implementation of the Health Information Exchange Cooperative Agreement Program, EHR incentive program, Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Initiative, Multi-state HIT Coordination and ARRA coordination.

The SDE vision for HIT in the future is a multi-year vision and consists of existing and planned projects and initiatives that will significantly contribute to Alaska's healthcare transformation. SDE is working

towards improving and updating various state systems that will increase the use for HIT, including VacTrAK, Master Client Index, Electronic Vital Records System (EVRS) and the Lab Information Management Systems (LIMS). By leveraging implementation of new technologies such as a modernized Medicaid Management Information System (MMIS), that extends web based access to providers and members, Electronic Health Records (EHR), and HIE networks, the 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 and to increase meaningful use of EHRs.

Telehealth systems, such as teleradiology, telebehavioral health, telepharmacy, and distance learning systems utilizing videoconferencing equipment are also emerging as cost-effective ways to improve healthcare quality outcomes. Interoperable HIT systems built with these fundamental components can be utilized to enhance patient safety and continuity of care by streamlining access to critical healthcare information by both clinicians and consumers alike. Through broadband initiatives, the use of telehealth services could greatly improve the accessibility and improved health status for Alaskans.

The operations plan outlines the initial strategy that the SDE has established to implement a statewide HIE and to promote the use of HIT to improve the healthcare for Alaskans. The operations plan will outline how the SDE, State HIT Coordinator, HIT Governance Committee, AeHN, HIE Board and key healthcare stakeholders will work together to ensure the success of implementing a statewide HIE and promotion of HIT.

2 Health Information Technology Planning Schedule

Like many states, healthcare in Alaska is at a cross roads. After many years of independent development around siloed programs and funding streams, delivery of care has become more and more fragmented resulting in increasing costs, barriers to health care and decreasing quality outcomes of health care services provided.

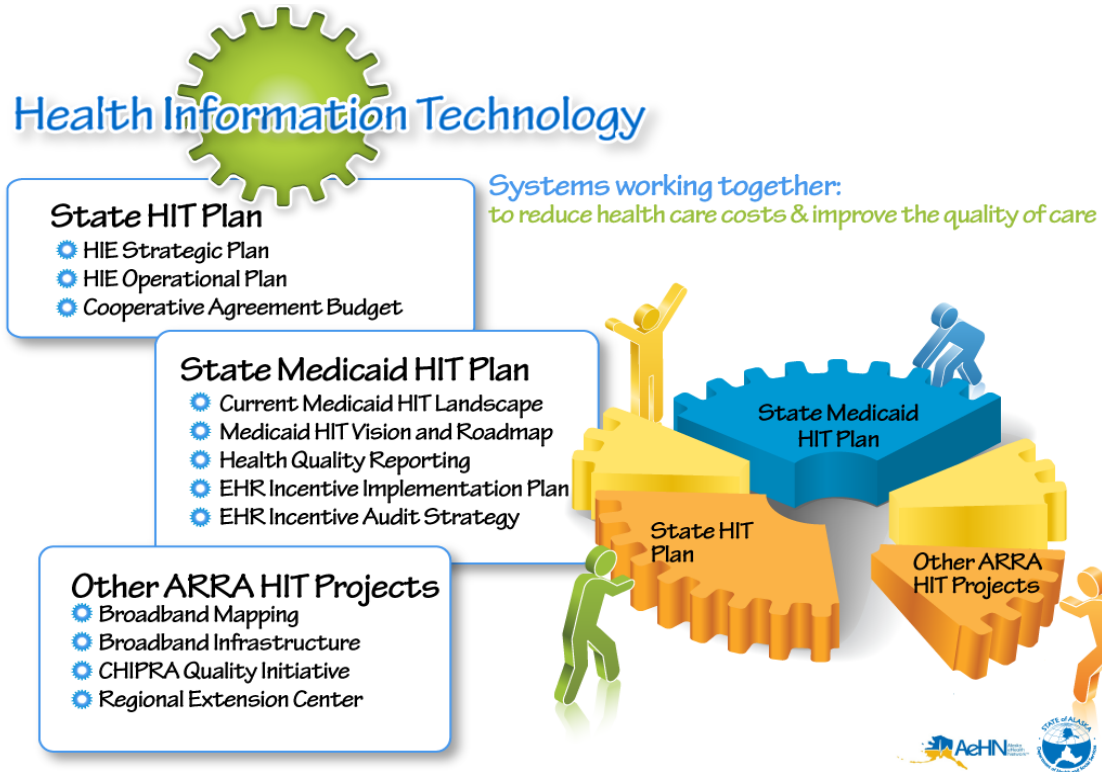
Health Information Technology (HIT) efforts offer great promise as a means to achieve more affordable, safe, and accessible healthcare for Alaskans statewide. Integrated HIT has the ability to bring all levels of medical care together, from general practitioners to specialists, effectively bridging the healthcare gap experienced by many of our communities where shortages of appropriately trained healthcare providers have been difficult to resolve.

Improving healthcare for all Alaskans through the use of HIT is foundational in the vision and priority to Alaska's leadership to increase healthcare efficiencies and effectiveness and improving clinical quality and patient safety. Successful implementation of HIT, encompasses many processes that will have to work together to ensure the exchange of health information provides the results that are needed to improve the health of Alaskans.

Integration of HIT applications will improve quality of care for Alaskans including increased patient safety, enhanced provider to provider sharing of relevant patient information, improved continuity of care, improved access to essential services in underserved areas, simplification of patient education, and decreased costs related to improved efficiencies in management of clinical data and treatment related information. HIT will improve the overall health of the state's population by forging a cost-effective partnership between these key stakeholders – patients, individual practitioners, provider / payer organizations and employers / Alaska businesses.

The expected outcomes of HIT utilization and having a fully implemented Alaska Health Information Exchange (HIE) with connectivity to state systems, public health Electronic Health Records (EHR), laboratories, electronic medical records (EMR), e-prescribing, personal health records, will be improving patient access to medical care, improve patient safety, reduce unnecessary testing and procedures, reduce health agency administrative costs, and enhance rapid response to public health emergencies.

Figure 1 – Health Information Technology Systems Working Together

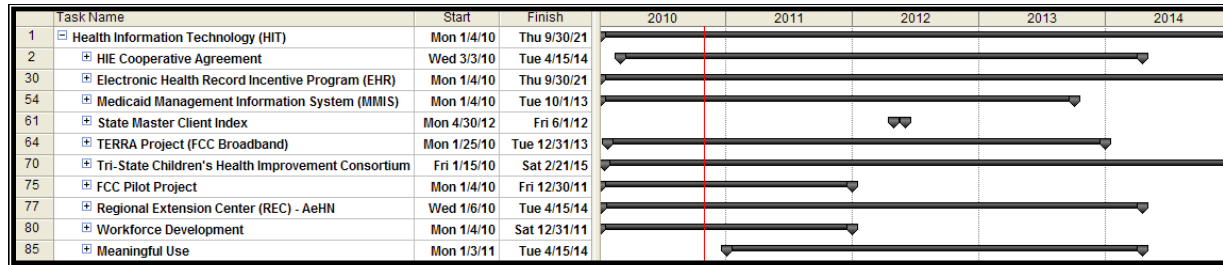


The State Designated Entity (SDE) will seek leadership from the Office of the National Coordinator (ONC) for the successful implementation of statewide HIT activities. The state has entered into several agreements with the Center for Medicare and Medicaid Services (CMS) and ONC for HIT that require the state to coordinate HIT efforts. The HIT activities are all interdependent; in order for this plan to be successful the statewide HIT plan is reliant on the deployment of Alaska's HIE, implementation of the State Medicaid Health Information Technology Plan (SMHP) and the other American Recovery and Reinvestment Act (ARRA) HIT initiatives. The State recognizes that the HIE will not be effective without the connection of certified EHRs or other databases. The provider adoption of certified EHR will move the state forward in meeting meaningful use standards.

The SDE is in collaboration with Alaska eHealth Network (AeHN), Alaska Electronic Health Record Alliance (AEHRA), and with other divisions within the Department of Health and Social Services (DHSS) to successfully implement the HIE Cooperative Agreement. Additionally, the SDE is collaborating with other units within Division of Health Care Services (DHCS) for successful implementation of other state driven HIT initiatives including the EHR Incentive Program and the Children's Health Insurance Program Reauthorization Act (CHIPRA) quality initiative in addition to building the new MMIS system and increasing connectivity to the state Master Client Index (MCI). There are other HIT initiatives that are being implemented in Alaska including the Terrestrial for Every Region of Rural Alaska (TERRA) project, Federal Communications Commission (FCC) Rural Health Pilot Program, workforce development, that are all working together to exchange health information. The availability of broadband in those regions could greatly impact the health of Alaskans to provide increasing availability of health information to rural communities.

This section includes an overview of how the SDE will move the current HIT environment to achieve the vision for HIE.

Figure 2- HIT Plan



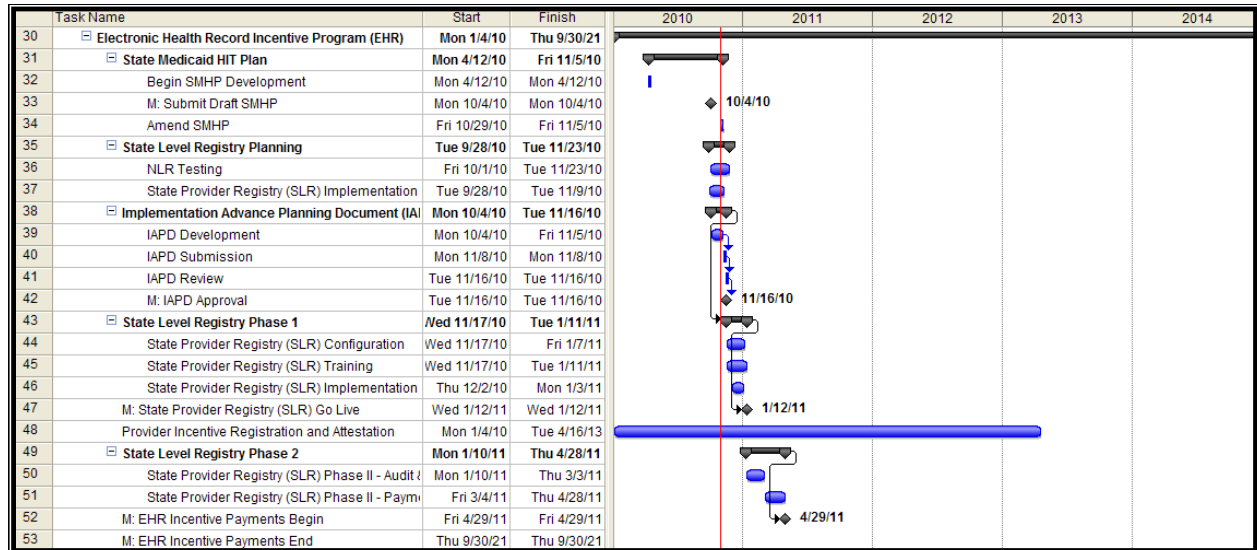
2.1 EHR Incentive Program

The EHR Incentive Program activities began in January 2010 with the CMS Planning Advanced Planning Document (PAPD) and will continue through final provider payments in 2021. The implementation of the program will serve as a catalyst for additional Alaska medical providers to join the state-wide HIE as it is implemented. Given the ever-rising cost of healthcare in Alaska, the goal is to make improvements in cost efficiencies and outcomes to reduce the costs of the Medicaid program and improve the quality of health care for patients.

SDE plans to enhance the current Provider Enrollment Portal (PEP) to include a State Level Repository (SLR) that will provide a web-based state attestation and tracking system to capture, calculate and store patient volume and payment calculations, and collect required meaningful use data and reporting. The SLR module is currently under development for multiple states to support the EHR Incentive program. SDE expects to implement the SLR with minimal changes to leverage the solution in Alaska. SDE does not intend to make system modifications to the existing Legacy Medicaid Management Information System (MMIS). The SDE will assess the need to develop additional interface requirements for the new MMIS, Alaska Medicaid Health Enterprise, post-implementation to support the SLR in a more automated and integrated manner.

The Alaska SLR design and implementation will be broken into two distinct phases to meet federal timelines. The Alaska SLR will be in place in January 2011 with payments beginning in April 2011. Phase 1 will include eligibility calculations and attestation capabilities and will focus on Group 1 National Level Repository (NLR) testing, SLR configuration, testing, outreach, training and implementation. Phase 2 will execute the payment cycle and will focus on payment configuration, testing and implementation.

Figure 3 - EHR Plan



SDE expects to manage the EHR Incentive Payment Program using resources located in the HIT Program Office within DHCS. This office will support the review and approval of Provider Incentive Program requests received from the NLR, monthly payment processing and required EHR Incentive Payment reporting. The Office will leverage existing DHCS Medicaid business processes to manage the program such as provider enrollment, provider payment process, provider audits and state and federal reporting.

The AKSAS financial system will support the submission and distribution of incentive payments; along with the supporting financial reports. The standard Direct Connect software product will be used to exchange NLR information with CMS.

2.1.1 State Level Repository

The web-based state attestation and tracking solution, Alaska SLR, will support the requirements for meaningful use and incentive payments mandated by the ARRA Health Information Technology for Economic and Clinical Health (HITECH) Act. The Alaska SLR will allow the state to interact with the NLR, providers, and integrate with other State systems like MMIS, in order to deliver comprehensive data support for the provider incentive payment program.

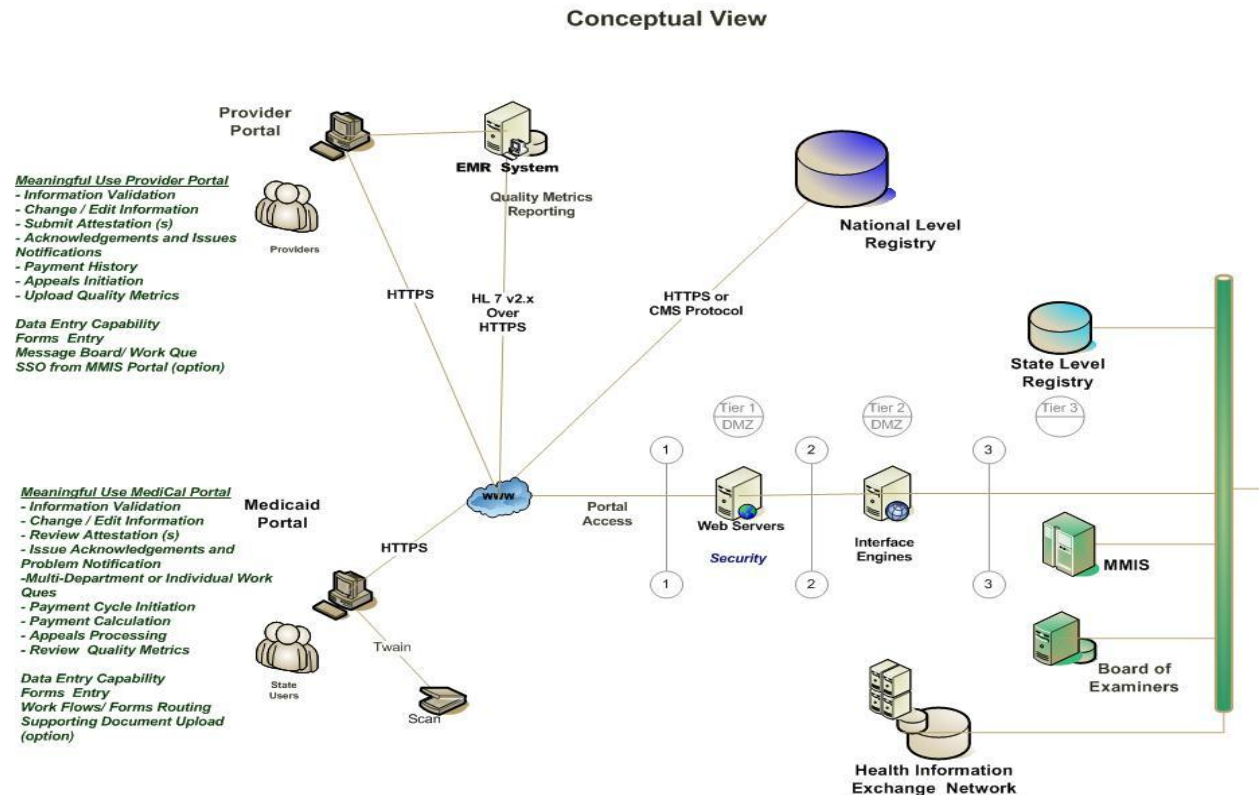
Phase 1 SLR features include:

- Secure log-in,
- Self-service review and edit of provider demographic information,
- Role-based screens for providers (EP or EH) and state staff,
- Facilitation of provider registration and attestation - adoption / implementation / upgrade or meaningful use,
- Submission of completed forms to State Medicaid entities,
- Messaging to providers from State Medicaid entities,
- Routing and approval of provider registration information, and
- On-line help and user manual.

Phase 2 SLR features include:

- Payment calculation function,
- Initiation of the payment cycle,
- Payment history log,
- Initiation of a provider appeal,
- Management of appeals,
- Upload meaningful use quality metrics in approved XML format, and
- Review and reporting of quality metrics.

Figure 4 - State Level Repository



2.2 Meaningful Use Data in Year 1

The implementation of the HIE in Alaska will provide an important vehicle to facilitate the standardization, exchange and outcome focus on the EHR data. In addition, the planned improvements in the Alaska Medicaid Data Warehouse will allow DHCS to consolidate and evaluate appropriate meaningful use data in the coming years.

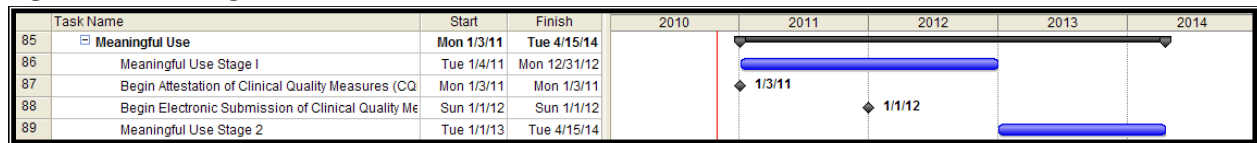
In 2011, year one meaningful use data will be captured, and evaluated for the purposes of the providers meeting the eligibility requirements to attest to the ability to manage meaningful use data. The current plan is to collect the data elements and quality measures using the Alaska SLR that will be implemented to support the EHR Incentive Payment program.

The HIE, once it is operational and has been connected to the certified EHR's, will have the capability to collect clinical quality measures that support meaningful use. The plans for implementation of the HIE include a pilot project that will connect 2 large facilities and 20+ providers to the HIE between February

and June 2011. In summer and fall 2011 the remainder of the providers will be able to connect with the HIE. This will provide the opportunity for providers to start the submission of clinical quality measures through the HIE. For the first phase of implementing the HIE, it will have the capabilities to accept and send electronic prescriptions, structured lab results and transmission and receipt of patient care summary records.

The SDE plans to identify an appropriate technical solution that is in alignment with the new MMIS and the Alaska HIE that supports the electronic collection of clinical quality measures. By January of 2012, DHCS expects to have the MMIS solution in place to support providers that will be in a position to demonstrate Meaningful Use of their EHR systems.

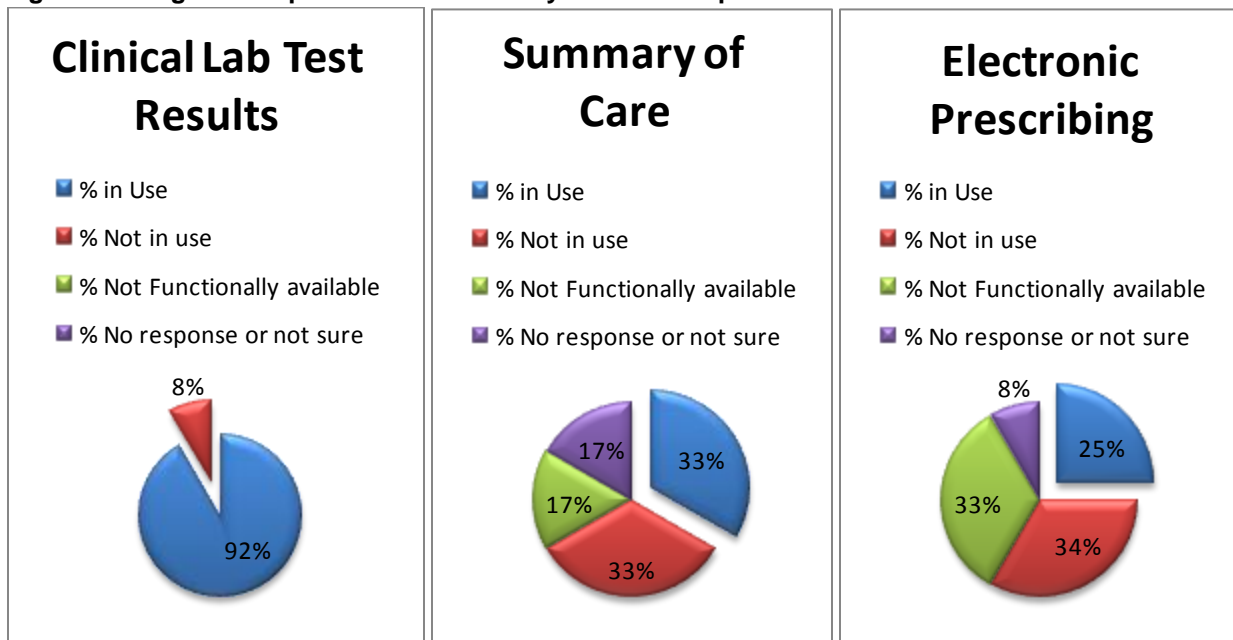
Figure 5 - Meaningful Use Plan



2.2.1 Eligible Hospitals

The below pie charts outline the current clinical quality measure capabilities and awareness of hospitals for Electronic Prescribing (e-prescribing), receipt of structured lab results and patient care summary of care records.

