# Alaska Health Information Technology

# Strategic 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**

**Prepared By:** Alaska Department of Health and Social Services (DHSS), Health Care Services (State Designated Entity)
Alaska eHealth Network (AeHN) (Non-Profit Governing Board)

**Version:** November 2010 / Re-submission of November 2009

# Table of Contents

# List of Figures and Tables

# 1 Introduction

## 1.1 Overview

Alaska is the largest state in the nation geographically, encompassing an area greater than the next three largest states – Texas, California and Montana – combined. At the same time Alaska's population is among the smallest of the states. The dispersion of such a small number of people over such a large area increases the difficulty and cost of delivering healthcare. Despite having the need, similar to many states, for a secure, coordinated healthcare network, Alaska faces unique challenges – large geography with a small population (~75% of Alaska communities are not connected by road to another community with a hospital; ~ one-quarter of the state's population lives in towns and villages that are reachable only by boat or aircraft) and severe climate conditions (extreme weather, including snow, ice, and 70 degree below zero temperatures makes travel very difficult during parts of the year). These challenges, combined with a sparsely distributed medical community, physical barriers to communication and a large number of healthcare players create significant disparities in the delivery of healthcare in Alaska. Due to these disparities, there is a critical need for improved communications among healthcare providers through health information technologies in order to speed up healthcare access and provide efficiencies.

Alaska healthcare providers and patients continue to rely on an outdated healthcare infrastructure, with many providers using only paper based systems, which contributes to dangerous drug interactions, missed diagnoses, costly delays, duplicate testing and administrative overhead. According to national studies, these problems contribute to approximately 5 percent of healthcare expenditures or $250 million annually in Alaska and unnecessarily degrade the quality of healthcare for all Alaskans[i].

In May 2009, the Alaska legislature unanimously passed Senate Bill 133 (SB 133), an act creating 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. SB 133 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 November 2009, DHSS submitted a draft HIT Plan to the Office of the National Coordinator (ONC) for Health Information Technology (HIT) detailing the development of an economical, sustainable HIE in Alaska.

In March 2010, DHSS entered into a cooperative agreement with ONC to create an HIE in Alaska. 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 ONC Cooperative Agreement Program. The Governor also announced Mr. Paul Cartland as the State Health Information Technology (HIT) Coordinator. 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 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 healthcare in Alaska. The AHCC was chartered to provide recommendations for and foster the development of a statewide plan to address quality, accessibility and availability of healthcare for all citizens of the state.

For the past five years, DHSS, AeHN, and key healthcare stakeholders have been actively pursuing health information technologies including HIE and promoting Electronic Health Records (EHRs). Continued HIT efforts offer great promise as a means to achieve more affordable, safe, and accessible

healthcare for Alaskans statewide. These new technologies are being introduced 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.

The assortment of digital applications available for use by healthcare providers and organizations includes EHRs, Personal Health Records (PHRs), Electronic Medical Records (EMRs), Computerized Physician Order Entry (CPOE) systems, HIE systems. 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.

The expected outcomes of HIT utilization and having a fully implemented Alaska HIE will be to improve 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.

## 1.2 Executive Summary

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 healthcare and decreasing quality outcomes of healthcare services provided.

Alaska's healthcare system is very complex and has come together over many decades. It contains many rules and regulations and is made up of many different types of organizations including government, quasi-government, non-profit, and private for-profit businesses. As a result, consumers and providers alike are frustrated and dissatisfied with the current state of healthcare.

There is no one solution, and required improvements will not be instantaneous. A process of transformational change must be implemented that will guide Alaska's healthcare system down a path to become more patient-centered, more evidence-based, more coordinated and more efficient. Healthcare providers need to be supported and provided with the appropriate tools they need along the way. We need to be careful about forcing too much too quickly while balancing the move forward with HIT. The SDE, State HIT Coordinator and AeHN vision for HIT demonstrates the state's aspirations for healthcare and is yet realistic.

A system this complex cannot be fixed over night. A journey of transformation is required to redesign and implement a more rational, coherent and sustainable system that will deliver the highest quality of care at the most reasonable price in a way that protects providers and their business interests, while protecting the interests of Alaska's healthcare consumers. At the heart of this journey of transformation is HIT.

The establishment of the non-profit governing board has established a foundation of collaboration and coordination that has brought a diverse group of stakeholders together to advance Alaska's HIE. Development of Alaska's HIE will result in the culmination of over ten years of statewide and regional health information exchanges and concepts created in the Nationwide Health Information Network (NHIN) and enhanced through ARRA 2009 stimulus.

Key drivers for change in Alaska include: report findings and recommendations of the AHCC; Alaska's healthcare providers are investing in EHR technology ($100M+); aligned in support of statewide HIE to

securely exchange records between providers for safe and timely care; ARRA Health Information Technology for Economic and Clinical Health (HITECH) Act and meaningful use incentives; emerging technologies to address speed and privacy issues.

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

DHSS is participating in or implementing EHR incentive program, Children's Health Insurance Program Reauthorization Act (CHIPRA) quality initiative, Pacific Northwest Health Policy Consortium (PNWHPC), American Public Human Services Association (APHSA) Multi-state HIT Collaborative, State Health Information Exchange Cooperative Agreement program.

## 1.3 Health Information Technology Vision and Strategies

The SDE recognizes that it plays a significant role in transforming healthcare in Alaska and has developed its vision for HIT to address many of the core challenges described above. In developing its vision for HIT for the future, SDE, State HIT Coordinator and AeHN have aligned its goals with that of the AHCC. Like SDE, the AHCC believes that access to good healthcare services, 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 ultimate goal of the state of Alaska is to improve access to healthcare and quality of healthcare for Alaskans. Specifically, the mission of the DHSS is to promote and protect the health and well-being of all Alaskans.

Alaska's vision for HIT relies heavily on utilizing clinical information obtained through adoption, implementation and upgrade of certified EHR systems by providers and facilities and leveraging HIE technologies. Through the use of EHR systems, HIE and other technologies, SDE is positioned well over the next three to five years to significantly impact shared goals, initially established by the AHCC in 2010-2014 Strategic Plan:

- Improve access to healthcare services and affordable health insurance coverage.
- Reduce Alaska's medical inflation rate so that it is at least below the national rate, in order to contain cost growth.
- Assure that healthcare services delivered in Alaska meet the highest quality and safety standards
- Focus on prevention, not just clinical preventive services for individuals, but public health. community-based policies and programs, to support improved health status and to control costs by reducing the burden of preventable illness and injury.

The SDE and State HIT Coordinator's vision for HIT establishes the foundational principles and approach and should be viewed as a living document that can guide Alaska on its journey of transforming healthcare in Alaska by achieving its vision for HIT. HIT vision is to improve individual healthcare and contribute to programs that advance public health in Alaska. In addition to AHCC recommendations the

future of Alaska HIT also includes the following six components and related short term (3-5 years) and long term (>5 years) strategies:

1. Simplified access to Healthcare information and services for Beneficiaries

   Short Term Strategies
   - Enhance secure web-based beneficiary information, communication, outreach and tracking
   - Provide enhanced provider on line search capabilities
   - Improve service delivery through Interactive Voice Response (IVR) and Voice Over Internet Protocol (VOIP) technologies where possible
   - Design and implement on line capabilities to enhance quality consumer directed access to care
   - Development of strong medical home model delivery system
   - Increase collaboration between all state payer and provider
   - Streamline point of service functions (e.g. Smart Cards)
   - Fully develop e-prescribing functionality

2. Simplified interaction with the Healthcare infrastructure for Providers short term

   Short Term Strategies
   - Web-based Access
     - Enhance secure web-based provider enrollment, maintenance, communication and tracking that is available for provider self-service
     - Provide online data submission with real-time claims tracking of approvals, denials, and other status reporting
     - Provide web based physician/provider quality and cost reporting
     - Provide a secure web-based care management systems options
     - Enhance web-based prior authorization (PA) function
     - Enhance web-enabled claims processing functionality
     - Improve eligibility coordination and knowledge sharing between agencies and business partners

   - Enhanced Technology Supports
     - Streamline point of service functions (e.g. Smart Cards)
     - Support and accommodate electronic signatures
     - Provide for data interchange with data warehouse
     - Facilitate move to total electronic claims
     - Interface with future EHR and PHR system functionalities
     - Fully develop e-Prescribing functionality

   - Credentialing

     Short Term Strategies
     - Interface to the NPI database

     Long Term Strategies
     - Single credentialing organization and standard forms for all payers for the state of Alaska
     - Adopt nationally recognized provider credentialing process

3. Improved healthcare outcomes measured by increased usage of performance criteria

   Short Term Strategies
   - Create clear outcomes and expectations for providers to address pay for performance and quality of care

- Incentivize providers to use quality preventative care
- Utilize HIE/HIT to improve healthcare quality and safety
- Develop and expand innovative approaches to prevention.
- Develop a comprehensive statistical profile for delivery and utilization patterns

4. Evolving use of modern information technology to improve the delivery of healthcare and outcomes, identify administrative efficiencies, coordination and optimization of care

Short Term Strategies

- Administrative Efficiencies
  - Improve contract administration
  - Provide automated federal reporting
  - Enhance automated reporting capabilities
  - Improve financial reporting capacity including data pulls, details, and definitions
  - Simplify and automate creation and management of edits and audits
  - Support and enhance capabilities to access federal rebate programs
  - Provide for data interchange with data warehouse
  - Develop and expand innovative approaches to prevention.
  - Develop webcasts and other on line accessible training for MMIS users
  - Enhance web-based prior authorization (PA) function
  - Facilitate move to total electronic claims
  - Enhanced web-enabled claims processing functionality
  - Automate TPL functionality
  - Fully develop e-Prescribing functionality
  - Enhance pre-payment and post-payment pattern analysis
  - Develop and Automate the Rate Setting process
  - Reduce duplication of effort – regulatory vs. contract monitoring
  - Provide Contractor system supports (contract Mgmt system) to improve efficiency of contracting process

- Coordination of Care
  - Develop enhanced interfaces to existing registries
  - Development of strong Medical Home model delivery system
  - Interface with future EHR and PHR system functionalities

- Optimization of Care
  - Provide secure, web-based assessment tool for Waiver, Senior and disability functions
  - Improve service delivery through IVR and VOIP technologies where possible
  - Provide clear and accurate EPSDT services and tracking
  - Explore healthcare literacy program to reduce ER use by Medicaid population
  - Implement Statewide HIE to improve episode of care management
  - Develop and expand innovative approaches to prevention.
  - Streamline Point of Service functions (e.g. Smart Cards)

Long Term Strategies

- Administrative Efficiencies
  - Develop and automate the rate Setting process
  - Reduce duplication of effort – regulatory vs. contract monitoring
  - Provide contractor system supports (contract management system) to improve efficiency of contracting process

5. Integrated medical service delivery model that includes high quality Medicaid providers

Short Term Strategies

- Encourage and promote retention of quality Medicaid providers

- Explore healthcare literacy program to reduce ER use by Medicaid population
- Implement Statewide HIE to improve episode of care management
- Improve eligibility coordination and knowledge sharing between agencies and business partners

6. Move from “client” focus to “family” or “community” based healthcare

Short Term Strategies

- Development of strong Medical Home model delivery system

Alaska information technology projects planned/envisioned over the next 3 to 5 years are included in below in Health Information Technology Landscape.

## 1.4 Alaska eHealth Network

Alaska DHSS contracted with the Alaska eHealth Network (AeHN) to be the non-profit governing board that will procure and manage Alaska's HIE. The AeHN was incorporated in July 2008 as a 501(c) (3) Alaska non-profit corporation organized and managed by Alaskans. As a network of public and private organizations and businesses involved in healthcare, AeHN has been actively working on adoption of EHRs and specifically on HIE activities. AeHN shares a mission and vision that aligns with the SDE and AHCC.

Over the course of the last ten years, AeHN’s predecessor organization, the Alaska Telehealth Advisory Council (ATAC, 1996-2005), and subsequently, AeHN and AeHN staff (2005-2010) have been actively engaged in the development of standardized HIE policies, procedures, participant agreements, provider agreements, data use agreements, and continued refinement of the business, technical and communications plan for HIE in Alaska. In addition, providers from across Alaska have been regularly engaged in ongoing forums, discussions and planning sessions for HIE through AeHN and AeHN’s predecessor organization. AeHN, their predecessor organizations and partners have been extremely successful in their health information technology initiatives.

The Alaska Regional Health Information Organization (RHIO) was initially formed as a project under the ATAC[ii]. The Alaska RHIO has been incorporated into AeHN in a collaborative effort to improve the safety, cost effectiveness, and quality of healthcare in Alaska. The project has federal funding plus monetary support from strategic partners, including the Alaska Federal Health Care Partnership (AFHCP), the Alaska Native Tribal Health Consortium (ANTHC), Premera Blue Cross/Blue Shield, Providence Alaska Medical Center, and the Alaska DHSS.

In an effort to facilitate EHR implementation throughout the state, the Alaska RHIO, AeHN, also works in close partnership with the Alaska Electronic Health Record Alliance (AEHRA), the Alaska Primary Care Association, Mountain Pacific Quality Health and other organizations throughout the state. These organizations provide planning, implementation and support of EHRs in physician practices and community health centers. The Alaska RHIO mission is to facilitate HIE among consumers, employers, clinicians, hospitals, pharmacies, nursing homes, payers and other healthcare providers.

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 Office of National Coordinator (ONC) to establish one of 60 nationwide HIT Regional Extension Centers (REC).

The SDE will leverage AeHN's widespread health information technologies experience, comprehensive connections and partnerships, established provider relationships, and role as the REC to position the state for continued success.

**Figure 1 - AeHN**

# 2 Environmental Scan

Information from two separate surveys was used to determine the current state of adoption by Medicaid eligible providers.

The first survey was conducted by the Alaska Electronic Health Record Alliance (AEHRA) and results were published in May of 2009. While these survey results were statistically significant and provided excellent information, it was focused primarily on licensed physicians and omitted a number of eligible providers such as Dentists, Nurse Practitioners and Certified Nurse-Midwives. The second survey conducted by the State Designated Entity (SDE), to supplement the first survey, commenced in late June 2010 and specifically targeted Medicaid providers including those providers omitted from the AEHRA survey. This section describes the survey process and results from both surveys.

## 2.1 Summary of AEHRA Survey – May 2009

In 2009, The AEHRA contracted with the Craciun Research Group (CRG) to conduct a survey to determine the following:

- Current physician usage of Electronic Health Records (EHRs),
- Identification of the EHR systems in use in the State,
- Interest by non-users in adopting EHRs, and
- Identification of barriers to adoption.

Information from the AEHRA survey was used in a pilot program with selected Alaska providers who are adopting and testing several recommended EHRs. The survey was the first step in the AEHR's pilot program, which is aimed at promoting EHR adoption by educating providers on the benefits of EHR use. The survey was funded by the Rasmuson Foundation through a grant to Alaska eHealth Network (AeHN), and with contract management by Alaska Native Tribal Health Consortium (ANTHC). Additional funding was provided by Providence Health System Alaska and the AEHRA. The database of Alaska licensed physicians was provided by the Alaska State Medical Association (ASMA).

### 2.1.1 Survey Strategy

The Alaska Medical Group Management Association initially emailed the survey link to their members, who are clinic managers, for them to take the survey online. An email notice was sent to those physicians in the database with available email addresses. The survey instrument (questionnaire) was designed for a multi-use approach. By design, the first survey instrument was intended to be part of a mail-out; the instrument was then re-designed to meet an online instrument format. Every effort was made to contact physicians and clinic managers in the medium that fit their work and personal preference. The survey was offered to participants in an exhaustive effort that included paper, fax, phone and email.

The specific process for contacting respondents included an initial invitation letter from Dr. Jerome List along with a paper version of the survey. The invitation was sent by mail to 1401 physicians Statewide in the ASMA database of licensed physicians. Two postcard reminders were sent as follow-ups to physicians who had not initially responded. An email notice was sent to a smaller data base of physicians with available email addresses, plus three follow up email reminders to those who had not responded. Alaska Medical Group Management Association also sent out an email invitation to their 180 clinic manager members followed by two reminder emails. Follow-up phone calls were made to physicians and clinic managers per standard research practices of 2-3 times based upon contact interest and response.

### 2.1.2 Selection of AEHRA Survey Participants

The AEHRA survey was sent to a population of 1,401 physicians and 180 clinic managers. The respondents to the survey consisted of 378 physicians and 62 clinic managers representing 29 communities across the state for a total population of 440 respondents.

### 2.1.3 AEHRA Survey Limitations

Because of the self-administered nature of the survey, there are small inconsistencies in the number of answers to various questions. Not all of the questions were answered by the survey participants. Additionally, the AERHA Survey focused solely on physicians and clinic managers and did not include other Eligible Providers (EPs) such as Dentists, Nurse Practitioners and Certified Nurse-Midwives.

### 2.1.4 AEHRA Survey Analysis Summary

The AEHRA survey results are summarized in the table below:

**Table 1 - AEHRA Survey Analysis**

| Survey Areas | Response Results |
|---|---|
| **Use of EHRs and E-Prescribing** | A third of respondents, physicians/clinic managers, use ePrescribing. Half, 50% use an EHR including 40% who use practice management and 10% who do not.<br>Note: This number cannot be ascribed to the total population of Alaska Physicians due to the self-selecting nature of the survey. However, at a minimum, 16% of Alaska physicians use an EHR and the figure is likely somewhere between that number and 50%. |
| **Use of EHRs by Size and Type of Practice** | 26% of physicians in one-doctor practices have an EHR. Those with the largest clinics are most likely to have an EHR. 50% of Family Physicians, Internists, Pediatricians, and Ob/Gyn's use EHRs, whereas fewer, (41%) grouped in the "other" category of practice types, use them. |
| **Brands of EHRs in Use in Alaska** | No EHR holds a significant portion of the EHR market in Alaska. Centricity holds 11%;<br>eClinicalWorks, 8%. There are approximately 55 EHRs in use. |
| **EHR Connections** | Most (74%) of the EHRs are integrated with a practice management system. Half are connected to labs and a third to one or more pharmacy. A third of the EHRs do not connect to any other entity. |
| **Servers and Hardware** | 79% of the servers are located on site; 78% of EHR owners supplied |
| **Non-Use of EHRs** | Nearly half (47%) of the physicians not using an EHR have seriously considered buying one. 19% have considered but decided against it. |

## 2.2 Summary of SDE Survey - 2010

The SDE recently conducted an environmental scan of the Alaska Medicaid provider population to gather information to describe the current state of HIT adoption and use of electronic health records in provider offices and hospitals across the state. The objective of the survey was to determine the current state of HIT adoption, provider's readiness for meaningful use and the anticipated numbers of eligible providers. The online survey commenced in late June 2010 and is still ongoing. The survey results collected in this report include data received between June 2010 through early October 2010. This section describes the survey process and results.

SDE and State HIT Coordinator are collaborating with the REC to share information collected in the environmental scan and ensure consistent messaging to providers.

### 2.2.1 Survey Strategy

Pre-Survey Outreach and educational information was provided to professional and hospital associations to make stakeholders aware of the opportunities provided by the American Recovery and Reinvestment Act (ARRA) Health Information Technology for Economic and Clinical Health (HITECH) incentive program.

SDE identified several supports in the planning phases of the survey to develop survey interest and accuracy. A variety of communication mechanisms such as letters, newsletters, website postings, state and association ListServes, remittance advice, presentations and email notices were applied to communicate the request to participate in the online survey. Associations were also requested to send letters of support, encouraging provider participation in the survey and the EHR Incentive Payment Program. See Appendix F for examples of the letters that were sent to Medicaid Providers.

Effective definition of the required survey outcomes is critical to laying the foundation for a successful survey. The survey questions were developed based on the requirements in the Final Rule and the Centers for Medicare and Medicaid Services (CMS) template. Each survey question was evaluated for its purpose and contribution to the Environmental "As-Is" Landscape Assessment, State Medicaid Health Information Technology Plan (SMHP) and adoption of Health Information Technology (HIT) and Electronic Health Records (EHRs) in Alaska. The SDE drafted an initial set of survey questions. The survey questions were reviewed and refined as needed by a small group of internal and external stakeholders. The questions were further vetted with key stakeholders at AeHN and AEHRA and approved by the SDE. The Department of Health and Social Services (DHSS) Public Information Office (PIO) reviewed and modified the external communication notices, as well as participating in the review of the survey questions.

The survey was posted online using survey monkey. Several communication activities described above were conducted over the course of the survey.

### 2.2.2 Selection of SDE Survey Participants

The SDE survey specifically targeted Medicaid providers including those providers omitted from the AEHRA survey. The SDE expected that the primary survey participants would be Medicaid providers that have an interest in the EHR Incentive Payment program.

SDE collected 277 online scan responses over a period of 7 weeks from June 28, 2010 through October 8, 2010. To date 102 providers have responded to the survey on line and another 175 were submitted by ANTHC representing the physicians practicing in that group.

### 2.2.3 SDE Survey Limitations

The goal to collect at least 547 survey responses was not achieved in the allotted period of time; therefore, the survey has been extended. It was also identified that that the survey was not targeting hospitals so a phase 2 of the survey was incorporated.

# Appendix A Phase 2 of the survey began in September and targets hospitals. The information provided by the surveys will assist SDE, State HIT Coordinator and AeHN in developing EHR incentive program guidelines as well as furthering HIT efforts that support healthcare providers practicing in varied and unique Alaskan circumstances. Copies of the surveys are included in the Appendices AEHRA Survey

**May 11, 2009**
**Respondents**

**Sample**
The survey was made available to 1401 physicians and 180 clinic managers using the Alaska State Medical Association medical license database and the Alaska Medical Group Management Association's membership.

Total completed surveys:
Physicians: 378 85.9%
Clinic Managers: 62 14.1%
TOTAL: 440 100%

The margin of error is not as reliable on a "self-selected" sample such as this. However, if it was a true random selection, the margin of error would be about +/- 4.0%.

**Statewide participation** was widespread; physicians and clinic managers from 29 communities completed the survey.

**Ownership of Medical Practice**
58% own or share ownership of the practices represented in this report.

**Size of Practice**
The median number of physicians per practice is four, and mid-level practitioners, one. 41% of the practices have no mid-level practitioners. Combined medical staff has a median of five per practice. More of the doctors are in solo practice (26.8%) than any other category of size- 2-3 physicians, 4-6, 7-12, 13-100.

**Type of Practice**
35% work in Family Practice with Pediatrics next at 12%. Many physicians and clinic managers gave multiple answers, with 27% selecting "other" and specifying a different type of practice. In addition to the 10 categories provided, respondents specified 60 other types of practice. [*Note table at end of summary has complete lists]

**EHR Use**

**Use of EHRs and ePrescribing**
A third of respondents, physicians/clinic managers, use ePrescribing.

Half, 50%, use an EHR including 40% who use practice management and 10% who do not.

**Note:** This number cannot be ascribed to the total population of Alaska Physicians due to the self-selecting nature of the survey. However, at a minimum, 16% of Alaska physicians use an EHR and the figure is likely somewhere between that number and 50%.

**Use of EHRs by Size and Type of Practice**
26% of physicians in one-doctor practices have an EHR. Those with the largest clinics are most likely to have an EHR.

50% of Family Physicians, Internists, Pediatricians, and Ob/Gyn's use EHRs, whereas fewer, (41%) grouped in the "other" category of practice types, use them.

**Brands of EHRs in Use in Alaska**
No EHR holds a significant portion of the EHR market in Alaska. Centricity holds 11%; eClinicalWorks, 8%. There are approximately 55 EHRs in use.

**EHR Connections**
Most (74%) of the EHRs are integrated with a practice management system.
Half are connected to labs and a third to one or more pharmacy.
A third of the EHRs do not connect to any other entity.

**Servers and Hardware**
79% of the servers are located on site; 78% of EHR owners supplied their own hardware.

Nearly all respondents had their EHR longer than one year.

**Satisfaction Levels**

Three quarters of EHR users are at least "somewhat satisfied" with their system with a third who say they are "very satisfied." Nearly a third are somewhat to very dissatisfied.

Less than half (43%) would recommend their EHR to others without reservation and 36% with reservations. 20% would not recommend their EHR.

**Non-Use of EHRs**

Nearly half (47%) of the physicians not using an EHR have seriously considered buying one. 19% have considered but decided against it.

**Barriers**
The top barriers (medium and major barrier categories combined) to adopting EHRs are as follows:

Initial cost 84%
Practice disruption and the cost 85%
Uncertainty about which EHR to buy 65%

Privacy concerned 31%.

**Interest in AEHRA Pilot**

11% (21 docs) are interested in participating; 48% (91) might be interested but need more information.

* **CURRENT EHR USAGE**

**Question:** Which EHR does your office use?

NextGen
eClinical Works
WebMD
eMD
Soapware
Practice Partner
Misys
Allscripts
MediNotes
Alert
HAC (McKesson)
Centricity
ICANotes
Other (Please specify below)

No one company holds a significant portion of the EHR market in Alaska. Centricity holds 11%, and eClinical Works 8%. Those are the leaders. There are many others, listed on the next page.

**EHR COMPANIES**

| | Respondent is a: | | TOTAL |
|---|---|---|---|
| | Physician | Clinic Manager | |
| **EHR office uses: *** | | | |
| Centricity | 21 11.1% | 1 3.2% | 22 10.0% |
| eClinical Works | 15 7.9% | 3 9.7% | 18 8.2% |
| WebMD, now Intergy by Sage | 12 6.3% | 3 9.7% | 15 6.8% |
| eMDs | 12 6.3% | 3 9.7% | 15 6.8% |
| HAC (McKesson) | 14 7.4% | | 14 6.4% |
| Allscripts (Misys) | 10 5.3% | 3 9.7% | 13 5.9% |
| NextGen | 10 5.3% | | 10 4.5% |
| Amazing Charts | 9 4.8% | | 9 4.1% |
| RPMS, IHS (Federal system) | 9 4.8% | | 9 4.1% |
| Practice Partner | 5 2.6% | 3 9.7% | 8 3.6% |
| iMedica | 7 3.7% | 1 3.2% | 8 3.6% |
| GEMMS | 7 3.7% | 1 3.2% | 8 3.6% |
| Soapware | 5 2.6% | 1 3.2% | 6 2.7% |
| Alert | 4 2.1% | | 4 1.8% |
| Meditech | 3 1.6% | | 3 1.4% |
| Other* | 2 1.1% | | 2 .9% |

| MediNotes.....| | 1 3.2% | 1 .5% |
| | | | |
| Other #.....| 45 23.8% | 11 35.5% | 56 25.5% |
| Unsure.....| 1 .5% | | 1 .5% |
| | | | |
|TOTAL.....| 189 100% | 31 100% | 220 100% |
+----------+----------+----------+----------+

Column percentages, * Difference is not statistically significant.

