### REVISION HISTORY

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<th>Date</th>
<th>Reviewer</th>
<th>Comments</th>
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<td>Version .01</td>
<td>1/18/2013</td>
<td></td>
<td>Internal Review</td>
</tr>
<tr>
<td>Version .05</td>
<td>2/6/2013</td>
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<td>Initial Submission to State</td>
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<tr>
<td>Version .07</td>
<td>2/8/2013</td>
<td>Paul Cartland</td>
<td>Updates per Comments</td>
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<td>2/12/2013</td>
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<tr>
<td>Version 1.0</td>
<td>2/22/2013</td>
<td>Paul Cartland</td>
<td>Add Sustainability Plan Appendix</td>
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<td>Version 1.1</td>
<td>2/26/2013</td>
<td>Paul Cartland</td>
<td>Updates per comments</td>
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1 EXECUTIVE SUMMARY

The purpose of this transition work plan is to describe the goals and objectives for the second phase of the Office of the National Coordinator for Health Information Technology (ONC) State HIE Cooperative Agreement with the State of Alaska. The Alaska Strategic and Operational Plan (SOP) update approved in July 2012, noted the implementation of Direct Secure Messaging (DSM) in January 2012. The goal of 300 active DSM participants was achieved in July 2012 and surpassed the goal in August of 2012.

Alaska has implemented Direct Secure Messaging (DSM), provisioned 3,872 individual mailboxes in over 331 unique organizations. Alaska has achieved the implementation measures goal for directed exchange to request transition from Phase 1 to Phase 2.

<table>
<thead>
<tr>
<th>Table 1: DSM Participation Results</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Unique Users having sent at least one non-test Direct message in a clinical context</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

This transition work plan describes the Alaska Health Information Exchange (HIE) Program objectives and implementation approach for State Fiscal Year (SFY) 2013 and 2014. The activities defined in this plan have been defined to support the Office of the National Coordinator for Health Information Technology (HIT) Program Information Notice (PIN) priorities of Lab Exchange, e-prescribing and exchange of patient Continuity of Care Documents (CCDs) with particular focus on providers that lack significant financial resources; in addition to offering opportunities for providers to achieve meaningful use objectives.

Alaska has developed a strategy leveraging existing and planned initiatives that are building blocks for healthcare transformation. The Alaska HIE program will build upon the existing DSM implementation and user base, as well as the query based HIE capabilities made available in a pilot project in Fairbanks and State contributions such as MyAlaska, Master Client Index (MCI) and Medicaid Management Information System (MMIS) Data warehouse (DW).

Alaska has a “data driven” vision for improving the quality of care delivered to patients. Alaska’s vision is to provide comprehensive Patient Summaries that contain a combination of administrative (claims), clinical, laboratory, pharmacy (medication), and immunization data. The Patient Summaries will be analyzed using rules engine technology to identify potential patient safety risks, gaps-in-care, and medication therapy management issues.

The data will be stored in the Alaska HIE Clinical Data Repository (CDR). The Clinical Data Repository is a centralized storage where data from disparate sources is clinically and semantically standardized and made “analytically ready”. While the transformation to robust information exchange and a data-rich CDR developed through solid participation is in progress,
Alaska will undertake a series of steps to leverage the data stored within the CDR and support Meaningful Use requirements.

2 PHASE 2 OBJECTIVES

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

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

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

Currently, within Alaska, there is an abundance of data available about patients. This data is currently stored in different clinical and administrative data repositories. Transforming care delivery in Alaska requires being able to access this data and transform the data into meaningful information that can be used to better understand a patient’s health needs, behavioral risks, and provide care givers a comprehensive Patient Summary in real-time at the point of care.

The resulting Patient Summary provides care givers, even those that have never previously encountered the presenting patient, an understanding of the patient’s medical and medication history, recent tests and services provided. Providing this information should reduce or eliminate duplicate services, tests, and lower the cost of care. Additionally, as a future step of this transition, the Patient Summary can be analyzed in real-time for compliance with Evidence Based Medicine Guidelines, wellness recommendations, and identification of medication therapy risks. Over time, this information will be incorporated into the Patient Summary and provide care givers patient-centric information and support the goals of the Alaska Healthcare Commission. The result will be improved ability to proactively address patient care needs.
2.1 Phase 2 Transition Steps

The following steps are planned to facilitate the transition from Phase 1 to Phase 2 of the Cooperative Agreement grant program. To effectively achieve the transition, Alaska will need to engage clinical stakeholders to identify chronic conditions and propose care guidelines. Additionally, creation of Patient Summaries requires the collection, standardization, and availability of “analytically ready” data. Alaska’s transition plan includes steps for collection of data from Direct Messaging, Medicaid claims, and hospital data.

Year One Plan - Steps for 2013

Key implementation activities for year one are the formation of Clinical Workgroup, identify targeted diseases, and agreement upon clinical standards for targeted diseases. The Clinical Workgroup and the Alaska Healthcare Commission will be responsible for identification of targeted diseases and development of care standards that support Evidence Based Medicine guidelines.

Standards Development

1). Form Clinical Workgroup
2). Engage and empower the Clinical Workgroup to develop care guidelines for Alaskans based upon recommendations made by the AHCC:
   - Identify clinical guidelines champions within the Clinical Workgroup and AHCC
   - Confirm target diseases within Alaska with the highest prevalence and greatest impact on Alaskans as noted in item five of the Technical Implementation below.
3). Confirm the initial set of Evidence Based Medicine (EBM) guidelines by disease
4). Engage the provider community.
   - Engage key programs (Medicaid, Indian Health Services, Department of Defense (DoD), and stakeholders
   - Develop a communication plan with the Alaskan provider community
   - Communicate care standards to stakeholder organizations and providers
5). Finalize and publish statewide care guidelines

Technical Implementation

Year One – 2013
Alaska has a “data driven” vision for improving the quality of care delivered to patients. Alaska’s vision is to provide comprehensive Patient Summaries that contain a combination of administrative (claims), clinical, laboratory, pharmacy (medication), and immunization data. The Patient Summaries will be analyzed using rules engine technology to identify potential patient safety risks, gaps-in-care, and medication therapy management issues.

The data will be stored in the Alaska HIE CDR. The following steps will be taken to populate the CDR consistent with ONC PIN requirements and CMS Meaningful Use (MU) requirements:

1. Implement the population of the CDR via DSM. This will allow small providers who can’t afford an interface to participate in the HIE and meet both MU and PIN requirements to exchange CCD’s. Veteran’s Affairs (VA) patients (and others) will be able to carry out patient
facilitated exchange. Data from C32 CCDs and lab messages will be extracted from the transport documents, clinically and semantically standardized, and made “analytically ready” within the CDR.

2. Implement the Medicaid claims feed from the Alaska MMIS Data Warehouse. This will provide administrative data to support Patient Centered Medical Homes (PCMH) goals and adherence to EBM guidelines. Administrative data and clinical data would be combined into the Patient Summary. The enhanced Patient Summary would be available to as the “Blue Button” download for patients in conjunction with item 4 below. This activity allows Alaska to enhance the available clinical data while programmatically supporting the exchange of health information.

3. BioSense 2.0 data collection and export. This supports the ONC PIN priority of Syndromic Surveillance. Ideally PH would use some of the grant money to help the hospitals with their cost to connect.

4. Blue Button Support – This supports providers being able to meet the meaningful use requirement of being able to provide patients with their visit summaries.

5. Implement Disease management for Obesity, Diabetes Care, and Cardiovascular disease. Leverage the power and capabilities of the HIE Disease Management module to generate alerts for targeted diseases prioritized by the Clinical Workgroup and Alaska Healthcare Commission. Alerts will be generated for the following:
   a. Adherence to Evidence Based Medicine Guidelines (identification of “gaps-in-care”)
   b. Preventive Care and Wellness reminders
   c. Scheduling reminders for patients and providers
   d. Identification of potential Medication Therapy issues (duplicate therapy, drug-drug contra indications, refill too soon, poly-pharmacy alerts).

As the generated wellness alerts, treatment standard deviations, and potential medication safety alerts are identified; the alerts will be populated directly into the Patient Summary CCD within the Care Management module. The result for Alaska is disparate patient administrative and clinical data is combined, and standardized, producing actionable patient knowledge, shared with members of the care team and the patient, allowing care to become proactive, coordinated, and based on wellness, not “rescue” plans.