Figure 6 – Eligible Hospitals Clinical Quality Measure Capabilities



The providers who participated in the SDE survey were asked:

- Are you recording clinical lab test results as structured data?
- Are you using a feature that allows transmission and receipt of summary care records for transitions of care and referrals?
- Are you using electronic prescribing?

There were a total of 16 unduplicated hospitals that participated in either the first or second survey. Of the 16 unique hospitals, there were a total of 12 hospitals that indicated that they had an EHR. Of the 12 hospitals:

- 92% indicated that they record structured clinical lab test results,
- 33% are using a feature that allows transmission and receipt of summary of care records, and
- 25% are using electronic prescribing.

Additionally in the survey, hospitals were asked to indicate with which entities they were sharing health information electronically using their EHR. Of the 12 hospitals that indicated that they had an EHR, the below chart indicates the number of hospitals sharing health information with other entities.

Table 1 – Eligible Hospitals Exchange of Health Information

| # of hospitals currently sharing health information electronically with entities using EHR | | % of Hospitals |
|--|----|----------------|
| None | 1 | 8.3% |
| Hospital(s) | 3 | 25.0% |
| Laboratory(s) | 6 | 50.0% |
| Other provider(s) | 10 | 83.3% |
| Pharmacy(s) | 6 | 50.0% |
| Others | 1 | 8.3% |

The clinical lab test results indicate that many of the organizations record clinical lab tests results, and that 50% of the hospitals are sharing health information with other laboratories. All of the hospitals indicated that they would be interested in participating in the EHR incentive program, which will require that they upgrade to a certified EHR and meet stage 1 meaningful use. The HIE will have the capabilities to exchange the structured labs at initial implementation.

33% of hospitals are currently using the feature that allows transmission and receipt of summary of care records, additionally 33% of the hospitals do not use that feature of their EHR, and 17% either do not have that feature or the participant did not respond or was not sure of their currently capabilities. The results of the survey convey that hospital staff will need to be educated on understanding what their current EHR capabilities include. AeHN through the REC will be able to do on site technical assistance, education and outreach. Additionally SDE will provide onsite presentations and education, send out flyers and letters to organizations to increase knowledge of the EHR meaningful use requirements and ensuring that the feature is being used to meet the meaningful use.

As indicated by the hospitals all of them plan on participating in the EHR incentive program, of those hospitals 8 of them planned on enrolling in the program by 2011, 3 planned on enrolling in 2012, 1 indicated they would enroll in 2013 and 4 did not respond to the time frame they would enroll in the program. For the hospitals that qualify to participate in the EHR incentive program, this will address their current EHR functionality and they will be required to use that function to meet meaningful use requirements. For the organizations who are currently sharing summary of care information across entities, once the HIE is implemented this will increase of receipt and transmission of summary care records between entities and will allow a greater capability to exchange with a broader range of entities who are participating in the HIE.

Of the hospitals surveyed with an EHR, 25% are using electronic prescriptions, 34% of the hospitals indicated that they do not use that feature, and 33% of the hospital EHR's do not have that function.

Additionally 50% of the hospitals indicated that they share health information with pharmacies. Based on the other responses in the survey the hospital EHR's have additional functionalities which would allow the exchange of health information with pharmacies.

Table 2 – Eligible Hospital EHR Functions

| Hospitals EHR Medication Functions | # of Hospitals | % of Hospitals |
|---|----------------|----------------|
| Are you using drug-drug interaction checks? | 10 | 83.3% |
| Are you using drug-allergy checks? | 10 | 83.3% |
| Are you using drug-formulary checks? | 9 | 75.0% |
| Are you using patient medication lists? | 9 | 75.0% |
| Are you using patient medication allergy lists? | 11 | 91.7% |
| Are you using medication reconciliation? | 7 | 58.3% |

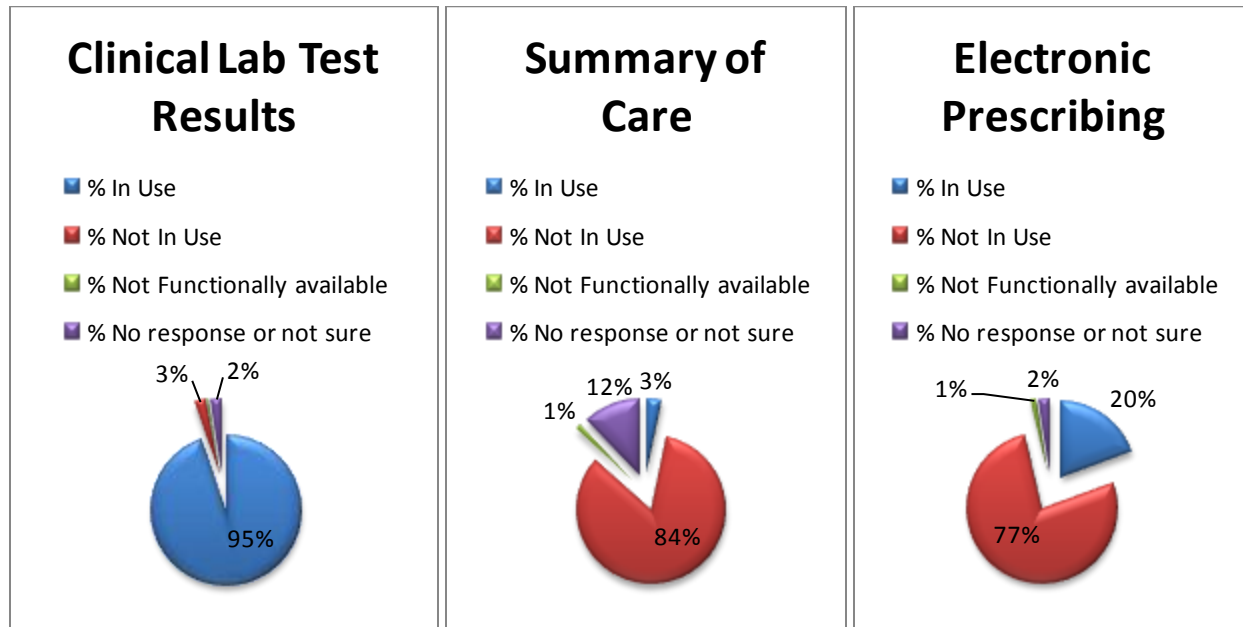
In order to meet meaningful use criteria the state is working to implement a standalone solution that will be available to providers regardless of their EHR implementation status in addition to the functionality provided by the HIE. The SDE is currently working on a plan to address the gaps in e-prescribing. Additionally, HIE will have e-prescribing capabilities and will also be able to receive electronic prescriptions from hospital or practice EMRs.

Of the 16 hospitals surveyed, 9 indicated that they had a wired broadband connection, 4 indicated that they had T-1 or T-3 lines and 3 indicated that they have satellite connection. Many of the rural communities do not have adequate internet connection. There are other state initiatives that are addressing broadband access to the rural communities to ensure that they have adequate access to the internet.

2.2.2 Eligible Professionals

The pie charts below outline the current clinical quality measure capabilities and awareness of eligible professionals for e-prescribing, receipt of structured lab results and patient care summary of care records. The provider types that participated in this survey will be categorized as eligible professionals, although it is understood that not all provider types will be eligible to participate in the EHR incentive program.

Figure 7 – Eligible Professionals Clinical Quality Measure Capabilities



The eligible professionals were asked:

- Are you recording clinical lab test results?
- Are you using a feature that allows transmission and receipt of summary care records for transitions of care and referrals?
- Are you using electronic prescribing?

There were a total of 277 responses to the survey; there were a total of 247 eligible professionals that indicated that they had an EHR. Of the 247 eligible professionals:

- 95% indicated that they record structured clinical lab test results,
- 3% are using a feature that allows transmission and receipt of summary of care records, and
- 20% are using electronic prescribing.

Of the 277 participants that filled out the survey 268 indicated that they would be interested in participating in the EHR program. For the 9 eligible professionals that indicated that they would not be interested in participation in the EHR incentive program, 6 of them did not have an EHR and 3 had an EHR with a practice management system. Continuous education and outreach will occur by the SDE and AeHN as the REC and as the non-profit governing board that will procure and manage Alaska's HIE to provide education to providers in Alaska about the EHR incentive program and the benefits of connecting to a health information exchange.

As in the hospital survey, the eligible professionals were asked to indicate with which entities they were sharing health information electronically using their EHR. Of the 247 EP that indicated that they had an EHR, the below chart indicates the number of EP's sharing health information with other entities.

Table 3 – Eligible Professionals Exchange of Health Information

| # of eligible professionals currently sharing health information electronically with entities using EHR | | % of Eligible Professionals |
|---|-----|-----------------------------|
| None | 12 | 4.9% |
| Hospital(s) | 216 | 87.4% |
| Laboratory(s) | 51 | 20.6% |
| Other provider(s) | 28 | 11.3% |
| Pharmacy(s) | 43 | 17.4% |
| Others | 23 | 9.3% |

The survey results of eligible professionals revealed that 95% of them record clinical lab tests results; although only 20.6% of eligible professionals indicated that they exchange health information with laboratories. The survey results show that 87.4% of eligible professionals are sharing data with hospitals, which depending on the hospital EHR data flow could result in health information moving through the hospital EHR to hospital laboratories, although the exchange of this information has not been measured. Once the health information exchange is implemented this will allow an increase of health information exchange between entities. Additionally, once the eligible professionals enroll in the EHR incentive, the program will require them to exchange this health information to meet meaningful use requirements.

Only 3% of eligible professionals are using a feature of their EHR that allows transmission and receipt of summary care records for transitions of care and referrals, 84% of their EHR's have the capability although it is not being used. 20% of the participating eligible professionals indicated that they are e-prescribing. A low volume of eligible professionals, 17.4%, indicated that they exchange of health information with pharmacies. As indicated 268 of the 277 indicated that they would be interested in enrolling in the EHR incentive program which would require the exchange of health information to meet the meaningful use requirements. Once the HIE is up and running the providers will have the benefit of connecting to a HIE and have access other health information with a goal of improving the overall health of their patients.

2.3 Medicaid Management Information System

The new Medicaid Management Information System (MMIS) represents an enormous technical move forward for DHCS. It will incorporate innovative features and advancements that will grow as the Medicaid Program grows. In addition to a web-based graphical user interface and real time transactions, Medicaid operations, members and providers alike will benefit from the enhanced interoperability features of the new MMIS. The MMIS project is making continuous progress for implementation in the spring of 2012. Federally mandated MMIS project includes planning, assessment and compliance with ICD-10 and 5010, as well as D.0. and 3.0.

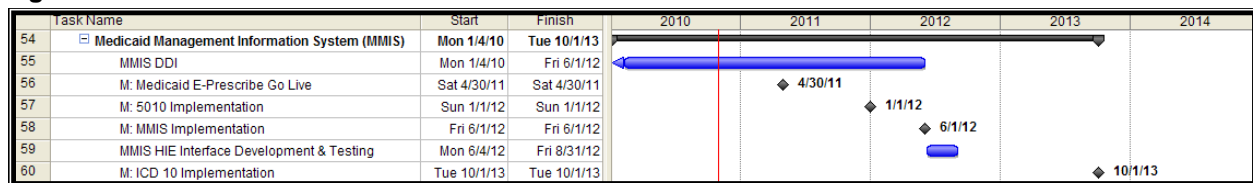
The MMIS currently supports secure data exchange, compliant with Health Insurance Portability and Accountability Act (HIPAA) regulations, with providers, as well as with business partners and contractors.

Alaska has already adopted national data standards X12 transactions and HL7 messaging for health data exchange. The new MMIS will be compliant with Medicaid Information Technology Architecture (MITA) open system standards. As new data exchange standards become available, DHCS will implement them according to the national implementation schedule.

DHCS' new MMIS system with its modern technology and updated security will be in a position to move forward with connections to the HIE and other mandated/desired services to providers attempting to achieve meaningful use. Additional functionality to receive and interpret HL7 messaging structures will be added. Development and testing will occur to interface the MMIS with the HIE by the summer of 2012.

In addition to MMIS replacement a number of projects are planned to expand, leverage or replace existing systems and features, dependent upon the completion of the MMIS replacement. DHCS expects to include MMIS members in its Master Client Index (MCI) (Section 2.4), extend ePrescribing functionality and replace the existing decision support system.

Figure 8 - MMIS Plan



2.4 Master Client Index

For the past three years, the DHSS has utilized MultiVue to support the MCI. MultiVue is a data matching and indexing technology that enables the delivery of a single view of a person or property. The MCI started with four core systems that were bulk loaded, matched and merged to produce a composite view of a person across all the participating source systems.

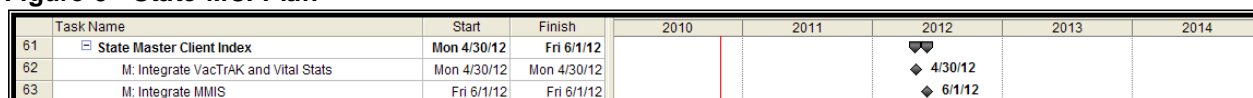
These systems included the: Permanent Fund Dividend (PFD) owned by Department of Revenue / Division of Permanent Fund Dividend; Eligibility Information System (EIS) owned by DHSS / Division of Public Assistance (DPA); Juvenile Offender Management Information System (JOMIS) owned by DHSS / Division of Juvenile Justice (DJJ); and Online Resource for the Children of Alaska (ORCA) owned by DHSS / Office of Children's Services (OCS).

Since then a further 3 systems have been drip fed into the MCI using the BizTalk integration solution. Those systems are: Resource and Patient Management System (RPMS), managed by Indian Health Services (IHS); Division of Senior and Disabilities Services Data System (DS3) owned by DHSS / Division of Senior and Disabilities Services (DSDS) and Alaska Automated Information Management System (AKAIMS) owned by DHSS / Division of Behavioral Health (DBH).

The SDE, State HIT Coordinator and other identified state representatives will work with the Division of Public Health (DPH) to integrate VacTrAK and Electronic Vital Records System with the MCI by April 2011 and eventually interface with HIE. VacTrAK and Electronic Vital Records System are essential for the Public Health measures of meaningful use. Alaska is poised to make vaccination information available to all providers statewide.

The implementation of the new MMIS system is projected to be completed by the spring of 2012, with a plan to interface MMIS with the MCI by the summer of 2012.

Figure 9 - State MCI Plan



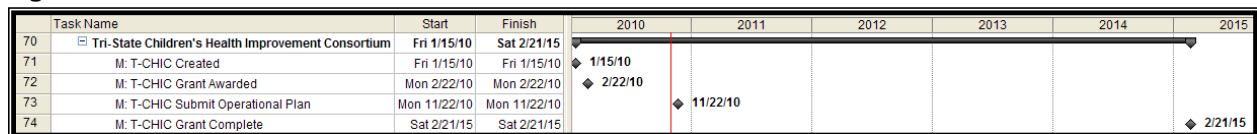
2.5 Tri State Children's Health Improvement Consortium

The States of Alaska, Oregon, and West Virginia constitute the Tri State Children's Health Improvement Consortium (T-CHIC) membership for the 5 year project period of February 22, 2010 through February 21, 2015. The three States are working together to develop and validate quality measures, improve infrastructure for electronic or personal health records utilizing health information exchanges, and implement and evaluate medical home and care coordination models.

The project is split into two distinct stages: planning and implementation. The first nine months of the grant is dedicated to planning followed by implementation and evaluation.

1. The Planning stage is from March 2010 – November 2010 and key activities include:
 - Develop a final operational plan, and
 - Establish learning collaborative with broad stakeholder participation.
2. The Implementation stage is from November 2010 – March 2015 and key activities include:
 - Develop, implement, and evaluate a full range of measures that will drive quality improvement in children’s healthcare,
 - Establish health information exchanges and pilot sites for electronic health record projects, and
 - Develop and implement different models of delivering healthcare to children.

Figure 10 - T-CHIC Plan



The term “membership” is defined as participation in the T-CHIC for the purpose of implementing grant program activities as outlined in the consortium’s grant application submitted to CMS by the State of Oregon, Oregon Health Authority (OHA). Given the lead applicant status, the OHA will assume additional management and oversight responsibilities related to grant activity implementation. The states have identified the individual member state responsibilities that will be planned and implemented with multiple units within the State of Alaska.

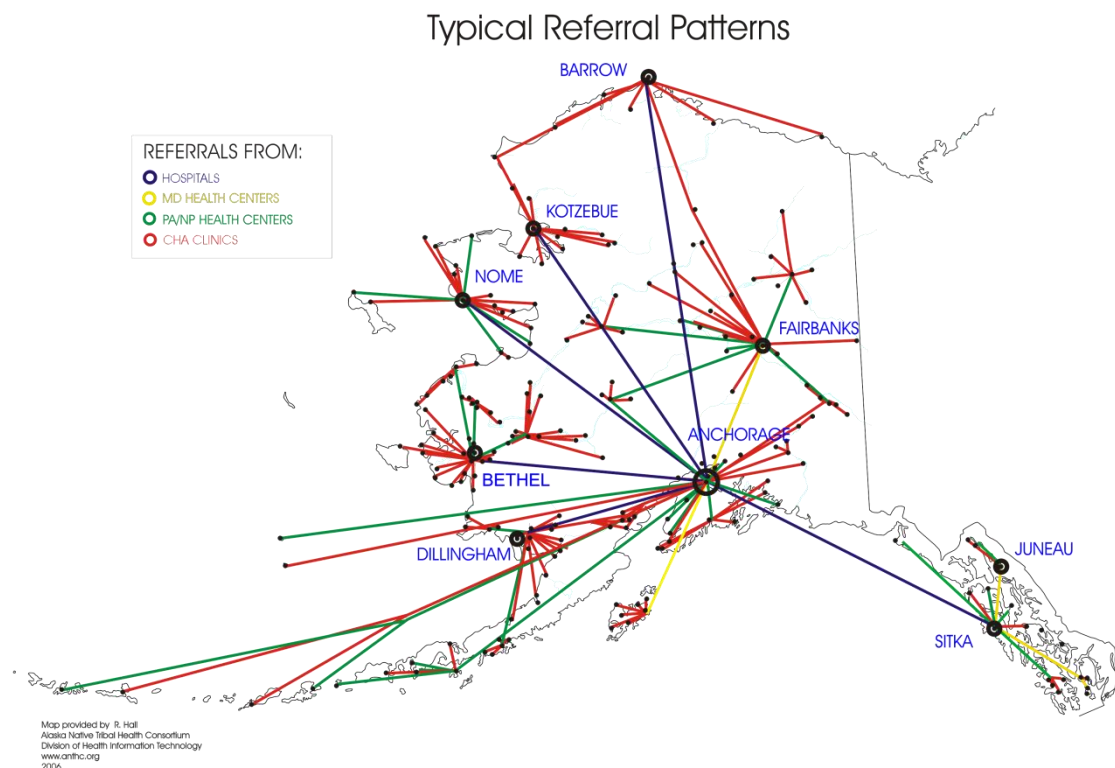
Representatives from the Medicaid program, Public Health, Health System and Planning and the HIT coordinator have bi-weekly meetings to discuss the T-CHIC program to ensure that coordination is occurring between both the T-CHIC plan and the statewide HIT plan for input in the planning and implementation of the project.

Alaska’s T-CHIC leadership, HIT Coordinator and Medicaid Staff are working to collaborate to develop shared approaches for quality measurements for the T-CHIC grant and meeting meaningful use requirements. The priorities of the T-CHIC initiatives include the improved patient care in Alaska with the planning for Medical Home Model, using the HIE for comprehensive measurement of services and outcomes for Early Periodic Screening, Diagnosis and Treatment (EPSDT) care and to improve on quality measures for Denali Kid Care. The HIE will help improve the children health care by ensuring the right services are received at the right time.

2.6 Telehealth / Telemedicine

With nearly 572,000 square miles of land across Alaska, nearly one fifth the size of the rest of the United States, the population of Alaska in 2009 was estimated to be 692,314. In communities outside of the urban cities of Anchorage/Matanuska Region and Fairbanks, there was estimated population of 223,633¹. In rural Alaska the primary health providers are from the Tribal Health System therefore they play a significant role in telemedicine. With the majoring of healthcare providers permanently located Anchorage and the Fairbanks, many of the outlying towns or rural communities have limited access to healthcare providers and specialists in those regions. Telemedicine becomes a critical component in providing health care to rural communities where access to health care is limited. With increasing patient access to healthcare through telemedicine and the transfer for electronic medical records, there is great potential to improve healthcare for those communities that currently have limited access to primary, specialty and preventive care as well as to enhance public safety by connecting health care provider's public health officials to these networks. With the installation and deployment of the telecommunication network, this will link existing networks, as well as create new connections to rural locations where no connectivity currently exists.

Figure 11 – The Alaska Tribal Health Systems Referral Patterns



While the Alaska Beacon application was denied, it has identified a need which is not currently funded; connectivity of telehealth and telehome with other EHRs to provide a complete picture of coordinated care for providers. Due to Alaska's vast geographical distances, telehealth and telehome monitoring are in broad use across the state. The SDE and AeHN will continue to seek funding sources and revenue streams to fund this critical project.