**EHR OTHER COMPANIES**

AHLTA and CHCS
ALERT EDIS
Allmeds
Amazing Charts-EMR in addition to Misys practice management
AMS American Medical Software
Baby Steps (Pediatrix Medical Group) [2 answers
CareCast, ImageCast
Cerner
Hospital's Cerner Laboratory IS
Chartlogic
Chartware [2 answers]
Clinix MD
CPSI [2 answers]
DoctorNotes
DocuTap
ECIS a dedicated cardiology program) [2 answers]
GEMMS/ECIS
HealthPort
I engineered my own
ibex, websked
Impac, Lantis [3 asnwers]
IMPAC & Cerner
Just Scaning into a med record
MediMac (now MacPractice)
Meditech; T-System
Mosaic
Multiple systems - will be adopting Cerner
NewMed
Orthopad [2 answers]
Picis IBEX [3 answers]
Point & Click - University & College Vender
Practice Studio
Praxis
PrimeSuite
Prognocis by Bizmatics
ProvPort
QD Clinical
Scriptswriter, Psychiatrists Billing System
Social Security Administration Special
T-System [2 answers]

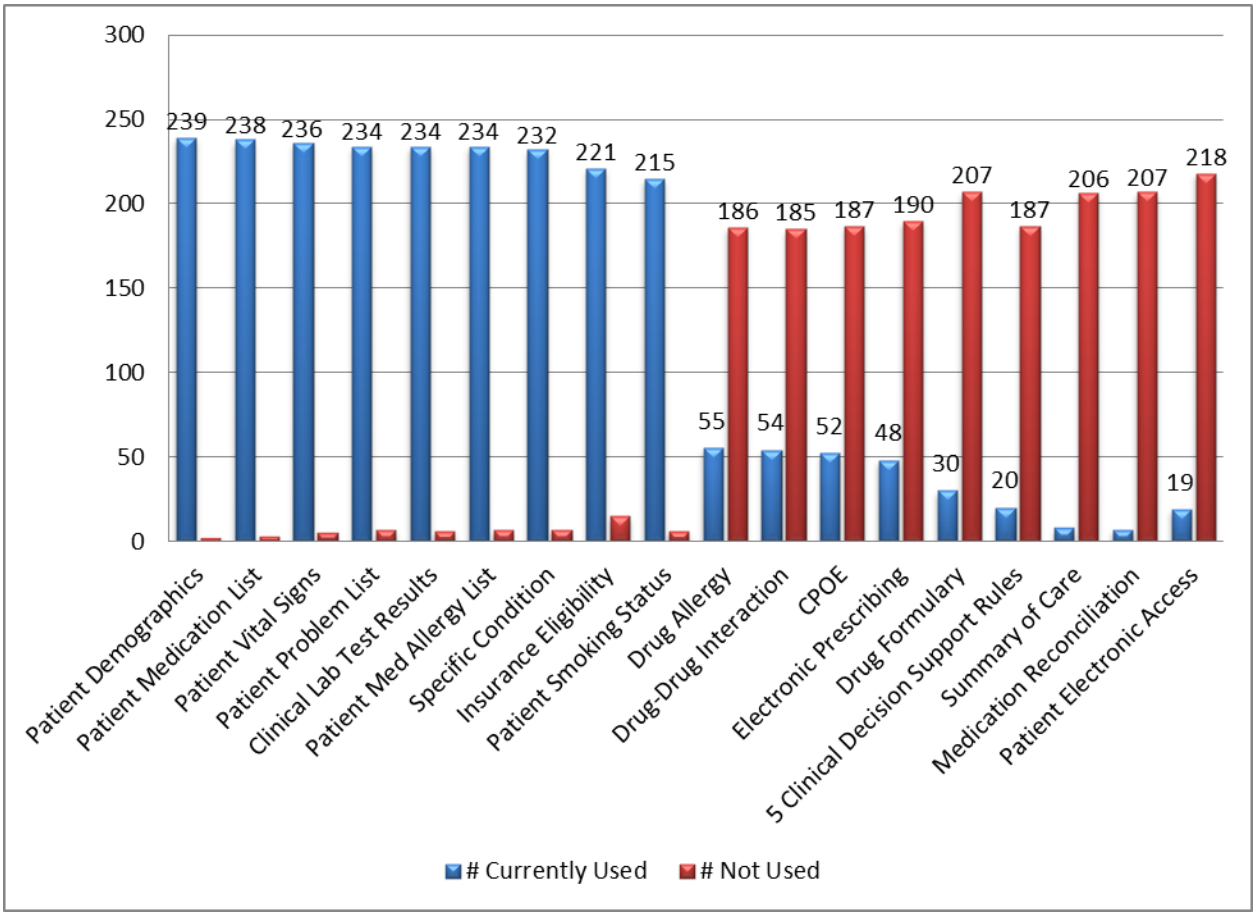
2010 Provider Survey and 2010 Hospital Survey

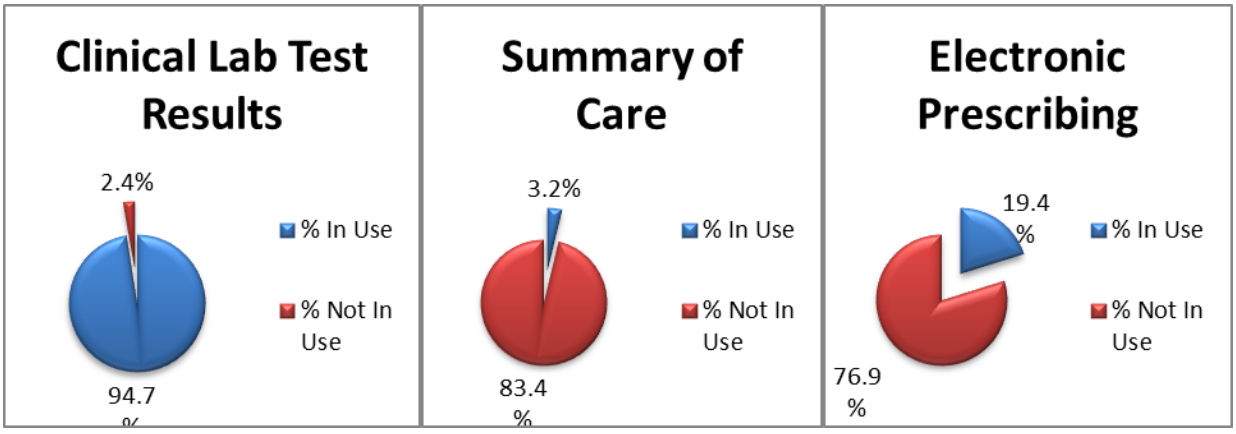
### 2.2.4 SDE Survey Analysis Summary

There were two surveys that were created for the on line survey. The first survey included responses from physicians, certified nurse midwives, nurse practitioner, dentists, hospitals and care coordinators. There were 175 scanned responses submitted by the ANTHC, representing the physicians practicing in that

group and 102 were receive on line through survey monkey. There were a total of 277 responses to the survey; of those responses 30 of the eligible professionals did not have an EHR.

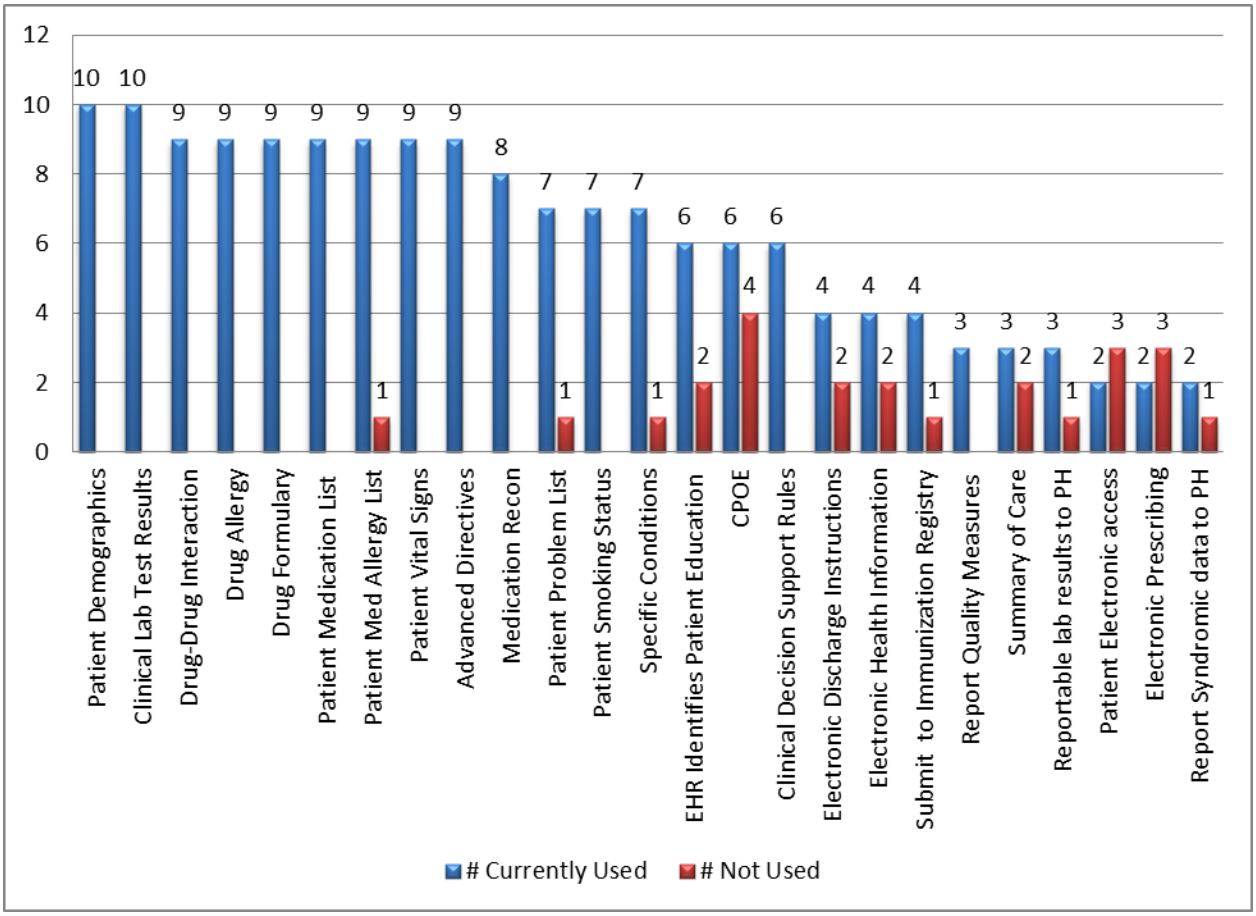
**Figure 2 - Survey Response to Meaningful Use Capabilities**

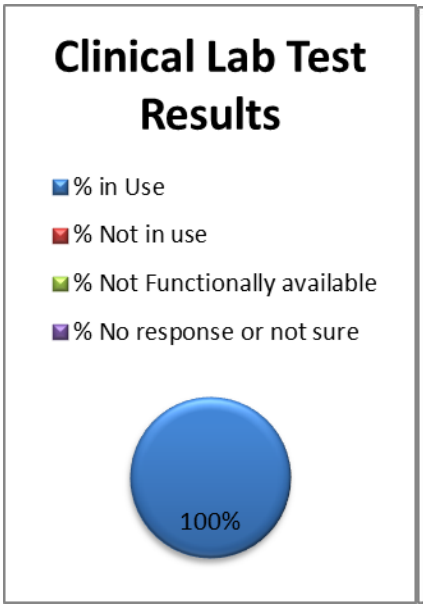


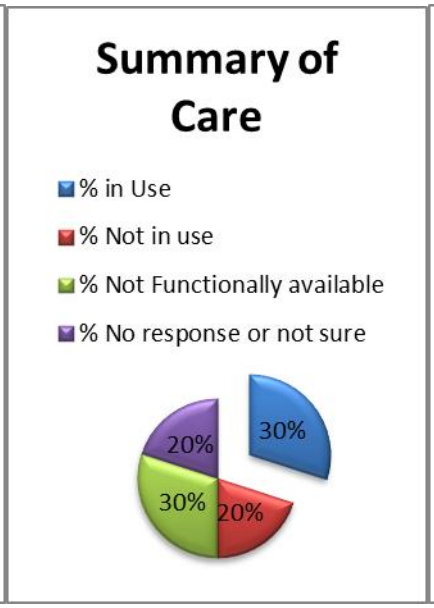




There was a second survey that included hospital meaningful use requirements. Of the 15 hospitals that were contacted directly to encourage their participation in the hospital survey, 12 responded to the survey. Of those hospitals that participating in the survey, 2 of the hospitals did not have an EHR. Of 10 of the hospitals that had an EHR, the below chart depicts the number of hospitals that currently have the capabilities to submit the listed meaningful use measurements.

**Figure 3 - Hospital Responses to Meaningful Use Capabilities**





## 2.3 Combined AEHRA and SDE Survey Results

Both the AEHRA and SDE surveys inquired about EHR usage. All other survey questions varied sufficiently that the results of the two surveys could not be combined in a meaningful way. Of the 440 respondents in the AEHRA survey 10 also participated in the SDE survey, as determined by cross-

referencing physical address and practice name information. Of the 727 unduplicated responses, 307 or 42 percentage reported having an EHR system. 49 percent of those with an EHR system practice in a rural versus urban setting.

# 3 Health Information Technology Landscape

Health information technology (HIT) is a broad concept that encompasses the use of electronic data and communication systems for compiling, maintaining and transmitting health information. In Alaska the term HIT is commonly used to refer to Health Information Exchange (HIE), Electronic Health Records (EHR), and related data collection, storage and management systems including information management systems. These data and information management systems are dependent on many of the same technologies as telemedicine/telehealth, which is the use of telecommunication technology to provide clinical and other health services when participants are at different locations. For this reason telemedicine/telehealth is under the umbrella definition of HIT.

Broad adoption of interoperable HIE/EHR systems is widely regarded to be an essential element of health reform in Alaska, necessary to support increased efficiency and effectiveness of healthcare and also to improve quality and patient safety. Alaska Department of Health and Social Services (DHSS), the Alaska eHealth Network (AeHN), and key healthcare stakeholders have been actively pursuing HIE, promoting EHRs and telehealth, and establishing electronic management information systems.

Telemedicine/telehealth has been used to improve access to healthcare in Alaska for decades, and continued development, deployment and modernization of technologies supporting distance delivery of care is essential to meeting the goals of improved access at a reasonable cost. Alaska is benefiting from early work in telemedicine/telehealth, as collaborative efforts to deploy and support use of telecommunication strategies for expanding access to healthcare in the state became the catalyst for projects and eventually whole new organizations now devoted to supporting adoption of EHRs and development of a statewide HIE.

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

There are many statewide HIT projects with funding sources from both private corporations and government entities. Perhaps the most robust effort to develop and implement health information technologies is the Alaska Federal Health Care Access Network (AFHCAN) telehealth system, which is expanding globally in both the private and public sectors. Locally, AFHCAN has established collaborative relationships through the Alaska Federal Health Care Partnership, which represents a composite of healthcare entities across the state, including partners from small, isolated rural health clinics, the Alaska Native Medical Center, the military hospitals in Anchorage and Fairbanks, and Veterans Administration clinical services in the Anchorage area. Relationships and partnering such as what the AFHCAN system has been able to accomplish will become increasingly essential as interoperable Electronic Medical Record (EMR) and HIE systems are developed.

Critical access hospitals, community health centers, and private practice physicians, as well as rural and urban medical centers are investing in a variety of EMR products from different vendors. While many of these systems function adequately for the individual healthcare systems that have implemented them, there continue to be significant barriers to interoperability between organizations. These barriers to interoperability can impede the flow of relevant medical information between consulting providers and ultimately result in a negative impact on patient care and safety, secondary to delays in access to

clinically relevant information. The lack of current information in the healthcare setting can cause delayed treatment, increased cost and even death. It is estimated that medical errors and drug-interactions account for approximately 100,000 deaths annually.

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

The AeHN, Alaska's representative for the Health Information Security and Privacy Collaboration (HISPC) project, has developed common policies for privacy and security that have been adopted as national models. Phase III is allowing other states to review the work started by Alaska and others to develop a national set of privacy and security documents, including inter-organizational agreements, confidentiality agreements and policies addressing each.

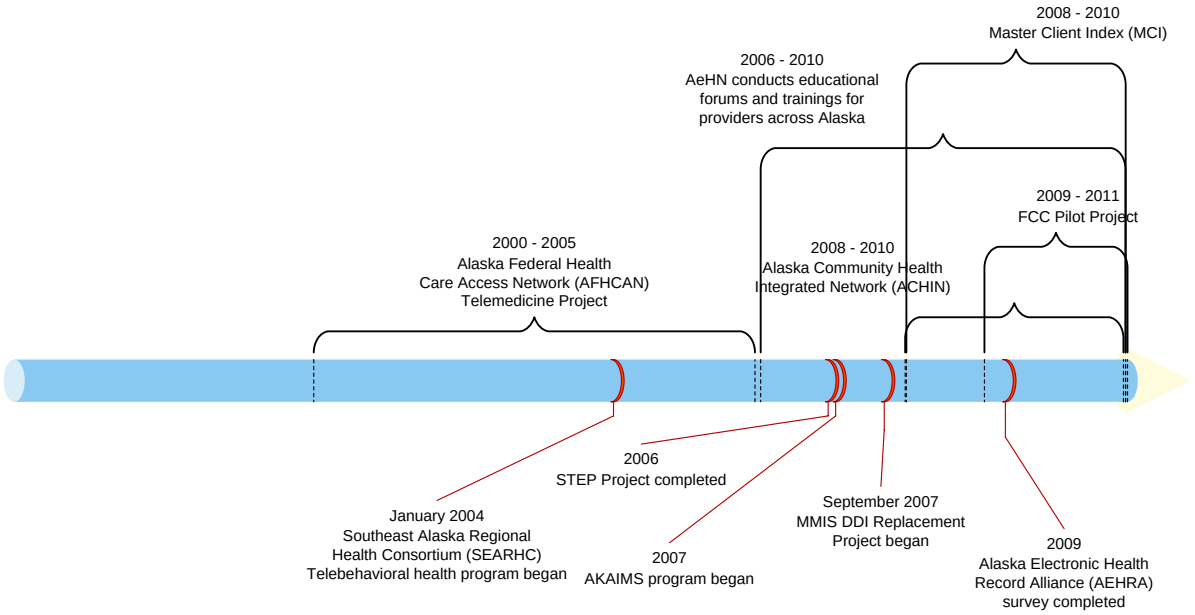
Non-billable services, such as videoconferencing, are being used to provide a variety of educational events such as patient teaching, continuing education for healthcare staff, and staff meetings to decrease travel to and from rural areas, which conserves resources and improves fiscal sustainability.

Tribal entities in rural Alaska are utilizing telemedicine capabilities extensively, and these efforts are dramatically improving both the overall access to healthcare providers and timeliness of services provided. The key regional hubs of the Yukon Kuskokwim Health Corporation (Bethel), Norton Sound Hospital (Nome), and Maniilaq Health Center (Kotzebue), as well as the Alaska Native Health Consortium are currently generating the majority of Medicaid billable telehealth events. Barriers to maximize reimbursement of appropriate care provided include complexities of billing process for rural providers, workforce issues including training and recurrent turnover, and the lack of enrollment of rural patients who otherwise meet qualification requirements for Medicaid services. Even with low reimbursement rates, telemedicine is generating significant cost savings in travel expenses while dramatically improving access, decreasing wait times with improved outcomes.

This section contains an overview of the HIT initiatives in Alaska and describes the HIT activities and resources available to the state and describes how the state is leveraging these existing initiatives, activities and resources already dedicated to HIT. The section details health information management systems currently in use by the state government that are related or may support HIE/EHR data and applications. A description of existing Medicaid resources devoted to HIT and how the state will leverage these resources in the most efficient and economical way to assist in implementation and operation of Provider Incentive Program and EHR health information exchange is provided in detail in the State Medicaid Health Information Technology Plan (SMHP). The approach used to develop the HIT landscape involved a combination of the following: research and interviews with HIT Governance, DHSS staff and key healthcare stakeholders; joint HIT and Medicaid vision session with HIT Governance and DHSS staff; Medicaid Information Technology Architecture (MITA) Self Assessment evaluation; analysis of existing and new survey data.

The following state and federal initiatives have been implemented in efforts to improve utilization of electronic health information in the management of healthcare needs in Alaska statewide.

**Figure 4 - HIT Projects**




## 3.1 Current HIT In State Initiatives

### 3.1.1 Alaska Community Health Integrated Network

In August 2008, a State of Alaska funding request[iii] was approved for a three year project to fund the initial phase of a project to build an integrated health information network across the state's Community Health Centers (CHC) for sharing of electronic health records. The Alaska Primary Care Association (APCA) has created the Alaska Community Health Integrated Network (ACHIN) project to implement health information technology resources that will serve safety net clinics across the state by building a Wide Area Network (WAN) to support centralized servers, software, videoconferencing, and telehealth applications. The health integrated network will initially include nine CHCs located throughout Alaska with expectations of other CHCs joining in the future.

Over half of the CHCs participating in the project are active. The initial cost to join is based on the number of providers at each facility due to software licensing fees. Nextgen Health Information Systems is the selected vendor for this EMR and Practice Management project. In terms of funding, individual CHCs and the APCA contributed $2,668,450, with the balance of $2,500,000 from the state of Alaska.

ACHIN is working closely with AeHN and will connect its partners to the AeHN HIE when it becomes available.

### 3.1.2 Alaska eHealth Network

Alaska eHealth Network's (AeHN) mission is to support clinical EMR adoption and to build a statewide network for exchange of the EHRs to improve efficiency and effectiveness of healthcare in Alaska by reducing medical errors, eliminating unnecessary and duplicative services (e.g., laboratory tests, prescription medications), automating follow-up and preventive interventions, and increasing the patient's involvement in care. A Personal Health Record (PHR) is part of the AeHN system and will provide a patient-centric approach to sharing and receiving medical records, which will allow patients to have access to their records in order to better understand and control their own health and healthcare.

Improving quality and reducing costs through shared electronic records (both personal and medical) are the foundation of Alaska's emerging health information exchange initiative.

### *3.1.2.1 Information Technology System / Infrastructure Management*

For the past four and one-half years AeHN has been working with providers across Alaska to develop and implement a statewide healthcare network for the purposes of HIE, telehealth, education and voice over IP. AeHN's predecessor organization Alaska Telehealth Advisory Council (ATAC) worked with providers across Alaska since 1996 developing governance strategies, and implementing and promoting telehealth. AeHN staff managed a Network Design Project to connect over 300 remote locations and managed the engineers responsible for the overall network. In addition, AeHN staff completed a detailed technical architecture design for HIE, completed a Request for Information (RFI) for HIE reviewing over 20 HIE vendors and have used the RFI process to inform and develop a Request for Proposal (RFP) for HIE. This groundwork eliminated many of the initial expenditures associated with HIE development; and all of the technical systems work performed to date by AeHN will become available as part of any contract with the State of Alaska.

### *3.1.2.2 Medical Practice Process Re-Engineering*

AeHN and its partner/subcontractor, Alaska Electronic Health Record Alliance (AEHRA), have worked closely for the last four years with providers across Alaska to develop a plan for EHR implementation and medical practice process re-engineering. An EHR selection process was completed with a large group of private practice providers and contract drafting for individual provider EHR purchase was recently completed following lengthy and substantial negotiations with individual EHR software vendors. These are negotiations that individual providers no longer have to face. The partners are now working on a loan package for small clinics and individual providers to assist providers with EHR adoption. As part of that work, AeHN applied for a Regional Extension Center (REC) grant with the Office of the National Coordinator (ONC) for Health IT which was approved and allows this work to be expanded.

### *3.1.2.3 Regional Extension Center*

On April 6th, the AeHN received $3,632,357, in ARRA funds from the ONC to establish one of the 60 nationwide health information technology regional extension centers (REC). The Alaska REC will provide technical assistance to eligible doctors and hospitals that select and implement EHR systems. The federal funding will allow AeHN to establish a HIT REC that will help Alaska's healthcare providers learn how to select and use EHRs, and obtain funding assistance for those who adopt EHR systems in coming years. The REC has started to engage and enroll 1,000 plus eligible providers for REC incentives over the next two years. AeHN enrollment is open to all providers and other participants and REC services are available to all, however, REC incentive funding is limited to eligible providers.

The SDE will collaborate with the REC to share information and ensure consistent messaging to providers. The REC plans to reach 1,000 primary care providers and hospitals in two years in an effort to achieve widespread meaningful use of HIT and to promote EHR utilization for every citizen by the year 2014.

### *3.1.2.4 Information Systems Training*

For the past four years, AeHN has partnered with other entities throughout Alaska holding educational forums and training for providers and their office staff in EHR technologies and information systems benefits. AeHN has coordinated with subcontractors to conduct outreach and promote EHRs to providers. AeHN staff and subcontractors have provided educational presentations at both state and national conferences on HIE, security and privacy, information systems solutions, and solutions using information systems technology to promote meaningful use of EHRs.

#### *3.1.2.5 Healthcare Policy Development Detail*

AeHN has worked actively at the national and state level to develop and promote healthcare policy changes. AeHN staff members have been requested to address congressional committees on Health IT policy, HIE, privacy and security, and rural healthcare telecommunications issues. AeHN policies, procedures and documents developed as part of the Health Information Security and Privacy Collaborative were utilized by the ONC in its rule making.

### 3.1.3 Alaska Electronic Health Record Alliance, Inc.

The Alaska Electronic Health Record Alliance (AEHRA) was organized in January of 2005 to support the development of affordable, interoperable electronic health records for non-public sector healthcare providers in Alaska. The Board of Directors consists of community members, physicians, and representatives from insurance companies, Premera Blue Cross and Aetna, and medical associations including the Alaska Physicians and Surgeons, the Alaska Chapter of the American College of Physicians, and the Alaska State Medical Association (ASMA).

The goals of the alliance are to assist physicians and mid-level providers in incorporating EHRs into their clinical practices by providing support, information, and resources. The ultimate vision includes developing an interoperable network of EHRs for providers in Alaska with the ability to connect to a nationwide, interoperable network. The network will tie together diverse practices, hospitals and decision support systems to improve clinical practices within the state of Alaska.

In order to facilitate achieving this goal, the AEHRA conducted a thorough selection process to choose a few EHR's that it would recommend to its constituents. The EHR selection process was funded by the AeHN through a grant from the State of Alaska. An eight –month evaluation process involving a 15-member statewide taskforce consisting of physicians and clinic managers, EHR vendors were evaluated based on their products, pricing, reputation and interoperability. Greenway and e-MDs were selected as the top EHR vendors.