3 IMPLEMENTATION APPROACH

A key activity for the transition from Phase 1 to Phase 2 is providing query based exchange and enhancing the data for each patient, providing greater value to Alaskan providers. Improving the data for each patient in the CDR is a basic building block for increasing the value and
sustainability of HIE for Alaska. In order to improve the CDR data, a number of related activities are planned. The implementation approach for each of these activities is described in the sections below.

3.1 Develop and Implement Capacity to Populate CDR via DSM

Populating the CDR via DSM will allow small providers that will not be able to participate in the HIE without incurring the cost of an interface to the query based exchange. In addition, patient facilitated exchange will be available to VA patients and others whose providers have DSM accounts.

The first step is to implement the capability to capture data from DSM CCD attachments:
Orion Health will develop the capability to capture data from CCD attachments routed via DSM. The objective is to accurately capture the data within the CCD attachments and populate the CDR with this data to improve the accuracy and completeness of the information available to providers in the out-bound, HIE-wide care summaries.

AeHN will create data validation and quality plans to ensure data is correctly captured and incorporated into CCDs.

This capability will at a minimum allow providers to support the MU objectives listed below.

- Stage 1 – Capability to exchange key clinical information among providers of care and patient-authorized entities electronically.
- Stage 2 – Provide clinical summaries for patients for each office visit

3.2 Incorporate Medicaid claims data from the MMIS Data Warehouse into the CDR

Alaska plans to leverage the current MMIS DW to supply claims data to the CDR. Alaska will use the current MMIS DW maintenance support vendor, Xerox to develop both an initial load of historical claims data and an interface that will furnish regular updates.

Tasks that will support this effort include:

- Create data mapping from MMIS DW to Orion CDR
- Create a one-time; historical data load from the MMIS DW environment to populate the CDR. This initial load will include medical, hospital, and medication history.
- The HIE Enterprise Master Patient Index (EMPI) will be loaded with Medicaid patient demographics, the Medicaid Patient Number and any Medicaid cross-reference identifiers.
- As the new Alaska MMIS becomes operational, the HIE will be able to receive regular claims feeds from the Medicaid environment.

3.3 Implement BioSense Connectivity from the HIE

Implement connectivity to BioSense 2.0 from the Orion Health HIE CDR to provide Syndromic Surveillance data from Alaska hospitals. Alaska is also considering a voucher-type program to
assist hospitals in developing an HIE interface that would include the required minimum dataset to support syndromic surveillance reporting.

a. Implement interfaces that support the submission of admit and discharge messages (ADT T01 and ADT T03) for Alaska hospitals to be collected within the CDR. Establish the minimum dataset within these transactions to support syndromic surveillance reporting as defined by the Syndromic Surveillance Implementation guidelines published by the Centers for Disease Control and Prevention (CDC) Public Health Information Network (PHIN).

b. Coordinate hospital onboarding schedule to the Virtual Private Network (VPN) to capture real-time admit and discharge data.

c. Develop the HIE to BioSense interface. The CDR within the Alaska HIE will act as a data aggregator for Alaska hospitals. Data will be passed thru the established interfaces or VPN connection between each hospital and the AK HIE to the CDR. A single connection from the CDR/Rhapsody Interface Engine to BioSense will be developed to support transmission of data for real-time surveillance.

This capability will allow hospitals to meet Stage 1 and Stage 2 MU objectives to report electronic syndromic surveillance data to public health agencies.

3.4 Blue Button Support

Blue Button Support enables providers working to meet the meaningful use requirements to provide patients with electronic, downloadable visit summaries.

a. Develop Blue Button import/export functionality in the HIE

b. Integrate My Alaska Patient Authentication into the HIE for Blue Button Download and Patient Health Record (PHR) access. MyAlaska citizen authentication currently exists to support Permanent Fund Dividend (PFD) distribution and Department of Motor Vehicle (DMV) transactions.

c. Synchronize the HIE EMPI with Alaska’s Master Client Index (MCI). The HIE EMPI will need to synchronize with Alaska’s MCI that currently contains client information about Alaskans participating within multiple state programs.

d. The availability of Blue Button functionality will be integrated with the AeHN patient communication plan.

3.5 Implement the Orion Health Disease Management Module

Implement the Orion Health Disease Management modules supporting Obesity, Diabetes Care, and Cardiovascular Disease. Leverage the capabilities of the HIE Disease Management module to generate alerts for targeted diseases prioritized by the DHSS, Alaska Healthcare Commission and stakeholder workgroups.

The Disease Management module implementation activities will include the engagement of advisory groups to:
a. Develop alerts to support Evidence Based Medicine Guidelines (identification of “gaps-in-care”) for targeted diseases

b. Develop alerts for Preventive Care and Wellness reminders

c. Develop scheduling reminders for patients and providers related to specific conditions

d. Identify potential Medication Therapy issues (duplicate therapy, drug-drug contraindications, refill too soon, poly-pharmacy alerts).
Figure 1 shows that disparate data from multiple Alaska clinical and administrative data sources is combined into the HIE’s Clinical Data Repository, analyzed by the clinical rules engine, and then made available to providers and patient in real time through their respective Electronic Medical Record (EMR)/EHR or PHR solutions.
Alaska HIE Phase 2 Transition Work Plan

**Figure 2: Alaska HIE CCD Process Overview**

<table>
<thead>
<tr>
<th>Alaskan Input Data Sources</th>
<th>Data Transformation, Standardization, Cleansing, and Aggregation</th>
<th>Clinical Decision Support And Analysis</th>
<th>Patient Specific Plan of Treatment</th>
<th>Delivered to Providers at the point of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska MMIS Data Warehouse (Medicaid Claims Data)</td>
<td>Orion Clinical Data Repository</td>
<td>National Evidence Based Medicine Guidelines</td>
<td>For Providers: Comprehensive summary of care:</td>
<td>Alaska Providers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Referrals - New patients - Transitions of care</td>
<td>• Direct Mailboxes • Orion Concerto • TahiHealth Systems • Ambulatory EMRs</td>
</tr>
<tr>
<td>All Payer Claims Database (potential future source)</td>
<td></td>
<td>Patient Safety and Wellness Alerts</td>
<td>Patient Specific Plan of Treatment:</td>
<td>Alaska Hospitals/Facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Identified “Gaps in Care” - Potential Patient Risks - Potential Medication Risks</td>
<td>• All Hospitals • Long Term Care Facilities • Village Clinics</td>
</tr>
<tr>
<td>Alaska Hospitals, Providers/EMR Solutions</td>
<td></td>
<td>Behavioral Risks</td>
<td>For Patients: Comprehensive summary of care.</td>
<td>Alaska Patients</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Immunizations</td>
<td>Patients understand:</td>
<td>Care alerts are delivered to Patients via the PHR solution of their choice</td>
</tr>
<tr>
<td>LIMS Lab System</td>
<td></td>
<td>Lab Results</td>
<td>- Health care needs - Potential Risks - Potential Medication Risks - Behavioral Risks</td>
<td>PHR Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Google Health • HealthVault • MyAlaska.com (authentication) • Payor PHRs</td>
</tr>
<tr>
<td>VacTrack The statewide Immunization Information System</td>
<td></td>
<td>Immunizations</td>
<td>Result for Alaska: Providers and Patients have access to the same information about care goals, needs and patient risks.</td>
<td></td>
</tr>
</tbody>
</table>

The APCD is a potential future data source that many states are considering. Alaska is currently reviewing the feasibility and cost of implementing an APCD. This will not be implemented in 2013.
In Figure 2 data from multiple data sources is combined, semantically standardized, de-duplicated, and loaded into the appropriate C32 module. Once the data is processed and standardized, the clinical decision system (CDS) within the HIE examines the patient’s history, detecting potential health risks such as gaps-in-care, behavioral risks, and potentially dangerous medication therapy alerts. The alerts are presented to the provider and patient in real-time, within the CCD, allowing providers to work collaboratively with patients to educate them and formulate a comprehensive Plan of Care for the patient.

4 PROJECT MANAGEMENT PLAN

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

The individual milestones are expanded in the sections that follow.