2.7 Broadband Expansion

Broadband expansion is a critical infrastructure improvement needed to allow the remote locations in Alaska to receive the benefits of many of the initiatives listed above.

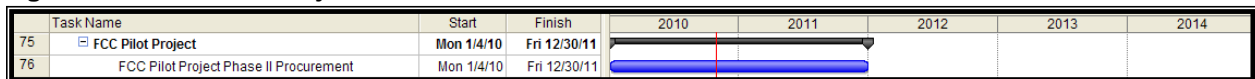
2.7.1 FCC Pilot Project

The FCC Pilot project's first phase was completed in September 2009, the second phase is due to begin in October 2010.

AeHN is the recipient of an FCC Rural Health Care Pilot Project broadband contract. Over 250 healthcare providers (both rural and urban non-profit) are participating in this project. The project has been coordinated with the University of Alaska broadband projects to ensure both enhanced access in under-served areas and redundant capabilities for disaster recovery.

The State of Alaska is the recipient of a broadband mapping project funds which will survey all areas of the state and identify gap areas for future projects. All of these projects work together to ensure access at the provider level across the state. A broadband taskforce of all stakeholders including healthcare, state agencies, schools and libraries, higher education, and telecommunications carriers has actively reviewed and coordinated activities across Alaska. AeHN was instrumental in bringing this group together and in identifying needs across the state.

Figure 12 - FCC Pilot Project Plan



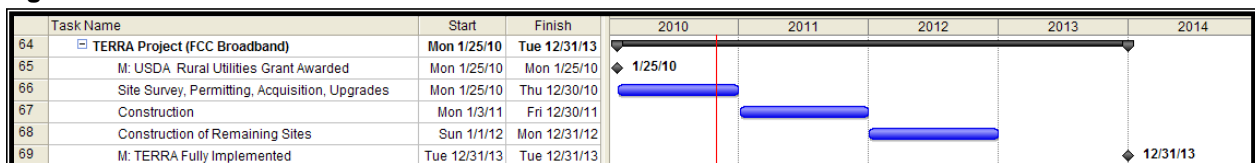
2.7.2 TERRA Project

The TERRA project has an expected timeline to extend the terrestrial broadband services in the Northwest and Southwest regions of Alaska in 2010-2013.

The GCI plan in 2010 is to start conducting site surveys, permitting, site acquisition, upgrade of existing microwave sites equipment and fiber manufacturing. The 2011 plans include construction of the microwave sites, cable landing stations and the majority of fiber network. The building of the remaining microwave sites and the remaining fiber segments will continue in 2012. The TERRA project is scheduled to end in 2013.

The Southwest TERRA project is underway. Funding for the Northwest TERRA project has yet to be announced.

Figure 13 - TERRA Plan



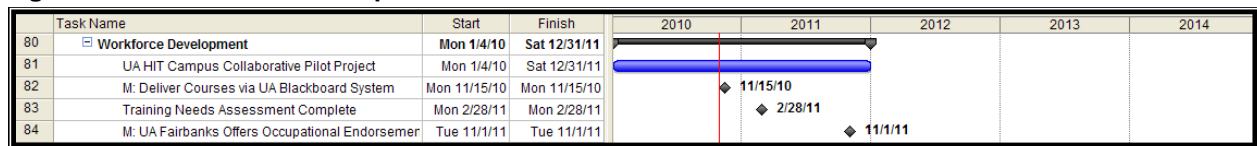
2.8 Workforce Development

Alaskans have consistently worked together to identify and meet workforce development needs. In particular, AeHN has worked closely with the University of Alaska and workforce development agencies to coordinate development of a Health Information Technology Workforce Training Program which will provide certificates in each of the HIT roles defined by the ONC.

The HIT Workforce Training Program will help prepare workers to fill roles such as: Practice Workflow and Information Management Redesign Specialist, Clinician/Practitioner Consultant, Implementation Manager, Implementation Support Specialist, Technical/Software Support Specialist, and EHR Trainer. The University of Alaska is participating in the Community College Consortia via a sub-contract through Dakota State University, a member college in the Region A consortium to distance education programs in HIT.

In addition, the Healthcare Information Technology Occupational Endorsement offered by University of Alaska Southeast is designed to prepare students for employment as entry level Healthcare Information Specialists or to provide supplemental training for persons previously or currently employed in related health record occupations. The University of Alaska has representation on the HIE governance board and coordinates health workforce development programs closely with the State of Alaska, AeHN and healthcare stakeholders.

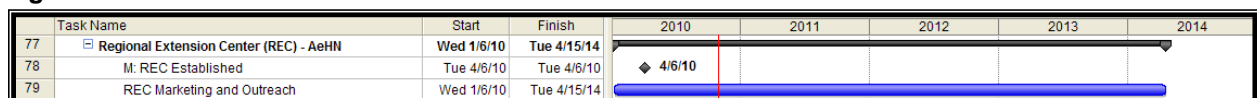
Figure 14 - Workforce Development Plan



2.9 Regional Extension Center

AeHN is the recipient of ARRA REC funds and coordinates support for providers and Critical Access/Rural Hospitals across the state. AeHN provides services to assist medical providers in achieving meaningful use criteria (e.g., use of a certified EHR, electronic exchange of health information, and quality reporting) including: an EHR readiness assessment, selecting and contracting with a vendor, implementation support and practice workflow design/re-design, training, post-implementation support services, and IT support and network monitoring. Services are tailored to unique practice needs no matter where the medical practice is on the EHR adoption curve. Because AeHN and DHSS staff work closely together already, these efforts will be coordinated with the Medicare and Medicaid incentive programs. Thus, ensuring providers the ability to demonstrate care coordination through the HIE.

Figure 15 - REC Plan

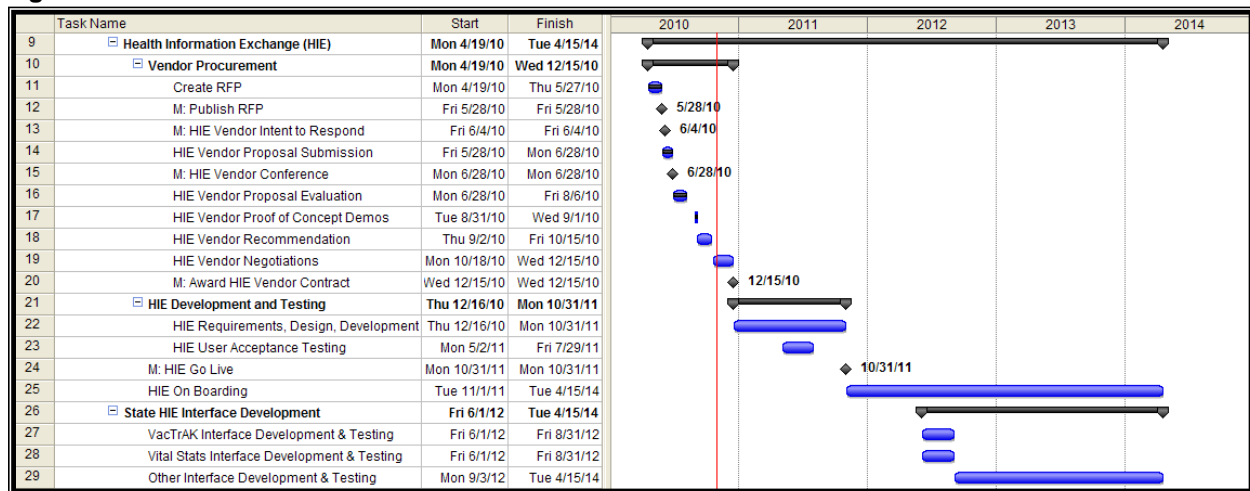


2.10 Health Information Exchange (HIE)

Project planning for the implementation of a Statewide HIE has been a robust process using the current Alaska HIT environment as a base. HIE vendor demos were held the week of August 30th and the top two vendors were recommended to the HIE Board for final selection. At this point in time the HIE board has begun negotiations of a HIE contract with the selected HIE vendor. Contract negotiations are expected to continue into November 2010 with a signed contract by mid December 2010.

The intent is to have HIE pilot providers on boarding in early summer 2011 with others on boarding in fall 2011.

Figure 16 - HIE Plan



The initial phase of the implementation must be operational by October 2011 and include, at a minimum, the following services:

1. A patient is seen by a physician who orders an ancillary service from the nearby hospital, prescribes medication, and refers the patient to a specialist. The order and prescription interface to the HIE which transfers them to the indicated provider. When the test results are available, the physician is notified through the HIE and the information is available as discreet data if applicable; the HIE provides data normalization as necessary. For radiology tests, a link to the image is available if the testing facility has a Picture Archiving and Communication System (PACS).
2. When the appointment is made with the specialist the patient's summary information is available for reference, as are any test results reviewed and verified as necessary by the physician. At any time the patient can also look up the results in his personal health record available through the HIE.
3. The patient's insurance information is verified by the specialist's office manager through the HIE, and when a change of address is noted the new address is available to other providers. When the specialist sees the patient's results he finds an interesting lab trend and incorporates the data into his Electronic Medical Record (EMR) so he can include them in his visit notes. All current medication information is available for medication reconciliation purposes.
4. When a physician sees a patient and documents a condition warranting public health reporting, the required information is made available to public health without the need for additional steps on the physician's part. If public health determines that a new study is required, retrospective analysis can be done through the HIE, and as additional disease reporting is needed, the HIE will automatically extract the clinical information as appropriate.

A second phase of the overall HIE initiative is to provide the capability to exchange EHR data between private and public insurers, facilities, other State agencies, and clinicians, and to allow members access to their own EHR data. This includes having the ability to accept EHR data into the system and provide EHR data when necessary. The second phase requirements will be further developed in 2011, and implemented by 2012.

This HIE / EHR enhancement function must accept the following inputs: MMIS subsystem data including but not limited to DW/SURS, claims, provider, and member; clinical data; lab results data; electronic attachments; prescriptions; and ARRA incentive payment amounts. The HIE/EHR enhancement function must accommodate the following capabilities:

1. Provide the capability to track, issue, and report on provider incentive payments in the SLR including identification of designated providers in provider database, system calculation of payments, capability for voiding, auditing, tracking, and reporting requirements, and changes to CMS 64, etc.
2. Provide capabilities within DSS/DW to collect, store, retrieve, and report on EHR data including clinical data, lab results data, x-rays, scans, etc.

The HIE / EHR enhancement function must provide the following outputs:

1. Reports as defined by the state and federal government for the reporting of gaps, issues, monitoring, and tracking of incentive funds,
2. Provider incentive payments for EHRs, and
3. EHR data to authorized requestor.

The HIE / EHR enhancement function must accept an interface with the following: State HIE, Nationwide Health Information Network (NHIN), Private Insurer EHR systems, other State agency EHR systems, Facility EHR systems, and Clinician EHR systems.

SDE expects that the MMIS, VacTrAK, Vital Statistics, and MCI will interface directly with the HIE.

2.10.1 HIE Coordination

AeHN is appropriately resourced to begin rapid HIE deployment. SDE is an active partner in the development of the state's HIE solution and the State HIT Coordinator participates in AeHN workgroups to develop requirements. AeHN will coordinate with the SMHP to ensure the statewide HIE operational plans and implementation of HIE are in alignment with the SMHP for Alaska, and that both plans adhere to the requirement for meaningful use of electronic health records. Data from the SDE, State HIT Coordinator and AeHN will provide the Medicaid program with the information required to measure provider participation and adhere to requirements for Meaningful Use of EHRs.

AeHN, SDE, and State HIT Coordinator will create the systemic relationships needed to overcome two leading causes of our low return on national health spending; inefficiencies in production processes and lack of patient involvement in care decisions.

In direct response to identified challenges AeHN, SDE, State HIT Coordinator will collaborate to improve the overall health of the state's population by forging a cost-effective partnership between key stakeholders: patients, individual practitioners, provider and payer organizations and employers and Alaska businesses.

To maximize the project's effectiveness, development of the HIE for Alaska will be closely coordinated with parallel activities of Alaska private physicians and key stakeholders.

3 Health Information Technology Coordination and Collaboration

Alaska has achieved broad participation in the development of its Health Information Technology (HIT) strategy, legislation and implementation of solutions. Below is an outline of the extensive coordination and collaboration that occurs within Department of Health and Social Services (DHSS) and between the State Designated Entity (SDE), other DHSS divisions, State HIT Coordinator, HIT Program Office, Alaska eHealth Network (AeHN), and other States. The key to success is frequent open communication.

| Meeting | Objective | Frequency | Participants |
|--|--|-----------|---|
| HIT Governance Committee Meeting | <ul style="list-style-type: none"> Authorize, support and provide oversight for HIT projects | Monthly | DHSS Commissioner, Deputy Commissioner for Health Policy and Medicaid, State HIT Coordinator, Director of Division Health Care Services (DHCS), Tribal Health Program Manager, Information Technology Services (ITS) Business Applications Manager, and Division Public Health (DPH) HIT Lead |
| AeHN Board of Directors | <ul style="list-style-type: none"> Widespread access to statewide (Alaska) health information data exchange system that improves quality, safety, outcomes and efficiency in healthcare by making vital data available to providers, payers, and patients when and where they need it | Monthly | DHSS Commissioner, Hospital 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, non-voting liaison State HIT Coordinator |
| MMIS Governance Committee Meeting | <ul style="list-style-type: none"> Design, development, testing, training, outreach, implementation, certification of new MMIS, Alaska Medicaid Health Enterprise 5010 implementation ICD 10 implementation Develop and test interface with MCI, | Monthly | DHSS Commissioner, Deputy Commissioner for Health Policy and Medicaid, State HIT Coordinator, Deputy Commissioner for Family, Community & Integrated Services, Director of DHCS, Director Division Behavioral Health (DBH), Director Division Senior and Disability Services (DSDS), Finance Management Services (FMS) Information Technology (IT) Lead, Director Electronic Technology Services (ETS) |

| | | | |
|--|--|---------------------|---|
| | HIE | | |
| Service Level Repository (SLR) | <ul style="list-style-type: none"> • SLR Design, configuration, testing and implementation • Provider outreach and training | Weekly | HIT Program Office staff, Technical Assistance Contractor (TAC), Vendor |
| State Medicaid Health Information Technology Plan (SMHP) | <ul style="list-style-type: none"> • SMHP design and implementation • IAPD development • Pre and post payment audit strategy • Provider outreach and training | Weekly | HIT Program Office staff, TAC, Division Subject Matter Experts (SMEs) as required |
| HIT Program Office | <ul style="list-style-type: none"> • Project status updates, action items, issues, risks, decisions | Weekly | State HIT Coordinator, Medicaid Management Information System (MMIS) Deputy Implementation Manager, Med Asst Admin, Systems Analyst, Division SMEs as required |
| HIT Workgroup | <ul style="list-style-type: none"> • Monthly project status updates, action items, issues, risks, decisions | Monthly / As Needed | HIT Program Office (State HIT Coordinator, MMIS Deputy Implementation Manager, Med Asst Admin, Systems Analyst), AeHN Director, Representatives from Public Health, FMS Information Systems, Health System and Planning |
| Tri State Children's Health Improvement Consortium (T-CHIC) | <ul style="list-style-type: none"> • Ensure coordination is occurring between both the T-CHIC plan and the SMHP, statewide HIT plan for input in the planning and implementation of the projects. | Bi-weekly | Representatives from the Medicaid program, Public Health, Health System and Planning and the State HIT coordinator |
| National Level Repository (NLR) Group 1 Testing | <ul style="list-style-type: none"> • NLR testing | Weekly | State HIT Coordinator, TAC |

4 Other Coordination

The Alaska Health Information Exchange (HIE) must be a carefully coordinated effort in order to effectively serve the Alaskan providers and consumers of healthcare services. To this end, the State Designated Entity (SDE), State Health Information Technology (HIT) Coordinator and Alaska eHealth Network (AeHN) coordinate services to deploy Electronic Health Records (EHR) in concert with other HIT activities funded across the state. AeHN will act as a coordination point along with the State of Alaska, State HIT Coordinator to ensure that leadership and technical coordination are assured. The AeHN governance board includes members from American Recovery and Reinvestment Act (ARRA) funded projects including AeHN, Department of Health and Social Services (DHSS), and the University of Alaska, as well as, stakeholder representation from Indian Health Service (IHS), the Department of Defense (Air Force and Army), Transportation Security Administration (Coast Guard), public and private providers, consumer advocates, and businesses from across Alaska.

4.1 Health Information Security and Privacy Collaboration

Alaska participated in the Health Information Security and Privacy Collaboration (HISPC) project, a national effort to address the issues related to security and privacy when sharing patient health information among healthcare providers, insurers, government, and healthcare agencies. This process of sharing health information is known as interoperable HIE. Participation in this national initiative gave a voice to Alaska's specific issues, needs, and recommendations in the development of national policies for privacy and security.

This eight state collaboration provided an opportunity for AeHN to pilot the exchange of information across state borders with both private providers and state immunization databases. Participants in the project included Alaska, New Jersey, Iowa, Hawaii, North Dakota, New York, and the Territory of Guam. Interstate participation agreements were tested and adopted for use in health data exchange.

The HISPC project was the first of several projects that formed the basis for Alaska legislation (Senate Bill 133) to implement health information exchange for Alaska. A number of other HISPC activities were also completed including:

- Legal review of state laws and comparison to federal law,
- Drafting of Intra-State policies,
- Investigation of Interstate HIE, and
- Development of trust agreements.

The knowledge gained from the HISPC work will serve to promote HIE in Alaska. The policies and agreements developed under HISPC will continue to be refined to meet ARRA requirements for HIE and Meaningful Use of EHRs. The collaborations forged through HISPC will be instrumental in future interstate efforts to exchange health data.

The experiences in the HISPC project have shown the benefits of interstate collaborations. The SDE, State HIT Coordinator and AeHN will continue to work with other states, particularly those in our referral patterns to leverage best practices. The SDE, State HIT Coordinator and AeHN will also continue participating in national workgroups to promote the adoption of health technologies.

The SDE, State HIT Coordinator and AeHN partners have a history of working closely with Indian Health Services, the Department of Defense, Veteran's Administration, and Coast Guard. Many patients in the Alaska community move frequently between these systems. Together with these partners, The SDE,

State HIT Coordinator and AeHN would be interested in participating in the National Health Information Network (NHIN) Trial Implementation.

4.2 Pacific Northwest Health Policy Consortium

Preparations for interstate exchange of health information are at different levels of development in each of the states of the Pacific Northwest (Alaska, California, Idaho, Oregon, Washington), but all are in early stages. At the same time, interstate exchange of health information is already occurring in specific border (or bilateral) markets (for example between Alaska and Seattle, Washington, and between Portland, Oregon and Vancouver, Washington.) The proposed Pacific Northwest Health Policy Consortium (PNWHPC) will explore and begin to develop two parallel approaches to improving information exchange between the five states. First, we will evaluate specific near-term challenges and solutions in defined border markets, prioritizing by patient volume and specific policy challenges reported by healthcare provider organizations. Second, we will explore and, if agreed upon by participants, begin to develop over a longer time frame model legislation (or a related approach) that could be adopted by each of the states participating in the consortium.

The states have identified tasks that the PNWHPC will address:

1. Evaluate barriers to interstate exchange in the Pacific Northwest,
2. Evaluate Legal Options in Regional Legal/Political Context,
3. Involve Major Provider Organizations,
4. Begin Planning for Provider Registry Interoperability,
5. Coordinate with Regional Extension Centers and with Major Provider Organizations,
6. Knowledge Transfer, and
7. Alignment with Office of the National Coordinator of Health Information Technology.

At the conclusion of this project the states have initially outlined the desired outcomes of this project:

1. Better documentation of existing practices, and taken steps toward the resolution of specific identified challenges, in higher volume border markets.
2. A shared basis of understanding for the development of a regional legal and policy approach to interstate exchange.
3. The ability, if desired by the participating states, to move toward legal reconciliation according to one of several potential models.

The coordinating states plan will be supported by a clear focus on achieving six specific outcomes.

1. Create a network of high level designated representatives in each of the five states with a shared focus on interstate exchange and policy responsibility for this issue in their own states.
2. Describe and document solutions and challenges now faced by providers exchanging information in Pacific Northwest border markets.
3. Develop recommendations and approaches for interstate HIE in local border markets.
4. Build a comprehensive five state map of existing legal and policy challenges at a detailed level. Use and adapt the HISPC Template model to define challenges. Among five states this will amount to up to 11 bilateral relationships. The practical significance of each relationship will depend on patient volume.
5. Legal Issues: Foster a greater understanding of how where the impediments to interstate exchange lie and how a common legal framework might develop.

6. Select, or advance discussion of, a preferred legal strategy, including options such as (a) Uniform law; (b) a "Choice of Law" Provision; (c) an Inter-state Compact; (d) a Model Act, or (e) other options that might emerge. Educate participants, discover preferred approaches, and outline multi-year path toward this kind of legal solution.

As our work proceeds the states will track potential Federal efforts that may supersede or alter the shape of regional solutions, and incorporate those Federal efforts into the work of the five states.

The states plan on submitting the proposal to support the PNWHPC by December 2010. The states will participate in a series of teleconferences between the participating states between the HIT coordinators or designated lead staff for planning the further defining the goals of the Consortium. The states have scheduled bi-monthly meetings; the next scheduled meetings are in October and November.

4.3 Medicaid

The SDE, State HIT Coordinator and AeHN will work closely with the Alaska Medicaid to ensure that statewide HIE activities meet the Medicaid requirements. Several mechanisms have been put in place to maintain this collaboration.