These two vendor's products and services were deemed best-suited for Alaska's providers, with particular emphasis on those in the smaller 1 – 10 size clinics. The selection task force scored Greenway Medical Technologies and e-MDs the highest in the selection process based on a number of factors. Their recommendation was approved by AEHRA Board that then publicized the selection to Alaskan providers. The endorsed vendors scored well in the following areas:

- Affordability,
- e-Prescribing capability and functionality,
- CCHIT Certification,
- Top rankings in American Academy of Family Physicians and American College of Physicians Surveys and consistently high scores from vendor analyst, KLAS,
- Guarantee to interface with State HIE system, when selected,
- Inclusion of a practice management system,
- Small to mid-size practice specialty, and
- 93.3% satisfaction rating from Alaska physicians in 2009.

These two endorsed providers are offering Alaska providers access to preferred pricing and pre-negotiated contracts to simplify the EHR selection process. Some of the Alaska provider advantages include:

- 30% discount on software solution,

- 50% discount on hospital interfaces,
- Pre-negotiated contracts (reduced legal fees), and
- Access to EHR selection tools and ARRA info.

Since being selected by AEHRA, Greenway and e-MDs have entered into contracts with 16 provider organizations through September 2010 and continue to provide information to other providers about their solutions. On October 15, 2010 Greenway Medical Technologies[iv] PrimeSUITE 2011 was certified as a complete EHR by the Certification Commission for Health Information Technology.

AEHRA continues to work closely with the AeHN REC in communication, outreach and education activities for providers.

### 3.1.4 Alaska Telemedicine/Telehealth

AFHCAN Partnership's Telemedicine Project from 2000 to 2005 was a ground breaking telemedicine/telehealth initiative for the state. This $30 million project successfully deployed over 280 telemedicine workstations, telehealth software, and a wide area network to nearly all the federal and tribal healthcare facilities in Alaska. The project required network development, telemedicine software development, technology deployment, training, operating agreements, and sustainability planning.

The ATAC has partnered with the Alaska Native Tribal Health Consortium (ANTHC) Division of Information/Technology, the AFHCAN, the University of Alaska Anchorage, and the AEHRA to further electronic health information exchange in Alaska and to develop a statewide electronic information infrastructure. This is done by contributing to telehealth expansion, providing a statewide HIE organization structure, developing a private physician office pilot, using health information electronic exchange across State lines, and training in the use of this technology. The Continued Advancement of Telehealth Capacity in Alaska is supported by a grant from the Health Resources and Services Administration (HRSA), Office for the Advancement of Telehealth (OAT).

Goals of this effort include: the formation of an Alaska RHIO, AeHN; development of a functioning and interoperable EHR in 20 private clinical offices in Alaska; functioning telemedicine programs in three non-tribal federally sponsored CHCs with ten (10) specialty referral physician sites; operational telemedicine consultation between Alaska Native Medical Center (ANMC) and the Yakama Nation; and faculty from the Community Health Aide Program trained in the use of telemedicine for distant education tools. As part of the CHC expansion, new equipment will include AFHCAN Telemedicine Software, digital cameras, scanners, electro cardiograms, video otoscope, teleradiology equipment, videoconferencing units and dedicated telephone line connectivity, with variable bandwidth.

#### *3.1.4.1 The Summative Telemedicine Evaluation Project*

The ATAC has partnered with the University of Alaska to conduct a comprehensive evaluation of the AFHCAN, a 4-year project (1998-2002) funded through the OAT. Supplemental funding also supported an International Symposium on Telehealth, and development of policy recommendations and future plans. The Summative Telemedicine Evaluation Project (STEP) outcomes include assessment of provider attitudes, and shifts in attitudes and skills; changes in acceptance of telemedicine initiatives, and analysis of changes in rural Alaska telecommunications infrastructure and services. Policy recommendations were developed, and the International Symposium was sponsored and showcased telehealth evaluations around the world. The Summative Telemedicine Evaluation Project was completed in February 2006.

### *3.1.4.2 Alaska Psychiatric Institute TeleBehavioral Health Project*

The DHSS, ATAC, Alaska Mental Health Trust Authority, Tanana Chiefs Conference (Fairbanks), Ft. Yukon Health Center (Ft. Yukon), Edgar Nollner Health Center (Galena), Mt. Sanford Tribal Consortium (Chistochina), Dena'ina Clinic (Kenai), Alaska Native Tribal Healthcare Consortium, Norton Sound Regional Health Corporation (Nome), The Sunshine Community Health Center (Talkeetna), Central Peninsula General Hospital (Soldotna), and the Camai Health Clinic (Nanek) participated in this TeleBehavioral Health Project with the mission to create, promote, and maintain access to Behavioral Health services through advanced technology in rural and frontier Alaska.

Alaska Psychiatric Institute (API) has developed a Tele-Behavioral Healthcare Services (TBHS) program to: (1) provide behavioral health services via video-teleconferencing to remote areas not served by mental health professionals; (2) develop distance delivered psychoeducation to consumers and continuing education to caregivers in remote villages. Pilot sites have been in operation with the intent to expand the network. The expanded TeleBehavioral Health Network will reduce the need to transport consumers to hub facilities for standard outpatient behavioral health services.

### *3.1.4.3 Alaska Rural Telehealth Network*

The Alaska Rural Telehealth Network (ARTN) is a consortium of nine small, rural hospitals and two federally qualified health centers (FQHCs) that joined forces with the Alaska Small Hospital Performance Improvement Network (ASHPIN) in a fund-raising effort to design and implement a telehealth network to address their communities' unique clinical and educational needs[v].

The mission of the ARTN is to provide its members with access to modern telecommunications capabilities, and medical equipment and specialty physicians to provide a broader range of access to improved healthcare services for the communities and residents served by ARTN member facilities.

The ARTN is operational in 11 communities across Alaska. All sites have digital X-ray capability and most have digital mammography. The 11 sites are all connected and have remote access to a central server at the WAN core located in Anchorage. All telecommunications equipment has been updated to accommodate modern technology for each ARTN member facility. ARTN members receive managed video teleconferencing services coordinated by ASHPIN staff which allows them to participate in a myriad of distance education opportunities and participate in real-time meetings reducing the need for travel. The ARTN has completed the initial development and implementation phase and is entering into the full-usage capability stage.

### *3.1.4.4 Southeast Alaska Regional Health Consortium*

The Southeast Alaska Regional Health Consortium (SEARHC) Telebehavioral Health Program began providing confidential psychiatric, behavioral health and substance abuse services to patients in 10 remote communities in Southeast Alaska in 2004. The program's mission is to expand psychiatric and behavioral health services and related activities via live video conferencing to remote villages in order to provide high quality behavioral healthcare[vi].

The SEARHC Telebehavioral Health Program is providing psychiatric, mental health, and substance abuse treatment services using teleconferencing equipment to talk face-to face with a mental health clinician who is located at the main hub in Sitka or one of the partnering sites. The program is currently being used to provide an assortment of psychiatric services, including psychiatric assessments, medication evaluations, psychotropic medication refills, mental health assessment/evaluation and triage, mental health and substance abuse consultation, psychotherapy and counseling, prevention services,

treatment team review/treatment planning, clinical supervision, behavioral health education and training, and behavioral health administration activities.

### 3.1.5 Management Information Systems

There are many management information systems used in DHSS. All have the capability to support a data exchange process. For the past three years, the DHSS has utilized MultiVue to support the Master Client Index (MCI). The MCI started with four core systems being initially bulk loaded, matched and merged to produce a composite view of a person across all the participating source systems. The proven technology, lessons learned and expertise driven from MCI effort will be invaluable in establishing a Master Patient Index (MPI) and data exchange between the HIE and state management information systems. The section below provides a summary of management information system initiatives and activities.

#### *3.1.5.1 Medicaid Management Information System*

An electronic information management system the federal government requires all states maintain to process Medicaid claims and store and retrieve data needed to manage and audit the Medicaid program. Alaska's MMIS was implemented more than 20 years ago in 1987, and now new technology and federal requirements dictate the construction of a new automated claims processing system.

In September 2007 the department awarded a contract to Affiliated Computer Services (ACS) for a new Medicaid Management Information System (MMIS). The contract includes: design, development and implementation of a new claims payment system; a claims data warehouse information system; and operations of the new system for five years. The Division of Health Care Services (DHCS) administers the Medicaid program and has the vision to maintain access to healthcare and provide health coverage for Alaskans in need. ACS has the experience to fulfill this vision, combining the latest program innovations and technological advancements.

The new MMIS, known as Alaska Medicaid Health Enterprise, is scheduled to be implemented in spring 2012. The system will be available to providers and members who participate in the Medicaid programs as well as the fiscal agent and state staff. Alaska Medicaid Health Enterprise is a sophisticated, Web-enabled solution for administering all Medicaid programs. It will have self-service features so users can access the system through a user-friendly Web portal. This progressive MMIS system will incorporate innovative features and advancements that provide the foundation for future growth and evolution of HIT and Alaska's Medicaid program. A priority goal for the division is to transition to the new Alaska Medicaid Health Enterprise with minimum disruption to state employees, providers and members, while overcoming the challenges of provider enrollment and provider / member training.

The Alaska Medicaid Health Enterprise data warehouse / decision support system (DW/DSS) solution will allow DHSS to advance to a new generation of decision support and data management with the flexibility, scalability, and extensibility to support the Alaska MMIS into the future. The DW/DSS will be fully Web-based and utilize the Cognos Enterprise Business Intelligence Platform, the most advanced query and reporting solution on the market today. The DW/DSS architecture provides seamless integration with all data sources, providing a common platform for fiscal, administrative and clinical program analysis.

The Alaska DW/DSS will provide timely access to key program data like claims, provider, member, reference, third party liability (TPL) and prior authorization (PA). Also, at go live there will be interfaces with the following:

- Financial adjustments from Administrative Services,

- Expenditures, including those from ProShare and Revenue Sharing Agreements, from Administrative Services,
- Funding Sources from Administrative Services,
- Vital records data from Vital Statistics, and
- Provider licensing data from the Division of Occupational Licensing.

The MMIS is the repository for Medicaid claims, members and provider information. DHCS envisions making this data available to the HIE to support provider billing, member eligibility and provider participation inquires. Prescription drug formularies, benefit package coverage and payment status information could also be leveraged directly through secure HIE transactions. These are but a few of the benefits of HIE participation that will contribute to cost control, as well as improved outcomes and satisfaction by providers and members with the MMIS and Medicaid administration.

Additional features of the new MMIS include an interface to the NPI database, enhanced secure web-based provider enrollment, maintenance, communication and tracking that is available for provider self-service; as well as a provider portal available to support administration of the EHR Incentive Payment Program, with a Patient Portal available to support patient access to EHRs.

### *3.1.5.2 Resource and Patient Management System*

The Resource and Patient Management System (RPMS) is an information management system administered by the U.S. Indian Health Service (IHS) that includes clinical, business practice, and administrative information management applications and is in use in most healthcare facilities within the IHS delivery system. In addition to a number of organizations within the Alaska Tribal Health System, the Alaska Division of Public Health's Public Health Nursing Section uses RPMS as the EHR/HIE for the state's public health centers.

### *3.1.5.3 Division of Senior and Disabilities Services Data System*

The Division of Senior and Disabilities Services (DSDS) Data System (DS3) is a collection of components contained within a single web-based data system that was developed in-house by the DSDS in an effort to manage the many programs that it oversees. This system provides user interfaces, processing logic, and role-based data access, all of which allows division staff to conduct and oversee day-to-day program activities. While DS3 is used to manage Medicaid programs it is also used to manage Adult Protective Services investigations, state-funded general relief programs, and other grant-funded programs that fall outside the scope of Medicaid. DS3 integrates many independent client-tracking tools into one. At this time the future of this software application is under review. The DSDS and the MMIS project management office are currently conducting a gap analysis to determine how much of the required functionality will be housed within the new MMIS.

### *3.1.5.4 Alaska Automated Information Management System*

The Alaska Automated Information Management System (AKAIMS) is a free state government administered web-based management information system and clinical documentation tool for the state's behavioral health grantee providers. There are currently 92 active agencies (185 facilities, 629 programs) that is expected to reach approximately 150 in FY2010. Clients served, services provided, and AKAIMS transactions have steadily increased since 2007. Behavioral health grantee providers with their own clinical information systems are able to interface electronically to a data repository to allow compliance with state and federal reporting requirements. The web-based application and database serves the dual purpose of a management information system and an EMR.

As a management information system reporting tool, the system allows the Division of Behavioral Health (DBH) to meet current and emerging State and Federal reporting requirements, such as state Quarterly Reporting, Treatment Episode Data Set (TEDS), Government Performance and Results Act (GPRA), both Mental Health and Substance Abuse Block Grants and National Outcome Measurements (NOMs).

AKAIMS provides an agency the ability to create a full EMR compliant with the Health Insurance Portability and Accountability Act (HIPAA) and 42-CFR part II standards. Furthermore, the system gives providers a management tool which allows them to assess clients, administer facilities, manage waitlists, measure data completeness, and measure staff productivity and collect outcome data in real-time via a secure, web-based framework.

The DBH requires grantee providers who provide behavioral health services to report "core" data into AKAIMS for each active client. This "core" data includes the following: Alaska Screening Instrument, Client Intake and Profile, Client Status Review Data, Admission Data, Encounter Data and Discharge Data.

To ensure that the DBH meets its responsibility for reporting to the Alaska Legislature and Federal government (TEDS and NOMs), AKAIMS has the capability to: 1) report de-identified data at the client level; and, 2) identify changes in service or provider during the course of treatment. The Division is reliant on a unique client identification (UCI) number regardless of the agency or agencies providing services. To ensure that a true UCI is generated for the client a complex algorithm using the Mother's Maiden Name, Social Security Number, Date of Birth and Gender is used to create the UCI.

Use of AKAIMS as an EMR is an elective function of each grantee provider. If a provider elects to use AKAIMS in this manner, there are additional reporting requirements to ensure compliance with Medicaid standards of care. The required elements of the AKAIMS as a "management information system reporting tool", are identified with a certain color coding. Additional required elements of AKAIMS as a "clinical documentation tool" are also color coded.

Often comparisons are made between the required data from AKAIMS, and that of other states. There are several things to consider.

- The AKAIMS is one of very few MIS systems nationally that is "integrated", i.e. collection of Substance Abuse and Mental Health required data. Data entry is guided only to those required data elements to a particular client profile.
- The option of either fulfilling the reporting requirements of the AKAIMS as a "MIS reporting tool" and "electronic medical record" will determine an additional level of data required of a provider.

Expanded user groups of AKAIMS include: DBH grantee providers of substance abuse and mental health services, Office of Children Services (OCS) Behavioral Rehabilitation Services (BRS) residential service providers, Therapeutic Court, Grantee providers of Department of Corrections (DOC) substance abuse services, and Fetal Alcohol Spectrum Disorder (FASD) Diagnostic Teams (pending)

Expanded functionality includes:

- **FASD Module:** provides a data based used by the statewide FASD Diagnostic Teams (status: production completed; training schedule is being developed),
- **Billing Module:** provides a billing mechanism to providers that are integrated into the clinical record. (status: production completed; scheduled for roll out fall 2010),

- **Therapeutic Court Module:** as clients are processed through the therapeutic court system, this module will interface with the AKAIMS to enhance treatment referral and tracking for successful outcomes. (status: the module is being piloted in two locations),
- **Emergency Services Module**: provides a method to manage a high risk population, and capture the delivery of emergency services statewide. (status: in production),
- **SQL Server Report Services (SSRS) Reporting Module:** the AKAIMS Report Manager, with a full range of established reports that an agency can gain immediate access, and generate reporting online, with access to real time data. (status: implemented),
- **Contracts Management Module:** provides a mechanism to link flexible contract funds (ex. ISA $) to individual client treatment plans and outcomes, with billing and adjudication of invoices. (status: implemented), and
- **API interface**: This interface allows API to use the AKAIMS referral process to expedite discharging clients to access services in their local communities. (status: in production).

### *3.1.5.5 Alaska Public Health Systems*

Several public health monitoring and population health protection systems including disease tracking, biosurveillance and epidemiological investigations, and immunization monitoring are governmental public health functions supported by information management systems. Systems currently in use by the Division of Public Health in DHSS include AK-STARS (infectious disease reporting system and database), VacTrAK (vaccine registry), the Alaska Cancer Registry, the Alaska Birth Defects Registry, and the Alaska Trauma Registry. AK Public Health Vital statistics does not currently have electronic transfer capability. An RFP is under development to procure a new vital statistics system that could include an HIE interface. It may be several years before the new system capabilities will be available.

VacTrAK is a confidential, web-based system to maintain immunization information for all Alaskans. Some key features of the VacTrAK system are:

- Obtain *consolidated* immunization records for patients,
- Reduce staff time spent tracking down records,
- Forecast future immunizations,
- Improve the accuracy of immunization data,
- Generate automated reminder/recall notices for patients,
- Produce official immunization records to meet school & childcare facility requirements, and
- Assess immunization completion rates by facility.

Features planned in future enhancements to VacTrAK include:

- Electronically order vaccine,
- Manage vaccine inventory, and
- Submit state-required reports.

A contract was established with Indian Health Service's software vendor to enable data exchange between VacTrAK and RPMS. Continued testing has occurred to establish an option for bidirectional electronic data exchange with RPMS providers.

For clinics with existing electronic systems, VacTrAK support can set up a data exchange process that sends batch data directly to VacTrAK from an electronic medical record or from a practice management system. VacTrAK can accept a broad range of flat text files and HL7 messages. This feature positions the VacTrAK system to leverage the HIE when available.

#### *3.1.5.6 Primary Care Information Management System*

The Primary Care Management Information System (PCMIS) is a database that contains critical information managed by the Alaska Primary Care Office and other programs within DHSS. The PCMIS also supports the Directory of Health Care Sites in Alaska (http://www.hss.state.ak.us/directoryhealthcare/default.htm) as well as data describing services and staffing that is used to identify various primary care organizations and roles. As an example, PCMIS is used by Emergency Medical Service (EMS) staff to identify first responder agencies as well as grant information and tracking of purchases of emergency vehicles and equipment.

Recently, a web-based tool (AK COMMS) has been developed by the Emergency Medical Services Unit that will allow information in PCMIS to be updated. Ideally, a system like AK COMMS will replace PCMIS to provide web enabled functionality that will support online data entry and reporting system, access to the public to find services and contact information and provide a linkage between primary care agencies and facilities across the state to work in a more coordinated manner.

### 3.1.6 Master Client Index

The DHSS Master Client Index (MCI) is a match and merge system that is made up of a variety of case management demographics operated by programs within DHSS. The software, purchased from Visionware, determines who individuals are, performs de-duplication of clients from a variety of systems and helps determine individuals and families even if their name or address in not necessarily identical. This is done by ranking matches based on a variety of business rules. Individuals that might be a match but that cannot be determined without human intervention are manually resolved by a staff person.

For the past three years, the DHSS has utilized MultiVue to support the MCI. The MCI started with four core systems being initially 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).

PFD was designated the most trusted data source, and has been configured as the preferred demographic for display purposes. Since then a further 3 systems have been drip fed into the MCI using the BizTalk integration solution. Those systems are: RPMS, DS3 and AKAIMS.

DHSS has identified that the existing MCI could serve as the master demographic view on future HSS projects, namely HIE and EHR. In order to support the requirements of DHSS in relation to the HIE and EHR projects, and maximize the State's investment in the MultiVue software, the existing MCI will be further enhanced by the addition of 3 new data sources:

1. VACTRAK
2. Vital Stats
3. MMIS

Recently, a simple web application was developed to determine individuals who are or who once received services from any one of the DHSS programs in the index. Future MCI enhancements include developing reverse lookup capability from the MCI to the source systems that will gather additional data as needed such as case management contact information and the office or agency that is providing services.

Demographic Data will be extracted from these 3 new source systems and trickle fed into the existing MCI via BizTalk. By adding the above systems into the existing MCI, DHSS will then be able to get the best view of a client across all participating systems. This best view of a client along with the unique back office identifiers will help enable DHSS to produce an EHR. The combination of the existing MCI and BizTalk will enable DHSS to produce the EHR automatically with seamless integration to the back office systems.

## 3.2 Current HIT Federal Initiatives

### 3.2.1 Department of Defense / Veteran's Administration in Alaska

The Veterans Administration has used EHR technology for more than seven years. In 2003, the Veteran Health Administration (VHA) was the largest single medical system in the United States, providing care to over 4 million veterans, employing 180,000 medical personnel and operating 163 hospitals, over 800 clinics, and 135 nursing homes. About a quarter of the nation's population is potentially eligible for VA benefits and services because they are veterans, family members, or survivors of veterans. In response to this significant demand the VA has developed VistA the largely internal EHR to be an open-source, highly integrated, and interoperable EHR system.

The system includes remote viewing of patient medical records and system alerts for routine screening, and critical care information. In addition, the VA has developed, a patient centered tool "HealtheVet" that has been implemented and is expanding to include more features to allow veterans to have secured messaging access to medical professionals, request prescription refills online and schedule appointments and view medical records. The Veterans Administration has also developed VistA Imaging, an FDA-approved coordinated image management system for communicating with electronic picture archiving and communication systems (PACS) and for integrating others types of image-based information, such as EKGs, pathology slides, and scanned documents, into the VistA electronic medical records system.

These systems are deployed in 5 clinics in Alaska serving approximately 26,000 enrolled members accounting for over 15,000 visits in 2009.

The Department of Defense (DOD) has its own EHR deployed in Alaska. The 673d Medical Group is a DOD/VA Joint Venture medical facility located in Anchorage at the Elmendorf Air Force base (Joint Base Elmendorf Richardson) with 60 inpatient beds. DOD and VA are working to be able to share a Virtual Lifetime Electronic Record (VLER) that includes limited information and is currently difficult to obtain. Opportunities to improve this situation exist both in Alaska and across the nation.

A key barrier for the VA and DOD to HIE participation was noted in a report mandated by the Affordable Care Act (Section 5104) submitted to Congress September 2010. "There is a need for improvements in health information technology, building on a long history of innovation and practice that sets the IHS (and ANTHC), VA, Department of Homeland Security (US Coast Guard) and DOD in Alaska apart as leaders in telemedicine. However, the interconnectivity necessary for coordination of care through electronic health information exchange is lacking. Historically, Federal agencies have not had coordinated mechanisms for paying for participation in integrated health information systems nor have they developed clear policies that will permit participation."[vii]

The VA and DOD participate in the AeHN HIE project, serving on its governance board and providing staff resources for workgroups. Alaska has been closely monitoring the NHIN activities and has volunteered to participate in NHIN trials as part of the HIE build out.

### 3.2.2 Alaska Federal Health Care Access Network

The Alaska Federal Health Care Access Network (AFHCAN) began as an initiative of the Alaska Federal Health Care Partnership (AFHCP). The "Partnership" is a unique collaboration of federal agencies that has been in existence since 1994. The AFHCP has brought together the VA, DOD, Department of Homeland Security (U.S. Coast Guard–USCG), Indian Health Service (IHS), and the ANTHC for the purpose of providing healthcare to over 300,000 federal beneficiaries in Alaska.

AFHCAN is a telehealth system composed of 248 sites across the state. Initially focused on store-and-forward telehealth solutions, AFHCAN has recently expanded into broadband video conferencing telehealth solutions. A total of 44 federal beneficiary organizations participate in the network, including Native and tribal groups, veteran and military providers, and the state of Alaska. Operationally, AFHCAN has 12,000 cases annually, serves 44 organizations including 37 Tribal organizations and over 40 other state and federal facilities. AFHCAN serves more than 700 healthcare providers and each year, approximately $3.5 million is saved for patient travel by using telehealth for remote consultation. AFHCAN is now managed as a department within the Division of Health and Information Technology at the ANTHC, a tribal organization.

### 3.2.3 Alaska Federal Health Care Partnership Project

The Alaska Federal Health Care Partnership (AFHCP) project $500,000 contract provided an opportunity to work closely with Federal Agencies identifying issues connecting Federal partners to the proposed HIE. This contract provided funds to prepare a strategic business plan and begin a communication and outreach effort for EHR and HIE across Alaska. Outcomes from this contract included; healthcare process mapping, HIT strategies, HIE technical planning, architecture and design and EHR promotion strategies. AeHN staff were responsible for securing the funds, facilitating collaboration among Federal agencies, writing the strategic business plan, hiring subcontractors and interfacing with IT staff of Federal Healthcare entities. Fiscal management included: developing budgets, providing oral and written financial reports to key federal healthcare executives serving 240,000 beneficiaries in Alaska.

### 3.2.4 Health Resources and Services Administration HIE Planning Grant

The Health Resources and Services Administration (HRSA) $100,000 HIE planning grant allowed AeHN to bring healthcare stakeholders together from throughout Alaska to plan statewide implementation of interoperable EHRs and HIE. Technical, Legal, and Clinical workgroups with broad stakeholder representation convened to advise AeHN on healthcare entity requirements for HIE. Outcomes from this project included development of an HIE Business Plan and a market analysis of Alaska's EHR and HIE environment. AeHN personnel were responsible for identifying and recruiting the stakeholders, convening the workgroups, compiling the reports, and disseminating the findings on the web. Financial management included: preparation of the budget, monitoring the grant expenditures, interim and final reports.

### 3.2.5 Health Information Security and Privacy Collaboration

The Health Information Security and Privacy Collaboration (HISPC) project is a component of the United States Department of Health and Human Services' strategy to identify variations in privacy and security practices and laws affecting electronic clinical HIE, develop best practices, and propose solutions to address identified challenges, and increase expertise about health information privacy and security protection in communities. The outcomes of the project included legal solutions for HIE, recommendations for legislation for the development of safe harbors from fraud and abuse liability for providers and patients, the development of standardized policies, procedures, participant agreements, provider agreements, data use agreements, and a marketing/communications plan. Also see section 5.6.

### 3.2.6 United States Department of Agriculture Community Connection

The Community Connect program, sponsored by the United States Department of Agriculture (USDA) provides grants to establish broadband service in rural communities. The grants may be used to deploy broadband transmission service to residents, businesses and critical community facilities such as police and first responders. They also may be used to construct and operate community centers that provide free broadband access to community residents. USDA Rural Development funding of $1,000,000 was awarded to Copper Valley Telephone Coop., Inc. to provide broadband services to Tatitlek, Alaska.

Tatitlek is a traditional Alutiiq coastal village, with 96 percent of the population being Alaska Native. The Chugachmiut federally qualified health center (FQHC) and community center in Tatitlek will receive free high-speed Internet access for two years under this program. A microwave technology broadband system has been developed replacing the current satellite technology that was used and will result in a more cost-efficient and greater bandwidth capability for the Chugachmiut Clinic and the Tatitlek Community Center.