Figure 3: Phase 2 Project Management Plan

4.1 HIE Implementation

AeHN and the HIE vendor Orion Health made early progress on the implementation of the HIE SaaS project. However, beginning in November 2011, the implementation of DSM consumed the available resources of both AeHN and Orion Health. The HIE implementation plan schedule is depicted below. This effort is focused on the Fairbanks HIE Pilot participants whose patient encounter data has been regularly updating the CDR since August 2011. Configuration data has been validated for labs and medications, user administration responsibilities have been documented. A “just in time” training approach will familiarize participants with the user interface and expected use cases. A lessons learned session will be conducted a month after the roll out is complete.
### 4.2 HIE Participation Expansion

A number of Alaskan clinics, individual providers and hospitals are in a position to participate in the expansion of the HIE. AeHN plans to prioritize these participants and begin the "onboarding" process once the HIE Implementation (described above) is complete and any issues identified in the Lessons Learned session are addressed.

The tentative HIE Participation Expansion schedule is depicted below.

### 4.3 HIE Functional Expansion

In parallel with the HIE participation expansion, AeHN and Orion Health will develop and test the additional HIE features such as:
• Populating the CDR from a DSM CCD attachment,
• Implementing Disease Management modules
• Enabling the Patient Portal
• Providing robust Secure Messaging features
• Activating the EMR Lite tool
• HIE Integration with BioSense
• Blue Button Export of Patient CCD
• Western States Consortium Provider Directory

4.4 State HIE Integration

In addition, the State will continue efforts to integrate HIT assets into the Alaska Query Based HIE solution in collaboration with AeHN and Orion Health.

Phase 2 will result in the following State integration activities:
• MMIS DW to HIE Integration
• MyAlaska HIE Integration
• Enable Clinical Quality Measure (CQM) reporting in conjunction with State SLR
5 METRICS/EVALUATION:

The table below lists the Phase 2 Metrics that will be used to evaluate Phase 2 objectives.

<table>
<thead>
<tr>
<th>Measure</th>
<th>2012 Results</th>
<th>2013 Target</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E-prescribing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of pharmacies participating in Surescripts e-prescribing</td>
<td>90.99%</td>
<td>91%</td>
<td>The Program’s ability to influence this metric is limited.</td>
</tr>
<tr>
<td>% of non-Surescripts pharmacies participating in e-prescribing</td>
<td>50%</td>
<td>50%</td>
<td>Total non-Surescripts pharmacies is 10. The Program’s ability to influence this metric is limited.</td>
</tr>
<tr>
<td>% of DoD/VA providers participating in e-prescribing</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Education and outreach</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education and outreach</td>
<td>One Pharmacy Assn Event</td>
<td>Participate in one Pharmacy Assn event</td>
<td></td>
</tr>
<tr>
<td>Education and outreach</td>
<td>Developed e-prescribing materials for REC customers</td>
<td>Provide materials to all new REC customers</td>
<td></td>
</tr>
<tr>
<td><strong>Lab Results Exchange</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Number of labs using LIMS to send structured lab results to the provider via Direct</td>
<td>0/36</td>
<td>3/36</td>
<td></td>
</tr>
<tr>
<td>Number of labs using LIMS to send structured lab results to another internal system</td>
<td>66.67%</td>
<td>66.67%</td>
<td></td>
</tr>
<tr>
<td>Percentage of labs using LIMS to send structured lab results to another external system</td>
<td>13.89%</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Number of Lab pilot Lab participants</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Number of Facilities participating in Lab Pilot</td>
<td>2</td>
<td>4</td>
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</tr>
<tr>
<td>Education and outreach</td>
<td>One Lab Assn Event</td>
<td>Participate in at least one Alaska Lab Assn event</td>
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<tr>
<td><strong>Patient Care Summaries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure</td>
<td>2012 Results</td>
<td>2013 Target</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Number/% of unique Direct users</td>
<td>3872</td>
<td>4200</td>
<td></td>
</tr>
<tr>
<td>Number/% of unique Direct users capable of sending CCDs</td>
<td>39 EPs 3 EHs</td>
<td>50 EPs 10 EHs</td>
<td>Assuming correlation between the EHR incentive payment providers choosing “CCD exchange measure” with the DSM users¹</td>
</tr>
<tr>
<td>Number/% of unique Direct users exchanging CCDs</td>
<td>Not available</td>
<td>Not available</td>
<td>No measures available</td>
</tr>
<tr>
<td>Number of organizations with Direct Accounts</td>
<td>331</td>
<td>336</td>
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<tr>
<td><strong>HIE Participation</strong></td>
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<tr>
<td>Number of query based HIE users</td>
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<td>Number of query based HIE facilities</td>
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<td>Number of EHR Incentive program participants</td>
<td>EP 559 EH 19</td>
<td>625 21</td>
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<td><strong>Program Alignment/meaningful Use</strong></td>
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<tr>
<td>Medicaid connectivity</td>
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<tr>
<td>Immunization connectivity</td>
<td>Not applicable</td>
<td>2013</td>
<td>Immunization records will be submitted to the CDR beginning in February 2013</td>
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<td>State Laboratory connectivity</td>
<td>Pilot</td>
<td>2013</td>
<td>State Lab Pilot begins February 2013</td>
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<td>Syndromic surveillance connectivity</td>
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<td>2013</td>
<td>BioSense interface</td>
</tr>
<tr>
<td>Public health reporting connectivity</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

¹ Direct users capable of sending CCDs via Direct may be much higher than reported. However this estimate is based upon the number of providers with Direct accounts that have attested to Medicaid Stage 1 MU and have selected the CCD exchange measure to qualify for an EHR Incentive payment. Alaska does not have additional statistical information regarding providers' CCD capabilities.
6 RESOURCES:

How will organizational capacity and staffing support the work plan? What changes will be made to support implementation?

The work plan includes ongoing support of the DSM implementation including user Help Desk support and new user provisioning. In addition, the Program team will work with the Query Based HIE participants to support a transition from Pilot activities to Production. Following the transition, AeHN will launch software improvement initiatives in collaboration with Orion Health to introduce new features. Refer to the Alaska SOP Update dated July 2012 section 3 Governance, subsection 3.25 through 3.3 that describe the AeHN organizational structure and work groups.

AeHN is also developing additional work group capacity to support community decision making around data use, and solution configuration.

7 BUDGET

The ONC Cooperative Agreement Grant funds were awarded on 3/15/2010, the project budget period extends through 3/15/2014. The table below provides a current status of the grant funds relative to the ONC Funding Streams.

<table>
<thead>
<tr>
<th>ONC Funding Streams</th>
<th>Federal Grant Award</th>
<th>Expended through 2/6/2013</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>$496,306</td>
<td>$480,245</td>
<td>$16,061</td>
</tr>
<tr>
<td>Nationwide inter-state HIE</td>
<td>1,748,291</td>
<td>445,094</td>
<td>1,303,197</td>
</tr>
<tr>
<td>Sub-National/regional intra–State HIE activities</td>
<td>2,718,466</td>
<td>2,283,084</td>
<td>435,382</td>
</tr>
<tr>
<td>Total</td>
<td>$4,963,063</td>
<td>$3,208,423</td>
<td>$1,754,640</td>
</tr>
</tbody>
</table>

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

Currently, the State of Alaska expects to contribute significantly to HIE infrastructure and operations in order to achieve the expected benefits for Alaskans in addition to the ONC Cooperative Agreement grant funds and contributions from early participant fees.