- The DHSS Commissioner, or the Commissioner's representative, sits on the Governance Board
- The State HIT Coordinator is a member of the HIE Core Team
- The Alaska legislature has commissioned a State Health Commission and a member of the Health Commission also sits on the Governance Board
- Periodic meetings are held with State Medicaid representatives and State HIT Coordinator and AeHN representatives
- Medicaid staffs participate on Advisory workgroups

4.4 Federal Health Entities

The SDE, State HIT Coordinator and AeHN have a long history of working with Federal Healthcare entities. The Executive Director and the Governance Board will continue this policy of collaboration, coordinating HIE activities with the following groups:

Alaska Federal Health Care Partnership (AFHCP): This is a voluntary partnership of the organizations serving the federal healthcare beneficiaries in Alaska, the AFHCP works to combine the healthcare resources of the Alaska Native Medical Center, Alaska Native Tribal Health Consortium, Department of Defense, Department of Homeland Security, Department of Veterans Affairs, US Coast Guard and the Indian Health Service.

Alaska Native Tribal Health Consortium (ANTHC): The ANTHC provides statewide services in: specialty medical care; water and sanitation and health facilities construction; community health and research; information technology; and professional recruiting to 237 tribes and over 80,000 Alaska native

Alaska Primary Care Association (APCA): The APCA exists to support and serve all of Alaska's safety net providers, working to provide access to care for those who need it – especially to those who have little or no resources. APCA comprises twenty-six organizations employing over 900 people operating 141 sites across Alaska through the Community Health Centers and Federally Qualified Health Centers.

Activities which continue to maintain this collaboration:

- The Alaska HIE Governance Board has member positions from each of the federal groups: ANTHC, APCA and AFHCP
- The Executive Director reports regularly to meetings of the federal entities
- Periodic meetings are held with federal representatives
- Federal healthcare staff participates on Advisory workgroups

4.5 Other ARRA Programs

The Alaska HIE must be a carefully coordinated effort in order to effectively serve the Alaskan providers and consumers of healthcare services. To this end, the SDE, State HIT Coordinator and AeHN coordinates services to deploy EHRs in concert with other HIT activities funded across the state. Because many of these activities are funded through the AeHN, this organization will act as a coordination point along with the State of Alaska, State HIT Coordinator to ensure that leadership and technical coordination are assured.

The AeHN governance board includes members from ARRA funded projects including AeHN, DHSS, and the University of Alaska, as well as, stakeholder representation from Indian Health Service, the Department of Defense (Air Force and Army), Transportation Security Administration (Coast Guard), public and private providers, consumer advocates, and businesses from across Alaska.

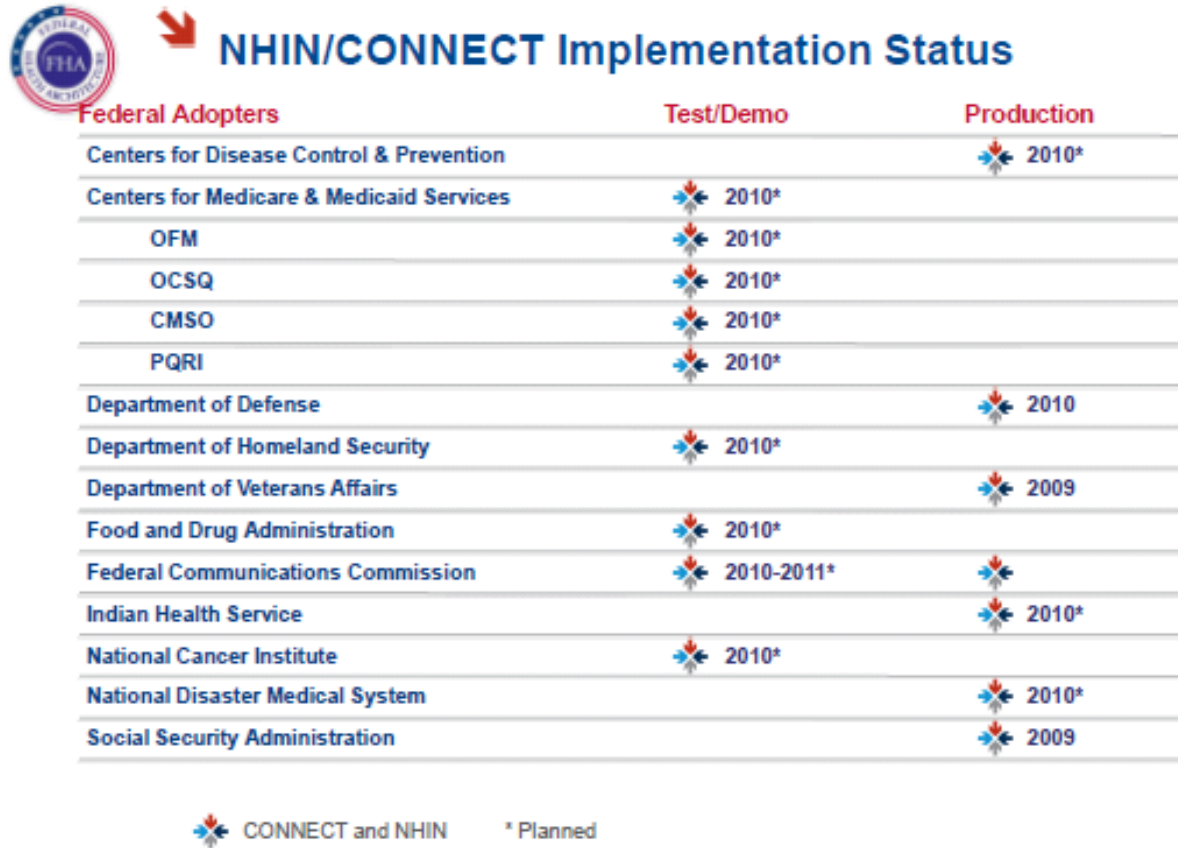
4.6 Federal National Health Information Network

DHCS understands the importance of the NHIN for successful implementation and use of HIT and HIE in Alaska. DHCS understands and is supportive of the policies and standards established by NHIN and believes it provides a solid infrastructure for linking not only many isolated communities across Alaska but also with the rest of the lower 48.

The technology specifications for the Alaska HIE will be based on federally endorsed standards and integration protocols that bridge proprietary boundaries. Using approved standards mitigates vulnerability to vendor selection issues and risks, and ensures compatibility with other HIEs and federal initiatives. The infrastructure of the Governance and Alaska HIE will enable flexibility while ensuring that SDE can respond to market changes and eventually support data sharing with the NHIN. The State HIT Coordinator will be the catalyst that ensures alignment with the NHIN.

SDE has also been monitoring the progress of NHIN/CONNECT through regular dialogue with its partners at the Department of Defense and Department (DOD) of Veterans Affairs (VA). DHCS understands the value of NHIN/Connect as both a platform for participation and innovation and is monitoring the progress of both federal and non-federal implementations. Particularly of interest to DHCS are NHIN/CONNECT implementations of our federal partners, the VA and DOD and our non-federal partners, EPIC and Kaiser who are significant providers in Alaska's healthcare community.

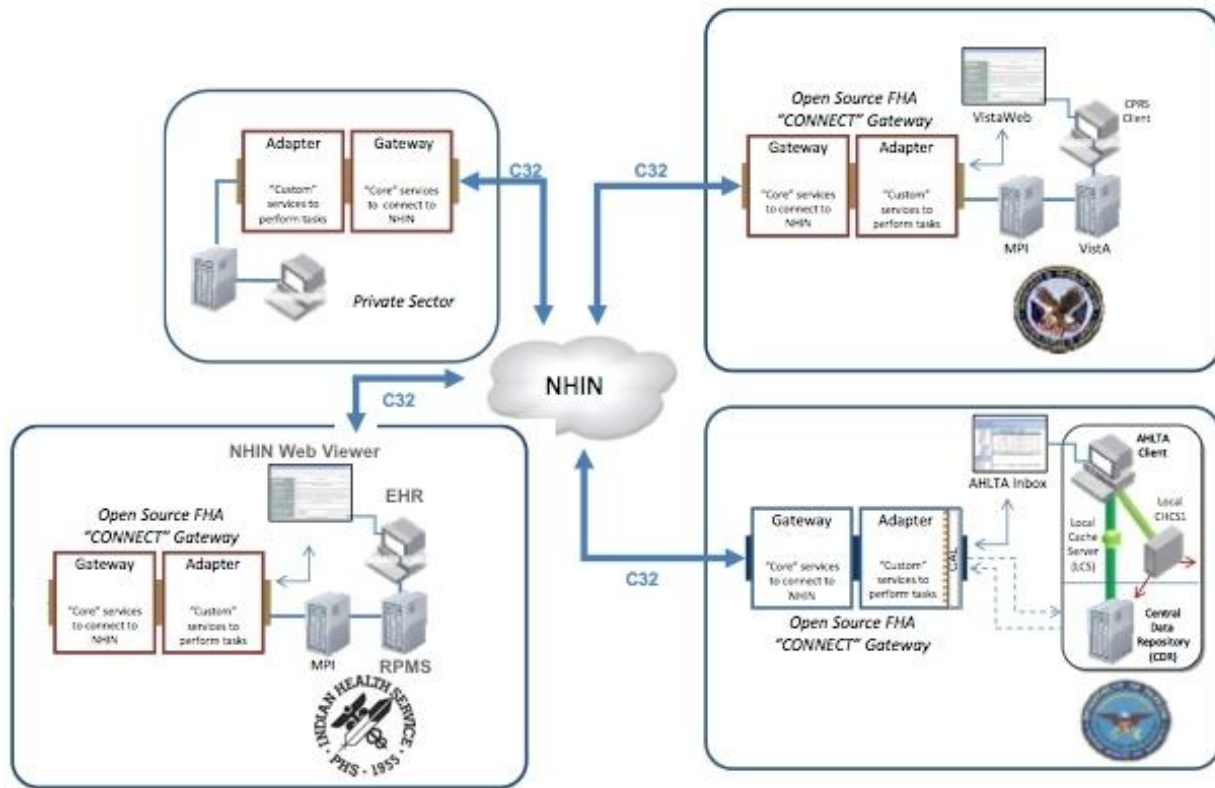
Figure 17 - NHIN/Connect Implementation Status



HIMSS 2010

Again, the SDE, State HIT Coordinator and AeHN understand the importance of establishing strong coordination with our partners who are NHIN/CONNECT adopters. SDE, State HIT Coordinator and AeHN is working collaboratively with DOD, VA and others to ensure that the Alaska HIE is inclusive of our entire healthcare community so that healthcare is not only improved for the individual but of our collective population. The figure below describes NHIN/CONNECT. The Alaska HIE will need to establish a link with the NHIN/CONNECT infrastructure.

Figure 18 - NHIN



5 Alaska Health Information Exchange Operations Plan

The Health Information Exchange (HIE) operations outlined herein defines the activities necessary to achieve an Alaska HIE. The Alaska eHealth Network (AeHN) and the participants of the Alaska HIE will continue working collaboratively to support a statewide HIE, as well as with other states to support the Nationwide Health Information Network (NHIN) in efforts to develop a national Health Information Technology (HIT) solution to address healthcare. This operations plan provides details of that collaboration and coordination.

5.1 Principle Activities and Timeline

The project schedule below describes the high level tasks that are necessary to implement a statewide HIE for Alaska.

Key:

- Board = HIE Board of Directors
- Core = HIE Core Team
- DHSS = Department of Health and Social Services Commissioner
- ED = HIE Executive Director
- HIE = Alaska HIE
- HITM = AeHN HIT Project Manager
- Legal = Legal Counsel
- OC = Outreach Consultant
- HITC = State HIT Coordinator

This high level timeline provides an overview of the activities which will accompany the implementation of an Alaska HIE with access for providers, patients, and payors.

Table 4 - Principal HIE Activities / Responsible Party

| Principal Activities | Begin | End | Status | Responsible Party(ies) |
|--|------------|------------|----------|------------------------|
| GOVERNANCE | | | | |
| Select entity to manage the Alaska HIE | 10/01/2009 | 12/01/2009 | Complete | DHSS |
| Complete contract between DHSS and selected entity | 12/01/2009 | 01/16/2010 | Complete | DHSS, ED, Legal |
| Establish full Board of Directors for Alaska HIE | 12/01/2009 | 12/04/2009 | Complete | DHSS, Board |
| Establish Board Finance Committee | 12/16/2009 | 12/16/2009 | Complete | Board |
| Identify Executive Director | 12/01/2009 | 12/16/2009 | Complete | Board |
| Establish Core HIE Team | 12/01/2009 | 12/16/2009 | Complete | ED |
| Review Bylaws and ensure compliance with State/Fed regulations | 12/01/2009 | 12/16/2009 | Complete | DHSS, Board, Core |
| Review governance policies to ensure compliance with State/Fed regulations | 12/01/2009 | 01/20/2010 | Complete | DHSS, Board, Core |
| Review privacy and security policies developed as part of HISPC | 12/01/2009 | 01/16/2010 | Complete | DHSS, Board, Core |

| Principal Activities | Begin | End | Status | Responsible Party(ies) |
|---|------------|------------|---|---------------------------|
| revising as appropriate | | | | |
| Establish Advisory Workgroups (Community, Clinical, Technology and Community) | 01/02/2010 | 03/17/2010 | Complete | Core, Board |
| Set Board meeting schedule | 12/16/2009 | Ongoing | <ul style="list-style-type: none"> • Schedule Complete • Meetings Ongoing | ED, Board |
| Develop sustainability plan and fee structure | 06/01/2010 | 09/30/2010 | Complete | ED, Board |
| Staff HIE | 06/01/2010 | 09/30/2010 | Complete | ED |
| FINANCE | | | | |
| Secure accounting management consultant | 01/01/2010 | 01/30/2010 | Complete | ED |
| Review and approve draft financial policies | 12/16/2009 | 01/16/2010 | Complete | Board |
| Develop monthly financial reports | 01/01/2010 | 01/30/2010 | Complete | ED and FM |
| Develop amortization schedule for equipment | 01/01/2010 | 01/30/2010 | Complete | ED and FM |
| Secure audit consultant | 01/01/2010 | 01/30/2010 | Complete | ED |
| Develop fee schedule for participants | 05/03/2010 | 10/20/2010 | Complete | ED, Board |
| Identify other funding sources | 01/02/2010 | Ongoing | Ongoing | ED, Core, Board |
| TECHNICAL ARCHITECTURE | | | | |
| Identify Technology Workgroup members | 01/02/2010 | 02/21/2010 | Complete | ED |
| Review and approve Technology Plan with input from the workgroups | 02/21/2010 | 03/21/2010 | Complete | ED, OC |
| Review, revise and release RFP for HIE Vendor <ul style="list-style-type: none"> • Secure Project Management services • Use email to solicit feedback from Technology Workgroup regarding Request for Proposal (RFP) • Let RFP • Review and score responses • Vendor demonstrations • Select vendor | 06/01/2010 | 12/31/2010 | Complete | ED, OC |
| Develop vendor contracts | 09/30/2010 | 12/31/2010 | On Track | ED, Legal |
| Secure Project Management Consultant | 12/01/2010 | 12/30/2010 | On Track | ED, Core |
| Develop implementation plan and schedule for HIE deployment | 01/01/2011 | 01/31/2011 | Complete | ED, Core, Selected Vendor |

| Principal Activities | Begin | End | Status | Responsible Party(ies) |
|--|------------|----------------------------------|--|--------------------------------------|
| <ul style="list-style-type: none"> Define activities Set milestones Set timeline Establish test, feedback loop, and corrective action Identify pilot sites Define training needs Establish ongoing monitor/audit | | | | |
| Implement HIE pilot (at least two large facilities, 20+ providers) | 02/01/2011 | 06/30/2011 | On Track | ED, Core, Selected Vendor |
| On Track Evaluate implementation and modify implementation process | 04/15/2011 | 06/30/2011 | On Track | ED, Core, Selected Vendor, Evaluator |
| Continue implementation of HIE to remainder of providers | 07/01/2011 | 12/30/2011 | On Track | ED, HITM, Core, Selected Vendor |
| Implement Personal Health Records (PHR) | 07/01/2011 | 12/31/2011 and ongoing | On Track | ED, HITM, Core, Selected Vendor |
| Quality Assurance: Analysis of data integrity and audit of data access | 9/1/2010 | Ongoing | Ongoing | ED, Core |
| BUSINESS AND TECHNICAL OPERATIONS | | | | |
| Complete contracts for Legal, and Outreach Consultants | 12/07/2009 | 01/16/2010 | Complete | ED |
| Review and approve operating policies for the Alaska HIE | 12/07/2009 | 06/30/2010 and ongoing as needed | Complete | DHSS, Board, ED |
| Initiate RFP process for HIE vendor selection <ul style="list-style-type: none"> Select Review Committee Review Request for Information (RFI) findings Refine RFP and post Review Responses Vendor Demos Select Vendor | 06/01/2010 | 12/31/2010 | Complete | ED, Core, Board |
| Review and complete member participation agreements <ul style="list-style-type: none"> Convene Legal Workgroup Review agreements drafted during Health Information Security and Privacy Collaboration (HISPC) Refine agreements and submit to members for | 09/01/2010 | 12/31/2010 | <ul style="list-style-type: none"> On Track Contract Template – Complete 51 Providers Signed 1 Hospital Signed | ED, Legal |

| Principal Activities | Begin | End | Status | Responsible Party(ies) |
|--|------------|------------|---|------------------------|
| review <ul style="list-style-type: none"> Finalize agreements Obtain member signatures | | | | |
| Secure office location and furnishings | 01/02/2010 | 02/21/2010 | Complete | ED |
| Recruit and hire staff | 01/02/2010 | 07/21/2010 | Complete | ED |
| Purchase and install office equipment | 01/02/2010 | 07/21/2010 | Complete | ED |
| Develop monthly and quarterly financial reports | 01/02/2010 | 02/21/2010 | Complete | ED |
| Provide monthly progress reports to Board | 01/16/2010 | Ongoing | Ongoing | ED |
| Identify Outreach Workgroup members | 01/02/2010 | 02/21/2010 | Complete | ED |
| Review and approve Communications Plan with input from the workgroups | 02/21/2010 | 03/21/2010 | Complete | ED, OC |
| Implement Communications Plan <ul style="list-style-type: none"> Begin public media campaign Develop and distribute quarterly newsletter Keep website current Meet with consumer and provider advocacy groups and associations | 03/01/2010 | Ongoing | <ul style="list-style-type: none"> Ongoing Plan – complete 2010 Newsletter – 4 published Participated in 5 Group Meetings | ED, OC |
| Consumer outreach <ul style="list-style-type: none"> Develop and distribute consumer materials Provider training for incorporation of HIE into consumer education Meet with consumer advocacy groups | 01/01/2011 | Ongoing | Ongoing | ED, OC |
| Participate in provider association meetings as available (6 per year) | 01/02/2010 | Ongoing | <ul style="list-style-type: none"> Ongoing Participated in 3 Association Meetings | ED, OC |
| Hold consumer health fairs (annually) | 06/02/2010 | 12/31/2011 | <ul style="list-style-type: none"> Ongoing Participated in 1 fair | ED, OC |
| Evaluate marketing activities, create feedback loop to identify what works, adjust marketing plan as needed | 03/21/2010 | Ongoing | <ul style="list-style-type: none"> Ongoing Marketing Workgroup in place and | ED, OC, Evaluator |

| Principal Activities | Begin | End | Status | Responsible Party(ies) |
|--|------------|------------|----------------|------------------------|
| | | | reviewing plan | |
| LEGAL AND POLICY | | | | |
| Secure Legal counsel | 01/02/2010 | 02/21/2010 | Complete | ED |
| Review and approve draft privacy policies | 01/21/2010 | 02/21/2010 | Complete | Board, Legal |
| Identify Legal Workgroup members | 01/02/2010 | 02/21/2010 | Complete | ED, Legal |
| Develop data sharing and data use agreements | 02/21/2010 | 06/16/2010 | Complete | ED, Legal |
| Review privacy policies, recommend and develop additional privacy and security policies | 03/17/2010 | 06/16/2010 | Complete | ED, Legal |
| Analysis of Alaska's privacy and security laws/regulations and recommendations for change | 05/03/2010 | 10/20/2010 | Complete | ED, Legal |
| Identify other privacy, security and legal issues and recommend strategies for addressing same | 10/20/2010 | Ongoing | Ongoing | ED, Legal |

5.2 Risk Management

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 5 - HIE Risks

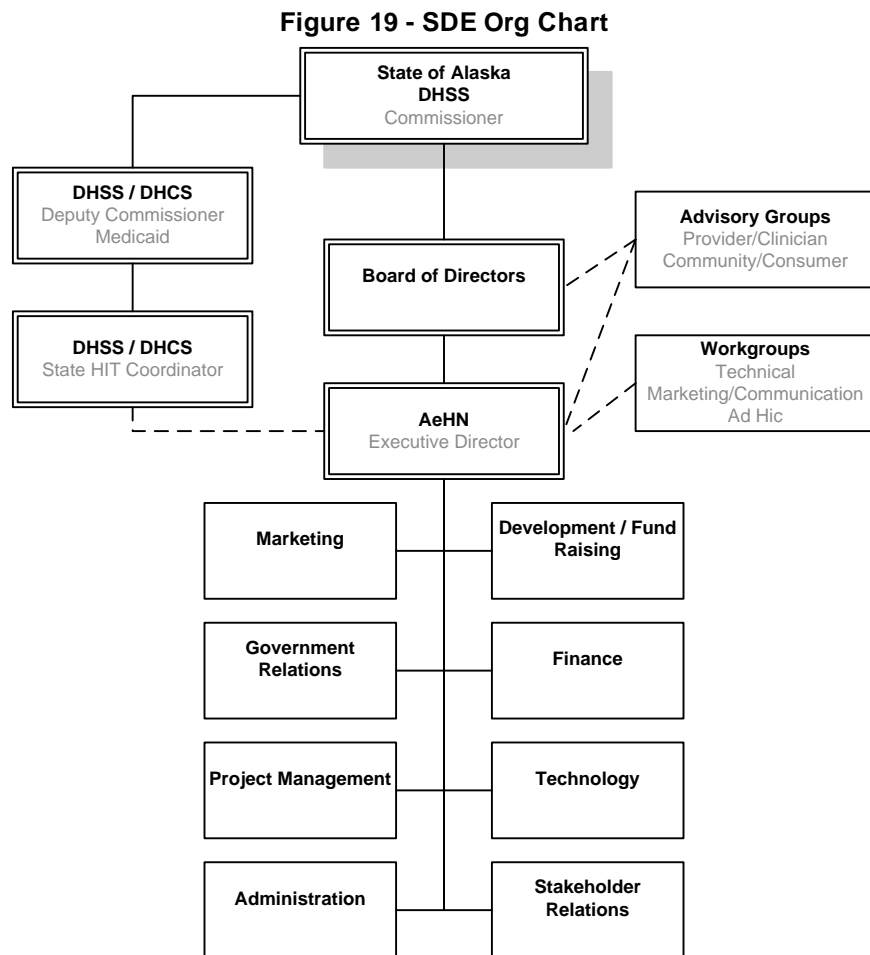
| Potential Risk | Stakeholder Group | Mitigation Options |
|--|-------------------------------------|---|
| Funding and revenue are insufficient or taper off; costs outstrip available economic resources | Investors | <ul style="list-style-type: none"> • Ask stakeholders to sign Letters of Intent demonstrating commitment to participate and/or to match funds • Pursue additional federal, state and private sources of grants and endowments • Approach the state to establish low interest loans and other financial incentives to boost usage and revenues • Piggyback with the government, universities or large employers to reduce costs by sharing telecommunication facilities • Co-locate technology in existing technology environments (e.g. data centers) to share costs and avoid the expense of maintaining dedicated environments • Investigate additional services such as backup and hosting for small provider offices to offset costs and bring in additional revenues |
| 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 |
| 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, has adopted national standards for privacy and security to prevent improper or accidental disclosure in order to protect consumers and clinicians |

| Potential Risk | Stakeholder Group | Mitigation Options |
|---|-------------------------------------|---|
| 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 |
| A competitor brings another PHR into the state | Investors | <ul style="list-style-type: none"> • Seek endorsements and participation agreements early in the process to reduce the likelihood of a viable competitive offering |

5.3 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 healthcare leaders. Organization by-laws 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 19.