### 3.2.7 Federal Communications Commission Pilot Project

The Federal Communications Commission Pilot Project (FCC) contract was filed by the ANTHC on behalf of the AeHN. A three-year, $10.4 million contract was awarded. The objective of the FCC contract is to unify separate electronic healthcare networks that are being developed throughout the state to supply rural health providers with connectivity to urban referral providers both in Alaska and in the Lower 48. This coordinated network will facilitate the exchange of critical health information between health providers. It will also support telemedicine/telehealth services, distance education, as well as video conferencing and Voice Over Internet Protocol (VoIP) applications.

The FCC contract is currently midway through the second year of a three-year contract. The project has successfully completed the design phase and is moving into the implementation phase. AeHN staff managed open collaborative discussions with IT personnel from healthcare facilities across the state to design a network architecture leveraging existing infrastructure. The new network builds on existing technology to find ever greater cost efficiencies. Fiscal management included: contracts with telecommunication companies, health IT solution vendors, and the FCC.

Funding through this source of revenue requires a 15-percent match for each year of the contract. The ANTHC has submitted a proposal for 2008 that includes funding for 231 facilities statewide. A contract was established with GCI Connect M.D. to design an infrastructure under Phase I which was completed in October 2009. Phase 2 of the project is to procure and deploy equipment for the implementation of the statewide infrastructure. Phase 2 efforts began September 2010. GCI Connect M.D. has begun to assess current statewide capabilities and usage levels of health information technologies as one of the primary efforts in fulfilling this contract. $10 million in participant equipment funding is being distributed over the remainder of the contract term scheduled to end in 2014.

### 3.2.8 Universal Services Administration Company / Universal Services Fund

The Universal Service Administrative Company (USAC) is an independent, not-for-profit corporation designated as the administrator of the federal Universal Service Fund (USF) by the Federal Communications Commission. The USF helps provide communities across the country with affordable telecommunications services through four programs that include the High Cost Program, Low-Income Program, Rural Health Care Program, and the Schools and Libraries Program[viii].

The High Cost Program[ix] ensures that consumers in all regions of the nation have access to and pay rates for telecommunications services that are reasonably comparable to those services provided and rates paid in urban areas. The Low Income Program[x] is designed to ensure that quality telecommunications services are available to low-income customers at just, reasonable, and affordable rates. The Rural Health Care Program[xi] is designed to provide reduced rates to rural healthcare providers (HCPs) for telecommunications services and Internet access charges related to the use of telemedicine and telehealth. The Schools and Libraries Program[xii] commonly known as the "E-Rate Program," provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access.

All telecommunications carriers that provide service internationally and between states pay contributions into the USF. USAC makes payments from this central fund to support each of the four programs. Consumers are often charged a "Universal Service" line item on their telephone bills. This occurs when a telephone company chooses to recover its contributions directly from its customers through a line-item charge on telephone bills. The FCC does not require this method of recovery; rather, each telephone company makes a business decision about whether to directly assess its customers to recover its USF costs[xiii].

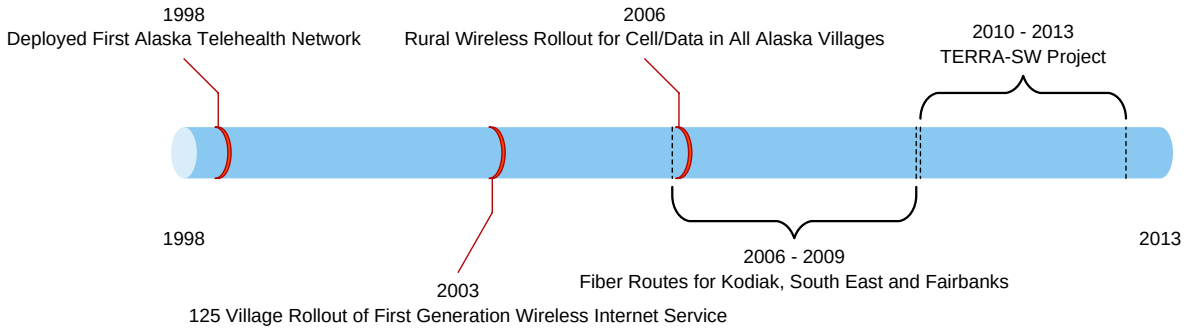
Health Planning and Systems Development section staff members have been working with health facility organizations in rural communities to insure that they are aware of the program and application deadlines. Currently, the use of USF funds to support public health nursing facility connectivity in rural communities is being investigated.

AeHN and its partners are closely coordinating the activities of the Rural Health Care Pilot Project with the Universal Services Fund to ensure sustainability of the completed healthcare infrastructure, particularly as related to rural healthcare facilities throughout the state.

### 3.2.9 Broadband

Significant progress has been made in rural Alaska broadband development. Since the mid 90's when GCI began their first Demand Assigned Multiple Access (DAMA) deployments they have made considerable strides to increase available services to rural users.

**Figure 5 - TERRA Project**



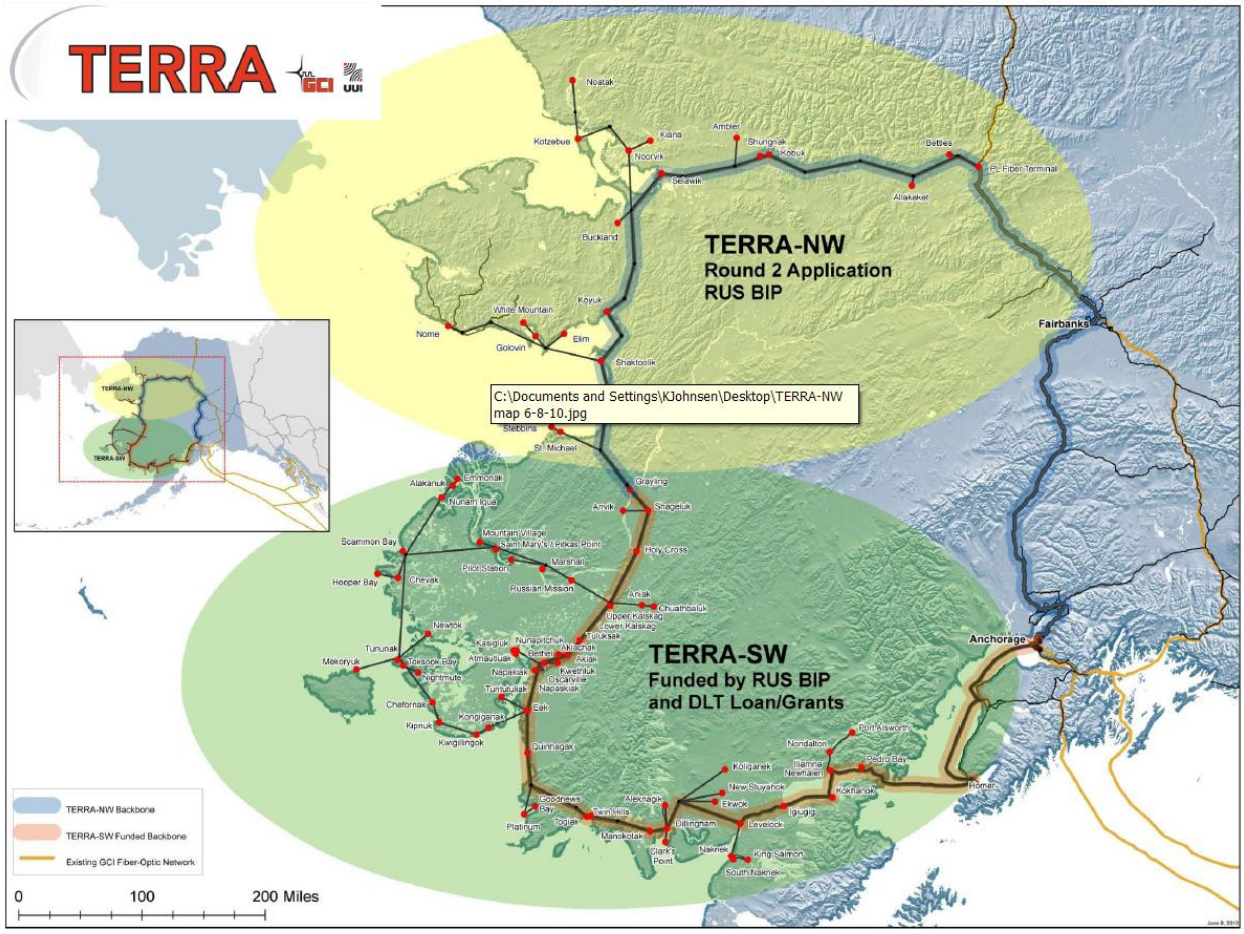

In January of 2010, the U.S Department of Agriculture's Rural Utilities Services ("RUS") awarded $88 million in federal broadband stimulus funding to GCI[xiv]. The loan/grant will extend terrestrial broadband service for the first time to Bristol Bay and the Yukon-Kuskokwim Delta, an area roughly the size of the state of North Dakota. Completion of the Terrestrial for Every Region of Rural Alaska (TERRA) project consists of two distinct efforts.

1. **TERRA-Southwest** ("TERRA-SW") Project, will serve 9,089 households and 748 businesses in 65 covered communities[xv]. A key benefit of the project is that it will serve public/non-profit/private community anchor institutions and entities, such as regional healthcare providers. The project provides an upgrade in capacity of the existing broadband regional microwave network, deployment of a broadband fiber optic/microwave regional network extending broadband services and will link Bristol Bay to the internet backbone in Anchorage. GCI is also in the process of constructing Alaska's first truly statewide mobile wireless network, which will seamlessly link urban and rural Alaska for the first time in the state's history.
2. **TERRA-Northwest** ("TERRA-NW") when funded, the project will deliver end-to-end middle mile terrestrial broadband service, for the first time, from the Internet backbone in Anchorage to the Norton Sound and Kotzebue regions (the PFSAs), some of the most remote and economically

and socially disadvantaged rural regions of the United States. The Project will dramatically expand communications options for all residential and commercial end-users; support private/public economic development efforts; improve crucial telemedicine and distance learning services; and enhance the operations of government, tribal, and non-profit entities. United Utilities, has applied for $108,213,247 in grant funding and an additional $46,377,107 in loan funding. Award of the grant and loan request for the Broadband Initiatives Program is anticipated to be announced in October 2010.

More information on the TERRA project can be found on the GCI website http://terra.gci.com/home

**Figure 6 - TERRA Map**




Source: Commonwealth North Forum: Broadband Alaska, Connecting Alaska, http://terra.gci.com/news-and-announcements/commonwealth-north-broadband-forum June 2010

# 4 Health Information Exchange Development and Adoption

The unique challenges of dispersion of a small number of people over such a large area, combined with a sparsely distributed medical community, physical barriers to communication and a large number of healthcare players create significant disparities in the delivery of healthcare in Alaska. Due to these disparities, there is a critical need for improved communications among healthcare providers through Health Information Exchange (HIE) in Alaska in order to speed up healthcare access and provide efficiencies. The implementation of a secure statewide HIE will help overcome the physical and organizational barriers that limit Alaska's medical resources.

In response to the special challenges associated with being the largest state with the smallest and most culturally diverse population, Alaska has proven its ability to coordinate native, public, and private resources for national leadership in improving the health of its population by enhancing access to health services (e.g., telemedicine). Forming an Alaska HIE is the next step toward maintaining Alaska's national leadership in population health by reducing costs and ensuring quality.

Alaska eHealth Network (AeHN), as the nonprofit governing board, in collaboration with the State Designated Entity (SDE) and State Health Information Technology (HIT) Coordinator will promote widespread access to a statewide health information 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. The mission will be to improve the safety, cost effectiveness, and quality of healthcare in Alaska through promotion and facilitation of widespread implementation and use of secure and confidential electronic clinical information systems, including electronic health records, medical decision support, clinical data exchange capabilities, and reimbursement and other financial mechanisms.

The Alaska HIE will be a carefully planned statewide solution to address our national problem of high spending and low returns on healthcare. AeHN goals and services include HIE core services (master patient index, record locator service, messaging, audit and personal health record) and EHR practice services (readiness assessments & selection, work flow design / redesign, implementation support, outreach / education and IT support).

AeHN, under the guidance of the SDE and State HIT Coordinator, will use the funds from the State HIE Cooperative Agreement Program to fulfill federal requirements and meet the intent of Alaska Senate Bill 133 (SB 133) to create a secure electronic health information exchange system that:

- ensures that the confidentiality of individually indentifying health information of a patient is secure and protected,
- improves healthcare quality, reduces medical errors, increases the efficiency of care, and advances the delivery of appropriate, evidence-based healthcare services,
- promotes wellness, disease prevention, and management of chronic illnesses by increasing the availability and transparency of information related to the healthcare needs of an individual for the benefit of the individual,
- ensures that appropriate information needed to make medical decisions is available in a usable form at the time and in the location that the medical service is provided,
- produces greater value for healthcare expenditures by reducing healthcare costs that result from inefficiency, medical errors, inappropriate care, and incomplete information,
- promotes a more effective marketplace, greater competition, greater systems analysis, increased choice, enhanced quality, and improved outcomes in healthcare services, and
- Improves the coordination of information and the provision of healthcare services through an effective infrastructure for the secure and authorized exchange and use of healthcare information.

The State of Alaska, Department of Health and Social Services (DHSS) and all Alaskans will derive benefits through the HIE initiative via the following goals:

1. Improve security - increase patient privacy & security in exchanging medical records due to increased Health Insurance Portability and Accountability Act (HIPAA) compliance.
2. Improve efficiency - reduction of duplicate, unnecessary testing & procedures, improve monitoring & education of chronically ill patients to reduce or prevent unnecessary clinic/hospital visits, and reduce health agency administrative costs due to quick access to back-up documentation for insurance claim inquiries, audits, and malpractice allegations.
3. Better case management - improve patient outcomes due to timely intervention, access to patient health information, and seamless patient referrals to specialists or other clinicians.
4. Greater patient/provider satisfaction - standardize level of quality expert care irrespective of where patients reside in Alaska and when they need healthcare.
5. Enhance rapid response to public health emergencies.

## 4.1 Alaska HIE Adoption

AeHN has coordinated an effort to develop HIE product requirements, write a Request for Proposal (RFP), evaluate responses and select an HIE vendor for the state. AeHN published the RFP in May 2010. Nine proposals were reviewed and four vendors were selected for vendor proof of concept demonstrations. Vendor proof of concept demonstrations were held late August and vendor selection is expected to occur in October 2010.

Alaska has achieved broad participation in the development of health information technology strategy, legislation and implementation of solutions. The table below contains a listing of participants in the development of the HIE RFP and participation in the evaluation of proposals as well as vendor proof of concept demonstrations

**Table 2 - Alaska HIT Participants**

| Alaska HIT Participants | | |
|---|---|---|
| Alaska AARP | Central Peninsula Hospital | Providence Health & Services Alaska |
| Alaska Area Native Health Service | Cordova Community Medical Center | Providence Kodiak Island Medical Ctr |
| Alaska Ear, Nose and Throat | Department of Defense, Air Force | Providence Seward Hospital |
| Alaska EHR Alliance | Department of Defense, Army | Providence Valdez Medical Center |
| Alaska Federal Health Care Access Network | Eastern Aleutian Tribes | Samuel Simmonds Memorial Hospital |
| Alaska Federal Health Care Partnership | Fairbanks Memorial Hospital | Sitka Community Hospital |
| Alaska Native Medical Center | Hope Community Resources | South Peninsula Hospital |
| Alaska Native Tribal Health Consortium | IHS Alaska Area Office | Southcentral Foundation |
| Alaska Native Tribal Health Consortium | Ketchikan General Hospital | Southeast Alaska Regional Health Center |
| Alaska Primary Care Association | Ketchikan Indian Community Tribal Health Center | State of Alaska, DHSS |
| Alaska Primary Care | Kodiak Area Native Association | State of Alaska, Division of |

| Alaska HIT Participants | | |
|---|---|---|
| Association | | Public Health |
| Alaska Psychiatric Institute | Maniilaq Health Center | Tanana Chiefs Conference |
| Alaska State Hospital and Nursing Home Association | Mat-Su Regional Medical Center | Transportation Service Administration, Coast Guard |
| Alaska VA Healthcare System | Mt. Edgecumbe Hospital | University of Alaska |
| Anchorage Pediatrics, LLC | Norton Sound Regional Hospital | VA Healthcare System |
| Bartlett Regional Hospital | Peninsula Internal Medicine | Wrangell Medical Center |
| Bristol Bay Area Health Center | Petersburg Medical Center | Yukon-Kuskokwim Health Center |
| Central Peninsula General Hospital | Premera Blue Cross/Blue Shield | |

The selected software vendor must have the capability to perform HIE throughout Alaska and to allow for connections to the Nationwide Health Information Network (NHIN) and other community/regional HIE's Federal NHIN Connect, and to the State of Alaska Medicaid Management Information System (MMIS). The vision for HIE system includes the following characteristics:

- Meet all Privacy and Security needs,
- Be able to exchange data with healthcare partners (inherently or via a functional intermediary),
- Utilize a hybrid, federated model for HIE (Providers own their own data),
- Provide access to patient information,
- Provide capability for public health reporting and member repositories,
- Provide capability for reporting from public health repositories,
- Adhere to current national data exchange standards,
- Be easy to use and administer, and
- Provide the best functionality at the lowest ten-year total cost of ownership and fall within determined budgets.

Core HIE services are intended to provide the primary infrastructure which supports (in priority order):

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 AeHN members to search for a specific patient's records at another facility commensurate with appropriate patient and other required approvals or the ability to utilize the integrated State VisionWare MultiVue MPI.
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 SB 133 requires an opt-out default). The HIE can push and pull data. The system must support any Federal HIE standards as released.
3. An audit trail which ensures all HIE 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 and authorized uses which do not have an EHR that can provide this service. Patient information summary application will be based on the Continuity of Care Document (CCD) which presents combined and/or juxtaposed information from one or more source of patient information.
6. Secure Data Repositories which will allow AeHN members 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 AeHN 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.

A system is desired that will function in the following manner when fully installed:

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 s/he finds an interesting lab trend and incorporates the data into their Electronic Medical Record (EMR) so s/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.
5. If the patient travels to another state and sees a care provider, the information in Alaska's HIE is available through the NHIN to the other provider.
6. The clinical information is kept by the originating entity or on edge servers or proxies and made available through the HIE; selected information may be kept by the HIE (hybrid federated model); structured data may be incorporated into the requesting Electronic Health Record (EHR) at the discretion of the requesting EHR.
7. Support Meaningful Use.

The initial phase of the implementation must include, at a minimum, the first 4 services listed above and be operational by October, 2011.

Evaluation criteria for HIE vendor selection includes:

1. Alignment of Vendor with AeHN's vision/ direction - The vendor and their product vision must be in line with the established vision and direction of AeHN as stated above for functionality.
2. Vendor/ Product Direction - The vendor and product direction must provide a solution which provides state-of-the-art HIE functionality and which will support technology needs for the next 10 to 20 years as standards evolve and integration capabilities change.
3. Vendor Viability - seek a relationship with vendor that is viable, stable and committed to the HIE marketplace.
4. Functional Depth - require a product that is highly functional and fully integrated with minimum subcontractors required.
5. Support and Maintenance - It is important to work with an organization which focuses on delivering the highest quality of client support, both at the time of implementation as well as for on-going support.
6. Technical Considerations - strategy is to select a vendor who provides demonstrated capability in a secure, modular, flexible, configurable manner.
7. Costs - All systems costs, both initial investment and recurring costs, are important in the evaluation of proposed systems. The total system implementation costs will be calculated as well as the cost of ten years of operational costs.

AeHN is ready to immediately begin work with SDE to develop and implement comprehensive business and technical HIE plans for Alaska. In addition to the necessary project management skills and relationships with statewide stakeholders, AeHN has a complete professional office equipped with hardware and office software licenses to perform the daily operations of the HIE and to meet the schedule set out in the RFP.

AeHN is appropriately resourced to begin rapid HIE deployment. As the HIE infrastructure grows, AeHN will rapidly add capacity to meet needs rather than build a large organizational structure early in the project. The use of subcontractors at the start of the project allows the HIE infrastructure to be mobilized quickly to easily meet the schedule set out in the RFP with the highest quality, focused resources. This approach for right-sized, rapid deployment provides AeHN with a comprehensive solution for the DHSS objectives with a streamlined organization.

In summary, the State HIE will be designed to improve efficiency and effectiveness of healthcare in Alaska. Patient-controlled information will be accessible when and where it is needed most—complementing Alaska's national leadership in access with comparable accomplishments in cost and quality.

## 4.2 Alaska HIE Coordination

The SDE, State HIT Coordinator and AeHN have the passion to improve healthcare in Alaska, the necessary breadth of experience in healthcare quality and technology implementation, commitment to ensure interoperability by collaboration with appropriate HIE entities, and demonstrated ability to engage and secure appropriate healthcare industry leadership, along with a proven track record of securing funds for HIE-development. State of Alaska, Department of Health and Social Services and Alaskans will derive benefits through the following goals:

- Improved patient access to medical care, improved patient safety, increased patient privacy & security in exchanging medical records due to increased HIPAA compliance, improved patient outcomes due to timely intervention and access to patient health information (EHR), reduction of duplicate, unnecessary testing and procedures, improved monitoring and education of chronically ill patients to reduce or prevent unnecessary clinic/hospital visits, and greater patient/provider satisfaction,
- Better case management, seamless patient referrals to specialists or other clinicians and improved coordination of patient care, reduced health agency administrative costs due to quick access to back-up documentation for insurance claim inquiries, audits, and malpractice allegations, and enhanced rapid response to public health emergencies, and
- Overall, standardized level of improved quality expert care irrespective of where patients reside in Alaska and when they need healthcare.

AeHN, SDE and State HIT Coordinator are focused on creating a secure technology link to connect all healthcare entities, providers and patients. Collaboration and trust are key elements in the development and success of a statewide HIE. Organizations have joined together with AeHN to contribute funds, staff time and other resources to AeHN, providing a comprehensive approach to the promotion of EHRs and HIE for Alaska. Organizations include:

- *AARP Alaska:* As Alaska's largest consumer advocacy organization, AARP has over 97,000 members in Alaska. AARP has long been a supporter of electronic medical and health records and has testified in favor of electronic systems before the United States Congress as well as the Alaska Legislature.
- *Alaska Electronic Health Record Alliance (AEHRA):* This group of private physicians was formed to support the development of affordable, interoperable electronic health records for non-public sector healthcare providers in Alaska. The goals of the Alliance are to assist physicians and mid-level providers in incorporating EHRs into their clinical practices by providing support, information, and resources.
- *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 Veterans Affairs (VA), US Coast Guard (Department of Homeland Security), and the Indian Health Service.
- *Alaska Native Tribal Health Consortium (ANTHC):* 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 130,000 Alaska Natives.
- *Alaska Primary Care Association (APCA):* 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 Center system.
- *The Alaska State Hospital and Nursing Home Association (ASHNHA):* ASHNHA represents 23 acute care hospitals, two behavioral health facilities, six assisted living facilities, and five nursing homes; provides legislative and regulatory advocacy at all levels of government; acts as a steward of resources by supporting fiscally responsible initiatives; provides health information to members and the public; promotes opportunities for networking among members; works to improve the health status of all Alaskans; and remains committed to advancing knowledge about health through education and training.

- *Premera Blue Cross/Blue Shield:* Premera is a health benefits company serving 1.7 million people and over 100,000 Alaskans, from individuals to Fortune 100 companies. Premera provides health, life, vision, dental, long-term care coverage, and other related services.
- *Providence Health and Services:* Providence provides health services to Alaskans in five communities - Anchorage, Matanuska-Susitna Valley, Kodiak Island, Seward, and Valdez. Providence is the State of Alaska's largest private employer with more than 4,000 full and part-time employees working for the organization statewide.

Each of these organizations have agreed to work collaboratively with AeHN and identify key project staff to participate on various workgroups and advisory committees associated with the promotion of EHRs and HIE in Alaska.

AeHN will coordinate with the State Medicaid HIT Plan (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 electronic health records.

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.

## 4.3 Electronic Health Records

AeHN in the dual role as the non-profit governing board that will procure and manage Alaska's HIE and the REC will work with provider organizations to promote and support the effective selection, deployment and adoption of EHR systems in clinician offices. The goal of this effort will be to assist private practitioners in incorporating EHR into their clinical practice by providing support, information, and access to IT planners, system consultants, and clinical specialists who are experts in the use of EHR. AeHN will reinforce efforts to install EHR systems and promote HIE in the practices of Alaska's 1,600 physicians and 750 mid-levels and to integrate information in practitioners' electronic health records with the patient's personal health records.

AeHN with the SDE has sought funding for the capacity to assist clinicians in incorporating the use of EHRs in their office practices. This includes but is not limited to:

- Selection of preferred EHR vendors based on developed standards and requiring preferred vendors to guarantee connectivity and the ability to support meaningful use criteria,
- Completing pilot implementations of selected vendors to provide proof of concept and development of implementation standards,
- Develop model implementation guide for selected vendor software to ease implementation

- Provide financial assistance through a grant process for clinicians to offset some of the initial capital costs of selected EHR vendor software or connectivity to the SDE, and
- Promote the adoption of EHR in clinician offices statewide.

## 4.4 Meaningful Use

An immediate priority for SDE, State HIT Coordinator and AeHN is to ensure that all eligible providers have at least one option available to meet the HIE requirements of meaningful use in 2011. The selected HIE vendor must meet RFP requirements related to e-prescribing, receipt of structured lab results and sharing patient care summaries across unaffiliated organizations. It is AeHN's intention to provide support for Meaningful Use in the initial phases and then proceed to implementation of more complex functionality. Meaningful use criteria that should be in the initial phases include:

- Maintain an up-to-date problem list based on ICD-9/10 or SNOMED,
- Check insurance eligibility electronically from public and private payers, where possible,
- Submit claims electronically to public and private payers,
- Provide patients with an electronic copy of their health information upon request,
- Provide summary care record for each transition of care and referral,
- Capability to exchange key clinical information (e.g., discharge summary, procedures, problem list, medication list, allergies, test results), among providers of care and patient authorized entities electronically,
- Maintain active medication list,
- Maintain active medication allergy list,
- Incorporate lab-test results into EHR as structured data,
- Record demographics: Preferred Language, Insurance Type, Gender, Race, Ethnicity,
- Capability to submit electronic data to immunization registries and actual submission where required and accepted,
- Capability to provide electronic submission of reportable lab results to public health agencies and actual submission where it can be received,
- Capability to provide electronic syndromic surveillance data to public health agencies and actual transmission according to applicable law and practice, and
- Provide a mechanism for quality measures reporting.