The Phase 2 objectives and implementation activities described in Sections 2 and 3 above are included in the budget projections in the table below.
# Table 4 Alaska HIE Program Budget

<table>
<thead>
<tr>
<th></th>
<th>Year 3</th>
<th>Year 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant Fees:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitals</td>
<td>$118,200</td>
<td>$409,200</td>
<td>$527,400</td>
</tr>
<tr>
<td>Providers</td>
<td>21,000</td>
<td>37,000</td>
<td>58,000</td>
</tr>
<tr>
<td>Payors</td>
<td>114,000</td>
<td>300,000</td>
<td>414,000</td>
</tr>
<tr>
<td>Donations</td>
<td>35,000</td>
<td>35,000</td>
<td>70,000</td>
</tr>
<tr>
<td>ONC Grant</td>
<td>877,320</td>
<td>877,320</td>
<td>1,754,640</td>
</tr>
<tr>
<td>State Appropriation</td>
<td>3,895,575</td>
<td>3,094,329</td>
<td>6,989,904</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$5,061,095</td>
<td>$4,752,849</td>
<td>$9,813,944</td>
</tr>
<tr>
<td><strong>Program Expenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td>$296,022</td>
<td>$301,299</td>
<td>$597,321</td>
</tr>
<tr>
<td>Benefits</td>
<td>153,458</td>
<td>163,731</td>
<td>317,189</td>
</tr>
<tr>
<td>Travel</td>
<td>13,687</td>
<td>13,447</td>
<td>27,134</td>
</tr>
<tr>
<td>Equipment</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Supplies</td>
<td>24,902</td>
<td>24,465</td>
<td>49,367</td>
</tr>
<tr>
<td>Contract</td>
<td>787,466</td>
<td>464,347</td>
<td>1,251,813</td>
</tr>
<tr>
<td>Other (SaaS Fees)</td>
<td>1,570,000</td>
<td>1,570,000</td>
<td>3,140,000</td>
</tr>
<tr>
<td><strong>Total Operations Expenses</strong></td>
<td>$2,845,535</td>
<td>$2,537,289</td>
<td>$5,382,824</td>
</tr>
<tr>
<td><strong>Infrastructure Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab Pilot</td>
<td>$393,760</td>
<td>$393,760</td>
<td>787,520</td>
</tr>
<tr>
<td>MPI Interface</td>
<td>45,000</td>
<td>45,000</td>
<td>90,000</td>
</tr>
<tr>
<td>ESB (LIS &amp; VacTrAK)</td>
<td>61,500</td>
<td>61,500</td>
<td>123,000</td>
</tr>
<tr>
<td>DSM</td>
<td>59,000</td>
<td>59,000</td>
<td>118,000</td>
</tr>
<tr>
<td>Direct Gateway</td>
<td>885,000</td>
<td>885,000</td>
<td>1,770,000</td>
</tr>
<tr>
<td>HIE Improvements</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MMIS DW</td>
<td>100,000</td>
<td>100,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Syndromic Surveillance</td>
<td>218,500</td>
<td>218,500</td>
<td>437,000</td>
</tr>
<tr>
<td>Disease Management</td>
<td>150,000</td>
<td>150,000</td>
<td>300,000</td>
</tr>
<tr>
<td>CQM Reporting</td>
<td>160,000</td>
<td>160,000</td>
<td>320,000</td>
</tr>
<tr>
<td>Blue Button</td>
<td>70,000</td>
<td>70,000</td>
<td>140,000</td>
</tr>
<tr>
<td>MyAlaska</td>
<td>45,000</td>
<td>45,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Privay &amp; Security Support</td>
<td>27,800</td>
<td>27,800</td>
<td>55,600</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$5,061,095</td>
<td>$4,752,849</td>
<td>$9,813,944</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td>$-</td>
<td>$-</td>
<td>$-</td>
</tr>
</tbody>
</table>
8 INCORPORATING PHASE 1 ACTIVITIES

*Please describe how Phase 1 activities will be incorporated in Phase 2. You may refer to your updated strategic and operational plan, by providing the reference including page number, if it contains the necessary level of details.*

Phase 1 activities included:

- HIE Planning
- Outreach and Communication regarding DSM and HIE Services
- Pilot of the “Base” HIE product and interfaces with one hospital and two clinics
- Implementation of DSM
- Lab Results over DSM Pilot
- Immunization Records submission through HIE
- Monitoring e-Prescribing data from Surescripts, DoD and Other sources

Phase 2 will focus on the expansion of query based HIE services and the continued support of DSM.

The query based HIE pilot will move into production early in 2013. With the validation of the production services, additional clinics, hospitals and individual providers will be provisioned.

The Alaska DSM service with over 3,800 users as of December 2012 will continue to be a critical tool for exchange. The program continues to collect information regarding the various DSM use cases; leveraging these to expand the opportunities for participation. Current use cases are listed below.

- Initial MU exchange test
- Basic referrals from one provider to another (both with and without a CCD)
- Send clinic notes to another clinic in lieu of fax
- Alaska Psychiatric Institute (API) uses DSM for all patient-related communications
- Division of Public Health (DPH) is currently receiving cancer report submissions from 2 provider clinics via DSM
- Senior & Disabilities Services is using DSM to communicate with providers and clients, they are also using DSM to send out case management notifications
- Women Children Family Health (within DPH) are using DSM to send registry reports to other agencies (both in Alaska and other states)
- Other Alaska State Divisions and Departments are also leveraging DSM to exchange Protected Health Information (PHI) and Personally Identifiable Information (PII) include:
  - Division of Juvenile Justice
  - Office of Children’s Services
  - Division of Health Care Services
  - Division of Public Assistance
- Department of Law
- Alaska Pioneer Homes
- Alaska Commissioner’s office
- Alaska Court System
- Department of Revenue
- Division of Elections
- Alaska Education & Early Development
- Alaska Labor & Workforce Development
- Alaska Legislative Audit
- Alaska Office of Public Advocacy
- Alaska Ombudsman
- DHSS Behavioral Health
- DHSS Office of Rate Review
- DHSS Program Integrity
9 PHASE 2 TECHNICAL SERVICES CHECKLIST

Please check all that apply. You may refer to your updated strategic and operational plan, by providing the reference including page number, if it contains the necessary level of details.

Query-based services
☐ Record locator Service
☐ Quality Reporting
☐ Central Data Repository

Indexes/ID Management
☐ MPI
☐ ID Management services
☐ Individual Level Provider Index
☐ Entity Level Provider Index

Lab
☐ Electronic Lab Results Delivery (other than Direct)
☐ LOINC® Mapping Services
☐ Electronic Lab Ordering

Public Health
☐ Electronic Submission of Reportable Lab Results
☐ Electronic Reporting of Syndromic Surveillance
☐ Electronic Reporting of Immunizations

E-Prescribe
☐ Prescription fill status and/or medication fill history

Administrative
☐ Claims processing
☐ All provider claims database
☐ Electronic Eligibility

Care Coordination
☐ Provider alerts
- PHR and/or patient access
- HIO to HIO for care coordination
- Medication fill History

**Interstate**
- NwHIN Connect
- NwHIN Exchange

**Funding**
- Providing funding to HIOs
- Whitespace Vouchers
- Connectivity Grants or Loans

## 10 FOA DOMAIN CHANGES SUPPORTING PHASE 2

For each checked priority, describe any changes in FOA domains (governance, finance, technical infrastructure, business and technical operations, and legal/policy) that will occur, if applicable (e.g., changes in consent policy):

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>DOMAIN</th>
<th>FOA DOMAIN CHANGES</th>
</tr>
</thead>
</table>
| All PIN Priorities | Governance | Reference Strategic and Operational Plan Update 7/2012 Section 3 Governance for a complete description of Alaska HIE Program Governance and structure.  
AeHN Executive Director was replaced in August 2012  
Addition of an Internal Review Board (IRB) composed of clinicians, payors, patients and hospitals to support HIE policy and data use management. |
### Alaska HIE Phase 2 Transition Work Plan

#### Reference Strategic and Operational Plan Update 7/2012 Section 4.3 Technology Components for the “Base” HIE components implemented in Alaska.

Reference Section 4.6.1 HIE Implementation in Alaska and Section 4.6.2 Description of Direct Messaging Service Implementation for the Phase 1 implementation details.