Board positions are filled by volunteers from the stakeholder groups as shown in Figure 20. Board representation is defined by Alaska Senate Bill 133. The DHSS Commissioner is responsible for ensuring the Alaska HIE board meets SB 133 requirements. The Commissioner, or a DHSS Commissioner appointed representative, is a voting member of the board.

Figure 20 - AeHN Board of Directors

5.3.1 Decision Making Authority

The 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 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 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 Medicaid HIT Plan is implemented in line with CMS requirements.

A Core HIE Team has been established to ensure timely and complete communications between the key participants of the State Medicaid HIT Plan (SMHP) and the Alaska HIT Strategic and Operations Plan. The Core Team consists of:

- Rebecca Madison, Executive Director, Alaska HIE
- Paul Cartland, State HIT Coordinator, DHSS
- Carolyn Heyman-Layne, Legal Counsel
- Dr. Thomas Nighswander, Physician Liaison

See Appendix A for resumes of key personnel.

Advisory Workgroups have been convened from volunteers among the community and participating stakeholders to provide guidance and input to the Board of Directors. The formal structure and membership of the Advisory Workgroups is determined by the Board of Directors. Current and future advisory workgroups include:

Community Advisory Group – A volunteer group comprised of interested community members who review the guiding principles and services of the Alaska HIE providing feedback and suggestions that enable the Alaska HIE to gain the support of the community and ensure that the directions established are accepted by the community leading to a high adoption and utilization rate. This workgroup is the forum for community participation and feedback on content and services.

Clinical Advisory Group – This group is comprised of clinicians, healthcare 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.

The SDE and AeHN will work collaboratively with additional workgroups involved in health information technology and health information exchange. Some of these workgroups include:

A *Statewide Technology Workgroup* consists of members from the AeHN and key provider, clinician and stakeholder organizations. The Technology Workgroup works with the hardware and software vendors and the SDE, State HIT Coordinator and AeHN staff to agree on and publish information technology infrastructure specifications, connectivity standards, policies and guidelines. The Workgroup is also a forum for joint resolution of issues and strategic thinking to recommend suggestions for improvements. Recently the Technology Workgroup completed a vendor RFP selection process to select an HIE vendor for the organization.

An *Outreach and Communications Workgroup* is responsible for the coordination and communication between the SDE, State HIT Coordinator and AeHN and providers/consumers on marketing approach, strategy and operational issues. This Workgroup is one of the primary drivers for a coordinated consumer message and approach. The Group addresses outreach to both providers and patients or consumers.

5.4 Finance

5.4.1 Background

The primary challenges for most HIEs across the country are 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 healthcare 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 SDE, 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 healthcare 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.

5.4.2 Financial Model

A rough order of magnitude financial model is presented below. This model will be updated once the HIE vendor is selected and contract negotiations are complete.

Table 6 - Financial Model

| | Startup | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|-------------------------------|---------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Revenues | | | | | | | |
| Grants | | 4,000,000 | 4,000,000 | 2,000,000 | 1,000,000 | 500,000 | 0 |
| Private Insurers | | 50,000 | 50,000 | 150,000 | 250,000 | 300,000 | 350,000 |
| State of Alaska | | 30,000 | 56,000 | 1,500,000 | 2,550,000 | 2,700,000 | 2,900,000 |
| Federal Stakeholders | | 0 | 0 | 150,000 | 200,000 | 250,000 | 300,000 |
| Consumers | | 0 | 0 | 30,000 | 30,000 | 40,000 | 50,000 |
| Hospitals/Health Facilities | | 200,000 | 350,000 | 710,000 | 1,500,000 | 1,775,000 | 1,975,000 |
| Physicians | | 50,000 | 95,000 | 120,000 | 165,000 | 175,000 | 209,000 |
| Other | | 0 | 500 | 9,100 | 18,700 | 20,600 | 25,900 |
| TOTAL REVENUES | | \$4,330,000 | \$4,551,500 | \$4,669,100 | \$5,713,700 | \$5,760,600 | \$5,809,900 |
| Operation Expense | | | | | | | |
| Salaries (5 FTEs) | | 500,000 | 650,000 | 682,500 | 716,600 | 752,400 | 790,000 |
| Benefits (31%) | | 155,000 | 201,500 | 211,600 | 222,100 | 233,200 | 244,900 |
| Office/Marketing | | 350,000 | 350,000 | 350,000 | 350,000 | 350,000 | 350,000 |
| Leased Services | | 3,000,000 | 3,000,000 | 3,000,000 | 4,000,000 | 4,000,000 | 4,000,000 |
| Insurance/Legal | | 325,000 | 350,000 | 425,000 | 425,000 | 425,000 | 425,000 |
| TOTAL EXPENSE | | \$4,330,000 | \$4,551,500 | \$4,669,100 | \$5,713,700 | \$5,760,600 | \$5,809,900 |
| Income | | | | | | | |
| (Excess Revenue over Expense) | | 0 | 0 | 0 | 0 | 0 | 0 |

The activities associated with the development of fee schedules and a sustainable model for long-term viability of the Alaska HIE will follow the recommended funding strategies from Strategic Plan.

5.4.3 Sustainability

Not-for-profit status allows the AeHN to solicit and optimize government subsidies, foundation grants and private donations as primary funding strategies during startup and initial operations. Subscriber fees are also part of the long term sustainability plan, with emphasis on hospitals, providers, insurers, tribal entities and Medicaid as initial targets. Based on the success (acceptance and growth) of fee receipts over time, the Alaska HIE may be migrated to a non-profit, self-sufficient entity with diminished ongoing reliance on grants and donations. The financial plan as outlined in the Financial Strategies section will enable financial sustainability of governance and operations throughout the foreseeable future.

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 represents 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 healthcare, they are becoming increasingly more intent on also managing their healthcare information. Personal Health Records are gaining momentum as part of this increase in healthcare consumerism. Additionally, consumer access to a HIE may encourage new features that allow consumers to define which healthcare 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)

Restating an earlier observation, eHealth Initiative found that:

Increasingly, health information exchange efforts are tapping into users of their services to provide funding for ongoing operations. While the primary funding source for health information exchange efforts continues to be the federal government, increasingly HIE efforts are deriving funds from other sources--those who both provide and use data--to fund ongoing operations. Based on 2006 survey results, 24 percent of respondents cited that they were currently receiving funds from hospitals, while 21 percent cited they were receiving funds from payers. In addition, 16 percent were receiving funds from physician practices and 13 percent from laboratories.

Based on this finding, the AeHN has focused its energy on partner funding (to fund startup costs of the HIE) and ongoing fees to ensure ongoing financial sustainability.

5.4.4 Funding Sources

Partner Funding

Partner funding generally represents contributions to a HIE from governmental or philanthropic organizations. These contributions can either be monetary or in kind contributions. Both federal and state organizations have actively provided grants to HIT, EHR and HIE initiatives across the country. Philanthropic organizations like the Robert Wood Johnson Foundation and the Rasmuson Foundation (an Alaska organization) have also provided significant funding for HIE initiatives and other healthcare programs. Partner funding has been key to startup operations for many HIE initiatives across the country.

Partner funding has been essential during the startup of the Alaska HIE to finance upfront capital and development costs. Early marketing efforts focused exclusively on securing major governmental and

philanthropic sources of funds for both initial and ongoing requirements. One drawback of partner funding is the limited resources for long-term use, making it generally not suitable to sustain operations. Therefore the AeHN has focused its future funding plan on user revenue streams.

Payer Subscription Fees

Purchasers of healthcare services (payers) recognize the Alaska HIE participation as an excellent opportunity to improve the wellness of their constituents and to reduce healthcare costs. For the Alaska HIE, payers represent a significant revenue opportunity—a reasonable number of strategic contacts and relationships promise to generate large revenue streams representing approximately 85% of the insured population. Soliciting subscription fees in this aggregate fashion:

- Avoids the Alaska HIE overhead for billing/collecting small individual fees and transaction fees across a large consumer population
- Allows payers and healthcare providers to market the Alaska HIE access as another service offered to their clients
- Generates a predictable income source for the Alaska HIE

The AeHN is also in discussions with the healthcare purchaser groups including Premera Blue Cross/Blue Shield, Medicaid, tribal organizations and other private insurers.

Provider Subscription Fees

Providers both contribute and utilize the data exchanged through the Alaska HIE. As information exchanged through the Alaska HIE increases, a greater positive impact to healthcare is achieved. Accordingly, the SDE and AeHN will strongly encourage data contribution and usage by not overly burdening providers to cover operational costs. Providers will benefit from using the Alaska HIE, and subscription fees align with benefits received. Payers and providers have been asked to contribute annual lump sums based on the number of constituents they represent.

A tiered revenue model has been developed for healthcare provider subscription fees categorized as:

- Hospitals and Multi-service Health Systems
- Medical and Dental Providers
- Ancillary Service Providers
- Health Insurance Providers
- Governmental and Non-profit Entities
- Individuals

This revenue model will establish inflow expectations and distribute expected revenues proportionately across providers of various sizes. See 5.4.4.1 below **Error! Reference source not found.** for the current fee schedule.

Participation from physicians across the state will be key to the Alaska HIE's success. Physicians are crucial because they control a wealth of healthcare information for Alaska residents. Decreased costs and improved quality of care will be achieved as more clinicians access the Alaska HIE routinely during care delivery. The AeHN will attempt to partner with the Alaska State Medical Association (ASMA) to add a per physician fee component of \$100 to its current dues assessment of \$650. This approach will:

- Avoid the Alaska HIE overhead for billing/collecting small individual fees across a large physician population

- Allow the ASMA to market the Alaska HIE access as another feature of joining the association
- Generate a predictable income source for the Alaska HIE

Alternatively, physician subscription fees may also be bundled with state licensing or credentialing fees, but the ideal partner is the ASMA. Subscription fees for clinicians who are not physicians may be generated in a similar fashion through other professional organizations in the state.

Adoption of the Alaska HIE by other clinicians will also be critical. A comprehensive marketing, communication and training program will be developed to secure the participation of these providers. An Internet-based component will help reach remote clinicians throughout the state. Personal visits may be made to local and regional meetings of these individuals where many contacts can keep the cost per contact manageable. Benefits that will positively impact clinicians financially should be identified, quantified and emphasized to the clinician population.

Consumer (Patient) Subscription Fees

Consumer subscription fees represent a “high effort, low return” revenue opportunity. Many individuals will have to be reached, resulting in a small amount of revenue for each. The AeHN will also have to set up billing and collection mechanisms, or outsource that work. Consumer fees may be considered for patients and consumers who wish to access and download their PHR data. The AeHN will seek input from the Consumer Advisory Workgroup on appropriate fee structures for patients and final determinations will be made and adopted by the Board of Directors.

Other Fees

The Alaska HIE repository will represent a large and exclusive opportunity to provide invaluable data across providers, payers, regions and consumers. Use of consumer data will have to meet specific privacy and security criteria governed by state and federal regulations and the Alaska HIE’s participation agreements, policies and procedures. In the future, the AeHN may choose to identify other fee services such as:

Research: The Alaska HIE may attract additional revenue by offering Health Insurance Portability and Accountability Act (HIPAA) allowable de-identified patient data for research purposes to organizations such as research entities, pharmaceutical companies and universities provided that data use policies have been developed according to state and federal law. De-identification will be conducted in accordance with HIPAA requirements, which will prevent anyone from being able to reconstruct Protected Health Information (PHI) or match any of the information provided with specific patients. If this additional revenue stream is pursued, the AeHN will carefully address this use with consumers and develop a comprehensive set of policies regarding data use.

Consultative Assistance: The AeHN may elect to provide consultative services to public health organizations. Such services may include data extracts and data mining to produce aggregate, de-identified reports and datasets. It may also include outcomes monitoring for specific programs throughout the state, or proactive data analysis for the Center for Disease Control and Prevention. Discussions with SDE and state legislators are underway which will lead to a value proposition for public health and subsequently define a funding mechanism.

5.4.4.1 Alaska eHealth Network (AeHN) Annual Membership Categories and Dues Structure

Eligibility for and Categories of Membership

AeHN membership is open to any healthcare provider, any health insurer, any organization providing services to healthcare providers, any governmental entity, any educational or scientific research organization, other non-governmental entities serving the healthcare industry, and private individuals. A member may fit multiple categories, but would only be eligible for the “best fit” category, or the category which most closely matches the organization.

Category A: Hospitals and Multi-service Health Systems: Statewide or regional enterprises with multiple-facilities with medically trained personnel that provide a variety of types of services to patients.

Dues: \$10/\$100,000 of gross revenues related to health services delivery.

Category B: Medical and Dental Providers: Enterprises with physicians, dentists, or other medically trained personnel that provide direct medical services and/or managed care services to patients.

Dues: \$100 per full-time equivalent medical professional (MD, DDS, PA, NP) employed

Category D: Ancillary Services Providers: Non-hospital enterprises providing laboratory, imaging, or pharmacy services for patients.

Dues: \$100 per Alaska service location

Category E: Health Insurance Providers: Enterprises providing health insurance benefit services for Alaskan residents.

Dues: Share of amount total based on the ACHIA distribution formula

Category F Governmental and Non-Profit Entities: Any federal, state, city, borough, municipality, or special governmental district, or not-for profit professional, charitable, scientific, or educational organization organized under IRS 501 (c) (3) that does not provide medical care services outlined in Categories A-E.

Dues: \$250 per organization

Category G: Individual: Individual private adult Alaskans

Dues: \$25 per individual

5.5 Technical Infrastructure

5.5.1 Technology Overview

The Alaska HIE technology strategy focuses on three basic components in order to provide secure health information exchange:

1. A personal health record for every Alaskan
2. Standardized electronic health records
3. A secure health information exchange network

The **personal health record (PHR)** allows individuals to access their personal health information and control access for those who need it. The PHR offers a comprehensive view of health information including: patient descriptions of symptoms and medication use; physician descriptions of diagnoses and test results; and, information provided by pharmacies and insurance companies. The PHR is accessible via the Internet using state-of-the-art security and privacy controls at any time from any location. The PHR provides individual control over health information. Family members, physicians or other care givers can be assigned privileges to view portions of the PHR and vital information can be retrieved in the event of a crisis. The PHR can act as a communications hub to send email to doctors, transfer information to specialists, receive test results and access online self-help tools.

The **electronic health record (EHR)** allows fast searching, robust analysis, and easier access to medical records for medical treatment. The EHR will generate a master problem list, current medication list, list of allergies, vital lab data, and recent hospital and clinic summaries. EHRs compiled during hospital visits, clinic visits, specialty physician visits, imaging center testing, contract lab testing, agency payers, or in personal health records will be interoperable. Electronic health record formats may vary among health practices, but it is important that all EHRs use standard protocols to exchange information.

Health information exchange (HIE) will coordinate and transfer appropriate electronic health records (EHR) for patients and providers. Off the shelf HIE tools will organize, integrate and retrieve data from existing sources of multiple EHRs associated with a patient by using secure data transfer. HIE security will be governed by the patient/consumer and facility permission levels. The HIE requires that all information be exchanged in accordance with policies and procedures agreed in a binding contract.

5.5.2 Standards

A statewide, stakeholder representative Standards Workgroup 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 – HL7(x.x), XML
- Document Standards – CCR, CCD
- Language Standards – LOINC, SNOMED, ICD9, ICD10, RxNorm, ELINC, NCPDP
- PHR Standards – the Alaska HIE solution will follow the development of PHR standards by the NHIN

SDE, State HIT Coordinator and AeHN participants have been engaged in previous Office of the National Coordinator (ONC) funded efforts to encourage standardization of HIT. During the HISPC, Alaska participated in the exchange of Continuity of Care Document (CCD) records between private providers

utilizing message and document standards established by Health Information Technology Standards Panel (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.

5.5.3 Certifications

HIE is a critical component necessary to support care coordination and to assist providers in reaching meaningful use of HIT. Therefore, the State HIE will closely monitor the ONC and NHIN activities as they develop to ensure that certification criteria are met when available.

HIE –When a certification process is established for HIEs, the State HIE will be become actively engaged in pursuing certification.

EHRs – All EHRs connected to the HIE will be certified by an ONC EHR certifying body in order to ensure that providers can meet meaningful use criteria within the Center for Medicare and Medicaid Services (CMS) timeline. Provider agreements include certification requirements and the Alaska Regional Extension Centers (REC) is working with providers to assist with the selection of certified EHRs.

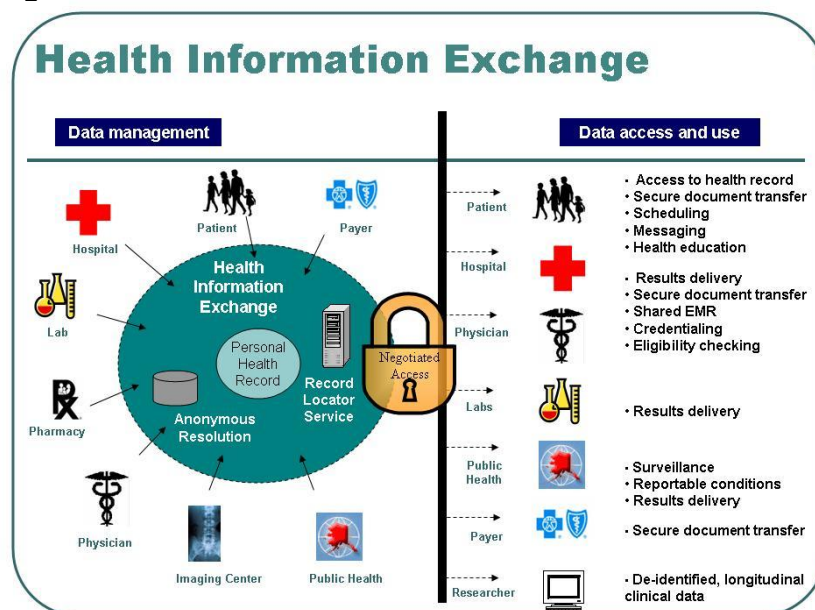
5.5.4 Technology Architecture

Core HIE services are intended to provide the primary infrastructure which 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 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 healthcare 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 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. Personal Health Record (PHR) to be available to any Alaska HIE member patient. This secure personal view of one's health information from multiple sources has individual account controls which allow the consumer to view the information, authorize access, provide for options to opt in for various research studies, and provides options for personalized messaging. Access controls include authorization for their healthcare providers on the network to have access to electronic records required for continuity of care, such as hospitalization records, prescription information, vaccinations, allergies, imaging records and laboratory results starting with medication information.
8. Secure messaging capability from various types of organizations including: providers, payers, vendors, and public health workers to individuals based on preferences and health status.
9. Electronic Prescribing is a recognized solution for reducing medication errors. The Alaska HIE solution will allow providers to utilize e-prescribing and medication reconciliation.