The selected HIE shared services and repositories include:

- Clinical portal,
- Integration engine,
- Clinical data repository (CDR),
- Enterprise Master Patient Index (EMPI),
- Health HIE module, and
- Notifications and subscriptions module.

For more information about the HIE shared services and repositories that will support meaningful use requirements see section 5.6.4 Shared Services and Repositories in the HIT Operations Plan.

### 4.4.1 Electronic Prescribing

Electronic prescribing (e-prescribing) supports a shift to a paperless and more informed way for prescribers, payers and pharmacists to make better clinical decisions and improve clinical decisions related to medication management. e-prescribing has a number of benefits including the prevention of

fraud, elimination of lost prescriptions, the ability of doctors to look up the patient's prescription history and eligibility prior to issuing the prescription, and the elimination of the rick of pharmacy having trouble reading a prescription.

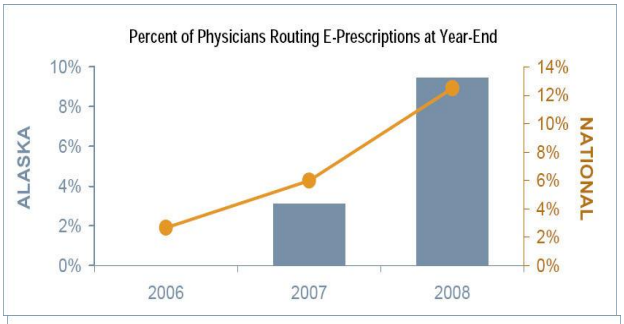
At the national level, electronic prescribing is rapidly becoming a significant contributor to improving the quality of healthcare, reducing costs and improving patient safety. In Alaska, e-prescribing is also evolving and use of e-prescribing is on the increase across the state.

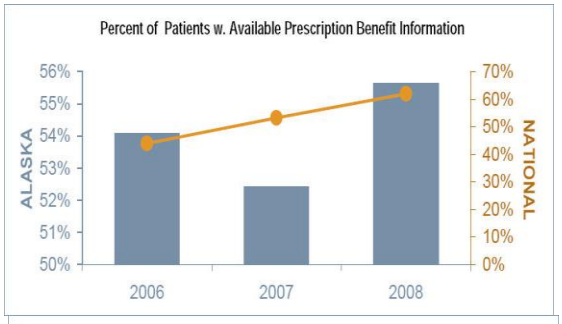
SDE, AeHN, State HIT Coordinator and key stakeholders understand the importance of e-prescribing as a critical enabler to promoting Alaska's goal of moving toward a robust electronic health environment. Increasing the use of e-prescribing will significantly accelerate the development of EHRs and use of HIE.

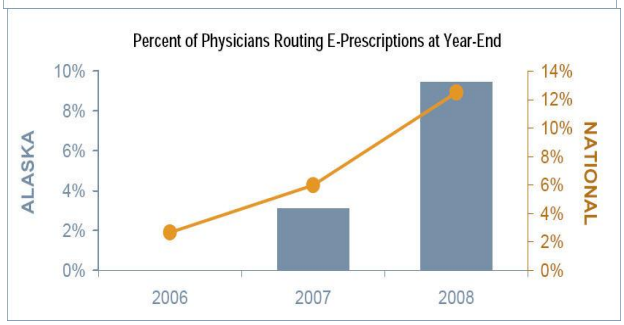
Alaska participates in the Surescripts network to connect its providers to pharmacies. Surescripts® operates the nation's largest e-prescription network. The 2009 National Progress Report on E-Prescribing compiled by Surescripts contains key statistics that outline the growth of ePrescription technology on a rolling three-year basis. The Report also describes initiatives that have helped to support and drive e-prescribing in 2009.

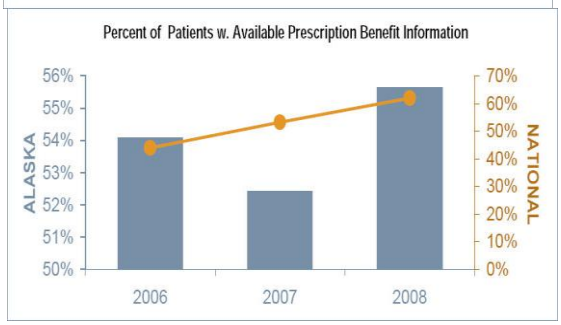
Below are several tables comparing Alaska ePrescription adoption statistics to National Averages reported in this study. To access the full report www.surescripts.com click on "E-Prescribing Statistics".

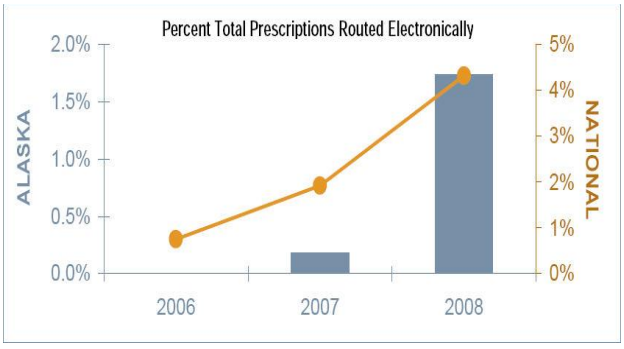
**Figure 7 - Electronic Prescribing**

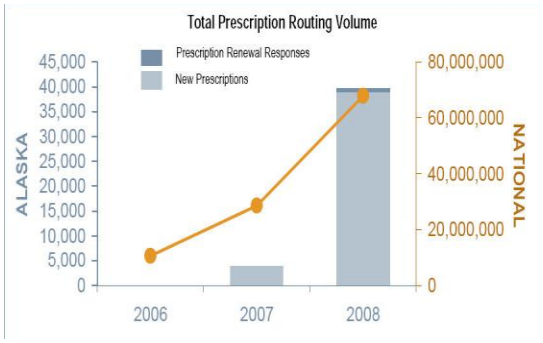


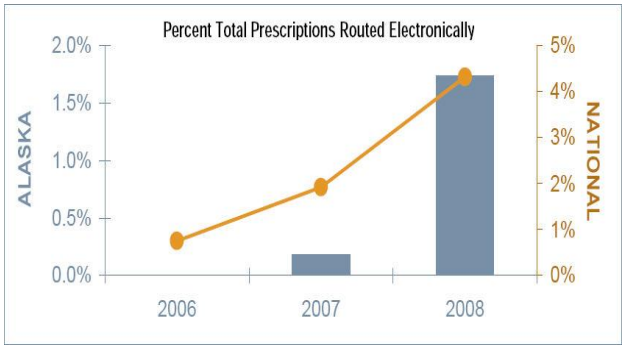



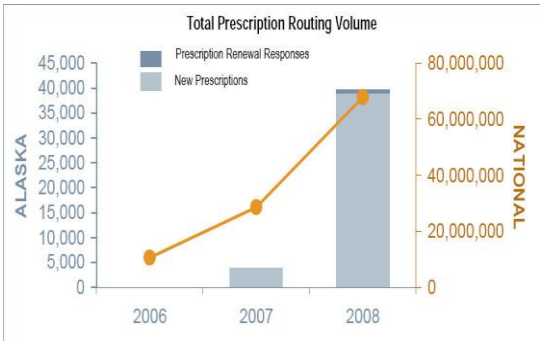






### *4.4.1.1 E-prescribing Next Steps*

SDE, AeHN, State HIT Coordinator and key stakeholders will continue to promote the use of e-prescribing as a critical component of the EMR and HIE. Emphasis will be placed on the fact that e-prescribing is one of the easiest, highest value aspects of "meaningful use". An Alaska Pharmacy Association study (May 2009) shows that most of the chain pharmacies (Carr's Safeway, Fred Meyer, Target, Walgreen's and Wal*Mart) and a number of other pharmacies have the ability to receive ePrescriptions.

In fulfilling its vision to provide widespread access to statewide health information data AeHN will continue to actively promote e-prescribing as a primary way to meet "meaningful use" criteria and allow Alaska providers to receive incentive payments. AeHN will develop material for providers and members to communicate the patient benefits of e-prescribing. Themes to be emphasized include:

- Ensure patients understand that ePrecription is safer and more efficient,
- Ensure patients come prepared to office visits with their preferred pharmacy,
- Direct patients to call the pharmacy rather than the practice for prescription renewals, and
- Consider using signage, recorded phone messages, patient reminder cards to reinforce the message.

The AEHRA must work with the preferred vendors – eMDs and Greenway Medical Technology solutions to ensure that they are pursuing certification for all e-prescribing services. This includes prescription benefit, history and routing services and will allow Prescribers to leverage the full benefits of e-prescribing and support qualifications for incentives under Health Information Technology for Economic and Clinical Health (HITECH) and MIPPA.

SDE and AeHN will continue to explore pros and cons of ePrescription frameworks (incentives, pilot programs, technical assistance and law enactment) employed in other states. E-prescribing barriers that will be taken into consideration include:

- Cost of technology which varies depending on vendor and size of practice. Many providers are reluctant to invest in technology without concrete numbers showing the return on investment,
- Integrating ePrescription software into the provider practice,
- Work flow disruption and productivity loss,
- Telecommunication bandwidth, particularly in rural Alaska, and
- Increased levels of security to support the ability to electronically prescribe controlled substances.

#### *4.4.1.2 Medicaid Management Information System e-prescribing*

SDE and State HIT Coordinator are actively pursuing launching e-prescribing solution within the next year in advance of the new MMIS. The ACS e-prescribing solution is a Surescripts-certified e-prescribing system. All transactions are managed in accordance with the CMS final rule published in the April 2009 *Federal Register* for electronic prescriptions. This includes new prescriptions and refill requests, response pharmacy fill messages, and Medicaid medication requests. In working with Surescripts, ACS validate DEA numbers and the NPI numbers for each user with their master nationwide list of prescribers to prevent fraudulent usage of a DEA number within the system to gain access to the prescription pad.

The e-prescribing solution is the foundation for a proven, concise, and easy-to-use, configurable tool that provides patient history documentation abilities as well as e-prescribing capabilities. Real-time clinical rules engine identifies potential gaps-in-care and medication therapy issues, and provides the information to provider's at the point of care where the information will be impactful.

The e-prescribing solution arms providers with patient-specific history, risk identifiers, and gaps-in-care. Additional capabilities include e-prescribing, clinical surveillance, medication management, and provider messaging exchange. These aspects of the solution help improve workflow, centralize key daily activities, and ease a providers' administrative burden. The end-result is a clear understanding of the patient's previous care and indicators to potential quality of care improvements.

### 4.4.2 Receipt of Structured Lab Results

The transmission of structured lab results was part of the evaluation criteria for HIE vendor proposal responses and demonstrations. The selected HIE solution will have the ability to send and receive lab results.

Alaska Division of Public Health (DPH) continues to develop the Lab Information Management System (LIMS) to collect and eventually share and distribute data from the state labs. Due to bandwidth limitations there are currently two separate LIMS databases one in Fairbanks and one in Anchorage. The only data that is shared is patient and provider demographic information due to the bandwidth limitations. DPH has leveraged a Center for Disease Control (CDC) grant to connect the two state labs to the CDC sending HL7 transactions. Opportunities exist to allow the labs to share more than patient demographic data. Ultimately the state labs would like to connect a consolidated LIMS to the Alaska HIE product.

SDE, State HIT Coordinator and AeHN are collaborating with DPH and investigating the ability for the state labs to send through the HIE.

### 4.4.3 Sharing Patient Care Summaries across Unaffiliated Organizations

The sharing of patient care summaries was part of the evaluation criteria for the HIE vendor proposal responses and demonstrations. The selected HIE solution will have the ability to share patient care summaries across unaffiliated organizations. Composite record viewing which provides software to temporarily view or print patient composite information for participating organizations and authorized uses 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. Also, 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. Policy and privacy/security restrictions (mental health) will need to be reviewed closely before clinical documents are exchanged.

### 4.4.4 Clinical Data

A solution for capturing clinical quality data from EPs and EHs has been determined. The HIT Program Office will evaluate use of the HIE to capture meaningful use data once the HIE Vendor contact is signed.

Initially, SDE will only be collecting required meaningful use measures from a small subset of eligible providers, which will be of limited utility. However, over time the coverage and amount of data submitted will increase, and with that will come increasing opportunities for utilizing the data in a variety of ways.

Early on, SDE will have access to the meaningful use measures only. While somewhat limited, this data will have value in monitoring progress in EHR adoption and meaningful use achievement over the various stages both at the individual provider level as well as in aggregate for the contractor population.

As the program evolves and providers progress in their adoption of EHR and achieving meaningful use SDE may eventually request submission of the source data behind the meaningful use measures, which would provide a greater capacity for analysis and therefore greater value in the data. These data would potentially provide greater capability for a wider range of analyses not just for measuring EHR adoption and areas of clinical quality but for other uses as well. This data may provide somewhat more detailed monitoring, trend, and quality information and allow for some limited analysis of the data beyond the measures it was submitted to support. With the ability to view the actual medical record on an EHR, narratives included, the issue of physician legibility could become a non-issue.

Over time, the widespread adoption of EHR and utilization of HIE will provide the capacity to access population-based patient specific clinical data. Data at this level can serve a wide variety of uses. While all uses will need to be further investigated for utility, priority, and feasibility.

The HIE solution will have a modern, secure web based physician portal which 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 HIE while still protecting the patient's right to privacy.

# 5 Coordination

## 5.1 Medicaid Coordination

The State of Alaska has a population with over 20% of residents who are enrolled with Medicaid. The Medicaid program is the largest payer in the State of Alaska, the success of the adoption of meaningful use in the Medicaid program is essential for the success of the statewide Health Information Technology (HIT) plan. For the Medicaid program to promote HIT it will help realize the full potential of Health Information Exchange (HIE) to improve the coordination, efficiency and quality of care. The Alaska Medicaid program is critical in these comprehensive statewide plans for the electronic exchange of information.

The State Designated Entity (SDE) and State HIT Coordinator have created an HIT Governance Committee (see section 6.1) to provide vision and oversight for all health information technology efforts. The members of the governance committee are also leaders in the Medicaid and public health programs, as leaders in these programs and in the HIT efforts, the goals and objectives include the development of the State Medicaid HIT Plan (SMHP), developing initiatives to encourage adoption of certified EHR technology to promote healthcare quality and the exchange or healthcare information, and developing processes to implement the EHR incentive program for eligible professionals and hospitals.

Additionally, Alaska eHealth Network (AeHN) is in collaboration with SDE and State HIT Coordinator on the development of the SMHP to ensure that statewide HIE operational plans and implementations of HIE are in alignment with the Alaska Medicaid Plan. Representatives from the HIT Governance Committee and the Division of Public Health (DPH), work collaboratively to ensure that the Medicaid and Public Health efforts are being evaluated in the HIE development process. The representatives are working together with AeHN to meet the objectives of the Medicaid program and the statewide HIT plan to adopt meaningful use.

Medicaid coordination with other entities:

1. Directing Medicaid efforts that are in line with the Alaska Department of Health and Social Services (DHSS) vision
    a. Improving affordability, access and quality of healthcare and health of Alaskans
    b. Implementation of the EHR incentive program
    c. Connecting Medicaid Management Information System (MMIS) with the HIE
    d. Developing the SMHP
2. Coordination with the Regional Extension Centers (REC) on their role in the Electronic Health Record (EHR) incentive program
    a. Provide outreach to all Alaska providers, includes private, Medicaid, and Indian Health Services (IHS) providers to participate in the HIE
3. Coordination between the HIT coordinator and AeHN on the development of the SMHP.
4. Medicaid operations and public health representative in coordination with AeHN on what Medicaid and public health needs the HIE to support
5. Determining how the Medicaid fiscal agent will be involved in supporting the EHR incentive program
6. DHSS workgroups meeting with AeHN legal workgroups to ensure security and privacy of Medicaid and statewide providers

## 5.2 State Medicaid HIT Plan

Alaska has contacted with FOX system to provide technical assistance in the development of the SMHP. Alaska is utilizing the Medicaid Information Technology Architecture (MITA) 2.01 Framework to support development of the SMHP. By reviewing and updating Alaska's MITA Self Assessment, Division of Health Care Services (DHCS) can now clearly track how the new business processes developed as part of the SMHP will be implemented in accordance with the MITA principles as described in MITA Framework 2.01.

The SMHP includes program implementation of the EHR incentive program, documenting the "As is" and "To Be" landscape, documenting the EHR audit strategy, and documenting the States HIT Roadmap. With the implementation of the EHR incentive program, these incentives are anticipated to drive adoption of certified EHRs needed to reach the goal of provider participation in the HIE and moving towards meaningful use. The HIE will be a tool to measure the percentage of Medicaid providers adopting meaningful use. The Medicaid program will also work in collaboration with the REC, AeHN, to register providers to participate in the HIE.

### 5.2.1 MMIS Interface with Health Information Exchange

DHCS is rebuilding the state's Medicaid claims processing and payment system, therefore the role of MMIS plays a significant role in the HIT environment. The state's current system MMIS is about 20 years old and is being replaced with more modern technology. The contract includes: design, development and implementation of a new claims payment system; a claims data warehouse information system; and operations of the new system.

The State HIT coordinator has requested funding from the state Office of Management and Budget to have the new MMIS system interface with the health information exchange. The funding will allow DHCS to perform a gap analysis and implement a strategy and work plan to ensure the exchange protects the privacy and security of patients and can track and monitor meaningful use as part of the EHR incentive program. The MMIS system will be evaluated to determine what information is available to shared in the HIE. In addition to the MMIS interface, the State will assess other healthcare data systems, including the public health database (VacTrAK) and the vital statistics database, connections to the HIE and determine what information will be shared.

### 5.2.2 Ongoing and Future Planning

The Medicaid program staff will coordinate with AeHN to review the utilization of EHRs within the participating practices, and provide appropriate feedback and support to improve low utilization of features essential for meaningful use. The REC will be trained to ensure that providers receive effective assistance in attaining meaningful use, and will review Medicare and Medicaid regulations and guidance to ensure that progress in meaningful use is consistent with Centers for Medicare and Medicaid Services (CMS) guidelines.

**Table 3 - Medicaid Coordination**

| Medicaid Coordination with HIE | | |
|---|---|---|
| **Medicaid** | **Interdependencies** | **Integration** |
| Directing Medicaid efforts in line with DHSS initiatives | With 20% of Alaska residence being enrolled with Medicaid, as a federally and State funded program, the Medicaid program will play a critical role in supplying data to the HIE in the adoption of meaningful use, the Medicaid and public health programs are dependent on the development of the HIE to ensure that information the exchange provides information that is needed for Medicaid reporting and ensuring quality measures are met | With representatives from both the State Medicaid program, the HIT program coordinator and AeHN in coordination, the members will ensure that duplicate efforts are not being implemented |
| **Future Expected Coordination/Planning** | **Interdependencies** | **Integration** |
| Implementation of EHR incentive payments | The EHR incentive payments will fund the adoption, implementation or upgrade of certified EHR technology to interface with the HIE, this will allow the Medicaid information to be available to the HIE to measure meaningful use, The EHR incentive program will provide additional health information for more comprehensive health planning | With the implementation of the EHR incentive program, DHSS will work in collaboration with the REC to provide outreach to providers to participate in the exchange and will supplement the cost of connecting with the HIE |
| Connecting the MMIS with the HIE | With Medicaid claims data being integrated into the HIE, this will supply Medicaid claims information and patient information to future Medicaid providers, and the HIE will also have patient information that would aid Medicaid with managed care program, measuring the number of providers who are participating in the HIE | This will connect a large portion of providers to the HIE and to provide needed health information and/or claims data |

## 5.3 Broadband Impacts on Medicaid

TERRA-Southwest (SW) and TERRA Northwest-(NW) will deliver end-to-end middle mile terrestrial broadband service, for the first time, from the internet backbone in Anchorage to Norton Sound and the Kotzebue regions, included in the Northwest broadband, and to the Yukon-Kuskokwim Delta and Bristol Bay Regions, included in the Southwest broadband. This project will expand communication for all end users, improve crucial telemedicine and distance learning service, and improve the operations of government, Tribal and –nonprofit entities. This will deliver broadband service to 65 economically challenged rural communities in the southwest, and 20 communities in the northwest region.

The broadband services will have a large impact on quality of healthcare for Medicaid service with its capability in reaching the surrounding villages in addition to the hub communities. With a continuous increase in use of telemedicine between the surrounding villages and the hub location, the enhanced broadband capability will not only impact and increase telemedicine usage but allow improved connectivity with the HIE. With 21,580 patients who were Medicaid eligible during FFY 2009 in these regions, and a total of 84% of all patients in these regions using Medicaid services, the broadband will allow an increase in exchange of health information.

Below is a breakdown of the percentages of Medicaid Eligible's in each of these regions.

**Table 4 - Medicaid Eligibility by Region**

| Percentages Using Medicaid Services | | | | | | | |
|---|---|---|---|---|---|---|---|
| | AI/AN | | | Non AI/AN | | | |
| | Under 21 | 21-64 | 65+ | Under 21 | 21-64 | 65+ | Total |
| Norton Sound Region | 89.9% | 85.3% | 88.7% | 81.4% | 87.5% | 55.6% | 81.0% |
| Kotzebue Region | 84.9% | 86.3% | 85.8% | 47.4% | 83.3% | 100.0% | 81.0% |
| Yukon-Kuskokwim Delta Region | 89.2% | 85.8% | 89.3% | 80.3% | 79.4% | 83.3% | 85.0% |
| Bristol Bay Region | 91.2% | 89.1% | 91.7% | 77.6% | 83.3% | 100.0% | 89.0% |

AI/AN=American Indian/Alaska Native
Non AI/AN=Other Races that are not American Indian/Alaska Native

## 5.4 Coordination Federally Funded State Programs

### 5.4.1 Medicare Improvements for Patients and Providers Act

As of January 1, 2009, CMS will provide an incentive to "successful e-prescribers." The Medicare e-Prescribing incentive is a new program authorized under the Medicare Improvements for Patients and Providers Act (MIPPA) of 2008.

The program provides incentives for eligible professionals who are "successful e-prescribers." Efforts to maximize implementation of e-prescribing systems statewide could result in increase systemic use of other electronic health components such as personal health records and electronic health records in both the private and public sectors of healthcare. Additionally, CMS has established a disincentive for healthcare providers who do not become "successful e-prescribers" by 2012. Per CMS, eligible professionals who are not "successful e-prescribers" by 2012 will be subject to a differential payment (penalty) beginning in 2012. The differential payment would result in the physician getting 99 percent of the total allowed charges of the eligible professional's physician fee schedule payments in 2012, 98.5 percent in 2013, and 98 percent in 2014.

DHSS understands the importance of e-prescribing as a critical component of the HIE and Meaningful Use. Increasing the use of e-prescribing will significantly accelerate the development of EHRs and use of other HITs. With the adoption of e-prescribing among Medicare enrolled providers this will increase the e-prescribing capabilities among the dual enrolled providers.

### 5.4.2 Tri-State Children's Health Improvement Consortium

Alaska, in partnership with Oregon and West Virginia, received $2,231,890 for the first year of a five year grant that will total $11,277,361. Alaska, will receive approximately $750,000 per year for five years. The demonstration will test the combined impact of patient-centered care delivery models and HIT in improving the quality of children's healthcare. The three States will work 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 first nine months of the grant is dedicated to planning followed by implementation and evaluation. Alaska's Tri-State Children's Health Improvement Consortium (T-CHIC) leadership, State 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 improves the children healthcare by ensuring the right services are received at the right time.

## 5.5 Participation with Federal Care Delivery Organizations

The AeHN is in partnership with multiple federal care delivery organizations, including the Veteran Health Administration (VHA), Alaska Federal Health Care Partnership (AFHCP), Alaska Native Tribal Health Consortium (ANTHC), IHS, and the Alaska Primary Care Association (APCA). AeHN has representatives from each of these partners on the AeHN Board of Directors or as committee members. These representatives will participate in the development of the statewide efforts and have worked to provide a comprehensive approach to the promotion of EHRs and HIE for Alaska. Each of the organizations will identify key project staff to work on various committees to determine guidelines for this initiative.

## 5.6 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 American Recovery and Reinvestment Act (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.

## 5.7 Coordination with 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 and State HIT Coordinator coordinates services to deploy EHRs in concert with other HIT activities funded across the state. Since many of these activities are funded through the AeHN, this organization will act as a coordination point along with the 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.

### 5.7.1 Alaska Regional Extension Center

AeHN is the recipient of American Recovery and Reinvestment Act (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 SDE 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.

### 5.7.2 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 on the development of a Health Information Technology Workforce Training Program which will provide certificates in each of the health IT roles defined by the Office of the National Coordinator (ONC). The HIT Workforce Training Program will help prepare workers to fill roles such as: Practice Workflow and Information Management Redesign Specialist, Clinician/Practioner 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 under Bellevue Community College in Washington state to provide Bachelors and Masters level programs for Health IT. 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.

### 5.7.3 Availability of Broadband

AeHN is the recipient of an Federal Communications Commission (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 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.

### 5.7.4 Beacon Communities

While the Alaska Beacon application was denied, it has identified a need which is not currently funded; connectivity of telehealth and telehome with other electronic health records 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.

## 5.8 Multi-State Coordination

The State of Alaska, California, Idaho, Oregon, and Washington HIT Coordinators or designated representative have all expressed support for the interstate exchange. 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 Pacific Northwest Health Policy Consortium (PNWHPC) will explore and begin to develop two parallel approaches to improving information exchange between the five states. First, they 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, they 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.

# 6 Domain-Specific Components

## 6.1 Governance

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

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

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

- *Security Safeguards and Controls*
  Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, unauthorized use, modification, or disclosure.
- *Accountability and Oversight*
  Entities in control of personal health data must be held accountable for implementing these information practices.
- *Remedies*
  Legal and financial remedies must exist to address any security breaches or privacy violations. Breach policies are drafted and will need to be adopted as the HIE project moves forward.
- *Make it "Thin"*
  Only the minimum number of rules and protocols essential to widespread exchange of health information should be specified as part of a Common Framework. It is desirable to leave to the local systems those things best handled locally, while specifying at a statewide or national level those things required as universal in order to allow for exchange among subordinate networks.
- *Avoid "Rip and Replace"*
  Any proposed model for health information exchange must take into account the current structure of the healthcare system. While some infrastructure may need to evolve, the system should take advantage of what has been deployed today. Similarly, it should build on existing Internet capabilities, using appropriate standards for ensuring secure transfer of information.
- *Separate Applications from the Network*
  The purpose of the network is to allow authorized persons to access data as needed. The purpose of applications is to display or otherwise use that data once received. The network should be designed to support any and all useful types of applications, and applications should be designed to take data in from the network in standard formats. This allows new applications to be created and existing ones upgraded without re-designing the network itself.
- *Decentralization*
  Data stays where it is generated. The decentralized approach leaves clinical data in the control of those providers with a direct relationship with the patient, and leaves judgments about who should and should not see patient data in the hands of the patient and the physicians and institutions that are directly involved with his or her care.
- *Federation*
  The participating members of a health network must belong to and comply with agreements of a federation. Federation, in this view, is a response to the organizational difficulties presented by the fact of decentralization. Formal federation with clear agreements builds trust that is essential to the exchange of health information.
- *Flexibility*
  Any safe and secure hardware or software can be used for health information exchange as long as it conforms to a Common Framework of essential requirements. The network should support variation and innovation in response to local needs. The network must be able to scale and evolve over time.