#### Expansion of Orion Health HIE features:
- Disease management modules
- Patient Portal
- EMR Lite

#### Additional Interfaces:
- Hospital BioSense reporting
- MY Alaska (patient authentication)
- Blue Button download
- MMIS Data warehouse
- Western States Consortium Provider Directory
- State integration with:
  - State Master Client Index (MCI)
  - AKStars (disease reporting)
  - AKAIMS (behavioral health case management)
  - Public Health disease registries

<table>
<thead>
<tr>
<th>PRIORITY</th>
<th>DOMAIN</th>
<th>FOA DOMAIN CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD Exchange</td>
<td><strong>Technology</strong></td>
<td>Reference Strategic and Operational Plan Update 7/2012 Section 4.3 Technology Components for the “Base” HIE components implemented in Alaska. Reference Section 4.6.1 HIE Implementation in Alaska and Section 4.6.2 Description of Direct Messaging Service Implementation for the Phase 1 implementation details.</td>
</tr>
<tr>
<td>Structured Lab Results Exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaningful Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All PIN Priorities</td>
<td>Finance</td>
<td>See section 7 Budget for revision of HIE Program Budget and Appendix A Sustainability Plan.</td>
</tr>
<tr>
<td>All PIN Priorities</td>
<td>Business and Technical Operations</td>
<td>Reference Alaska Health Information Technology Operation Plan submitted November 2012 Section 5.6 and Strategic and Operational Plan Update 7/2012 Section 6 Business and Technical Operations. No substantial changes are anticipated in Phase 2.</td>
</tr>
</tbody>
</table>
### PRIORITY | DOMAIN | FOA DOMAIN CHANGES
--- | --- | ---
All PIN Priorities | Legal and Policy | Evaluation of HIPAA Privacy & Security Rule Updates (released in January 2013) and impact on Alaska HIE Program privacy and security policies and procedures.
Ongoing Data Use agreement refinements

#### 11 MEANINGFUL USE

This section describes how Alaska plans to address Stage II MU requirements.

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.

Alaska has taken steps to address Stage 1 MU updates required in 2013 and Stage 2 initial requirements through the State Level Repository (SLR). Additional actions supported by this Transition Plan will allow Alaskan Eligible Professionals (EPs) and Eligible Hospitals (EHs) to meet MU requirements. The actions described in the Objectives and Implementation sections of this document that support MU requirements are listed below:

- Orion “Case Management” (Diabetes, Hypertension, Asthma and Congestive Heart Failure) modules enable “clinical decision support”.
- VacTrAK (Alaska’s immunization registry) integration with HIE CDR – supports electronic submission of immunizations.
- Development of a BioSense interface – supports Hospitals’ capability to participate in Syndromic Surveillance reporting.
- Expansion of Query Based HIE (and DSM) – support EPs and EHs ability to Exchange Patient care summaries both through an interface with the HIE CDR and as DSM attachments providing for the exchange of patient care summaries for professionals that are not able to develop HIE interface(s).
- Patient engagement (view online, download and transmit – Patient Portal) capabilities are provided through the use of a “Blue Button” download.
- Submission of CQM to the State through HIE CDR allows providers to meet Stage 2 CQM reporting requirements.

#### 12 RISK AND MITIGATION / ALTERNATIVES

*Please discuss Phase 2 risks, ways to streamline priorities, and alternative options if scaling back of implementation is needed. You may refer to your updated strategic and operational*
12.1 Risk Management and Mitigation

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

The AeHN is working on the following to minimize risk:

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

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

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

<table>
<thead>
<tr>
<th>Potential Risk</th>
<th>Stakeholder Group</th>
<th>Mitigation Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding and revenue are insufficient or taper off; costs outstrip available economic resources</td>
<td>Investors, Participants</td>
<td>- Ask stakeholders to sign Letters of Intent demonstrating commitment to participate and/or to match funds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Pursue additional federal, state and private sources of grants and endowments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Investigate additional services such as backup and hosting for small provider offices to offset costs and bring in additional revenues</td>
</tr>
<tr>
<td>Potential Risk</td>
<td>Stakeholder Group</td>
<td>Mitigation Options</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Adoption rates for EHR technology is slower than expected</td>
<td>Providers</td>
<td>▪ Marketing for REC services to encourage adoption</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Publicize success stories of EHR adoption</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Offer alternative (or interim) services such as Direct Secure Messaging</td>
</tr>
<tr>
<td>Healthcare practitioners or consumers lose faith in the Alaska HIE’s ability to make HIE a reality; bad press from other states bleeds over to taint Alaska HIE</td>
<td>Providers, Consumers</td>
<td>▪ Identify a champion (entertainer, politician, clinician) who will speak on the Alaska HIE’s behalf and who will endorse the concepts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Tout the Alaska HIE’s successes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Document connectivity implementation guidelines to inspire confidence that technological obstacles can be overcome</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Document the achievements to date that speak to the Alaska HIE’s strengths thru the Newsletter and the website</td>
</tr>
<tr>
<td>Program alternatives are offered by competing organizations</td>
<td>Investors</td>
<td>▪ Carefully distinguish the Alaska HIE’s products and services from those of any competitor(s) and conduct extensive marketing campaign</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Cite the Alaska HIE’s position as a neutral third party</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Work with key stakeholders to gain early participation and acceptance eliminating or reducing potential competition</td>
</tr>
<tr>
<td>Privacy or security incidents undermine faith in PHRs and healthcare data exchange</td>
<td>Consumers, Providers, Investors</td>
<td>▪ Remain open and transparent as regards to privacy and security policies and procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Create a marketing program which highlights the patient-centric model</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Demonstrate how Alaska HIE providers, payers and community members, have adopted national standards for privacy and security to prevent improper or accidental disclosure in order to protect consumers and clinicians</td>
</tr>
<tr>
<td>Computer viruses or other breaches compromise the data</td>
<td>Consumers, Providers</td>
<td>▪ Adopt national standards for privacy and security and implement best practices for data control and access</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Maintain disaster recovery procedures and “lock down” emergency policies for detection of intrusion</td>
</tr>
<tr>
<td>Clinical errors occur and Alaska HIE is blamed</td>
<td>Providers, Consumers</td>
<td>▪ Adopt national best practices for Regional Health Information Organizations (RHIOs) including audit trails</td>
</tr>
<tr>
<td>Loss of records because Alaska HIE</td>
<td>Providers, Consumers</td>
<td>▪ Provide provisions in the participation agreements with consumers, payers and providers which will govern the</td>
</tr>
<tr>
<td>Potential Risk</td>
<td>Stakeholder Group</td>
<td>Mitigation Options</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>goes out of business</td>
<td>Investors</td>
<td>transition of data in the event of dissolution</td>
</tr>
<tr>
<td>Program alternatives are investigated by potential participants to expedite the process or reduce individual risk</td>
<td>Providers, Investors</td>
<td>- Identify early incremental implementation opportunities that can be deployed and adopted quickly</td>
</tr>
</tbody>
</table>
| DSM adoption is limited due to workflow compatibility concerns by providers | Providers, Investors | - Identify though REC program participants providers whose workflow is less sophisticated and DSM will be accepted  
  - Monitor ONC support of EHR/Direct integration that will address workflow issues, ensure that providers are aware of these efforts |
| DSM adoption is limited due to stability issues                              | Providers, Investors | - Report and monitor all stability concerns to vendor.  
  - Ensure that Alaska solution current with vendor supplied software updates  
  - Maintain regular communication with the vendor at multiple levels to ensure adequate support |
APPENDIX A – SUSTAINABILITY PLAN

The Sustainability Plan included in this appendix addresses the plan to develop and maintain the Alaska HIE services managed by the AeHN. The plan represents the services currently offered by AeHN as well as those services offered in an active pilot mode. The plan that is included here in its entirety does not include cost to implement or revenue from Phase 2 services. Certain services such as Blue Button, CQM Reporting, MMIS Data Warehouse interface and Syndromic Surveillance reporting described in the body of the Alaska HIE Phase 2 Transition Plan document will be added to the sustainability plan once the HIE Transition Plan is approved by ONC allowing Alaska to move forward with Phase 2 activities.
Health Information Exchange

Sustainability Plan

Version 1: Submitted to State
Version 2: Revised and Submitted to State
Version 3: Re-Revised and Submitted to State of Alaska 2013-02-22
# Table of Contents

**SUSTAINABILITY PLAN**

VISION, MISSION AND VALUE PROPOSITION

EXECUTIVE SUMMARY

1. PLANNING APPROACH

2. BUSINESS NEEDS

3. VALUE PROPOSITION

4. SERVICE DEVELOPMENT

5. SERVICE DELIVERY

6. PROPOSED FEE STRUCTURE

7. FINANCE

ATTACHMENT A

ATTACHMENT B
VISION
Widespread access to an Alaska-wide Health Information Exchange (HIE) system that improves quality, safety, outcomes and efficiency in healthcare by making vital data available to patients, providers and payers when and where they need it.