Figure 21 - HIE Overview



5.5.5 Interoperability

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 healthcare 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. Please refer to the figure in Appendix B

Anonymous Resolution: Larger healthcare 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. Please refer to the figure in Appendix C.

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.

Decentralized 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 understands 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 healthcare 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 healthcare 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. These audit records are made readily available to individuals via the PHR.

5.5.6 Protection of Health Data

The Alaska HIE meets the health data protection standards established by Health Information Technology for Economic and Clinical Health (HITECH) Act, HIPAA, and State of Alaska law. The following principals will guide the State HIE:

5.5.6.1 Privacy

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 (Senate Bill 133) — the Alaska HIE will adopt a default “opt-out” state for all consumer participants. 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. Consumers will exercise their option by (a) submitting a non-consent form to the Alaska HIE (directly or through an enrolled provider), or (b) accessing their online PHR to change their option real-time.

5.5.6.2 Security

The Legal Workgroup and the Community Workgroup will have equal oversight for the security policies and processes. Legal Counsel and the Technology Workgroup will assist with developing security policies. The SDE, State HIT Coordinator and AeHN will work closely with NHIN to ensure interoperability at the federal level and will ensure all HIPAA, ARRA, and other applicable privacy requirements are met. The HIE governance board will ensure compliance with the security policies.

The AeHN will follow the HIPAA regulations unless state law preempts by providing stricter privacy protections. The SDE, State HIT Coordinator and AeHN will incorporate any forthcoming guidance on HIPAA, particularly the technical safeguards guidance described in the HITECH Act. A Security Plan will address the following areas (as recommended by CMS in the HIPAA Security Series):

- Administrative Safeguards – Security Management Process, Assigned Security Responsibility, Workforce Security, Information Access Management, Security Awareness and Training, Security Incident Procedures, Contingency Plan, Evaluation
- Physical Safeguards – Facility Access Controls, Workstation Use, Workstation Security, Device and Media Controls
- Technical Safeguards – Access Control, Audit Controls, Integrity, Person or Entity Authentication, Transmission Security
- Organizational Requirements – Business Associate Contracts

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

5.5.7 Training and Support

The SDE, State HIT Coordinator and AeHN recognizes the importance of training and support to make this entire strategy successful. The AeHN will provide the technical training documentation, staffing and support necessary to ensure successful use of the subscribed technologies. Training is provided one-on-one, in group sessions or via the internet

A Help Desk will be established to respond to email and telephone queries on a “24x7” basis. The support staff will be provided with tools to assist in decision support. FAQs and Common Questions will also be developed for internet users. User follow up on issues will become part of the customer service strategy.

5.6 Business and Technical Operations

5.6.1 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 healthcare 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 healthcare 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 healthcare
- 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.

5.6.2 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 will be recruited in the first year of operations:

Executive Director - This position will manage the operations of the HIE and work as the liaison between Alaska Medicaid, Alaska HIE participants, and ONC. Rebecca Madison is the Executive Director.

Stakeholder Liaison - This position will be the clinical advisor and work as the liaison between providers, consumers, and the Alaska HIE. Tom Nighswander, MD acts as the Stakeholder Manager.

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

Database Mapping Specialist - This position is responsible for documentation and mapping of health information data elements across user applications and databases and will work closely with the Technology, Clinical and ad hoc Standards Workgroups.

Administrative Assistant and Senior Accountant - This position supports the project team, managing documents, meeting minutes and team office administrative support and logistics. Michelle Gonzalez holds this position.

Key personnel Curriculum Vitae (CVs) are located in Appendix A .

5.6.3 Planned HIE Capabilities

The Alaska HIE will be implemented in a multi-phased approach to ensure success. The first phase implements the base infrastructure and starting configuration including; a Clinical Portal, Messaging Hub, Clinical Data Repository, Enterprise Master Patient Index (EMPI), Privacy, Consent, Public Health Reporting, with an HIE Module which includes notifications.

This base infrastructure will provide the healthcare community with the fundamental clinical information needed and approximately 80% of the final functionality, including: Demographics, Laboratory and Radiology results, linking out to a PACs system, Medications, Allergies, Encounters, notifications out to providers and consent management.

The second phase, which can be performed simultaneously or consecutively, includes the integration of the Personal Health Record Portal, Advanced Reporting modules, Disease Management, and the deployment of the whole solution to the remaining member facilities.

The AeHN has planned for an initial pilot rollout to four facilities with the remaining facilities being deployed in groups of five to 10 at a time. This assumption may be modified as demand changes, i.e. the phasing can be changed to deliver more hospitals in phase 1 or AeHN could choose to implement the remaining hospitals with the phase 1 functionality once the relevant administration training has been provided.

5.6.4 Shared Services and Repositories

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 healthcare 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 CDC, Medicare and private laboratories.

Clinical Data Repository (CDR)

The CDR is a data repository designed specifically for the healthcare 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 EMPI and Record Locator Service 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), HITSP, IHE and "meaningful use" criteria.

The HIE module supports bi-directional document exchange in CCD-format as a way to integrate with EMR/EHR, PHR, and eRx systems throughout the HIE

The CCD contains the most relevant administrative, demographic, and clinical content about a patient covering one or more healthcare 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 healthcare 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 healthcare 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 healthcare costs by ensuring that each provider has access to a comprehensive dataset when treating the patient.

5.6.5 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 the 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

Outreach and Communications Workgroup

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

The primary responsibility of the Outreach Consultant is to develop strategies to engage the patients in taking an interest in their own healthcare. Key components of the marketing plan will include patient education particularly around health information exchange, patient self-care, and patient choice. It is extremely important to raise public awareness related to the possibilities for managing their personal health through HIE while reassuring the public about the privacy and security of their health information.

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 healthcare performance information as targeted by the legislature and be comfortable encouraging patients to become active participants in their own healthcare plans.

Key Messages

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

- Informed patients reduce the load on the healthcare 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

Target Audiences

- Patients and consumers of healthcare services
- Physicians, clinicians and healthcare 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 Centers for Disease Control (CDC)
- National organizations
- Other HIEs

5.6.6 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, healthcare providers and large consumer groups such as 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, 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.

5.7 Legal and Policy

The development of policies, procedures and agreements for the exchange of health information which ensure the private, secure exchange of data is critical to the success of the HIE.

Alaska participated in the HISPC project, a national effort to address the issues related to security and privacy when sharing patient health information among healthcare providers, insurers, government and healthcare agencies. This process of sharing health information is known as interoperable HIE.

Participation in this national initiative gave a voice to Alaska's specific issues, needs, and recommendations in the development of national policies for privacy and security.

The HISPC project was the first of several projects that formed the basis for Alaska legislation (Senate Bill 133) establishing the Alaska HIE dedicated to implementing health information exchange for Alaska. A number of other HISPC activities were also completed including:

- Legal review of state laws and comparison to federal law,
- Drafting of Intra-State policies,
- Investigation of Interstate HIE, and
- Development of Trust agreements.

The knowledge gained from the HISPC work has served to promote HIE in Alaska. The policies and agreements developed under HISPC continue to be refined to meet ARRA requirements for HIE and "meaningful use" of EHRs.

The State of Alaska received funds through Research Triangle International to participate in the HISPC project which was part of a nation-wide grant funded by the Agency for Healthcare Research and Quality and the ONC for HIT. This project allowed the Alaska team to work in close conjunction with 33 states on issues related to privacy and security as related to the exchange of health information.

As part of this HISPC project, the current privacy and security landscape in Alaska was evaluated and a set of best possible solutions to facilitate the use of HIE and EHRs in Alaska was developed. The solutions addressed the legal, functional, knowledge-based and perception related barriers and incorporated the current HIT efforts and solutions already organized and/or implemented across the state.

An in-depth analysis of Alaska's privacy and security laws/regulations and recommendations for HIE were completed during HISPC. The AeHN is now working to:

- Organize support amongst legislators, identify sponsors and encourage legislative efforts to standardize Alaska laws regarding confidentiality and medical records.
- Draft sample language for uniform medical records statutes and regulations, including updates to current laws when necessary.
- Enact 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.
- Review and, when necessary, enact state laws regarding the privacy and security of health information and available safeguards and penalties. As part of this initiative, the SDE will implement policies and regulations outlined in Senate Bill 133 as passed by the Alaska State Legislature in April 2009.
- Identify applicable legal exceptions and safe harbors from fraud and abuse liability to providers and patients.

The progress achieved and the next steps to be followed in the proposed Alaska HIE project are outlined in four broad categories below:

5.7.1 Standardization of Policies and Procedures

The following standardized policies and procedures established by Alaska via the HISPC project are complete. The Alaska HIE Governance Board has reviewed and approved these documents and policies for implementation incorporating the updated HIPAA requirements and adapting to the current needs of the healthcare community:

- Privacy and Confidentiality Policy
- Policy and Procedure for Addressing Breaches of Confidentiality
- Identification and Authorization Policy
- Provider Participation Agreement
- Patient Participation Agreement

The SDE, State HIT Coordinator and AeHN will also develop additional policies and procedures as necessary for the implementation of a secure health information exchange, in accordance with state and federal law, and the HHS Privacy and Security Framework. Once the policies are approved by the governing board of the SDE, these policies and agreements will be incorporated in to the operational structure of the SDE.

The SDE, State HIT Coordinator and AeHN will further:

- 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.

Drafted policies are presented to the Legal Workgroup for review and recommendations. The final draft is presented to the governing board for review and approval before being placed into practice.

5.7.2 Privacy

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 (Senate Bill 133)—the Alaska HIE will adopt a default “opt-out” state for all consumer participants. 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. Consumers will exercise their option by (a) submitting a non-consent form to the Alaska HIE (directly or through an enrolled provider), or (b) accessing their online PHR to change their option real-time.

5.7.3 Security

The Legal Workgroup and the Community Workgroup will have equal oversight for the security policies and processes. Legal Counsel and the Technology Workgroup will assist with developing security policies. The AeHN will work closely with NHIN to ensure interoperability at the federal level and will ensure all HIPAA, ARRA, and other applicable privacy requirements are met. The HIE governance board will ensure compliance with the security policies.

The AeHN will follow the HIPAA regulations unless 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. A Security Plan will address the following areas (as recommended by CMS in the HIPAA Security Series):

- Administrative Safeguards – Security Management Process, Assigned Security Responsibility, Workforce Security, Information Access Management, Security Awareness and Training, Security Incident Procedures, Contingency Plan, Evaluation
- Physical Safeguards – Facility Access Controls, Workstation Use, Workstation Security, Device and Media Controls
- Technical Safeguards – Access Control, Audit Controls, Integrity, Person or Entity Authentication, Transmission Security
- Organizational Requirements – Business Associate Contracts

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

5.7.4 Participation Agreements

Initial Alaska HIE participation agreements have been developed for the following constituents:

- Consumer
- Provider
- Payer
- Government (non-payer, such as CDC)
- Business associates of constituents

The AeHN has worked to implement participation agreements that have emerged as national standards for the HIE industry and from the HISPC work performed by Alaska partners. The Alaska HIE's repositories will not be accessed by any individual or organization without a prior-executed participation agreement. Participation agreements enumerate terms and conditions, with particular attention to the responsibilities of the AeHN and the responsibilities and concerns of constituents.

In addition to standard contractual language such as official contacts, warranties, and extension terms, participation agreements will address the following topics:

- The SDE, State HIT Coordinator and AeHN commitments

- Services and features
- Access mechanisms and security
- Reliability (e.g. service level commitment)
- Quality assurance
- Monitoring
- Privacy policies
- Security levels
- Appeals process
- Constituent support and service
- Implementation and training
- Ongoing education
- Consultative services (e.g. data usage, data mining, custom reporting)
- Sample/standardized marketing and promotional material
- Constituent commitments
 - Implementation investments/costs
 - Subscriber fees
 - Fees for optional services (e.g. consultative services)
 - Confidentiality
 - Privacy compliance
 - Security compliance (e.g. handling of access tokens, access protection, document handling)
 - Reporting requirements
 - Definition of workforce and authorized users (employees, contractors, agencies, volunteers, temporary staff)
 - Workforce training and education
- Relationships between the AeHN and constituents
 - Business associate language
 - Integrity of hardware, software and networks
 - Arbitration of disagreements and defaults
 - Process to address breaches
 - Reporting requirements
 - Workforce training and education
- Data
 - Ownership
 - Data types (content) to be exchanged
 - Acceptable use and online behaviors (individual records, aggregate reporting, data mining, external reporting)
 - Downloading and local storage of the Alaska HIE repository subsets
 - Disposal of data

The Alaska HIE participation agreement template is included in Appendix D .

The AeHN has engaged counsel experienced in Alaska contractual and healthcare law 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. A standard format is anticipated which will govern and set expectations for each participant.

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. In addition, 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. Tailoring, negotiating and procuring these agreements will be the one of the first activities of the new SDE.

The AeHN will also engage legal counsel experienced in contractual and healthcare 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. These agreements will be modified from the previously developed work under the HISPC.

State laws have been reviewed to ensure that noncompliance is addressed expediently, with the SDE reviewing potential recommendations to the legislature with regard to penalties for such noncompliance. The Policy and Procedure to Address Breaches of Confidentiality, drafted as part of the HISPC project, is being revised and expanded to further protect consumer health data and comply with state and federal reporting requirements, particularly the HITECH Act and the Alaska Personal Information Protection Act. The AeHN will provide training and support for detecting, mitigating and preventing unauthorized access to patient records and to the system generally.

Appendix A Key Personnel CVs and Bios

REBECCA A. MADISON, MT (ASCP), CLDIR, MBA

HEALTHCARE MANAGEMENT: Strong background in communication and implementation of health technologies. Over twenty years experience in senior healthcare management and consulting including:

- Consultant – HIT vendor selection, HIT systems design and review, process improvement, workforce development
- Strategic Planning – projects and processes ranging from \$5M to \$30M
- Mergers and Acquisitions – VP of IS on management team to merge two hospitals in Western New York
- Management – CEO Southern Tier Health Care System, CIO Yukon Kuskokwim Health Corporation, Executive Director Alaska eHealth Network (State HIE)
- Restructuring – combine 2 New York hospitals businesses, combine 5 Alaska IT departments
- Liaison Management for Project Funding – Alaska Federal Delegation, Alaska and New York State Legislators, Alaska Federal Health Care Partnership (Military)
- Telemedicine – Board Chair, Alaska Federal Health Care Access Network, telemedicine project of \$45M
- Clinical Laboratory Management
- Planning And Implementation of Capital Projects
- Grant Management
- Personnel Development for Alaska Native and other populations.

INFORMATION TECHNOLOGY: Health information exchange (HIE) strategy planning and infrastructure development, health information technology (HIT) management, telecommunications operations and management including:

- Local Area and Wide Area Networks Linking Home Campus With Remote Locations
- Major Capital Equipment Planning and Purchasing
- Development and Implementation of IT Strategies For Financial and Administrative Applications
- Oversight of Vendor and Consultant Contracts
- Development of National Standards for Telemedicine
- Installed and Championed Groupware for Distributed Workgroups and Collaborative Learning
- Assessed Impact of Information Technology for Professional Mission.

Employment History:

| | |
|-------------------------|--|
| <u>12/05 to Present</u> | <p>Alaska eHealth Network Executive Director, Alaska Native Tribal Health Consortium, Anchorage, AK – Successfully coordinated a statewide initiative and wrote grants for \$27M to implement HIE in Alaska, facilitated strategic planning, project management and development of a statewide effort to implement HIE including development and implementation of a business strategy for exchange across multiple Alaska healthcare stakeholders. Pursued, received and managed grants of:</p> <ul style="list-style-type: none"> • \$950,000 AHRQ/ONC contract to study privacy and security as related to interoperability of health information exchange • \$10.5M for an FCC Rural Health Care Pilot Project for network expansion • \$4M ONC for Regional Extension Center to advance the use of electronic health records • Additional grants totaling over \$12M for HIT projects • remote earth station installation and maintenance for National Science Foundation grant |
| <u>08/04 to 05/08</u> | <p>Adjunct Faculty, Fairbanks, College of Rural Alaska, Department of health Programs – Designed and instructed online distance education courses for a Healthcare Reimbursement Certificate program and other Allied Health programs including classes in Human Diseases, Anatomy and Physiology, and Medical Terminology.</p> |
| <u>10/04 to 12/05</u> | <p>Program Director University of Alaska, Office of Statewide Health Programs –</p> |

Facilitated teams of content experts in specialized health areas to formulate strategic action plans utilizing needs assessments and industry information to effectively recommend areas of focus and improvement in higher education.

10/02 to present

General Consulting including:

- EHR and HIE vendor selection
- remote system management, IT system enterprise review, and process improvement
- needs assessments and industry surveys to formulate strategic action plans for areas of development in health programs for the University of Alaska
- higher education grant writing for federal funding of health programs

11/95 to 10/03

CIO, *Yukon-Kuskokwim Health Corporation*, Bethel, AK - Member of administrative team of one of the largest tribal health organizations in Alaska responsible for development and implementation of strategic plans for information systems management, telecommunications and satellite technology, network security, and health records management. Designed and implemented career pathways training program for workforce development of locally hired staff for technology and health information services.

11/94 to 11/95

CEO, *Southern Tier Health Care System Inc.*, Olean, NY - Responsible for development and implementation of strategic plans for merging of four diverse healthcare organizations into a single entity including grant application, administration, partnerships, consultative services, and fiscal accountability.

1991 to 11/1994

VP, Information Services, *Olean General Hospital*, Olean, NY - Member of executive team of an acute care facility and rural clinic network, participant in strategic planning activities including: team management, strategic planning methods, CQI, business process reengineering, and benchmarking.

1986 to 1991

MIS Director, *Olean General Hospital*, Olean, NY - Responsible for all facets of hospital major enterprise level information technology applications for a 153-bed acute care facility. Active participant of a nine hospital team that designed and implemented a quality management system.

1982 to 1986

Medical Technologist, MT (ASCP), *Olean General Hospital*, Olean, NY - Medical Technologist responsible for design and implementation of laboratory policy and procedure manuals, and for installation of Laboratory Management System.

1980 to 1981

Computer Operations Manager, *MDS Health Group, Inc.*, Olean, NY – Managed technology for private laboratory with five locations.

1977 to 1980

Regional Manager/Service Engineer, *Vickers America Medical Corp*, Whitehouse Station, NJ - Installed laboratory computer equipment in teaching hospitals and facilities in all 50 states.

1974 to 1977

Medical Technologist, MT(ASCP), *St. Francis Hospital Medical Center*, Peoria, IL – Technologist in cytopathology, microbiology, and chemistry laboratories.

Education:

1992

Master of Business Administration, Finance/Accounting, St. Bonaventure University, St. Bonaventure, NY

1976

Bachelor of Science, Medical Technology, Illinois State University, Normal, IL

1974

Bachelor of Science, Biology/Minor-Chemistry, Illinois State University, Normal, IL

Certifications:

| | |
|-------------|---|
| <u>2010</u> | CPHIT Project Management, Health IT Certification |
| <u>2010</u> | CPHIT, Health IT Certification for Health Information Technology |
| <u>2009</u> | CPHIE, Health IT Certification for Health Information Exchange |
| <u>1982</u> | CLDIR, National Certification Agency for Medical Laboratory Directors |
| <u>1981</u> | CLS, National Certification Agency for Medical Laboratory Personnel |
| <u>1976</u> | MT (ASCP), Board of Registry of the American Society of Clinical Pathologists |

Awards:

Honorary Engineering Management Program Degree, California Polytechnic State University, San Luis Obispo, CA

Employee of the Year – MDS Health Group, Olean General Hospital and Yukon-Kuskokwim Health Corporation

Professional and Community Affiliations and Positions - current and recent:

I2 - Internet2 Rural Health Care National Workgroup – moderator

AFHCAN – Alaska Federal Health Care Access Network – board chairman

AMEX – American Express Health System – user group president

ANHIC – Alaska Native Health Information Committee – chairman

DDC – Distance Delivery Consortium – member and president

League of Women Voters – member and president

NRTRC – Northwest Telehealth Resource Center – board member and president

ACHE - American College of Healthcare Executives – member

HIMSS - Healthcare Information and Management Systems Society – member

AHEC – Area Health Education Center – board member

AOPA – Airplane Pilots and Owners Association – member

ATA – American Telemedicine Association – member

CHIME – College of Healthcare Information Management Executives – member

Literacy Council of Alaska – volunteer tutor

Paul Cartland, Medicaid HIT Coordinator, State of Alaska Department of Health and Social Services.

Paul Cartland joined the Department of Health and Social Services in summer 2007. As project manager for the MMIS Replacement Project, Mr. Cartland will direct the design, development and implementation of a modernized Medicaid claims system.

Paul comes to the state health and social services department with almost 25 years of project management experience. From spring 2000 through fall 2001, he worked for Yukon Fuel Company where he managed the development of a web based fuel and freight tracking system to enable customers in rural Alaska to obtain information on the status of their fuel and freight deliveries. Subsequently he spent four years as the program manager for Secure Asset Reporting Services managing the development of the SARS web based asset tracking system. Immediately before moving to the state Department of Health and Social Services, Mr. Cartland served as the project manager for AT & T Alascom from November 2005 through June 2007.

Paul was president of the Alaska chapter of the Project Management Institute (PMI) in 2008. He earned a master's degree in Systems Management from the Florida Institute of Technology in 1988 and is currently a Doctoral candidate in Project Management through Royal Melbourne Institute of Technology in Melbourne, Australia. He intends to finish that degree in 2011.