- *Privacy and Security*

  All health information exchange, including in support of the delivery of care and the conduct of research and public health reporting, must be conducted in an environment of trust, based upon conformance with appropriate requirements for patient privacy, security, confidentiality, integrity, authentication, audit, and informed consent. Alaska will utilize the information gleaned from participating in the ONC national Health Information Security and Privacy Collaboration (HISPC) project to guide privacy policies and procedures.

- *Accuracy*

  Accuracy in identifying both a patient and his or her records with little tolerance for error is an essential element of health information exchange. There must also be feedback mechanisms to help organizations to fix or "clean" their data in the event that errors are discovered.

- *Interoperability*

  Interoperability of electronic health records will take into account the ability to move health information securely and utilizing national standards from a State HIE to a national HIE through participation in a Nationwide Health Information Network (NHIN) when this service becomes available.

- *Meaningful Use*

  DHCS as well as the Regional Extension Centers (REC) will require compliance with federal and state requirements established for the "meaningful use" of electronic health records when this criteria becomes available.

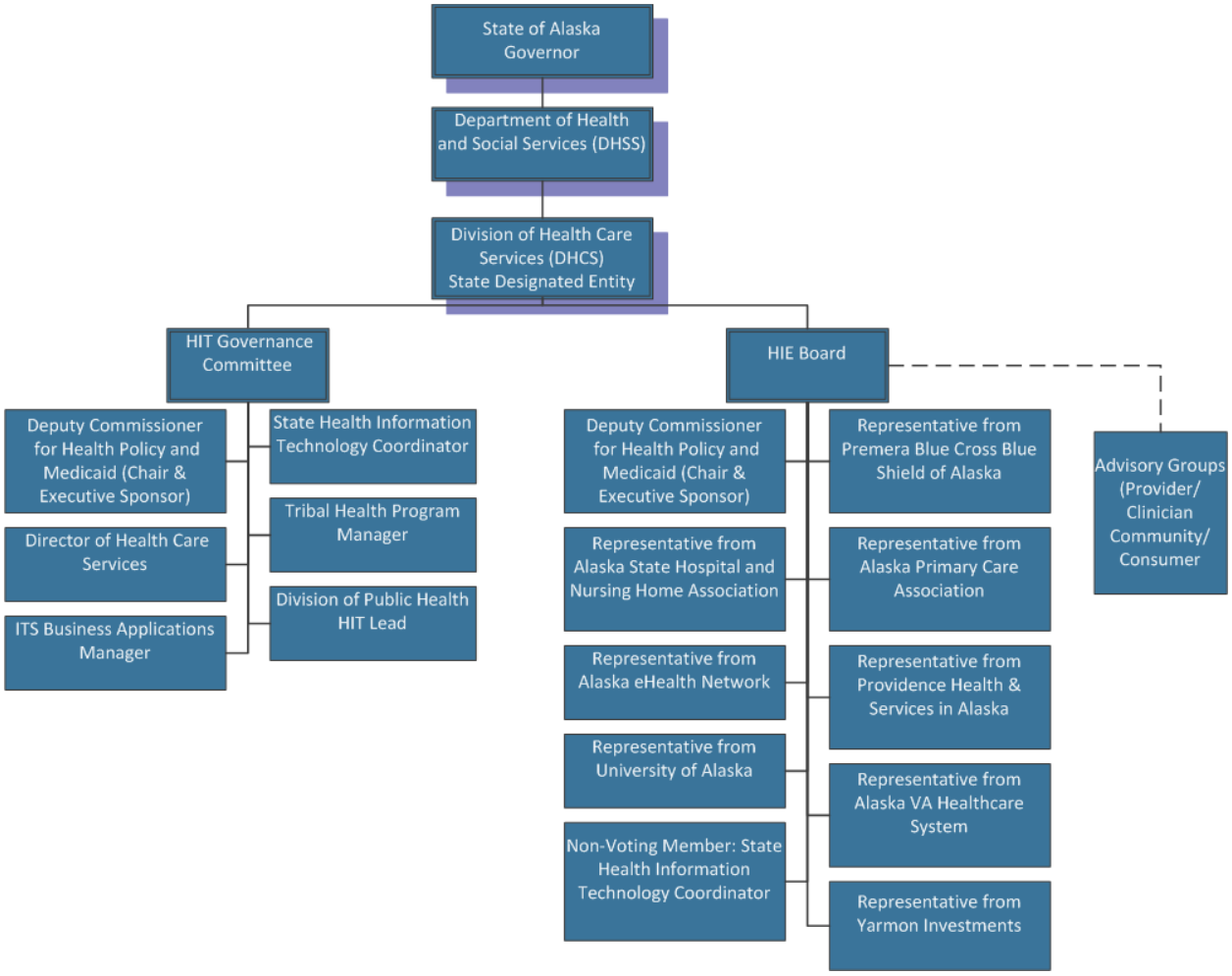
- *Leverage Resources*

  The DHCS will leverage the existing resources that were developed through federal and private funding sources, including; HISPC privacy and security policies/documents, and Federal Communications Commission (FCC) broadband rollout.

### 6.1.1 Structure

A review, by AeHN, of more than 100 Regional Health Information Organization (RHIO) and HIE projects in other states has been conducted to guide the structure and organization. Special lessons were drawn from intensive study of sustainable models in states with needs and goals similar to those of Alaska. The structure for Alaska will consist of an HIT Governance Committee which is made of up key staff from DHSS particularly from DHCS and the HIE Board which is filled by volunteers from stakeholder groups as shown below. The HIT Governance Committee will set the vision and direction for the state of Alaska. The HIE Board will establish protocols for decision-making and communicating with SDE executive management, and soliciting feedback from its advisory workgroups. In addition to these boards there is also the general structure of AeHN shown below. Overall this structure will create a health information organization that is consistent with federal and state guidance.

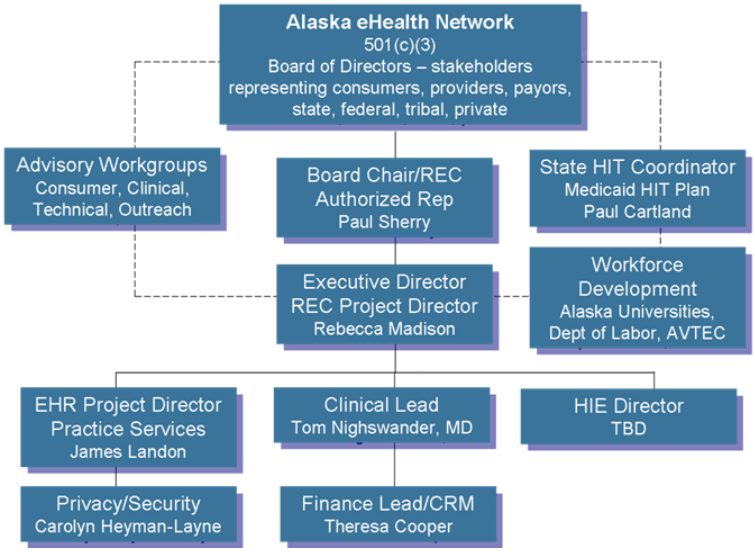
**Figure 8 - HIT Governance**




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

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

**Figure 9 - AeHN Board**




### 6.1.2 HIT Governance Roles and Functions

The HIT Governance Committee key roles and functions are:

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

Executive Sponsor key roles and functions are:

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

- Reviews and decide management level escalated issues, proposed major project scope changes and project risks

Additional details can be found in the HIT Governance Project Charter in Appendix I

### 6.1.3 HIE Board Roles and Responsibilities

The HIE Board key roles and responsibilities are:

- Establish protocols for decision making and communicating with DHCS
- Solicit feedback from advisory workgroups
- Review and ratify operational structures
- Help DHCS develop strategic and operational plans
- Prepare and maintain all budget and oversee financial aspects of the Alaska HIE and report this data to DHCS
- Report all HIE implementation and other HIT activities to DHCS
- Will work jointly with the State HIT Coordinator and DHCS to advance the use of connected health information technology and ensure meaningful use of electronic health records throughout Alaska

See Section 6.3 AeHN Organizational Structure in the HIT Operations Plan for more information.

### 6.1.4 State HIT Coordinator

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

The State HIT Coordinator key roles and functions are:

- Approve project structure, coordinate project resources
- Manage project and project team
- Manage and review project status, budget, staff assignments and resource needs
- Provide status and other requested reports to the HIT Governance Committee
- Reports progress, escalates appropriate issues, and implements HIT Governance Committee's recommendations/decisions/directives
- Communicate regularly with other project managers (e.g. vendor project manager, Deputy Project Manager, IVV Manager)
- Coordinate communications between teams
- Oversee and monitor project progress by meeting with the project director/managers on regular basis to review assessment progress against planned timeframe; specifically:
    - Review the project status information in advance of meetings
    - Provide decisions, as needed, representing all system users
    - Monitor project milestone and deliverable progress
    - Provide approval/acceptance authority for sign-off at
    - milestone/deliverable completion
    - Provide review and approval for detail scope, change, and issue
    - management items, recommending required funding
    - Remove obstacles to the assessment progress, providing
    - decision/resolution in cases of unrecognized issues

- Provide recommendation/direction to project director and managers
- when project is at risk, off schedule, or out of scope
- Administer issue and change request process

Oversee project management processes (structure, plan, control, assess, report, and conclude)

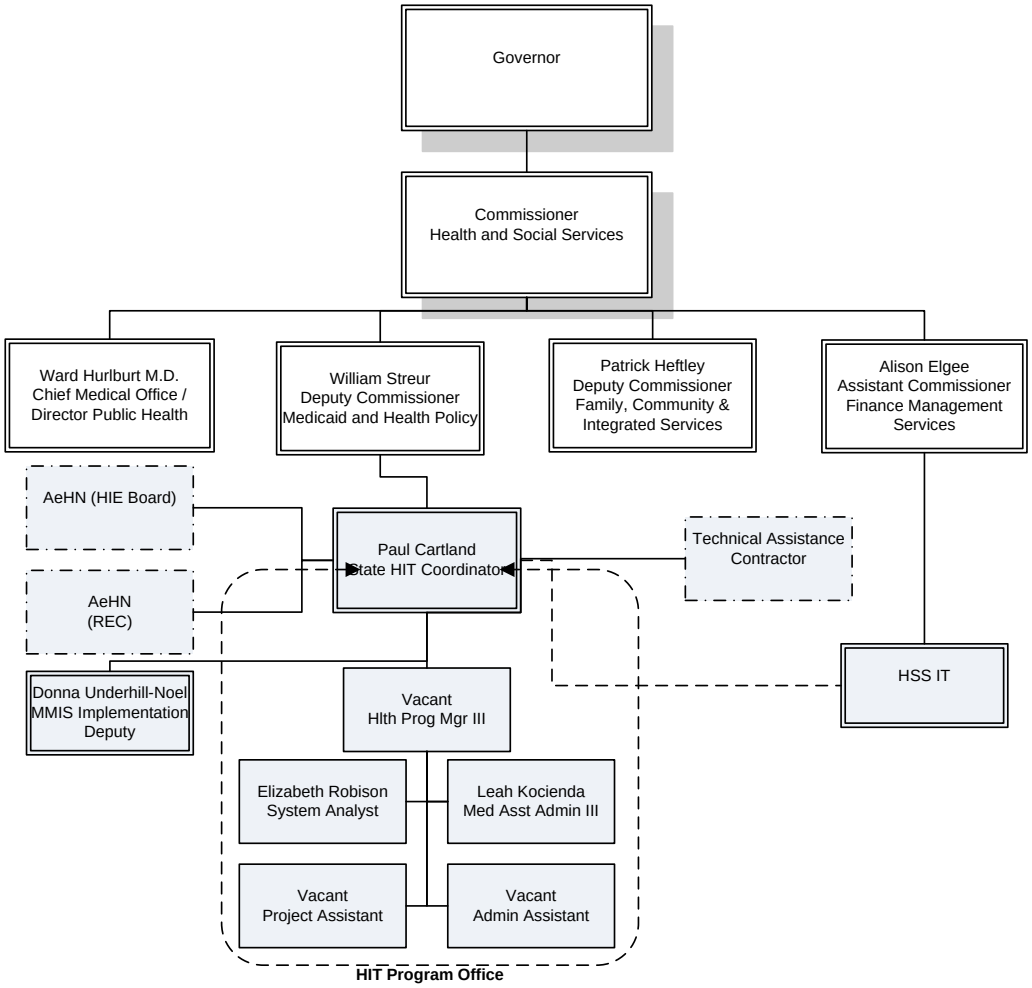
### *6.1.4.1 HIT Program Office*

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

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 also provide coordination and oversight of the REC (AeHN) performing the field audits of provider data.

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. These processes are identified in the SMHP by their MITA Reference names and numbers.

**Figure 10 - HIT Program Office Org Chart**



## 6.2 Finance

### 6.2.1 Current Funds

Current funds through 2013 include:

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

On April 6th, 2010 AeHN received $3,632,357, from the American Recovery and Reinvestment Act (ARRA) to establish one of 60 nationwide health information technology REC. In addition to state and federal funds AeHN receives funding from strategic partners including Alaska Federal Healthcare Partnership, Alaska Mental Health Trust Authority, Alaska Native Tribal Health Consortium, Premera Blue Cross/Blue Shield, Providence Alaska Medical Center, and the State of Alaska, DHSS and Division of Public Health. See section 3.1.2 and 6.4.1.2 for additional details on AeHN's roles and responsibilities.

### 6.2.2 Oversight

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 begin 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. All stakeholders should collaborate to jointly define and assess the potential value created by SDE and AeHN. That value assessment will guide development of an appropriate fee-based model to generate sustainable revenue for the Alaska HIE.

The eHealth Initiatives - Connecting Communities Toolkit[xvii] 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 Health Information Exchange.
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, and
- 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 a valid framework for the development of a sustainable business model for the Alaska HIE.

### 6.2.3 Building and Sustaining Health Information Exchange

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

1. Partner Funding: Partner funding includes grants and donations generally provided one-time or as a lump sum. Contributions may be monetary or in-kind. Sources are government agencies (both federal and state) and philanthropic entities (foundations, etc.).

2. Ongoing Fees

    a. Transaction Fees: Transaction fees are charged based on usage (user logins, pages viewed, etc.). In order to implement transactional fees, sophisticated tracking mechanisms must be implemented to support billing. Transaction-based fees may discourage usage because fees increase with usage. Organizations experiencing budget constraints may discourage HIE usage, thereby decreasing the effective value of the HIE service.
    b. Subscription Fees: Subscription fees are a very straightforward approach to generating revenue and represent a manageable and preferred alternative. Subscriptions do not discourage usage since fees charged are independent of utilization. Subscription fees are challenging because they require a good understanding of startup and operating costs. Developing a fair distribution of fees across various users must be aligned with the benefits those users will receive in order to cover HIE costs.
    c. Consumer Fees: With consumers assuming more and more of the financial burden related to their healthcare, they are becoming increasing 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)

## 6.2.4 Recommended Funding Strategies

### *6.2.4.1 Partner Funding*

Partner funding has been essential during the startup of the Alaska HIE to finance up front capital and development costs. Early marketing efforts focused exclusively on securing major governmental and philanthropic sources of funds for both initial and ongoing requirements. These contributions have been both monetary and in kind contributions. Both federal and state organizations have provided grants to assist in the Alaska HIE startup efforts. Philanthropic organizations have also provided significant funding for the Alaska HIE initiative. Partner funding has been key to startup operations for many HIE initiatives across the country. One drawback of partner funding is the limited resources for long-term use, making it generally not suitable to sustain operations. The Alaska HIE has been successful in obtaining private donations from several of Alaska's largest hospital providers, from payers and from private foundations.

Sources of partner funding to date include:

- Agency for Healthcare Research and Quality (AHRQ) and ONC – Health Information Security and Privacy Collaboration,
- FCC – Rural Health Care Pilot Project,
- Health Resource Services Administration – HIE Grant,
- Alaska Native Tribal Health Consortium,
- Premera Blue Cross / Blue Shield,
- Providence Health System,
- Rasmuson Foundation, and
- State of Alaska.

Partner funding can be in ideal source of funds for the development and testing of new processes, but is not expected to be a long term solution

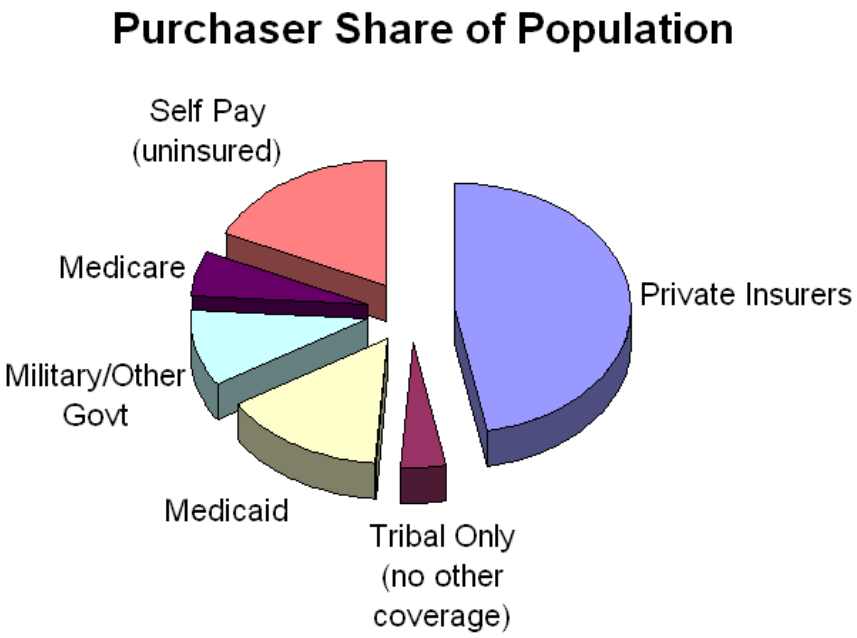
### *6.2.4.2 Payer Subscription Fees*

Purchasers of healthcare services (payers) will ideally recognize Alaska HIE participation as an excellent opportunity to improve the wellness of their constituents and to reduce healthcare costs. 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 will:

- Avoid SDE and AeHN overhead for billing/collecting small individual fees across a large consumer population
- Allow payers and healthcare providers to market the Alaska HIE access as another service offered to their clients
- Generate a predictable income source for the Alaska HIE

SDE and AeHN will pursue the healthcare purchaser groups as illustrated in the figure below.

**Figure 11 - Purchaser Share of Population**




### *6.2.4.3 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, SDE and AeHN should 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 will align with benefits received. Payers and providers will be asked to contribute annual lump sums (perhaps payable monthly) based on the number of constituents they represent. Efforts will be made to avoid "double dipping" for specific consumers (e.g. fees should not be received twice for Alaska Natives on Medicaid).

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 Alaska Comprehensive Health Insurance Association 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

### *6.2.4.4 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. SDE and AeHN will also have to set up billing and collection mechanisms, or outsource that work. Consumer fees may be considered for patients and consumers that are not covered under a subscription plan as described above. SDE and AeHN will seek input from the Consumer Advisory Workgroup on appropriate fee structures for uninsured patients and final determinations will be made and adopted by the Board of Directors.

### *6.2.4.5 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 SDE's participation agreements, policies and procedures.

Research: SDE and AeHN 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 PHI or match any of the information provided with specific patients. If this additional revenue stream is pursued, SDE and AeHN will carefully address this use with consumers.

Consultative Assistance: SDE and 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.

## 6.3 Technical Infrastructure

### 6.3.1 Statewide Technical Architecture

The SDE's technical infrastructure will support Alaska's HIE vision and objectives. SDE and AeHN will be collaborating and using resources from NHIN, Management Information system such as the Medicaid Management Information System (MMIS), Department of Defense (DOD), Department of Veterans Affairs (VA) and other stakeholders to implement the Alaska HIE and ensure that appropriate standards and certifications are met. This relationship, communication and marketing between all stakeholders will allow Alaska to implement a quality HIE that incorporates master patient indexes, data registry, data translation and interoperability services to not only ensure meaningful use of electronic health records but also improve healthcare outcomes for all Alaskans.

**Figure 12 - Statewide Technical Architecture**


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

## 6.3.2 Privacy and Security

### *6.3.2.1 Privacy*

Consumers may "opt-out" of participating in the Alaska health information exchange. Opt-in and opt-out are defined as:

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

In an effort to avert any potential concerns regarding personal privacy - and to avoid any possible conflict with legal privacy requirements mandated by the State of Alaska - The HIE will adopt a default "opt-out" state for all consumer participants as directed in Senate Bill 133 (SB 133). 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 having their physician (after consultation) either (a) submit a non-consent form to SDE, or (b) access the patient's online PHR to change their option real-time.

SDE is committed to protecting the rights and privacy of all Alaska residents, but an opt-in approach will marginalize SDE's benefit to consumers and to communities throughout the state. It would reduce the immediate utility of the information exchange as it patiently waits for consumers to intentionally and actively choose to participate. An opt-in approach may substantially constrain physician acceptance due to insufficient or slow consumer adoption.

Accordingly, SDE will implement an aggressive, positive communication and marketing program to encourage Alaska residents to remain in the system. It will also work assertively and cooperatively with clinicians and communities across the state to identify and implement any changes necessary to allow a default condition of opt-out for Alaska residents. A default condition of opt-out will allow Alaska residents to intentionally remove their health data from the HIE State Designated Entity participation. It will be crucial to ensure that consumers understand the detriments of opting out.

### *6.3.2.2 Security*

SDE understands the need for cost effective security. The AeHN Legal Work Group and the Consumer Work Group will have equal oversight for the security policies and processes. A security officer position is included in the Business Model cost analysis to ensure statewide compliance with all applicable federal and state legal and policy requirements. Alaska has worked with HISPC in the past at both the state and national level to coordinate these activities and will continue to work with other nationwide projects. SDE will work closely with NHIN to ensure interoperability at the federal level and will ensure all ARRA and other applicable privacy requirements are met. The security officer will report to the HIT Governance on a regular basis to help ensure compliance with these policies.

SDE will follow the HIPAA regulations unless state law preempts by providing stricter privacy protections. SDE will be sure to incorporate any forthcoming guidance on HIPAA, particularly the annual technical safeguards guidance described in the Health Information Technology for Economic and Clinical Health (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 also deploy a Public Key Infrastructure (PKI) or other mechanism to support digital signature and encryption in its messaging services.

## 6.4 Business and Technical Operations

### 6.4.1 Operational Responsibilities

#### *6.4.1.1 State of Alaska / Division of Health Care Services Operational Responsibilities*

The State of Alaska through DHSS is required to establish an HIE with a non-profit governing board that represent's Alaska's stakeholder communities. In March 2010, the Governor named DHSS, DHCS as the SDE to implement Alaska's HIE under the ONC Cooperative Agreement Program.

The SDE and will work with AeHN and other contractors to implement the Alaska HIE. DHSS will provide executive sponsorship and contract management for the Alaska HIE.

#### *6.4.1.2 AeHN Operational Responsibilities*

AeHN is a 501(c)(3) Alaska non-profit corporation, organized and managed by Alaskan's AeHN has been actively engaged in the development of standardized HIE policies, procedures, agreements and continued refinement of the business, technical and communications plan for the Alaska HIE. AeHN is responsible for:

- Apply for all available federal and state funding for the planning and implementation of the HIE system
- Submit an annual budget to the State HIT Coordinator for approval by the Commissioner of Health and Social Services
- Ensure compliance with all state and federal nondiscrimination and conflict of interest policies
- Develop privacy and security standards that include nationally recognized standards for the HIE consistent with all applicable federal and state laws to safeguard the privacy and security of health information
- Provide all costs and cost saving data associated with the implementation, development and on-going support of the HIE system to the State HIT Coordinator
- Develop the statewide infrastructure to support the electronic HIE system
- Develop the connection(s) required to connect the electronic health records to the infrastructure
- Establish a technical architecture structure that is vendor neutral and leverages Alaska's information technology infrastructure to enable the rapid distribution of HIE services across the state
- Establish and conduct meetings with a broad range of participants including hospitals, physicians, providers and other interested stakeholder's including DHSS in an effort to agree upon and support a set of shared services
- Determine the most effective and efficient method to spend limited funding in support of the identified priorities of medical/RX history, continuity of care, public health and other priorities as identified by the institutions engaged in the HIE
- Select an HIE vendor through a competitive procurement process as approved by the state to support the technical aspects of the electronic HIE system
- Work with the State HIT Coordinator to integrate the statewide HIT plan with the state Medicaid HIT plan
    - Develop and utilize project implementation measures that include:
    - Provide for the installation and train on how to use the system to its maximum extent on an as needed basis
    - Formulate a plan that will result in encouraging healthcare providers, payers and patients to use electronic records over a sustained period of time

  - Provide support to providers for workflow redesign, quality improvement and care management services
  - Provide for participation by all identified stakeholders in the planning and implementation of the system
- Provide appropriate American Recovery and Reinvestment Act of 2009 (ARRA) report information per the ARRA Supplemental Terms and Conditions
- Provide for periodic evaluation and improvement of the HIE
- Ensure interoperability of the HIE with government, public and private health information reporting systems

#### *6.4.1.3 HIE Vendor Operational Responsibilities*

The HIE Vendor, once contracted, will work with AeHN to design, develop and implement the Alaska HIE management information system. Vendors must provide remote-hosted solutions that are operational in at least 3 sites; operational sites must be approximately equivalent in size (or larger) than the AeHN market. The HIE system must:

- Meet all privacy and security needs,
- Be able to exchange data with healthcare partners (inherently or via a functional intermediary),
- Utilize a hybrid, federated model for HIE,
- Provide access to patient information,
- Provide capability for public health reporting and member repositories,
- Provide capability for reporting from public health repositories,
- Adhere to current national data exchange standards,
- Be easy to use and administer, and
- Provide the best functionality at the lowest ten-year total cost of ownership and fall within determined budgets.

The core HIE services are intended to provide the primary infrastructure which supports: Enterprise Master Patient Index (MPI), HIE, an audit trail, a privacy management function, composite record viewing, secure data repositories, Personal Health Record (PHR) and secure messaging capability.