MISSION
To improve the safety, cost effectiveness, and quality of healthcare in Alaska through the promotion and facilitation of secure, confidential electronic clinical information systems, including electronic health records, medical decision support, clinical data exchange, and reimbursement support.

VALUE PROPOSITION
Improved health status of Alaskans means fewer lost work days, lower health infrastructure costs, and a better quality of life. Many Alaskans miss the opportunity to receive age appropriate, timely health screening and vital immunizations because there is no access to the complete medical history. Health information exchange can create an easy, automatic update of necessary screening exams and immunization history. Health information exchange can eliminate duplication and provide timely, appropriate test results to practitioners.

Clear, appropriate information leads to safe and timely patient care with few medical errors and quick response to epidemics and bioterrorism. Missing information and illegible handwriting cause errors in medication and treatment. Malpractice lawsuits often come from well-intentioned health care poorly supported with information. The electronic health record can be clearly formatted with appropriate detail resulting in fewer medical decision errors.

Informed patients reduce the load on the health care system. The Department of Health and Human Services states, “Clinicians are not the only individuals who need greater access to patient information. Well-informed patients are better equipped to actively participate in their own care and decision-making. The Internet has proved invaluable in broadening access to information for consumers and patients, but general information from Websites goes only so far to educate people on wellness and illness. Innovations in technology are emerging to give patients electronic access to their health record and the ability to gather specific information tailored to their illnesses and, chronic conditions. Widespread adoption of these innovations, via a concept known as a Personal Health Record (PHR), will revolutionize consumer health care decision-making.” http://www.hhs.gov/healthit/goals.html (2005)

Immediate access to all necessary patient information decreases medical staff workload leading to lower costs. Health providers commonly must fax, copy, and call to get relevant information. Making information easier to share through health information exchange will save millions of dollars for providers and patients and will lower the cost of research and speed life-saving findings to the public.
Executive Summary

Alaska eHealth Network has received State and Private grants and Federal funding for Health Information Exchange (HIE) start-up operations. However, to insure continued operations, a detailed plan is needed that recognizes that continued sustainability cannot be achieved through reliance on grants and outside funding, but rather on broad participation of Healthcare Stakeholders. This plan is structured to provide a roadmap for financial stability for AeHN.

Development of the plan has been done in concert with the Board of Directors and a broad cross-section of Stakeholders under the leadership of the Executive Director. Periodic review of the planned vs. actual activities is a key part of this sustainability plan and will be conducted with corrective action taken as needed to keep AeHN a sustainable organization into the future.

AeHN is designed to:

- utilize innovations in Health IT to improve efficiency and effectiveness of healthcare in Alaska
- support the Meaningful Use needs of Stakeholders, in particular assisting with the secure, standardized exchange of protected health information.

However, benefits can only be realized if the mission of the organization is supported by a realistic cost model.

This Sustainability Plan includes projected costs for Basic HIE and DSM only. Other HIE services and additional projects are under consideration. An ongoing plan for ensuring viability of additional services and projects is summarized in this HIE Sustainability Plan. The financial section includes a proposed budget for operations and a fee based revenue estimate for hospitals, providers and payers. The budget also assumes an ongoing contract with the State of Alaska Department of Health and Social Services. Operating costs were kept to a minimum by utilizing a Software as a Service model for HIE services. Total annual operating costs at full deployment are estimated at $2.9 million.

Plan Sections

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

1) Background – brief summary of the HIE project from 2005 to current.

2) Planning Approach – current steps in sustainable plan development and a roadmap for the future.

3) Business Needs – identified needs from the key stakeholder populations.

4) Value Proposition – identified benefits from the key stakeholder populations.

5) Service Development – current steps in service development and a roadmap for the future.
6) Service Delivery – description of current services and proposed development plan for future services.

7) Proposed Fee Structure – fee structure based on market research and stakeholder interviews.

8) Finance – budget based on minimum revenues and maximum costs.
Background Information

Alaska eHealth Network (AeHN) is 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 electronic health records (EHRs) and specifically on health information exchange (HIE) activities since 2005. The Alaska Native Tribal Health Consortium provided temporary contract management services for this organization until August of 2008 when AeHN was established as an Alaska non-profit organization.

Collaboration and trust are key elements in the development and success of a statewide electronic health information exchange. The following 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.

- **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 EHR 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 Alaska Federal Health Care Partnership (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, US Coast Guard (Department of Homeland Security), and the Indian Health Service.

- **Alaska Native Tribal Health Consortium (ANTHC)**: The Alaska Native Tribal Health Consortium 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 has agreed to identify key project staff to participate on various workgroups and advisory committees associated with this project. Since 2005, Alaska eHealth Network (AeHN) has been working together with organizations and businesses from across the Alaska healthcare continuum to develop a statewide Health Information Exchange (HIE) which will provide a secure environment for the exchange of confidential health information between providers, payers, and consumers. To this end, AeHN has accomplished the following:

- Development of a business plan for operations, policies and procedures that addresses the critical issues, opportunities and potential problems Alaska faces in developing and implementing a statewide HIE and for ensuring that all partners are in compliance with HIPAA and ARRA requirements

- Development of security agreements for identifying participants and ensuring compliance with HIE requirements

- Establishment of a series of statewide committees to advise and oversee the progress of the HIE

- Development of statewide network design for healthcare entities

- Evaluation of the capabilities of HIE vendors with State-wide participation

- Implementation of the selected HIE vendor

- Implementation of Direct Secure Messaging with more than 4,000 participants

- Current pilot projects include:
  - Implementation of HIE software in a hospital and two clinics
  - Exchange of structured lab results from the State lab to two clinics
  - Exchange of structured lab orders and lab results between a hospital lab and a clinic

**Key goals** of the statewide HIE:
1. Improve security of protected health information through increased patient privacy and security when exchanging medical information in compliance with Federal and State requirements including HIPAA and ARRA.

2. Improve healthcare efficiency through reduction of duplicate or unnecessary tests and procedures, and reduction of health agency administrative costs by providing quick and secure access to back-up documentation of patient medical data for insurance claim inquiries, audits, and malpractice allegations.

3. Provide better case management and improved patient outcomes through timely intervention, access to patient health information, seamless patient referrals to specialists or other clinicians, and increased monitoring and education of chronically ill patients to reduce or prevent unnecessary clinic and hospital visits.

4. Enhance patient and provider satisfaction through a standardized 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 by providing reportable health information to public health agencies as incidents occur.
1. Planning Approach

A number of steps have been taken to help insure success and sustainability of the HIE, including:

- start-up services (basic DSM)
- HIE Query pilot projects
  - a hospital implementation and two outpatient clinics
  - pilot of hospital lab orders and lab results
- DSM Pilot
  - pilot of State lab results reporting
- involvement of key participants in governance and committee activities

The steps AeHN followed to develop the HIE sustainability plan and will continue to utilize when identifying and planning additional services and projects are as follows:

Step 1: Stakeholder Engagement

It is critical to sustainability that the key stakeholders are engaged from the beginning of the process. Since 2005 AeHN has worked with a broad range of stakeholders who not only participated in AeHN activities, but have also contributed and continue to contribute funds, staff time and other resources.

- AeHN has and continues to have key stakeholder representatives as Board members and as participants in various Committees.
- In 2009, over 400 potential members were engaged in a survey of existing and required connectivity and desired AeHN participation. In that survey, it was found that 67% of providers did not use EHRs and over half desired assistance in EHR selection and data transfers.
- A follow-up survey was completed in January 2013. All responders indicated a willingness to utilize some level of AeHN services and showed a willingness to pay for services. The 2013 survey, showed EHR usage increased to 68%. Hospitals were included in the second survey and reported EHR usage at 90%. Only 28% of stakeholders reported no interest in EHRs or attesting to Meaningful Use with either Medicare or Medicaid.
- Actuarial studies regarding the use of statewide notifications and selected lab results to reduce costs for payers were provided to AeHN by Premera BC/BS.
Discussions with payers provided an acceptable cost to payers for the notification service.

Step 2: Research and Analysis

Information about successful and unsuccessful HIEs was compiled through a contract with Optum to provide a solid background about business and financial sustainability planning. Articles on HIE from national organizations including HIMSS, eHealth Initiative, ONC, Center for Medicare and Medicaid Services (CMS), NGA, National e-Health Collaborative (NeHC) and the Markle Foundation were used as resources in completing the plan. In addition, many states and territories have begun preparing strategic and operational plans for building an HIE; these were also reviewed and used as reference in the final AeHN model.