Linda Boochever, Executive Director, Alaska EHR Alliance

Linda is the Executive Director of the Alaska EHR Alliance, Inc. a non-profit, 501(c)(3) corporation working to assist Alaska providers to adopt electronic health records. An independent consultant with more than 30 years experience in management and marketing, Linda provides her clients with a variety of services, including project development and management, public opinion research, marketing and outreach, and technical writing. Previously she was Vice President and Chief Operating Officer for two long-time Alaskan companies: Craciun Research Group, and Mystrom Advertising, (now the Nerland Agency), and was Director of Marketing and Product Development for TelAlaska, an Alaska telecommunications company.

A lifelong Alaskan born in Juneau, Linda earned a BA in English with a focus area of Business Administration from the University of Alaska Anchorage.

CAROLYN YOSHIKO HEYMAN-LAYNE, HIPAA and Healthcare AttorneyEXPERIENCE**Sedor, Wendlandt, Evans & Filippi LLC****Anchorage, AK**

August 2009 through present

Position: Partner

- ♦ Represent and work on behalf of healthcare clients to address privacy and security issues, including HIPAA, the HITECH Act, Electronic Health Records and Health Information Exchange.
- ♦ Represent healthcare and business clients in various transactions, including real estate purchases, lease negotiation and other business matters.

Dorsey & Whitney LLP**Anchorage, AK**

December 2003 through August 2009

Position: Senior Associate – Healthcare and Corporate

- ♦ Work directly with healthcare clients to address regulatory and business issues including Medicaid audits, privacy concerns, corporate formation and lease reviews.
- ♦ Represent non-healthcare clients in various transactions, including sale and acquisition of businesses, real estate purchases, applications for tax exemption and other matters.
- ♦ Assist other attorneys with documents related to large transactions, such as legal opinions, contract assignments, security agreements, promissory notes, guaranties, etc.

Buchanan Ingersoll, P.C.**Pittsburgh, PA**

September 2001 through November 2003, Summer Associate 2000

Position: Associate Attorney – Healthcare

- ♦ Substantial regulatory work including Stark and Anti-Kickback Law, Health Insurance Portability and Accountability Act (HIPAA), and Medicare and Medicaid Law.
- ♦ Non-profit experience including work with non-profit and religious hospital clients, religious charitable trusts, and applications for exemption from income tax.

Professor Schwab, Duke University School of Law**Durham, NC**

(Visiting Professor from Cornell Law School) - Fall 1999

Position: Research Associate

- ♦ Researched nationwide statutory and common law at-will employee laws.

EDUCATION**Duke University School of Law****Durham, NC**

J.D. 2001

- ♦ Public Interest Law Foundation Member and Grant Recipient
- ♦ Duke Merit Scholarship Recipient

Smith College**Northampton, MA**

A.B., Economics, May 1998

- ♦ Smith College Alumnae Scholarship for Graduate Work
- ♦ Semester Abroad at Sophia University, Tokyo, Japan

SKILLS AND OTHER INFORMATION

- ♦ Admitted to Alaska Bar, Spring 2004
- ♦ American Health Lawyers Association Member
- ♦ Anchorage Bar Association Member
- ♦ Commonwealth North Member
- ♦ Community Service Award from Anchorage Community Mental Health Services

CURRICULUM VITAE
THOMAS SAMUEL NIGHSWANDER, MD MPH

RESIDENCE: 2105 Otter Street
Anchorage, Alaska 99504
TELEPHONE: Home: (907) 337-5036, Work: (907) 729-3682
FAX: 907 337 7119
E-mail nighotte@alaska.net

PROFESSIONAL EDUCATION AND TRAINING:

BA (Sociology and Philosophy) 1964, Kent State University, Kent Ohio
Post Graduate Studies in Physical Science, 1966-1967, Kent State University, Kent, Ohio
M.D. 1967-1971, Case Western Reserve University, Cleveland, Ohio
M.P.H. 1975-1977, University of Washington, School of Public Health, Seattle, Washington
Tuberculosis Control, June to September, 1964, Harvard University and University of South Carolina
Pediatric Clerkship, March to May 1971, Royal Infirmary for Sick Children, Edinburgh, Scotland
Rotating Internship, 1971-1972, Kaiser Foundation Hospital, San Francisco, California
Fellow in Family Medicine, July, 1975 - July, 1977, Department of Family Practice, University of Washington, Seattle, Washington
Clinical Scholar, July, 1975 - July 1977, Robert Wood Johnson Clinical
Scholars Program, University of Washington, Seattle, Washington

LICENSURE AND CERTIFICATION:

1971 Federal Licensing Examination
1975 Medicine and Surgery, State of Washington
1977 Board Certification, American Board of Family Practice
1984 Recertification, American Board of Family Practice
1991 Recertification, American Board of Family Practice
1992 Board Certification: American Board of Emergency Medicine
1998 Recertification, American Board of Family Practice

OTHER CERTIFIED TRAINING

1992 Physicians in Management I, II, III
1997 Recertification Advanced Trauma Life Support
1997 Recertification Advanced Cardiac Life Support
1997 Recertification Pediatric Advanced Life Support

SPECIALIZED TRAINING

1993 Tools and Methods for Continuous Quality Improvement- Institute of Health Care Improvement
1994 Negotiation Tools and Methods- Thomas Colosi, American Arbitration Association

WORK EXPERIENCE

U.S. Peace Corps, Malawi, Africa, Field Staff, Tuberculosis, Public Health Program, 1964-1966

National Institutes of Health, Evans County Heart Research Project, Claxton, Georgia; Field staff, Clinical and Sociological evaluation of patients in Evans County, Georgia; Summers 1967 and 1968

National Health Service Corps, Physician in Charge, State of Alaska, 1972-1975, responsible for developing and managing three rural outpatient clinics using physician extenders

Chief of Family Medicine Service, Alaska Native Medical Center, Anchorage, Alaska, 1977 to 1984

Deputy Chief of Party, World Bank Project - Development of National Health Plan for Country of Malawi, Central Africa, 1984 – 1985

Active Member of the Clinical Staff, Alaska Native Medical Center 1977 to present

Director of Ambulatory Care, Alaska Native Medical Center, 1985-1989

Director Of Community Health Services, Alaska Native Medical Center, 1990 to 1997

Acting Chief Medical Officer, Indian Health Service, Rockville, Maryland, Jan. 1996 - June 1996

Compact Negotiation Team, Alaska Area Native Health Service, July 1997 - January 1998

Private Consultant in Health Systems and Clinical Medicine, February 1998 to present

Facilitator for the Alaska Telehealth Advisory Commission, January 1999 to present

Clinical Education Coordinator for the University of Washington Medical School WWAMI program in Alaska, May 1998 to present

Principle Clinical Coordinator, Qualis Health Alaska, July 1998 to present

Medical Director , State of Alaska FAS program 2001-present

Consultant to University of Alaska BRIN 2002-present

OTHER PROFESSIONAL ACTIVITIES:

Alaska Coordinator of University of Washington Medics Program, 1972-1974

Community Health Aide Training Faculty, Alaska Native Medical Service, 1973 - 1975

Adjunct Professor of Health Sciences, University of Alaska, 1974-1975

Board of Directors, University of Alaska Nurse Practitioner Program, 1975 - 1977

Consultant, Community Health Aide Training Program, Alaska Native Medical Service, 1975 to present

Consultant to National Center for Health Services Research, June, 1977-1979

Faculty Appointment, Department of Family Practice, University of Washington, Seattle, Washington

Assistant Clinical Professor, 1977-1982

Associate Clinical Professor, 1982 to present

Admissions Committee University of Washington Medical School, Seattle, Washington, 1978-1980;1990-1999

Senior Clinician for Family Medicine for the Indian Health Service, 1979-1984

Editor of Occasional Notes for the Indian Health Service Family Practitioners, 1979-1984

Venereal Disease Planner and Coordinator for the Alaska Native Medical Service, 1979-1984

Emergency Medical Service Board, City of Anchorage, 1983-1984

Chairman, Alaska Oil Spill Health Force, 1989 - 1

National Science Foundation Antarctic Medical Review Board, 1996 to 2000

Commissioned Officer, United States Public Health Service, 1972 to January 1998

Attending-Alaska Family Practice Residency Program July 1999 to present

PROFESSIONAL MEMBERSHIPS:

American Society of Circumpolar Health

Charter member 1983

Executive Committee 1990 - 1995

Secretary 1994 - 1995

Alaska Academy of Family Practice

Alaska Public Health Association 1977 to present

Executive Board, 1980-1981

Vice-president, 1981-1982

Chair Legislative Committee, 1985-1989

Alaska State Medical Society 1977 to present

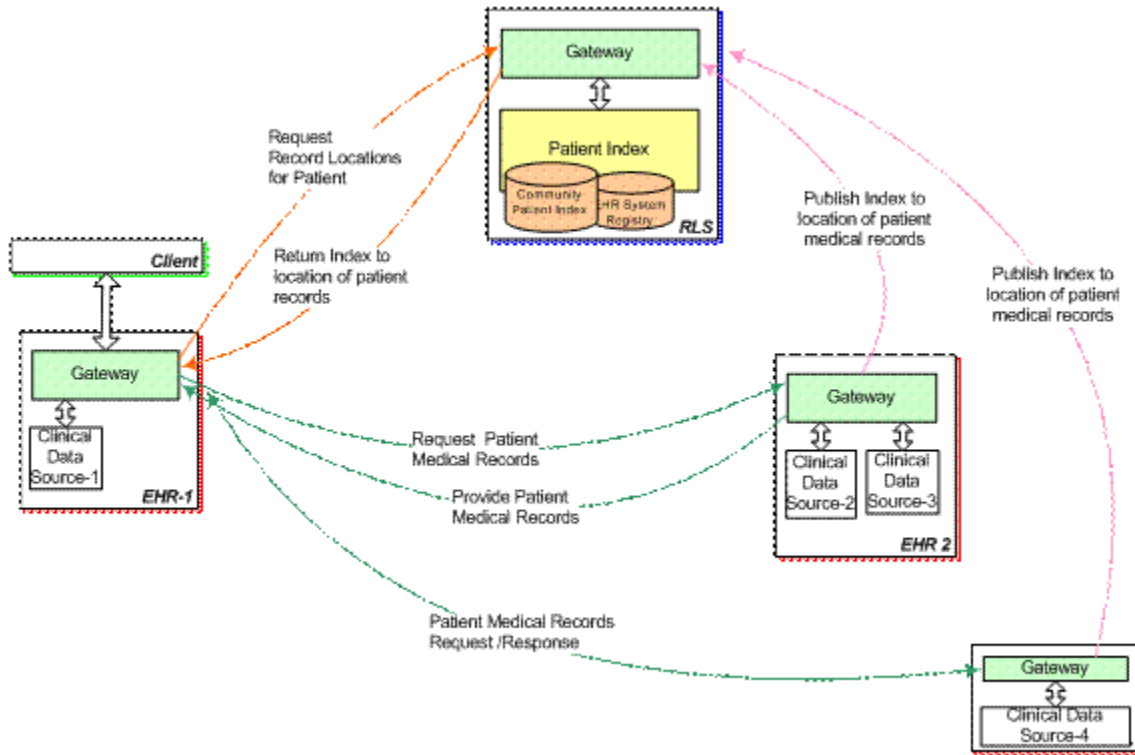
Executive Committee member 1988 - 1995

Accreditation Committee 1987 to present

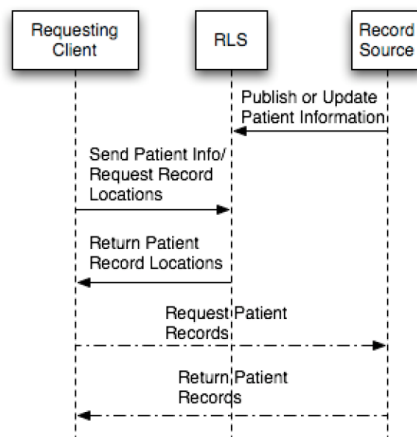
Appendix B Record Locator Service (Markle CfH Prototype)

Figure 22 - Record Locator Service

The Record Locator Service (RLS) is a demonstration prototype of the RLS Architecture. Code and message schemas are made available here courtesy of Connecting for Health.



RLS supports a network of interoperating clinical systems (EHRs) that use Web-services over the Internet to communicate with each other. Nodes send and receive HL7 format messages wrapped in SOAP envelopes over HTTPS transport. RLS provides Patient Lookup services with a Community Master Patient Index updated through its Patient Publish service. Medical Records are then exchanged through peer-to-peer messaging between EHRs



Appendix C Anonymizer and IBM DB2 Analytics Technology

Graphics used with permission from IBM.

Figure 23 - Anonymizer

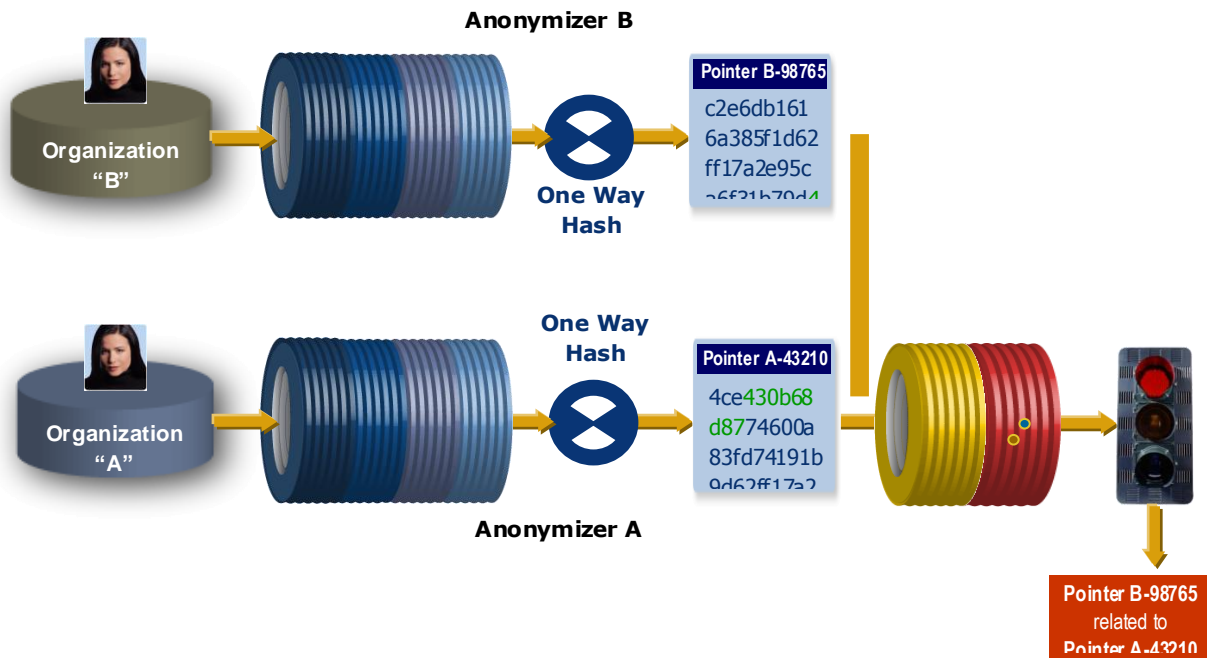
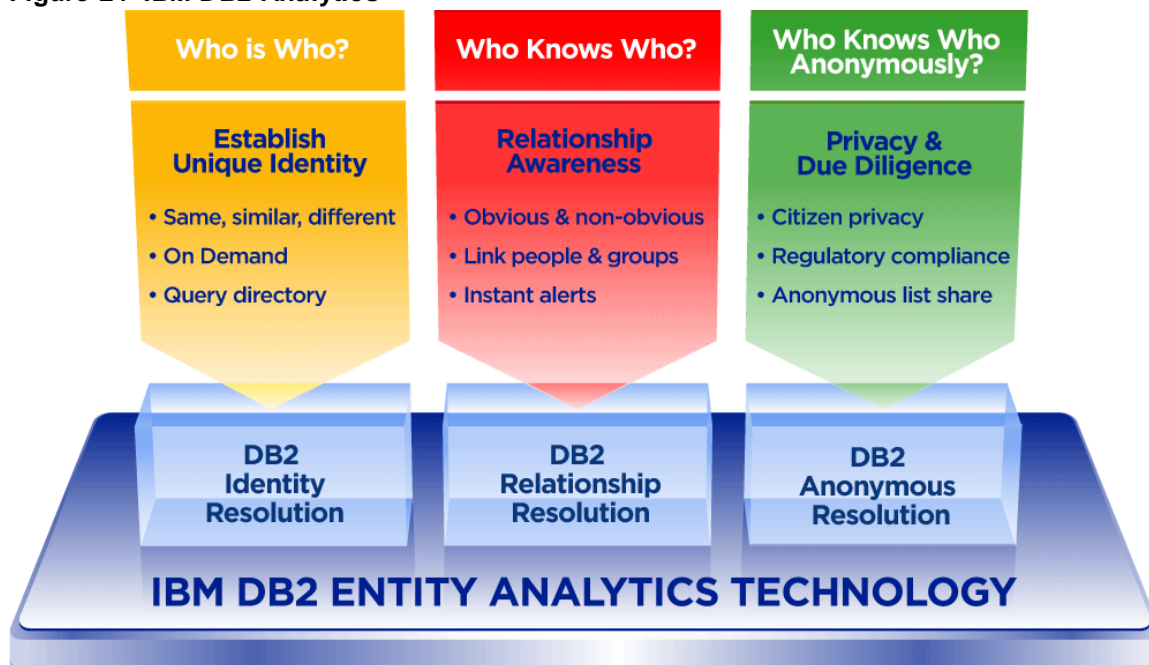


Figure 24- IBM DB2 Analytics



Appendix D HIE Participation Agreement Template

Alaska eHealth Network: Participant Agreement

This Participant Agreement (the "Agreement") is made between _____, a _____ located at _____ (hereinafter "Participant"), and the Alaska eHealth Network ("AeHN"), an Alaska 501(c)(3) nonprofit corporation, located at 4120 Laurel Street, Anchorage, Alaska 99508 (hereinafter "AeHN"), (*Mailing Address: 2440 E. Tudor Road, PMB 1143*

Anchorage, AK 99507). For good and valuable consideration, the parties agree to the following:

Purpose.

AeHN is a health information exchange (HIE) organization formed for the purpose of facilitating HIE between and among providers, patients and authorized third-party entities. As part of this activity, AeHN will allow participating providers who enter into and comply with this Agreement access to personal health information held by other participating organizations through the AeHN Network (the "Network");

AeHN is currently in the preliminary stages of facilitating HIE and is not currently operating the Network, but is the recipient of state and federal grants related to HIE that provide HIE and electronic health records (EHR) services to providers;

AeHN would like to involve as many providers and other healthcare stakeholders in the HIE process as possible, and would also like to provide related HIE and EHR services to providers until such time as the Network is in full operation;

Participant desires to participate in the HIE process, obtain access to current and proposed HIE and EHR services, and upon completion, obtain access to use the Network and, accordingly, has completed and executed the necessary portions of this Agreement, as well as reviewing and agreeing to the various policies of the Network; and

This Agreement is entered into for the purpose of protecting the confidentiality and security of patient information transmitted or communicated to Participant as part of or in connection to the Network and for complying with Participant's obligations under the federal Health Insurance Portability and Accountability Act of 1996 and its implementing regulations on privacy and security, 45 C.F.R. Parts 160 and 164 ("HIPAA"), as amended.

Definitions.

For the purposes of this Agreement, the listed terms below shall have the definitions as set forth below:

Protected Health Information. Protected Health Information (PHI) shall have the same meaning as the terms "Protected Health Information" or "PHI" in the Privacy Rule.

Privacy Rule. Privacy Rule shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 CFR parts 160 and 164, as amended.

Required by Law. Required by Law shall have the same meaning as the term "Required by Law" in the Privacy Rule.

Databases. Databases refers to the Protected Health Information and data collected by all persons participating in the AeHN Network. The business and proprietary information of AeHN and Participants is not included in the “Databases”.

AeHN Key Services.

As a participant in the AeHN Network, Participant will have access to the following services as they become available, and as applicable to its membership category and eligibility status:

Core Services may include: (1) Connectivity to the Network; (2) Connectivity to the Nationwide Health Information Network (NHIN) and NHIN Connect/Direct Services; and (3) Maintenance of Directory Services (e.g. providers, hospitals, pharmacies, labs and imaging).

Functional Services may include: (1) Medication lists; (2) Electronic clinical laboratory ordering and results delivery; (3) Continuity of Care clinical summary exchange for care coordination; and (4) Hospital discharge and transfer data, reports and summaries.

Provider Practice Services: Provider Practice Services are available to Participants who qualify for the Regional Extension Center (REC) grant funding. These services may also be available to other providers upon payment of applicable service charges. If these services are available and applicable to Participant, they will be described in Appendix A to this Agreement. Receipt of these services will require Participant to agree to additional provisions related to the funding requirements and Participant will be required to sign Appendix A acknowledging and agreeing to the additional provisions.

Other Services: Additional services such as Reporting Services and Decision Support Services may be available depending on the implementation of the services, the payment of service charges and Participant’s eligibility status. If available to Participant, these services will be described in Appendix B to this Agreement.

These services are subject to change. Once established, Participant will receive at least thirty (30) days notice prior to cancellation of any service, so long as AeHN has received adequate notice from the relevant service provider.

Use and Disclosure of Data.

Once the Network is implemented and available, AeHN hereby authorizes Participant to have access to the Network and the Databases accessible through the Network for the following uses and purposes:

Treatment of a patient of or by Participant.