### 6.4.2 Existing HIE Capacity

According to the Alaska Healthcare Commission Strategic Plan[xviii] healthcare providers in Alaska have begun the transition of their medical record systems from paper to electronic format. A statewide survey conducted in 2009 to determine the current usage of Electronic Health Records (EHR) and interest in their adoption among Alaska physician practices found that, of the 378 physicians and 62 clinic managers responding, 50% reported using an EHR and a third reported using ePrescribing. Survey respondents who did not use an EHR reported that the initial cost and practice disruption are the major barriers to adoption. Uncertainty about which EHR system to buy was also a significant barrier. Further discussions about existing and future HIE and HIE activities is discussed in section 4.

### 6.4.3 State-Level Shared Services and Repositories

The HIT Governance Committee and HIE Board will explore opportunities for shared services and repositories across all stakeholders. These services include, but are not limited to: master patient index, personal health records, E-prescribing, etc. Over time, other services may be developed that comply with the standards and certification criteria adopted by SDE in an effort to expand participation in the Alaska HIE. Currently, data sharing initiatives of providers and management information systems is very limited if in existence at all. The goal is to have all stakeholders participating and benefiting in the Alaska HIE

which will help expand data sharing across the state. 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 SB 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 Continuity of Care Document (CCD) which presents combined and/or juxtaposed information from one or more source of patient information.

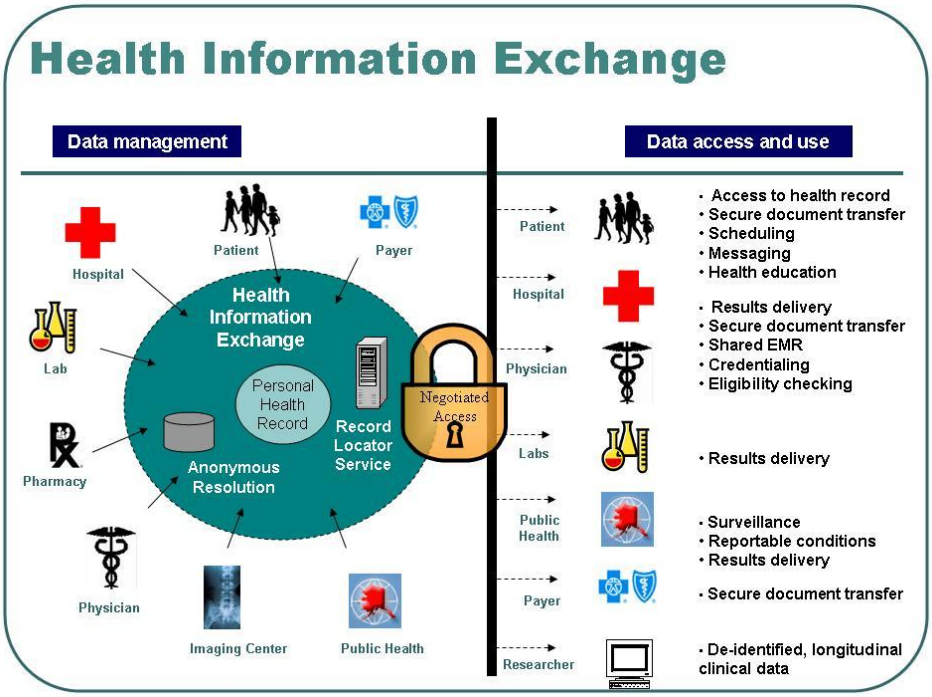
6. Secure Data Repositories which will allow Alaska HIE participants to receive, accumulate, and analyze information about their beneficiary population based on HIPAA and other applicable laws.

7. 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 13 - HIE**




### 6.4.4 Nationwide Health Information Network

NHIN is a set of standards, services and policies that enable secure health information exchange over the internet. This critical part of the national health IT agenda will enable health information to follow the consumer, be available for clinical decision making, and support appropriate use of healthcare information beyond direct patient care so as to improve population health. SDE fully intends to work with and interface with the Nationwide Health Information Network Exchange. The next step for SDE once an HIE vendor is selected is to determine the requirements and procedures to work with NHIN.

### 6.4.5 Risk Management

Risk is defined as a flaw or weakness in system security procedures, design, implementation, or internal controls that could be accidentally triggered or intentionally exploited resulting in a violation of the system's security policy.

Risks arise from legal liability or mission loss due to:

- Unauthorized (malicious or accidental) disclosure, modification, or destruction of information
- Unintentional errors and omissions
- IT disruptions due to natural or man-made disasters
- Failure to exercise due care and diligence in the implementation, operation, maintenance, and updating of the IT system.

AeHN is tasked with responsibility for developing a risk management plan for the HIE. The risk management plan will include policies and procedures to prevent, detect, contain, mitigate, and correct security violations. The plan will be based on a thorough assessment of the potential vulnerabilities to the integrity and availability of electronic protected health information for the SDE and its partners. The plan will include implementation of security measures sufficient to reduce risks and vulnerabilities to a reasonable level.

### 6.4.6 Outreach and Communications

Marketing, communication and consumer education are core strategies to the success of the Alaska HIE. The healthcare marketplace is changing significantly for consumers. Consumers are being encouraged to actively determine how they will access healthcare and how they will shoulder the increasing expense associated with that care. The dynamic environment includes new concepts like health savings accounts, health reimbursement accounts and medical savings accounts for consumers to consider.

This rise in healthcare consumerism has generated an interest in HIT, HIE, EHRs, Personal Health Records (PHR) to better manage and control the storage, availability and accessibility of personal healthcare information. A strong marketing and communication plan will be critical to gain consumer acceptance and trust.

The SDE and State HIT Coordinator will rely heavily on the DHSS Public Information Office and AeHN for their in-depth marketing, communication and training knowledge as well as their existing relationships with external stakeholders and providers. For more details on the HIE outreach and communications see Section 5.6.5 of the Operations Plan.

## 6.5 Legal / Policy

### 6.5.1 Background

The State of Alaska received funds through RTI International to participate in the HISPC project which was part of a nation-wide grant funded by the AHRQ and the ONC. 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.

AeHN, the non-profit organization contracted to develop the Alaska HIE has a legal work group which consists of AeHN employees, consulting from the health information technology and provider community and the State HIT Coordinator. This group has already identified barriers and solutions to health information exchange. They have drafted model documents for interstate health information exchange. Additionally they are implementing a pilot of health information exchange. The next step for the legal workgroup is to review draft policies for HIE.

### 6.5.2 Legal Solutions and Standardization

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

#### *6.5.2.1 Legal Solutions and Standardization*

An in-depth analysis of Alaska's privacy and security laws/regulations and recommendations for HIE were completed during HISPC. Next steps will require SDE 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 SB 133 as passed by the Alaska State Legislature.
- Identify applicable legal exceptions and safe harbors from fraud and abuse liability for providers and patients.

#### *6.5.2.2 Standardization of Policies and Procedures*

The following standardized policies and procedures established by Alaska via the HISPC project are complete. SDE will review and revise 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

SDE will 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 HIT Governance Committee, these policies and agreements will be incorporated into the operational structure of the SDE.

SDE 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.

#### *6.5.2.3 Participation Agreements*

Through participation in the Inter-Organizational Agreements (IOA) Collaborative (a part of the Alaska HISPC project) with five other states, Alaska developed both public entity-to-public entity, private entity-to-private entity, and public entity-to-private entity Data Sharing Agreements (DSAs). One of the primary goals in drafting the DSAs was to enable the secure flow of information between parties, with special attention paid to the privacy of such information. The DSAs were also specifically drafted to avoid the need for significant negotiation between the parties.

Further legal work will transform these DSAs to be used as trust agreements between the various participants in the HIE to facilitate intra- and interstate electronic health information exchange. In addition, AeHN will:

- Tailor Business Associate agreements to HIE purposes and encourage use only 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.

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 to be completed.

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 fee schedules along with the contractual agreements between the parties. These agreements will be modified from the previously developed work under the Health Information Security and Privacy Collaboration.

State laws will be reviewed to ensure that noncompliance is addressed expediently, with AeHN 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, will be significantly 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. AeHN will provide training and support for detecting, mitigating and preventing unauthorized access to patient records and to the system generally.

# Appendix B Alaska State Designated Entity / State HIT Coordinator Letter

STATE CAPITOL
PO Box 110001
Juneau, Alaska 99811-0001
907-465-3500
fax: 907-465-3532

Governor Sean Parnell
STATE OF ALASKA

550 West 7th Avenue #1700
Anchorage, Alaska 99501
907-269-7450
fax 907-269-7463
www.gov.alaska.gov
Governor@alaska.gov

March 3, 2010

David Blumenthal MD, MPP
National Coordinator for Health Information Technology
Department of Health and Human Services
200 Independence Avenue, SW
Washington, DC 20201

Dear Dr. Blumenthal,

In accordance with the guidance from State Health Information Exchange – Funding Opportunity Announcement, I am designating the State of Alaska's Department of Health and Social Services, Division of Health Care Services, as the official agency for the "State Grants to Promote Health Information Technology Program." My point of contact for this initiative is Mr Paul Cartland, State Health Information Technology Coordinator, and his contact information is as follows:

Mr. Paul Cartland
1835 South Bragaw Street, Suite 300
Anchorage, AK 99508
Phone: 907 269-6097
Fax: 907-770-1010
Email: paul.cartland@alaska.gov

I appreciate this funding opportunity. Please feel free to contract Mr. Cartland should you need further information.

Sincerely,

Sean Parnell
Governor

cc: The Honorable William H. Hogan, Commissioner, Alaska Department of Health and Social Services
Bill Streur, Deputy Commissioner, Division of Health Care Services, Alaska Department of Health and Social Services

# Appendix C Senate Bill 133

## LAWS OF ALASKA

## 2009

**Source**
HCS CSSB 133(FIN)

**Chapter No.**
_____

**AN ACT**

Creating a statewide electronic health information exchange system; and providing for an effective date.

---

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

THE ACT FOLLOWS ON PAGE 1

**AN ACT**

Creating a statewide electronic health information exchange system; and providing for an effective date.

---

*** Section 1.** The uncodified law of the State of Alaska is amended by adding a new section to read:

LEGISLATIVE INTENT. It is the intent of the legislature to create a secure electronic health information exchange system that

(1) ensures that the confidentiality of individually indentifying health information of a patient is secure and protected;

(2) improves health care quality, reduces medical errors, increases the efficiency of care, and advances the delivery of appropriate, evidence-based health care services;

(3) promotes wellness, disease prevention, and management of chronic illnesses by increasing the availability and transparency of information related to the health

care needs of an individual for the benefit of the individual;

(4) ensures that appropriate information needed to make medical decisions is available in a usable form at the time and in the location that the medical service is provided;

(5) produces greater value for health care expenditures by reducing health care costs that result from inefficiency, medical errors, inappropriate care, and incomplete information;

(6) promotes a more effective marketplace, greater competition, greater systems analysis, increased choice, enhanced quality, and improved outcomes in health care services; and

(7) improves the coordination of information and the provision of health care services through an effective infrastructure for the secure and authorized exchange and use of health care information.

* **Sec. 2.** AS 18.23 is amended by adding new sections to read:

**Article 4. Electronic Health Information Exchange System.**

**Sec. 18.23.300. Creation of health information exchange system.** (a) The department shall establish and implement a statewide electronic health information exchange system and ensure the interoperability and compliance of the system with state and federal specifications and protocols for exchanging health records and data.

(b) The system established under this section must

(1) include infrastructure planning that involves

(A) the designation by the commissioner of a qualified entity or combination of qualified entities in the state that

(i) has an advisory or governing body made up of health system stakeholders that include members identified under (d) of this section;

(ii) applies for available federal and state funding for planning and implementation of the system authorized by the commissioner;

(iii) submits an annual budget for approval of the commissioner;

(iv) complies with nondiscrimination and conflict of

interest policies;

(v) meets and complies with federal and state health information policies and standards;

(vi) provides cost and cost saving data associated with the development and use of the system to the department;

(B) the development of statewide infrastructure to support the electronic health information exchange system established under this section and to connect electronic health records to the infrastructure;

(C) the development of a statewide technology plan, with the participation of identified stakeholders, to promote the implementation and sustained use by public and private health care payors and providers of electronic health records and the system established under this section in order to ensure interoperability among government-operated health information systems and other public and private health information and reporting systems;

(D) the development of policies and standards, consistent with federal and state law, to safeguard the privacy and security of health information;

(E) the development of a training and workforce development plan for implementing and serving the system;

(F) an estimate of costs of the hardware, software, services, and support needed to implement and maintain the technical infrastructure; and

(2) include implementation measures that

(A) provide for installation and training on the use of the system;

(B) set out a plan to encourage health care provider, payor, and patient use of electronic records over a sustained period of time;

(C) provide support to providers for workflow redesign, quality improvement, and care management services;

(D) provide for participation by all identified stakeholders in the planning and implementation of the system;

(E) comply with federal and state health information policies;

and

(F) provide for periodic evaluation and improvement of the system.

(c) The department may enter into contracts, seek and accept available federal and private funds and equipment, and adopt regulations necessary to carry out the purposes of this section.

(d) The designee under (b)(1)(A) of this section may be a private for-profit or nonprofit entity or entities under contract with the state. The advisory or governing body of the designee must include

(1) the commissioner;

(2) eight other individuals, each of whom represents one of the following interests:

(A) hospitals and nursing home facilities;

(B) private medical care providers;

(C) community-based primary care providers;

(D) federal health care providers;

(E) Alaska tribal health organizations;

(F) health insurers;

(G) health care consumers;

(H) employers or businesses; and

(3) two nonvoting liaison members who shall serve to enhance communication and collaboration between the designee and both the Board of Regents of the University of Alaska and the commission established in the governor's office to review health care policy.

**Sec. 18.23.305. Department; duties.** In carrying out its duties under AS 18.23.300, the department shall

(1) in accordance with federal recommendations, determine the manner in which the system is developed and operated;

(2) provide oversight and technical assistance needed for planning and implementing the system;

(3) authorize and facilitate applications for available federal funding

for planning and implementing the system;

(4) ensure compliance with applicable federal and state health information policies and standards;

(5) ensure compliance with federal and state law and standards that safeguard the privacy and security of health information;

(6) ensure that the health information exchange system becomes self-sustaining through a combination of user fees and other private and public funding sources.

**Sec. 18.23.310. Confidentiality and security of information.** (a) The department shall establish appropriate security standards to protect the transmission and receipt of individually identifiable information contained in the system established under AS 18.23.300. The standards must

(1) include controls over access to and collection, organization, and maintenance of records and data that protect the confidentiality of the individual who is the subject of a health record;

(2) include a secure and traceable electronic audit system for identifying access points and trails;

(3) meet the most stringent applicable federal or state privacy law governing the protection of the information contained in the system.

(b) A person may not release or publish individually indentifying health information from the system for purposes unrelated to the treatment or billing of the patient who is the subject of the information. Use or distribution of the information for a marketing purpose is strictly prohibited.

(c) The department shall establish procedures for a patient who is the subject of a health record contained in the system

(1) to opt out of the system;

(2) to consent to the distribution of the patient's records contained in the system;

(3) to be notified of a violation of the confidentiality provisions required under this section;

(4) on request to the department, to view an audit report created under

this section for the purpose of monitoring access to the patient's records.

**Sec. 18.23.315. Health information exchange system report to the legislature.** The department shall provide to the legislature, on or before December 31 of each year, an annual report on the progress of the health information exchange system in the state, including a specific set of recommendations for long-term participation and financial support by the state.

**Sec. 18.23.320. Contract conditions.** A contract entered into to carry out the purposes of AS 18.23.300 must require that the contractor meet applicable federal and state requirements for protecting health information privacy and security and nationally recognized standards for interoperability of health information technology.

**Sec. 18.23.325. Definitions.** In AS 18.23.300 - 18.23.325,

(1) "commissioner" means the commissioner of health and social services;

(2) "department" means the Department of Health and Social Services;

(3) "system" means the statewide electronic health information exchange system established under AS 18.23.300.

* **Sec. 3.** This Act takes effect July 1, 2009.

# Appendix D AEHRA Survey

**May 11, 2009**
**Respondents**

**Sample**
The survey was made available to 1401 physicians and 180 clinic managers using the Alaska State Medical Association medical license database and the Alaska Medical Group Management Association's membership.

Total completed surveys:
Physicians: 378 85.9%
Clinic Managers: 62 14.1%
TOTAL: 440 100%

The margin of error is not as reliable on a "self-selected" sample such as this. However, if it was a true random selection, the margin of error would be about +/- 4.0%.

**Statewide participation** was widespread; physicians and clinic managers from 29 communities completed the survey.

**Ownership of Medical Practice**
58% own or share ownership of the practices represented in this report.

**Size of Practice**
The median number of physicians per practice is four, and mid-level practitioners, one. 41% of the practices have no mid-level practitioners. Combined medical staff has a median of five per practice. More of the doctors are in solo practice (26.8%) than any other category of size- 2-3 physicians, 4-6, 7-12, 13-100.

**Type of Practice**
35% work in Family Practice with Pediatrics next at 12%. Many physicians and clinic managers gave multiple answers, with 27% selecting "other" and specifying a different type of practice. In addition to the 10 categories provided, respondents specified 60 other types of practice. [*Note table at end of summary has complete lists]

**EHR Use**

**Use of EHRs and ePrescribing**
A third of respondents, physicians/clinic managers, use ePrescribing.

Half, 50%, use an EHR including 40% who use practice management and 10% who do not.

**Note:** This number cannot be ascribed to the total population of Alaska Physicians due to the self-selecting nature of the survey. However, at a minimum, 16% of Alaska physicians use an EHR and the figure is likely somewhere between that number and 50%.

**Use of EHRs by Size and Type of Practice**
26% of physicians in one-doctor practices have an EHR. Those with the largest clinics are most likely to have an EHR.

50% of Family Physicians, Internists, Pediatricians, and Ob/Gyn's use EHRs, whereas fewer, (41%) grouped in the "other" category of practice types, use them.

**Brands of EHRs in Use in Alaska**
No EHR holds a significant portion of the EHR market in Alaska. Centricity holds 11%; eClinicalWorks, 8%. There are approximately 55 EHRs in use.

**EHR Connections**
Most (74%) of the EHRs are integrated with a practice management system.
Half are connected to labs and a third to one or more pharmacy.
A third of the EHRs do not connect to any other entity.

**Servers and Hardware**
79% of the servers are located on site; 78% of EHR owners supplied their own hardware.

Nearly all respondents had their EHR longer than one year.

**Satisfaction Levels**

Three quarters of EHR users are at least "somewhat satisfied" with their system with a third who say they are "very satisfied." Nearly a third are somewhat to very dissatisfied.

Less than half (43%) would recommend their EHR to others without reservation and 36% with reservations. 20% would not recommend their EHR.

**Non-Use of EHRs**

Nearly half (47%) of the physicians not using an EHR have seriously considered buying one. 19% have considered but decided against it.

**Barriers**
The top barriers (medium and major barrier categories combined) to adopting EHRs are as follows:

Initial cost 84%
Practice disruption and the cost 85%
Uncertainty about which EHR to buy 65%

Privacy concerned 31%.

**Interest in AEHRA Pilot**

11% (21 docs) are interested in participating; 48% (91) might be interested but need more information.

* **CURRENT EHR USAGE**

**Question:** Which EHR does your office use?

NextGen

eClinical Works
WebMD
eMD
Soapware
Practice Partner
Misys
Allscripts
MediNotes
Alert
HAC (McKesson)
Centricity
ICANotes
Other (Please specify below)

No one company holds a significant portion of the EHR market in Alaska. Centricity holds 11%, and eClinical Works 8%. Those are the leaders. There are many others, listed on the next page.

**EHR COMPANIES**

| | Respondent is a: | | TOTAL |
|---|---|---|---|
| | Physician | Clinic Manager | |
| **EHR office uses: *** | | | |
| Centricity | 21 11.1% | 1 3.2% | 22 10.0% |
| eClinical Works | 15 7.9% | 3 9.7% | 18 8.2% |
| WebMD, now Intergy by Sage | 12 6.3% | 3 9.7% | 15 6.8% |
| eMDs | 12 6.3% | 3 9.7% | 15 6.8% |
| HAC (McKesson) | 14 7.4% | | 14 6.4% |
| Allscripts (Misys) | 10 5.3% | 3 9.7% | 13 5.9% |
| NextGen | 10 5.3% | | 10 4.5% |
| Amazing Charts | 9 4.8% | | 9 4.1% |
| RPMS, IHS (Federal system) | 9 4.8% | | 9 4.1% |
| Practice Partner | 5 2.6% | 3 9.7% | 8 3.6% |
| iMedica | 7 3.7% | 1 3.2% | 8 3.6% |
| GEMMS | 7 3.7% | 1 3.2% | 8 3.6% |
| Soapware | 5 2.6% | 1 3.2% | 6 2.7% |
| Alert | 4 2.1% | | 4 1.8% |
| Meditech | 3 1.6% | | 3 1.4% |
| Other* | 2 1.1% | | 2 .9% |
| MediNotes | | 1 3.2% | 1 .5% |
| | | | |
| Other # | 45 23.8% | 11 35.5% | 56 25.5% |
| Unsure | 1 .5% | | 1 .5% |
| | | | |
| TOTAL | 189 100% | 31 100% | 220 100% |

**Column percentages, * Difference is not statistically significant.**

**EHR OTHER COMPANIES**

AHLTA and CHCS
ALERT EDIS
Allmeds
Amazing Charts-EMR in addition to Misys practice management
AMS American Medical Software
Baby Steps (Pediatrix Medical Group) [2 answers
CareCast, ImageCast
Cerner
Hospital's Cerner Laboratory IS
Chartlogic
Chartware [2 answers]
Clinix MD
CPSI [2 answers]
DoctorNotes
DocuTap
ECIS a dedicated cardiology program) [2 answers]
GEMMS/ECIS
HealthPort
I engineered my own
ibex, websked
Impac, Lantis [3 asnwers]
IMPAC & Cerner
Just Scaning into a med record
MediMac (now MacPractice)
Meditech; T-System
Mosaic
Multiple systems - will be adopting Cerner
NewMed
Orthopad [2 answers]
Picis IBEX [3 answers]
Point & Click - University & College Vender
Practice Studio
Praxis
PrimeSuite
Prognocis by Bizmatics
ProvPort
QD Clinical
Scriptswriter, Psychiatrists Billing System
Social Security Administration Special
T-System [2 answers]

# Appendix E 2010 Provider Survey

## 1. Electronic Health Records (EHR) Survey

The State of Alaska intends to participate in the Electronic Health Record (EHR) incentive program that was authorized under the HITECH provisions of the American Reinvestment & Recovery Act.

The program offers incentive dollars to qualifying Medicaid providers. Prior to implementing the program, the state is required to determine provider's readiness for meaningful use and anticipated numbers of eligible providers. The information provided by this survey will assist in developing program guidelines that support health care providers practicing in varied and unique Alaskan circumstances.

Your participation is appreciated

* 1. Individual National Provider Identifier (NPI) number

2. Please provide your group NPI if applicable.

* 3. Please enter the name of the individual responding to this survey.

Last Name

First Name

Middle Name

The incentive is available to each qualifying provider for a single location. Please enter the following information for the location you would use in applying for the incentive.

* 4. Provider

Practitioner Name:

Business Entity Name:

Address:

Address 2:

City/Town:

State:

ZIP:

Email Address:

Phone Number:

Incentive funds are going to be made available to assist federally designated medical professionals in adopting, implementing or upgrading electronic health records systems to meet federal requirements.

In order to qualify for Medicaid EHR incentives you must meet a minimum Medicaid patient percentage. Please answer the following questions to assist in determining the best method of calculating Medicaid patient volume.

5. Estimate the percentage of your active patients that are Medicaid eligible.

- 0-10%
- 11-20%
- 21-30%
- 31-50%
- 51-100%

* 6. On average, approximately what percentage of your weekly office visits are for Medicaid eligible patients?

- ◯ 0-10%
- ◯ 11-20%
- ◯ 21-30%
- ◯ 31-50%
- ◯ 51-100%

* 7. Which of the following did you use in determining the percentage?

- ◯ Scheduled appointments
- ◯ Actual visits
- ◯ Number of claims
- ◯ Dollar value of claims

Other (please specify)

* 8. If you meet the EHR incentive program eligibility criteria do you intend to participate?

- ◯ Yes
- ◯ No

* 9. What type of internet connection do you have at your practice?

- ◯ Dial-up connection
- ◯ Wired broadband (i.e., DSL or cable modem) or faster connection (e.g. T1 or T3 line)
- ◯ Cellular connection
- ◯ Satellite connection
- ◯ No internet connection

* 10. Does your practice setting use an EHR?

- ◯ Yes, EHR with a Practice Management system
- ◯ Yes, EHR without a Practice Management system
- ◯ No EHR

## 2. EHR Readiness

In order satisfy the program requirements providers will have to meet the Center for Medicare and Medicaid Services (CMS) "meaningful use" guidelines at a point in time to be determined by CMS. These questions will assess your EHR's

readiness for the proposed meaningful use guidelines.

* 11. Please indicate with which entities (if any) you are sharing health information electronically using your EHR?

- [ ] None
- [ ] Hospital(s)
- [ ] Laboratory(s)
- [ ] Other provider(s)
- [ ] Pharmacy(s)

Other (please specify)

* 12. Please rate how fully you are using your EHR.

- ◯ 1 - Software has been purchased
- ◯ 2 - Software has been installed
- ◯ 3 - Staff has been trained
- ◯ 4 - Some information is entered by Nurses or Admin staff
- ◯ 5 - Most information is entered by Nurses and Doctors
- ◯ 6 - Information in the EHR is used proactively

13. Was your choice of EHR product determined by the presence of functions that are specific to your type of practice or specialty?

- ◯ Yes
- ◯ No

**14. For each of the following proposed meaningful use criteria please identify if your EHR supports and whether you are using the specified criteria.**

| | Yes | No | Functional Not Available | Not Sure |
|---|---|---|---|---|
| Are you using Computerized Provider Order Entry (CPOE)? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-drug interaction checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-allergy checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-formulary checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient problem lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient medication lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient medication allergy lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient demographics? | ◯ | ◯ | ◯ | ◯ |
| Are you recording patient vital signs? | ◯ | ◯ | ◯ | ◯ |
| Are you recording smoking status for patients 13 years or older? | ◯ | ◯ | ◯ | ◯ |
| Are you recording clinical lab test results? | ◯ | ◯ | ◯ | ◯ |
| Are you recording patients by specific condition? | ◯ | ◯ | ◯ | ◯ |
| Are you using a feature that supports at least five clinical decision support rules? | ◯ | ◯ | ◯ | ◯ |
| Are you using insurance eligibility checking? | ◯ | ◯ | ◯ | ◯ |
| Are you using medication reconciliation? | ◯ | ◯ | ◯ | ◯ |
| Are you using a feature that allows transmission and receipt of summary care records for transitions of care and referrals? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient electronic access? | ◯ | ◯ | ◯ | ◯ |
| Are you using electronic prescribing? | ◯ | ◯ | ◯ | ◯ |

## 3. End

For additional information please visit the State of Alaska HIT web site at http://hss.state.ak.us/hit/.