During the Sustainability planning AeHN:

- Obtained relevant use cases from stakeholders supporting the sustainability of AeHN.
- Reviewed sustainability plans from successful HIEs, analyzing the factors that would apply to AeHN, and incorporated relevant success factors and risks into the AeHN sustainability plan. Models from the Iowa and Arizona Sustainability Plans found on-line informed some of the components of the AeHN plan.

Step 3: Principles and Stakeholder Value Propositions

It is important to develop a set of consensus-based principles outlining how the stakeholders want to establish the HIE before funding becomes an issue. A set of guiding principles will alleviate difficult discussions that occur as stakeholders begin to participate in an HIE. Early in the planning process, the AeHN Board of Directors adopted a modified set of principles based on the Markham Foundation’s HIE Principles. The AeHN Principles are included as Attachment A.

AeHN has reviewed the value of participation by stakeholder type (hospitals, providers, payers, federal and state entities). The probability of successful sustainability will be greatly improved if ROI by stakeholder type is demonstrated and ROI is refined and tracked as implementations occur.

While improved quality of care is important to all stakeholders, financial improvements are a strong and measurable determinant of sustainability. As participants are brought into AeHN a structured methodology has been developed (based on the Project Management Institute principles) which will:

- Include a process for Participant Stakeholders to define the workflow and process improvements desired from participation in the HIE
- Define both measurable and non-measurable success metrics
• Measure success metrics prior to connection to AeHN
• Measure success metrics post-connection on a 6-month and 12-month basis

In addition, AeHN will conduct yearly surveys of all Stakeholders and will document the actual value propositions of current participants as well as the projected value of possible participants going forward.

Step 4: Capital and Operating Strategies

AeHN has been in operation since 2005 and in that time has operated with start-up private, State, and Federal funding used for staffing, HIE SaaS software, and pilot projects. It is now critical for AeHN to move to a model where new implementation and annual fees support activities as well as contribute to a fund for development of new services.

In completing this sustainability plan, AeHN developed strategies to:

• Determine any additional funding required to complete the initial HIE build, as well as, operate AeHN until it is sustainable on its own merits
• Identify the various sources of funding and the requirements to secure funding from each proposed source
• Obtain Stakeholder support for the funding strategies
• Determine timing and required activities to allow AeHN to move to a self-sustaining model

Step 5: Financial Modeling and Scenario Development

There is no guarantee that a projected financial model will prove to be correct. However, AeHN has completed research and has built in check-points to help insure that the financial model will allow organization growth matched by a growth in revenue to help support sustainability. In constructing the financial model, AeHN has used the following principles:

• Flexible financial model is designed, tested and adopted
• Realistic scenarios are created based on various assumptions
• Scenarios are tested against the financial model to determine the appropriate strategy for sustainability

Step 6: Stakeholder Testing and Modifications

AeHN is in the process of completing an HIE Pilot implementation with Fairbanks Memorial Hospital, Tanana Valley Clinic and smaller offices in the Fairbanks service area. In addition, a successful roll-out of Direct Secure messaging (DSM) has been completed and continues to expand. As the Pilot implementation is completed the financial model
ALASKA eHEALTH NETWORK SUSTAINABILITY PLAN

will be reviewed for additional feedback. Since the stakeholders have been involved in
the process from the beginning, input has already been built into the different
scenarios. However, stakeholders generally do not fully commit to a project until the
sustainability model is finalized and tested. Therefore the sustainability model will be
tested and modified over time as warranted from feedback and changes to the HIE
environment.

AeHN is in the process of completing these steps in the Stakeholder testing step:

• Sustainability model revised and adapted to changing environment
• Key stakeholders input obtained
• Modifications made to the model as necessary
• Stakeholder review and approval being sought

Step 7: Adoption and Implementation

Once the sustainability model testing has been completed and approved, AeHN will
move forward with full implementation. Based on discussions with potential
participants and the work required to complete an individual implementation, a roll-out
strategy was developed. It is important to have key stakeholders publically endorse the
model, agree to participate, and make a firm financial commitment to AeHN through
the Participation Agreement. With Agreements in place, AeHN may fully move into
implementation, knowing there is a sustainable financial model.

Success factors for this phase include the following:

• Formal stakeholder approval
• Commitment by a the projected number of potential participants over time

Step 8: Review Sustainability Plan and Update Annually

In order to ensure the viability of the Sustainability Plan, AeHN will periodically review
the plan in light of current financial status, operating costs and committed revenues.
Quarterly reports will be made to the Board of Directors and Annual Reports will be
posted on the website.

One of the best tools for integration of the stakeholder immediate concerns is the
stakeholder survey. AeHN, in concert with the Alaska Primary Care Association (APCA)
and Alaska State Hospital & Nursing Home Association (ASHNHA), completed a 2012
survey of needs to cover services provided by all three organizations. By partnering with
these organizations AeHN was able to use a variety of methods to increase response
and encourage completion of the entire survey complement of questions.
AeHN, APCA, and ASHNHA are committed to supporting this effort on an annual basis to help ensure that the most up-to-date stakeholder information is used to guide the planning and execution of AeHN services.

In addition, AeHN plans to use the following as drivers for improving the levels of HIE participation, including them in the planning process as appropriate. AeHN will pursue education and marketing of the benefits that are meaningful to Alaska facilities. These include:

Meaningful Use Stage 2, which will require demonstrated ability for Hospitals and Eligible Providers to electronically exchange or have available for access:

- Lab results as structured values
- Discharge summary data
- Images
- Prescriptions
- Information for patients

Other benefits that can be pursued include:

- Removing barriers to HIE through State policy recommendations
  - Collaborate with state health policy makers to ensure state policies and regulations support health information exchange
  - Support efforts to update medical records laws to allow for electronic health information exchange

- Pursue grant funds to encourage HIE participation and care transformation
2. Business Needs

Stakeholders
AeHN has solicited input from all stakeholders, and has received input from a statistically significant number of them. Respondents serve a total of 136 different Alaska communities, are funded from a variety of sources (330-funded, Tribal, private, public, non-profit, for-profit, etc.) and fall into the following categories:

1. Hospitals
2. Provider or group with an EHR
3. Provider or group without an EHR
4. State government/Medicaid
5. Payers
6. Federal facilities such as Indian Health Services, Veterans Administration, and Department of Defense

Stakeholder Business Needs
About 27% of respondents do not have an EHR, and about the same percent are not planning to attest to Meaningful Use. However, the remaining respondents expressed a variety of needs that could and should be fulfilled by AeHN services. As expressed through the interview process, the following are services requested by respondents to address either current or future business needs; not every stakeholder type will require all of the possible data or services:

A. Hospitals
   - Patient demographic information
   - Past visit location and dates
   - Clinical data
   - Referrals
   - Claims data/prior authorization
   - Patient portal
   - DHSS registries/ public health info

B. Provider or group with an EHR
   - Patient demographic information
   - Past visit location and dates
   - Clinical data
- Referrals
- Claims data/prior authorization
- Orders and results
- Structured results from outreach lab
- e-prescribing link to pharmacies
- Patient portal
- DHSS registries/ public health info

C. Provider or group without an EHR
   - Patient demographic information
   - Clinical data
   - Past visit location and dates
   - EHR assistance

D. State government
   - Lab orders and results
   - DHSS registries/ public health info

E. Commercial Payers
   - Admit, discharge notifications
   - Lab results
   - Patient demographic information

F. Federal facilities such as Veterans Administration or Department of Defense
   - Patient demographic information
   - Past visit location and dates
   - Clinical data
   - Referrals
   - Claims data/prior authorization
   - Patient portal
   - DHSS registries/ public health info
3. Value Proposition

Multiple research papers and articles were reviewed to identify potential cost savings for participants including: Oregon Health Information Exchange Adoption Impact (Witter & Associates); Impact of Electronic Health Information Exchange Services in Maine (Alfreds, Witter), and Administrative Efficiency: Background Information Prepared for Healthcare Transformation Taskforce (Minnesota Dept of Health).