Mitigation of a breach of confidentiality (as defined in the AeHN Breach of Confidentiality Policy) or unauthorized access of PHI.

Payment for healthcare services.

Auditing and monitoring compliance with the terms and conditions of this Agreement.

Providing customized summary reports with de-identified data or statistics as needed for public health or other governmental purposes required by law.

Participant hereby authorizes AeHN (and all persons participating in the AeHN Network) to have access to its data bases and PHI for the following uses and purposes:

Treatment of a patient.

Mitigation of a breach of confidentiality (as defined in the AeHN Breach of Confidentiality Policy) or unauthorized access of PHI.

Auditing and monitoring compliance with the terms and conditions of this Agreement.

Providing customized summary reports with non-identifying data or statistics as needed for public health or other governmental purposes required by law.

Responsibilities of AeHN as a Business Associate:

AeHN and Participant acknowledge that under the Privacy Rule, Participant is a Covered Entity and AeHN is a Business Associate of the Participant with respect to certain AeHN duties. AeHN and Participant will be using and disclosing PHI. Accordingly, AeHN and Participant agree as follows:

AeHN may not use or disclose PHI in any manner that would constitute a violation of this Agreement or 45 C.F.R. Parts 160 and 164 if used or disclosed by Participant except that AeHN may use and disclose PHI if necessary for proper management and administration of AeHN or to carry out the legal responsibilities of AeHN.

AeHN agrees to not use or further disclose PHI other than as authorized by this Agreement or as required by law.

AeHN will use appropriate administrative, technical and physical safeguards to protect the confidentiality and integrity of PHI and to prevent the use or disclosure of any individually identifiable health information received from or on behalf of Participant other than as permitted or required by Federal or State law or by this Agreement. AeHN agrees to comply with applicable requirements of law relating to PHI and with respect to any task or other activity AeHN performs on behalf of Participant to the extent that the Participant would be required to comply with such requirements.

If AeHN becomes aware of any use or disclosure of PHI, not provided for by this Agreement, it shall report such use or disclosure to Participant.

E. If AeHN becomes aware of any breach of PHI, or any breach of Personal Information (as defined by the Alaska Personal Information Protection Act), it shall report such use or disclosure to Participant and comply with all applicable breach reporting requirements.

F. AeHN shall mitigate, to the extent reasonably practicable, any deleterious effects from any improper use and/or disclosure of PHI that AeHN reports to Participant.

G. AeHN shall require that its agents, including subcontractors, to whom it provides PHI under this agreement, agree to the same restrictions and conditions that apply to AeHN with respect to such information.

H. AeHN agrees to comply with Participant's request to accommodate an individual's access to his/her PHI in a mutually acceptable time and manner. In the event an individual contacts AeHN directly about access to PHI, AeHN will not provide access to the individual but shall immediately forward such request to Participant.

I. AeHN agrees to comply with Participant's reasonable and appropriate request to make amendments to PHI pursuant to 45 C.F.R. 164.526. AeHN shall promptly incorporate any such amendments into the PHI. In the event an individual contacts AeHN directly about making amendments to PHI, AeHN will not make any amendments to the individual's PHI, but shall forward such request to Participant.

J. AeHN agrees to document such disclosures of PHI and information related to such disclosures as would be required for Participant to respond to a request by an individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. 164.528. AeHN agrees to provide to Participant in a mutually acceptable time and manner, information collected in accordance with this section, to permit Participant to respond to a request by an individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. 164.528.

K. AeHN shall make its internal practices, books and records relating to uses and disclosures of PHI available to the Secretary of the U.S. Department of Health and Human Services or designee, for purposes of determining Participant and AeHN compliance with the Privacy Rule.

L. Upon termination of this Agreement, AeHN shall return or destroy all PHI and will retain no copies of such information. If such return or destruction of PHI is not feasible, AeHN agrees that the provisions of this Agreement are extended beyond termination to such PHI, and AeHN shall limit all further uses and disclosures to those purposes that make the return or destruction of such PHI infeasible.

M. AeHN agrees to regularly monitor and audit the access of each Network participant, and to take reasonable steps to pursue any breach or other privacy and security issues raised by such monitoring and auditing.

Responsibilities of Participant (as applicable to the services provided):

Participant authorizes AeHN and the Network to obtain Participant's data in a mutually agreed upon format.

Participant agrees to be bound by the restrictions and conditions of paragraphs A-K of Section V to the extent Participant has access to PHI of other Participants through AeHN. AeHN reserves the right to terminate Participant's access to the Network and access to the Databases at any time that AeHN has reason to believe that Participant has violated any of the conditions set forth in Section IV or has accessed any information that Participant would not otherwise be authorized to receive pursuant to this Agreement.

Participant agrees to be bound by the policies and procedures of AeHN, as may be amended from time to time by AeHN. The policies and procedures of AeHN shall be considered a part of this Agreement. Participant agrees to review these policies and procedures with employees and to obtain an attestation of such policies and procedures from each employee prior to providing access to the Network.

Participant agrees to supply AeHN with copies of the applicable privacy and security policies and procedures of its organization upon signing of this Agreement. The Participant may also be asked at any time to provide evidence of compliance with AeHN policies, and to validate that appropriate organizational policies and procedures are in place to comply with those policies. If a Participant needs assistance with such policies and procedures, it should notify AeHN prior to entering into this Agreement, and AeHN will provide assistance to the extent that such resources are available.

Participant agrees to regularly monitor and audit access to AeHN and report any issues to AeHN upon discovery. Participant shall immediately notify AeHN of the revocation of an individual's access and will provide a follow-up report regarding the breach/violation within sixty (60) days of such breach/violation.

Participant agrees to supply AeHN with the names of any persons who are given access to the Network, and a quarterly list of the active staff with access to the Network (due by the 15th of January, April, July and October). Participant should be aware, and should make potential employees aware, that individuals may be denied access to the Network based on past performance or behavior reported by a former employer or other participating provider.

Participant understands that the Network primarily depends on the participating providers to ensure that the patient information in the Databases is true, accurate and complete. If the Participant becomes aware of any inaccuracies in its own Database, it agrees to communicate such inaccuracy to AeHN as soon as reasonably possible.

Participant Categories.

AeHN participation is open to any healthcare provider, any health insurer, any organization providing services to healthcare providers, any governmental entity, any educational or scientific research organization, other non-governmental entities serving the healthcare industry, and private individuals. A Participant may fit multiple categories, but would only be eligible for the "best fit" category, or the category which most closely matches the organization and its activities.

Participant is signing this Agreement as a member of Category **[Insert Category]**. AeHN may change Participant's designation as appropriate, in the reasonable discretion of AeHN, upon 30 days prior written notice to Participant. If Participant feels that this designation is incorrect, it may appeal the decision to the Board of Directors of AeHN, who will determine the correct decision based on all relevant factors. The decision of the Board of Directors of AeHN will be final, and Participant can terminate this Agreement if it does not agree with the final decision.

Fees.

Participation in the Network is subject to payment of Participation Dues. The Participation Dues are further described in Appendix C, which is subject to change upon 30 days prior written notice to Participant.

Term.

The term of this Agreement shall begin _____, or upon signature by both parties, whichever is later, and shall continue in force for _____ years from such date, unless otherwise terminated in accordance with this Agreement. Thereafter, the Agreement will automatically renew for additional one (1) year periods, provided that during any such renewal period either party may terminate this Agreement without cause upon giving thirty (30) days prior written notice to the other.

Termination.

Notwithstanding any other provision of this Agreement, either party may immediately terminate this Agreement if the other party has materially violated its responsibilities regarding PHI under this Agreement and has failed to provide satisfactory assurances within ten (10) days of notice of such material violation that the violation has been cured and steps taken to prevent its recurrence.

AeHN also reserves the right, within its sole discretion, to suspend or terminate Participant's access (or access of any individual working at Participant) upon reasonable suspicion of a violation of this Agreement, or violation of policies and procedures that may jeopardize the privacy and security of the Databases.

If this Agreement is terminated based on the material violation of AeHN, the dues paid by Participant will be prorated and the amount designated for the remainder of this Agreement shall be returned to Participant.

Insurance and Liability.

In order to adequately insure themselves for liability arising out of the activities to be performed under this Agreement, each party agrees to obtain and maintain in force and effect liability insurance to insure themselves and their respective personnel for liability arising out of activities to be performed under, or in any manner related to, this Agreement.

Independent Contractor Relationship.

None of the provisions of this Agreement are intended to create any relationship between the parties other than that of independent entities contracting with each other solely for the purpose of effecting the provisions of this Agreement. Neither of the parties, nor any of their respective officers, directors, employees or agents, shall have the authority to bind the other or shall be deemed or construed to be the agent, employee or representative of the other except as may be specifically provided herein. Neither party, nor any of their employees or agents, shall have any claim under this Agreement or otherwise against the other party for Social Security benefits, workers' compensation, disability benefits, unemployment insurance, vacation, sick pay or any other employee benefits of any kind.

Confidentiality.

As noted above, the parties shall maintain the confidentiality of patient medical records and treatment in accordance with state and federal laws. In addition, each party acknowledges that information regarding the other party's business operations, including, but not limited to, procedures, programs, formularies and reimbursement schedules are proprietary and confidential, and agrees to hold such information in strict confidence and not to disclose or make available such information to any third party, except as required by law.

Effect of Governmental Laws and Regulation.

Each party shall have the right to terminate this Agreement to comply with any legal order, ruling, opinion, procedure, policy, or other guidance issued, or proposed to be issued, by any federal or state agency, or to comply with any provision of law, regulation, or any requirement of accreditation, tax-exemption, federally-funded healthcare program participation or licensure which: (i) invalidates or is inconsistent with the provisions of this Agreement; (ii) would cause a party to be in violation of the law; or (iii) jeopardizes the good standing status of licensure, accreditation or participation in any federally-funded healthcare program, including the Medicare and Medicaid programs.

Miscellaneous.

Assignment. This agreement shall not be assignable by either party, except upon the written consent to such assignment by the other party.

Entire Agreement. This Agreement, including the Appendices and any other documents referenced herein, constitutes the entire agreement between the parties with respect to access to the Network and services provided by AeHN.

Governing Law. This Agreement shall be governed by the laws and decisions of the State of Alaska and federal privacy laws such as HIPAA, to the extent they preempt Alaska state law.

Survival of Obligation. Articles V, XI and XIII of this Agreement shall survive the expiration or termination of this Agreement.

Counterparts. This Agreement may be signed in one or more counterparts, which shall be considered as one Agreement.

Notice. All notices and other communications required or permitted to be given shall be made in writing and shall be considered given and received when (a) personally delivered to the other party; (b) delivered by courier; (c) delivered by facsimile; or (d) deposited in the U.S. Mail, postage prepaid, return receipt requested and addressed as set forth below or at such other address such party shall have specified by notice given in accordance with the provisions of this section.

AeHN and Participant have executed this Agreement in their respective names by their duly authorized officers.

AeHN

[Participant]

By:

By:

Title:

Title:

Date:

Date:

Notice Address:

Notice Address:

Alaska eHealth Network
2440 E. Tudor Road, PMB 1143
Anchorage, AK 99507

Appendix A

Provider Practice Services and Additional Provider Requirements

The Alaska eHealth Network's Regional Extension Center (REC) offers financial assistance to eligible priority primary care providers (PPCP) for training and support services to assist in adopting electronic health records (EHRs) and to become meaningful users of EHRs and health information technology (HIT) by 2012.¹ Meaningful use of EHRs reflects use by providers to achieve significant improvements in patient care.

The federal subsidy for the REC's direct technical assistance to any single site or specific geographic location will be capped at the amount allocated for a practice equal to or less than ten priority primary-care providers. Up to Three Thousand Dollars (\$3,000) direct assistance funding will be provided on a "per eligible priority primary care provider" basis subject to the aforementioned conditions.

As a recipient of Regional Extension Center funding, _____ ("Participant") agrees to the following additional terms and provisions with regard to the Participant Agreement:

Definitions²

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

Provider: All providers included in the definition of "Health Care Provider" in Section 3000(3) of the Public Health Service Act (PHSA) as added by ARRA. This includes, though it is not limited to, hospitals, physicians, PPCPs, Federally Qualified Health Centers (and "Look-Alikes") and Rural Health Centers.

Primary-care Physician: A licensed doctor of medicine (MD) or osteopathy (DO) who practices family, general internal or pediatric medicine or obstetrics and gynecology.

Primary-Care Provider: A primary-care physician or a nurse practitioner, nurse midwife, or physician assistant with prescriptive privileges in the locality where s/he practices and practicing in one of the specialty areas included in the definition of a primary-care physician for purposes of this agreement.

¹ Non-eligible providers may also contact AeHN for these Provider Practice Services, which may be available at a discount.

² Source: American Recovery and Reinvestment Act of 2009, Title XIII - Health Information Technology, Subtitle B— Incentives for the Use of Health Information Technology, Section 3012, Health Information Technology Implementation Assistance, Health Information Technology Extension Program: Regional Centers Cooperative Agreement Program, Office of the National Coordinator for Health Information Technology, Department of Health and Human Services, 2009

Provider Practice Services Overview

AeHN's REC has contracted with vendors to enable practice choice in contracting for EHR services. References to AeHN in this Appendix may also include the vendors and other contractors or agents of AeHN. It is expected that REC technical assistance will offset but not fully cover practice services costs, as each vendor will offer assistance to fully address practice needs. REC technical assistance, if applicable, will be paid to the vendor on behalf of the practice. Costs such as personnel, supplies, travel, room and board, licenses, hardware and software purchases are specifically excluded from REC technical assistance services.

The following is a representative snapshot of provider practice services which will be covered under AeHN's REC program. The REC and its preferred vendors will support healthcare providers with direct, individualized and on-site and/or remote technical assistance in:

- Conducting an EHR Readiness Assessment
- Evaluation of current information technology environment
- High-level understanding of practice's current state and readiness to accept new technology for clinical and front office processes
- Selecting an EHR / Contracting with Vendor
- Selecting an EHR product that offers best value for the providers' needs
- Defining implementation goals and requirements
- Analyzing the fit of software offerings with goals
- Assisting with completion of the contract
- Providing Implementation Support and Practice Workflow Design / Re-design
- Defining roles / responsibilities of vendor and practice
- Reviewing current administrative and clinical workflows
- Enhancing clinical and administrative workflows to optimally leverage an EHR system's potential to improve quality and value of care, including patient experience as well as outcome of care
- Formulating and reviewing strategy to transition from manual processes to EHR environment
- Training
- Review of the training plan, oversight of training material development, and, for larger practices, on-site training assistance.
- Additional vendor-specific training services to assist with the adoption and optimization of the selected software
- Post-implementation Support Services

- Reviewing current workflow and addressing workflow and implementation issues
- Connection to the statewide Health Information Exchange for direct access to other providers
- Compliance with Meaningful Use requirements
- Network Monitoring with preferred IT vendors
- Alerting practices to IT problems
- Monitoring and managing IT network

Exclusions from Financial Assistance:

Personnel costs, supplies, travel, room and board, licenses, hardware and software purchases are specifically excluded from these services. In addition, Participant is responsible for the cost of any services provided above the financial assistance amount of Three Thousand Dollars (\$3,000). Further, if Participant does not make a good faith effort to complete all of the REC stages for Meaningful Use, it will be responsible for the pro-rated cost of any services provided for incomplete stages.³

Additional Participant Requirements

On July 13, 2010 the Department of Health and Human Services (DHHS) released the final meaningful use regulation for EHRs for the first two years (2011 – 2012) of this multi-year incentive program indicating what hospitals and clinicians must do to support improved healthcare. Beyond the REC incentives, the Health Information Technology for Economic and Clinical Health Act (HITECH) authorizes incentive payments through Medicare and Medicaid to clinicians of up to \$44,000 and \$63,750, respectively, per eligible provider. Providers must be able to meet Stage One meaningful use, as defined by the Office of the National Coordinator for HIT (ONC-HIT), by 2012.

This appendix shall be effective upon execution and shall remain in effect until: i. Completion of the Provider Practice Services; ii. Terminated in accordance with the Participant Agreement; or iii. Termination of the REC grant funding. However, Participant will continue to be responsible for any costs incurred until complete and final payment.

The Participant shall perform the following actions as part of this Agreement:

- Identify an appropriate EHR project team (including team leader and physician champion) who shall have sufficient time designated to work on EHR implementation, adoption, and meaningful use all as the tasks may require.
- Provide demographic indicators - Volume of patient visits, Patient population counts (by ethnicity when available), Demographic served: percent insured, uninsured, Medicare and Medicaid – in a format requested by AeHN.
- Shall take such steps as may be required to meet the agreed upon project milestone dates.

³ The following three milestones are required to receive financial assistance and meet Meaningful Use: (1) Signing this Agreement and paying the applicable dues amount; (2) going live on an EHR certified by an authorized Office of the National Coordinator for Health IT (ONC-HIT) certifying body; and (3) meeting Stage One Meaningful Use criteria as defined by ONC-HIT.

- Communicate with AeHN staff on an agreed upon schedule, identify methods to evaluate progress and timely identify barriers, and address the same necessary to achieve the milestones.
- Complete required activities within the project plan.
- Immediately identify “problem” areas and set forth a plan of correction in conjunction with AeHN.
- Provide access to the facility or the EHR team as may be requested by AeHN.
- Cooperate in completing the milestones and provide staff cooperation, if requested.

Participant further recognizes that AeHN also provides other services beyond Provider Practice Services. Work described in this Appendix is separate and non-duplicative of non-Provider Practice Service work performed.

AeHN makes no representations or warranties as to equipment or services which Participant may purchase from an approved vendor or supplier. Participant shall look solely to said vendor or supplier for any defect or breach of any warranty or implied warranty including but not limited to fitness for a particular purpose.

AeHN is only responsible for costs incurred by Participant that are reimbursed by ONC-HIT. AeHN is not responsible or liable for any costs related to Participant’s failure to meet Stage One Meaningful Use, unless related solely to the action or inaction of AeHN (not to include the actions or inactions of the vendors, which shall be addressed between the Participant and the Vendor) with regard to its obligations under this Agreement.

Appendix E Acronyms

AeHN: Alaska eHealth Network
AEHRA: Alaska Electronic Health Record Alliance
AFHCP: Alaska Federal Health Care Partnership
AHCC: Alaska Health Care Commission
AKAIMS: Alaska Automated Information Management System
ANTHC: Alaska Native Tribal Health Consortium
APCA: Alaska Primary Care Association
ARRA: American Recovery and Reinvestment Act
ASMA: Alaska State Medical Association
CCD: Continuity of Care Document
CCHIT: Certification Commission for Health Information Technology
CDC: Centers for Disease Control
CHIPRA: Children's Health Insurance Program Reauthorization Act
CMS: Center for Medicare and Medicaid Services
DBH: Division of Behavioral Health
DHCS: Division of Health Care Services
DHHS: United States Department of Health and Human Services
DHSS: Department of Health and Social Services
DJJ: Division of Juvenile Justice
DOD: Department of Defense
DPA: Division of Public Assistance
DPH: Division Public Health
DS3: Data System 3
DSA: Data Sharing Agreements
DSDS: Division of Senior and Disabilities Services
DURSA: Data Use and Reciprocal Support Agreements
EHR: Electronic Health Records
EIS: Eligibility Information System
EMPI: Enterprise Master Patient Index
EMR: Electronic Medical Records
e-prescribing: Electronic Prescribing
EPSDT: Early Periodic Screening, Diagnosis and Treatment
ETS: Electronic Technology Services
EVRS: Electronic Vital Records System
FCC: Federal Communications Commission
FMS: Finance Management Services
HIE: Health Information Exchange
HIPAA: Health Insurance Portability and Accountability Act
HISPC: Health Information Security and Privacy Collaboration
HIT: Health Information Technology
HITECH: Health Information Technology for Economic and Clinical Health
HITSP: Health Information Technology Standards Panel

IHS: Indian Health Services
IOA: Inter – Organizational Agreements
IT: Information Technology
ITS: Information Technology Services
JOMIS: Juvenile Offender Management Information System
LIMS: Lab Information Management System
MCI: Master Client Index
MITA: Medicaid Information Technology Architecture
MMIS: Medicaid Management Information System
MPI: Master Patient Index
MSPR: Master State Provider Repository
NHIN: Nationwide Health Information Network
NLR: National Level Repository
OCS: Office of Children's Services
OHA: Oregon Health Authority
ONC: Office of the National Coordinator
ORCA: Online Resource for the Children of Alaska
PACS: Picture Archiving and Communication System
PAPD: Planning Advanced Planning Document
PEP: Provider Enrollment Portal
PFD: Permanent Fund Dividend
PHI: Protected Health Information
PHR: Personal Health Record
PKI: Public Key Infrastructure
PNWHPC: Pacific Northwest Health Policy Consortium
REC: Regional Extension Center
RFI: Request for Information
RFP: Request for Proposal
RHIO: Regional Health Information Organization
RLS: Record Locator Service
RPMS: Resource and Patient Management System
RSS: Really simple Syndication
SDE: State Designated Entity
SLR: State Level Repository
SMEs: Subject Matter Experts
SMHP: State Medicaid Health Information Technology Plan
TAC: Technical Assistance Contractor
T-CHIC: Tri State Children's Health Improvement Consortium
TERRA: Terrestrial for Every Region of Rural Alaska
TPO: Treatment, Payment and Operations
VA: Department of Veterans Affairs
VPN: Virtual Private Network

Appendix F Endnotes

ⁱ Labor Department Releases State, Borough and Place 2009 Populations
<http://labor.state.ak.us/news/2010/news10-07.pdf> retrieved 10/8/2010