Thank you for participating in this survey.

# Appendix F 2010 Hospital Survey

## 1. Electronic Health Records (EHR) Survey

The State of Alaska intends to participate in the Electronic Health Record (EHR) incentive program that was authorized under the HITECH provisions of the American Reinvestment & Recovery Act.

The program offers incentive dollars to qualifying hospitals. Prior to implementing the program, the state is required to determine readiness for meaningful use and anticipated numbers of eligible hospitals.

Your participation is appreciated

*** 1. National Provider Identifier (NPI) number**

*** 2. Please enter the name of the individual responding to this survey.**

Last Name

First Name

Middle Name

The incentive is available to each qualifying hospital for a single location. Please enter the following information for the location you would use in applying for the incentive.

*** 3. Hospital**

Hospital Name:

Business Entity Name:

Address:

Address 2:

City/Town:

State:

ZIP:

Email Address:

Phone Number:

In order to qualify for Medicaid EHR incentives you must meet a minimum Medicaid patient percentage. Please answer the following questions to assist in determining the best method of calculating Medicaid patient volume.

**4. Estimate the percentage of your active patients that are Medicaid eligible.**

- ◯ 0-10%
- ◯ 11-20%
- ◯ 21-30%
- ◯ 31-50%
- ◯ 51-100%

* 5. Which of the following did you use in determining the percentage?

- ◯ Scheduled appointments
- ◯ Actual visits
- ◯ Number of claims
- ◯ Dollar value of claims

Other (please specify)

* 6. If you meet the EHR incentive program eligibility criteria do you intend to participate?

- ◯ Yes
- ◯ No

* 7. What type of internet connection do you have at your location?

- ◯ Dial-up connection
- ◯ Wired broadband (i.e., DSL or cable modem) or faster connection (e.g. T1 or T3 line)
- ◯ Cellular connection
- ◯ Satellite connection
- ◯ No internet connection

* 8. Does your organization use an EHR?

- ◯ Yes, EHR with a Practice Management system
- ◯ Yes, EHR without a Practice Management system
- ◯ No EHR

## 2. EHR Readiness

In order satisfy the program requirements providers will have to meet the Center for Medicare and Medicaid Services (CMS) "meaningful use" guidelines at a point in time to be determined by CMS. These questions will assess your EHR's readiness for the proposed meaningful use guidelines.

* 9. Please indicate with which entities (if any) you are sharing health information electronically using your EHR?

- [ ] None
- [ ] Other hospital(s)
- [ ] Laboratory(s)
- [ ] Provider(s)
- [ ] Pharmacy(s)

Other (please specify)

* 10. Please rate how fully you are using your EHR.

- ◯ 1 - Software has been purchased
- ◯ 2 - Software has been installed
- ◯ 3 - Staff has been trained
- ◯ 4 - Some information is entered by Nurses or Admin staff
- ◯ 5 - Most information is entered by Nurses and Doctors
- ◯ 6 - Information in the EHR is used proactively

**11. For each of the following proposed meaningful use criteria please identify if your EHR supports and whether you are using the specified criteria.**

| | Yes | No | Functional Not Available | Not Sure |
|---|---|---|---|---|
| Are you using Computerized Provider Order Entry (CPOE)? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-drug interaction checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-allergy checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using drug-formulary checks? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient problem lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient medication lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient medication allergy lists? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient demographics? | ◯ | ◯ | ◯ | ◯ |
| Are you recording patient vital signs? | ◯ | ◯ | ◯ | ◯ |
| Are you recording smoking status for patients 13 years or older? | ◯ | ◯ | ◯ | ◯ |
| Are you recording clinical lab test results as structured data? | ◯ | ◯ | ◯ | ◯ |
| Are you recording patients by specific condition? | ◯ | ◯ | ◯ | ◯ |
| Are you using a feature that supports at least one clinical decision support rule? | ◯ | ◯ | ◯ | ◯ |
| Are you using medication reconciliation? | ◯ | ◯ | ◯ | ◯ |
| Are you using a feature that allows transmission and receipt of summary care records for transitions of care and referrals? | ◯ | ◯ | ◯ | ◯ |
| Are you using patient electronic access? | ◯ | ◯ | ◯ | ◯ |
| Are you using electronic prescribing? | ◯ | ◯ | ◯ | ◯ |
| Are you providing patients with an electronic copy of their discharge instructions upon request? | ◯ | ◯ | ◯ | ◯ |
| Are you providing patients with an electronic copy of their health information upon request? | ◯ | ◯ | ◯ | ◯ |
| Are you recording advanced directives for patients 65 or older? | ◯ | ◯ | ◯ | ◯ |
| Do you use EHR technology to identify patient specific education resources and provide them to the patient? | ◯ | ◯ | ◯ | ◯ |
| Do you have the capability to report ambulatory clinical quality measures to CMS and the state? | ◯ | ◯ | ◯ | ◯ |
| Do you have the capability to provide electronic syndromic surveillance data to public health agencies? | ◯ | ◯ | ◯ | ◯ |
| Do you have the capability to submit electronic data to immunization registries? | ◯ | ◯ | ◯ | ◯ |
| Do you have the capability to provide electronic submission of reportable lab results to public health agencies? | ◯ | ◯ | ◯ | ◯ |

## 3. End

For additional information please visit the State of Alaska HIT web site at http://hss.state.ak.us/hit/.

Thank you for participating in this survey.

# Appendix G SDE Survey Outreach

HIT Health Information TECHNOLOGIES

Dear Health Care Provider,

I'm requesting your help in encouraging health care providers to respond to a short survey that will enable us to determine which of your members may qualify for Electronic Health Records (EHR) incentive payments from the Alaska Department of Health and Social Services (DHSS).

Part of the American Recovery and Reinvestment Act (ARRA) establishes an incentive program for eligible Medicare and Medicaid professionals to adopt, implement or upgrade EHR technology in their business. Before we can make incentive payments to eligible providers and hospitals, we are required to assess the baseline EHR usage among all providers and determine the number of them interested in participating in the incentive program.

Please fill out the online survey. It should take ten to 15 minutes to complete.

For more information, go to the Health Information Technologies (HIT) website or e-mail us at hss.hitinfo@alaska.gov. Look for additional information at the Centers for Medicare and Medicaid Services site.

Thank you for your time,

Paul Cartland
State Health Information Technology Coordinator

STATE of ALASKA Department of Health and Social Services

Join our mailing list & stay up-to-date on Health Information Technologies in Alaska

State of Alaska • Department of Health & Social Services • Health Information Technologies
1835 S. Bragaw, Suite 300, Anchorage, Alaska 99508 • (907) 269-6097 • http://hss.state.ak.us/hit/
If you are not able to view this announcement please follow this link

STATE OF ALASKA

DEPT. OF HEALTH AND SOCIAL SERVICES

*MEDICAID & HEALTH CARE POLICY*

***SEAN PARNELL, GOVERNOR***

**HEALTH INFORMATION TECHNOLOGIES**
*1835 S. Dragaw, Suite 300*
*Anchorage, Alaska 99508*

*Phone: (907) 269-6097*
*Fax: (907) 334-2566*
*E-Mail: hss.hitinfo@alaska.gov*
*www.hss.state.ak.us/hit/*

July 19, 2010

Dear Health Care Provider,

I'm requesting your help with a short survey that will enable us to determine how many medical providers qualify for Electronic Health Records (EHR) incentive payments from the Alaska Department of Health and Social Services (DHSS).

Part of the American Recovery and Reinvestment Act (ARRA) establishes an incentive program for eligible Medicare and Medicaid professionals to adopt, implement or upgrade EHR technology in their business. Before we can make incentive payments to eligible providers and hospitals, we are required to assess the baseline EHR usage among all providers and determine the number of them interested in participating in the incentive program.

Please fill out the online survey. It should take ten to 15 minutes to complete.

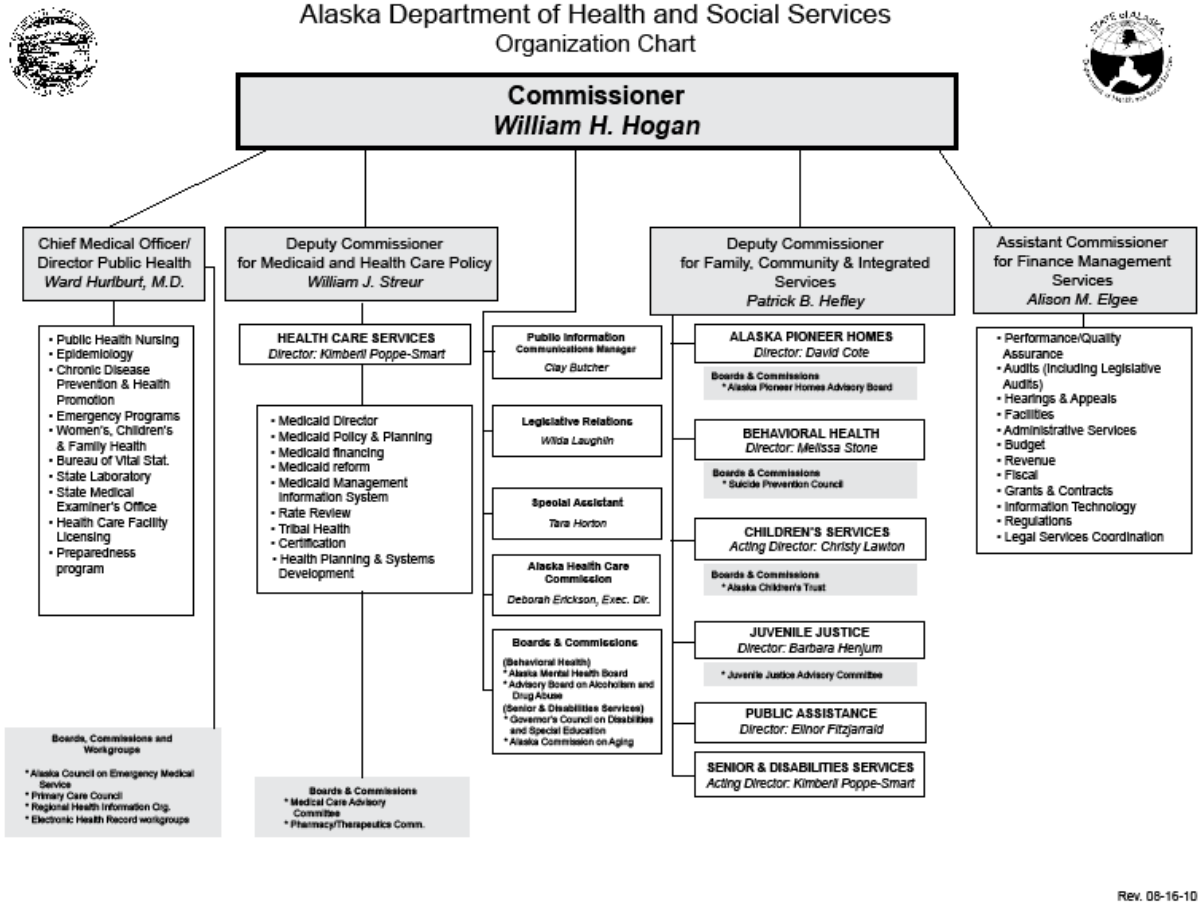
For more information, go to the Health Information Technologies (HIT) website or e-mail us at hss.hitinfo@alaska.gov. Look for additional information at the Centers for Medicare and Medicaid Services site.

Please join our listserve for updates on the status of Health Information Technologies in Alaska.

Thank you for your time,

Paul Cartland
State Health Information Technology Coordinator

# Appendix H DHSS Organization Chart



# Appendix I HIT Governance Charter

## Alaska Department of Health and Social Services

*Health Information Technology*

*Governance Committee Charter*

Revision History

| Rev. | Date | Author(s) | Description of Change | Approval | Date |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 0 | 4/12/2010 | Paul Cartland | Initial | Bill Streur | 5-4-10 |

*Approval of the Project Charter indicates an understanding of the purpose and content described in this document. By signing this document, each individual agrees work should be initiated on this project and necessary resources should be committed as described herein.*

| Approver Name | Title | Signature | Date |
|---|---|---|---|
| William Streur | Deputy Commissioner | | 5/4/10 |
| | | | |

## Contents

# Section 1. Project Overview

## 1.1 Business Need

The HITECH Act set aside funding for states to support programs that improve health care quality, safety and efficiency through the use of health information technology. The state has entered into several agreements with the Center for Medicare and Medicaid Services and the Office of the National Coordinator for Health Information Technology that require the state to coordinate all health information technology efforts. In order to ensure that these efforts represent the entire department, the Department of Health and Social Services is establishing a HIT governance committee.

## 1.2 Project Description

The HIT governance committee will provide visioning and oversight of all HIT projects in which DHSS participates.

This Charter addresses State project management methods and task responsibilities for successful coordination.

## 1.3 Project Goals and Objectives

This project will succeed by authorizing and supporting HIT projects that achieve the following business goals and objectives:

1. Improve affordability, access and quality of health care, and health status of Alaskans.
2. State Enterprise Architecture that supports the concepts as well as current and future requirements of Medicaid Information Technology Architecture (MITA), Health Insurance Portability and Accountability Act (HIPAA), and Deficit Reduction Act (DRA).
3. Electronic Health Record (EHR) Incentive payments to eligible professionals and hospitals
4. State Medicaid Health Information Technology Plan (SMHP)
5. Achieve national goal of "most Americans having an electronic health record" by 2014. (President Bush, 2004)

## 1.4 Scope

The scope of this committee includes the following major tasks:

1. Develop the State Medicaid Health Information Technology Plan (SMHP) for 2010 through 2015.
2. Approve process for, and provide oversight of, the distribution of incentive payments provided by the ARRA.
3. Develop initiatives to encourage the adoption of certified EHR technology to promote health care quality and the exchange of health care information.
4. Provide oversight of the tracking of Meaningful Use by Providers.

5. Provide to CMS reporting of the FFP for the HITECH provisions.

6. Provide guidance to the State HIT Coordinator.

7. Review and approve the HIT Coordinator's Roadmap for moving from today's "AS-IS" status to the five year plan for the "To-Be" status.

#### 1.4.1 Project Organization and Procurement

Major tasks and activities are to establish the.

1. Assessment of the Medicaid "As-Is" landscape.

2. Development of the Medicaid "To-Be" Landscape.

3. Develop the EHR Incentive Program Plan.

4. Develop the State Medicaid HIT Plan.

### 1.5 Project Scope Exclusions

The scope of this Charter ends with the completion of the tasks to accomplish the five year State Medicaid HIT Plan by the end of 2015.

### 1.6 Critical Success Criteria

### 1.7 Assumptions and Constraints

#### 1.7.1 Assumptions

To be successful, the following assumptions exist for the duration of the project:

1. Funding will be available to support proposed staffing levels and tasks.

2. Accomplishment of the goals and objectives of this project within the agreed upon schedule and budget will remain the highest priorities of the department.

3. The Health Information Technology Office organization including positions and their attendant job descriptions will be maintained.

4. The executive (governance), management, and staff roles and responsibilities presented in this Charter will be maintained and accomplished.

5. Division Directors will identify qualified Subject Matter Experts (SME's) and ensure that those individuals are available to assist as needed.

6. Project staff will coordinate their discussions with SME's so as to minimize the impact of the project on the SME's

7. Staff participating in the project will be advised of significant business and operational changes that may impact the scope, objectives, and assumptions of the project.

8. Teamwork and openness to change is expected of all staff and stakeholders.

### 1.7.2 Constraints

The project confronts the following constraints:

1. Concurrent implementation of the new MMIS Enterprise system during the first two and one-half years of the HIT project.

2. The State of Alaska Statewide Information Technology Strategic Plan.

3. Lack of full-time, dedicated, resources for development and implementation of the SMHP.

# Section 2. Authority and Milestones

## 2.1 Funding Authority

The MMIS DDI project is funded from a combination of State of Alaska and Federal funds. The budget for the project is outlined in the Implementation Advance Planning Document (IAPD) approved by CMS.

## 2.2 Oversight Authority

### 2.2.1 Project Governance

The project organization is governed by the Commissioner of the Department of Health and Social Services. To assure project success, the Commissioner has appointed a Governance Committee composed of the Deputy Commissioner for Health Policy and Medicaid (chair and Executive Sponsor), State Health Information Technology Coordinator, Director of Health Care Services, Tribal Health Program Manager, ITS Business Applications Manager, and the Division of Public Health HIT Lead. Roles and responsibilities of the committee are established as follows:

| Role | Authority and Responsibilities |
|---|---|
| **Governance Committee** | Executive sponsorship for the project<br>Approve the overall project charter<br>Set the strategic vision and direction for HIT<br>Provide timely project direction to ensure DHSS business requirements and interests are represented<br>Decision authority for major (>$100k) change to cost, schedule, scope, or resource allocation during the project.<br>Communicate and distribute information to DHSS, the Administration, and the Legislature<br>Set Project priority among competing department level initiatives<br>Review project progress by meeting with project director/manager, and contractors monthly against planned timeframes; specifically:<br>• Review project status<br>• Request changes to State regulations as necessary to support implementation<br>• Ensure commitment of participants and all stakeholders<br>• Ensure commitment of appropriate resources<br>• Encourage and facilitate organizational change |

### 2.2.2 Executive Sponsor

The Executive Sponsor is the Deputy Commissioner for Health Policy and Medicaid and is appointed by the Commissioner.

| Role | Authority and Responsibilities |
|---|---|
| **Executive Sponsor** | Provides executive support and liaison to department executives.<br>Conducts monthly Contract management meetings as required with vendor(s).<br>Conducts quarterly Executive review meetings with VENDOR.<br>Reviews progress, executive level risks, and address elevated project issues.<br>Reviews major scope changes and requests for contract changes.<br>Approves executive level external project communications.<br>Oversees project budget and expenditures.<br>Reviews and decide management level escalated issues, proposed major project scope changes, and project risks |

### 2.2.3 State HIT Coordinator

| Role | Authority and Responsibilities |
|---|---|
| **State HIT Coordinator** | Approve project structure, coordinate project resources<br><br>Manage project and project team<br><br>Manage and review project status, budget, staff assignments and resource needs<br><br>Provide status and other requested reports to the Project Director/Governance Committee<br><br>Reports progress, escalates appropriate issues, and implements Governance Committee's recommendations/decisions/directives<br><br>Communicate regularly with other project managers (e.g. Vendor Project Manager, Deputy Project Manager, IVV Manager)<br><br>Coordinate communications between teams<br><br>Oversee and monitor project progress by meeting with the project director/managers on regular basis to review assessment progress against planned timeframes; specifically:<br>• Review the project status information in advance of meetings<br>• Provide decisions, as needed, representing all system users<br>• Monitor project milestone and deliverable progress<br>• Provide approval/acceptance authority for sign-off at milestone/deliverable completion<br>• Provide review and approval for detail scope, change, and issue management items, recommending required funding<br>• Remove obstacles to the assessment progress, providing decision/resolution in cases of unrecognized issues<br>• Provide recommendation/direction to project director and managers when project is at risk, off schedule, or out of scope<br>• Administer issue and change request process<br>• Oversee project management processes (structure, plan, control, assess, report, and conclude) |

# Appendix J Acronyms

ACS: Affiliated Computer Services
AHRQ: Agency for Healthcare Research and Quality
AKAIMS: Alaska Automated Information Management System
ACHIN: Alaska Community Health Integrated Network
AeHN: Alaska eHealth Network
AEHRA: Alaska Electronic Health Record Alliance
AFHCAN: Alaska Federal Health Care Access Network
AFHCP: Alaska Federal Health Care Partnership
AHCC: Alaska Health Care Commission
ANMC: Alaska Native Medical Center
ANTHC: Alaska Native Tribal Health Consortium
APCA: Alaska Primary Care Association
API: Alaska Psychiatric Institute
ARTN: Alaska Rural Telehealth Network
ASHNHA: Alaska State Hospital and Nursing Home Association
ASMA: Alaska State Medical Association
ATAC: Alaska Telehealth Advisory Council
APHSA: American Public Human Services Association
ARRA: American Recovery and Reinvestment Act
CDC: Center for Disease Control
CMS: Centers for Medicare and Medicaid Services
CHIPRA: Children's Health Insurance Program Reauthorization Act
CDR: Clinical Data Repository
CHC: Community Health Centers
CPOE: Computerized Physician Order Entry
CCD: Continuity of Care Document
CRG: Craciun Research Group
DSAs: Data Sharing Agreements
DW/DSS: Data Warehouse / Decision Support System
DAMA: Demand Assigned Multiple Access
DOC: Department of Corrections
DOD: Department of Defense
DHSS: Department of Health and Social Services
SDE: Designated Entity
DS3: Disabilities Services Data System
DHCS: Division of Health Care Services
DPA: Division of Public Assistance
DPH: Division of Public Health
DSDS: Division of Senior and Disabilities Services
EPSDT: Early Periodic Screening, Diagnosis and Treatment
EHR: Electronic Health Record
EMR: Electronic Medical Record

e-prescribing: Electronic Prescribing
EIS: Eligibility Information System
EPs: Eligible Providers
EMS: Emergency Medical Service
EMPI: Enterprise Master Patient Index
FCC: Federal Communications Commission
FQHC: Federally Qualified Health Center
FASD: Fetal Alcohol Spectrum Disorder
GPRA: Government Performance and Results Act
HIE: Health Information Exchange
HISPC: Health Information Security and Privacy Collaboration
HIT: Health Information Technology
HITECH: Health Information Technology for Economic and Clinical Health
HIPAA: Health Insurance Portability and Accountability Act
HRSA: Health Resources and Services Administration
IHS: Indian Health Service
IVR: Interactive Voice Response
IOA: Inter-Organizational Agreements
JOMIS: Juvenile Offender Management Information System
LIMS: Lab Information Management System
MMIS: Management Information System
MCI: Master Client Index
MPI: Master Patient Index
MITA: Medicaid Information Technology Architecture
MMIS: Medicaid Management Information System
MIPPA: Medicare Improvements for Patients and Providers Act
NOMs: National Outcome Measurements
NHIN: Nationwide Health Information Network
OAT: Office for the Advancement of Telehealth
OCS: Office of Children Services
BRS: Behavioral Rehabilitation Services
ONC: Office of the National Coordinator
ORCA: Online Resource for the Children of Alaska
PNWHPC: Pacific Northwest Health Policy Consortium
PFD: Permanent Fund Dividend
PHR: Personal Health Record
PACS: Picture Archiving and Communication System
PCMIS: Primary Care Management Information System
PA: Prior Authorization
PIO: Public Information Office
PKI: Public Key Infrastructure
REC: Regional Extension Center
RHIO: Regional Health Information Organization
RFI: Request for Information

RFP: Request for Proposal
RPMS: Resource and Patient Management System
RUS: Rural Utilities Services
SB 133: Senate Bill 133
SEARHC: Southeast Alaska Regional Health Consortium
SSRS: SQL Server Report Services
SDE: State Designated Entity
SMHP: State Medicaid Health Information Technology Plan
STEP: Summative Telemedicine Evaluation Project
TBHS: Tele-Behavioral Healthcare Services
TERRA: Terrestrial for Every Region of Rural Alaska
TPL: Third Party Liability
TEDS: Treatment Episode Data Set
TPO: Treatment, Payment and Operations
T-CHIC: Tri-State Children's Health Improvement Consortium
UCI: Unique Client Identification
USDA: United States Department of Agriculture
USAC: Universal Service Administrative Company
USF: Universal Service Fund
VHA: Veteran Health Administration
VA : Department of Veterans Affairs
VoIP: Voice Over Internet Protocol
WAN: Wide Area Network

# Appendix K Endnotes

[i] Sponsor Statement SB 133, Senator Joe Paskvan: http://www.aksenate.org/sponsor/SB133_ss_sen_paskvan.pdf retrieved 06/12/2009
[ii] Health Information Exchange (HIE) An Alaska Overview: http://www.alaskarhio.org/index.php?option=com_content&task=view&id=31&Itemid=1 retrieved 03/05/2009
[iii] Alaska Primary Care Association—Health Information Technology Network for Community Health Centers: http://www.legfin.state.ak.us/BudgetReports/GetBackupDocuments.php?Year=2008&Type=proj&Number=50479&NumberType=LFD retrieved 02/24/2009
[iv] Certified Health IT Product List: http://onc-chpl.force.com/ehrcert retrieved 10/20/10
[v] The Alaska Rural Telehealth Network: Who we are…: http://www.artn.org/index.php retrieved 03/05/2009.
[vi] SEARHC is among the nation's leaders in telebehavioral health: http://www.searhc.org/common/pages/whatsnew/archive/archive23/index.php retrieved 03/07/09
[vii] Report to Congress of the Interagency Access to Health Care in Alaska Task Force: http://www.healthcare.gov/center/reports/alaskataskforce.html , page 4, retrieved 10/4/2010
[viii] USAC Fund Administration Overview: http://www.usac.org/fund-administration/ retrieved 03/07/2009
[ix] USAC About High Cost, Overview of the Program: http://www.usac.org/hc/about/default.aspx retrieved 03/07/09
[x] USAC About Low Income, Overview of the Program: http://www.usac.org/li/about/default.aspx retrieved 03/07/09
[xi] USAC About Rural Health Care, Overview of the Program: http://www.usac.org/rhc/about/program-overview.aspx retrieved 03/07/09
[xii] USAC About Schools and Libraries, Overview of the Program: http://www.usac.org/sl/about/overview-program.aspx retrieved 03/07/2009
[xiii] USAC About Fund Administration, How Does Universal Funding Work?: http://www.usac.org/fund-administration/about/how-universal-service-fund-works.aspx retrieved 03/07/09
[xiv] GCI Press Release, GCI Subsidiary Awarded $88 Million in Federal Broadband Stimulus Funding www.**gci**.com/about/**gci**uuipressrelease.pdf retrieved 09/20/2010
[xv] TERRA-Southwest Project Overview, GCI / United Utilities, Inc. Publication, April 2010
[xvi] From http://www.markle.org/markle_programs/healthcare/index.php
[xvii] Connecting Communities Toolkit. http://ehealthinitiative.org/
[xviii] Alaska Health Care Commission, "Transforming Health Care in Alaska 2009 Report / 2010 – 2014 Strategic Plan", January 2010