The early findings from these studies showed a significant impact on cost savings in three areas:

- Quantifiable and currently measurable – preventing unnecessary 30-day readmissions and returns
- Quantifiable potentially measurable – reduction in adverse drug events, avoidance of duplicate testing and imaging, reduced administrative burden
- Value that has multiple dependencies and difficult to measure – avoidance in duplicative consults, reduction in length and complexity of stay, increase in provider availability, and increase in patient empowerment

Based on surveys and interviews with current and potential stakeholders the following are benefits that have been identified as possible from participation in AeHN. Some of the Stakeholders would be direct participants, but some Stakeholders will realize benefits as indirect participants (e.g., two participating physicians will share patient information which can result in better patient care; the patient would be an indirect participant).

All Stakeholders

A. Improved quality of care  
B. Efficiencies and cost savings  
C. Assistance qualifying for provider incentive funds  
D. Standardized process for the secure transmission of clinical and administrative information

Hospitals

A. Greater operational efficiency  
B. Market share/competitive advantage  
C. Reduced medical errors  
D. Reduction in storage of paper records  
E. Ability to send structured lab results to all physicians  
F. Ability to participate in a patient portal  
G. Ability to electronically transmit required data to State and other registries  
H. Increase efficiency and decision-making by providing more complete patient information at the point of care  
I. Enable hospitals to take a team approach with other providers to provide coordination of care
J. Enable a more streamlined physician referral processes and care transition
K. Help hospitals, other provider organizations, patients and families to improve provider/patient relationships
L. Enable relationships between hospitals and other healthcare providers that improve the quality and efficiency of healthcare and increase patient safety
M. Prevent unnecessary hospital admissions because of adverse drug events
N. Prevent unnecessary readmissions by providing discharge plans to receiving care settings to enable effective follow-up
O. Reduce adverse drug events resulting from drug interactions and allergies by providing improved access to medication and allergy history
P. Provide comprehensive patient data in emergency departments
Q. More fully utilize information such as lab orders, imaging and prescriptions
R. Accommodate meaningful use requirements

Ambulatory Care and Physician Practices
A. Increase efficiency and decision-making by providing more complete patient information, including demographics at the point of care
B. Enable service providers to take a team approach with other providers outside their health system to provide coordination of care
C. Enable a more streamlined referral processes
D. Enable relationships between hospitals and other providers and care settings to improve the quality and efficiency of healthcare and increase patient safety
E. Help avoid adverse drug events resulting from drug interactions and allergies by providing improved access to medication and allergy history
F. Improve process efficiency with the ability to send and receive electronic test results
G. Reduce administrative and overhead costs by avoiding the endless search for paper medical records
H. Help provide a patient-centered medical practice
environment
I. Provide savings for both physicians and patients through improvements in processes
J. Provide quicker access to patient clinical results resulting in decreased duplicate medical testing
K. Result in more efficient patient care by providing a wider range of access to patient histories
L. Allow access outside the office via an Internet browser
M. Increase patient safety through access to a more complete history and more comprehensive information regarding allergies and medication history
N. Streamline the referral process
O. Provide increased efficiency in transition of care
P. Reduce the cost of doing business through a reduction in overhead and administrative expenses
Q. Provide improved care coordination among different providers
R. Accommodate meaningful use requirements

State of Alaska
A. Ability to receive electronic Lab orders and send structured results electronically
B. Ability to receive electronic registry submissions (e.g., immunization data)
C. Ability to communicate via Direct Secure Messaging to participating care providers
D. Reduction in storage of paper records
E. Provide the ability to aggregate surveillance data of disease and critical patient information for readiness in disease outbreaks, disasters or bioterrorist threats
F. Increase efficiency and decision-making with the use of quality, aggregate data
G. Enable public health concerns to take a team approach with other providers to provide coordination of care
H. Enable a more streamlined and cost-efficient process to obtain patient information
I. Help improve relationships between public health and consumers
J. Enable relationships between public health other healthcare providers that improve the quality and
efficiency of healthcare and increase patient safety

The following are potential participants; at this time the sustainability plan does not include quantification of these benefits:

Behavioral Health Providers

A. Protection of patient data
B. Continuity of care
C. Care Coordination

Community/ Consumers

A. Reduce taxation due to lower administrative and overhead costs resulting from work flow efficiencies in state governments
B. Improve public response due to improved information during disease outbreaks, disasters or bioterrorist threats while limiting population exposure
C. Provide more efficient public services due to efficiencies in data collection and administration
D. Higher quality services through more and better data available for decision-making
E. Provide the benefits of coordinated care through a team approach by public and private health concerns
F. Result in an improved and effective relationship between consumers and healthcare providers by prompting dialogue about treatments
G. Improve safety by helping to prevent drug interactions
H. Reduce the amount of paperwork to complete due to the increased availability of demographics and insurance information to healthcare providers
I. Improve care coordination across physicians, pharmacists, hospitals and other healthcare providers by facilitating the secure sharing of clinical information at the point of care
J. Save dollars and time by avoiding duplicate testing and avoid unnecessary health care procedures
K. Allow patients to obtain their health history (including medications) over time and across providers
L. Provide a more complete health record that will lead to timely immunizations
M. Ensure that healthcare providers are aware of patient allergies
N. Allow patient information to be provided to healthcare
provides in the event of an emergency
O. Provide access to medical information in the event of disease outbreaks, disasters or bioterrorist threats
P. Allow the streamlined transfer of lab and other test results between health care providers
Q. Prevent loss of medical records
R. Store and manage health information for patients and those who may be involved in or managing care

Employers / Businesses

A. Reduce taxation due to lower administrative and overhead costs resulting from work flow efficiencies in state government.
B. Reduce medical costs driven by a reduction in duplicate testing, procedures, duplicated, prescriptions and unnecessary hospital admissions
C. Reduce medical costs due to more informed physicians and informed patients who will take responsibility for seeking more cost effective care delivery options, resulting in lower-cost procedures and therapies
D. Reduce adverse drug events resulting from drug interactions and allergies by improved access to medication and allergy history
E. Decrease absenteeism due to healthier more engaged and informed employees
F. Reduce time spent at redundant doctor visits and testing and work absenteeism.
G. Help provide a better focus for the development of disease and wellness programs
H. Provide support for emerging payment reform approaches
I. Support employee’s health needs during disease outbreaks, disasters or bioterrorist threats while identifying possible outbreaks sooner and limiting additional exposure
J. A more health-connected community will be a factor in recruitment and encouraging new businesses and physicians regarding relocations
Pharmacies

A. Reduce adverse drug events through access to a more complete history and comprehensive information regarding allergies and medication history
B. Enhance customer service with the ability to review online patient authorizations
C. Provide transparent transfer of prescriptions from one pharmacy to another
D. Reduce administrative costs from improvements in work flow due to electronic receipt of prescriptions, refills and renewals
E. Enable fraud reduction
F. Provide improved monitoring of controlled substances
4. Service Development

After consideration AeHN implemented a low cost, low risk Direct Secure Messaging (DSM) platform which allowed users to exchange a single PHI message simply and securely. Over 4,000 users from 350 organizations are today using DSM to successfully exchange health data. These interactions confirmed that providers needed additional data exchange capabilities. The stakeholders selected a software as a service (SaaS) model for the HIE which will allow costs to be easily allocated across the participant base and will allow growth in alignment with AeHN’s participant population. This risk averse approach will continue to be used in the development of new services.

The process for identification and selection of additional services will be as follows:

- AeHN will determine from Stakeholder input the type and timing of desired services
- If the services are already-contracted items and services that have already had pilot implementations, AeHN will schedule implementation using already-developed project implementation standards
- If the services are already-contracted items that have not had a pilot implementation (e.g., EHR Lite, Patient Portal) then AeHN will:
  - Complete a pilot implementation per PMO standards
  - Adjust the project plan as necessary following the implementation
  - Schedule and complete the additional implementation using the pilot-updated implementation standards
- If the services are ones that are not already contracted, but which the Board of Directors agree are part of the AeHN charter, AeHN will:
  - Complete an evaluation process involving appropriate Stakeholders and AeHN members
  - Contract for the vendor approved by the AeHN Board of Directors
  - Complete a pilot implementation per PMO standards
  - Adjust the project plan a necessary following the implementation
  - Schedule and complete the additional implementation using the pilot-updated implementation standards

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

- Itemized cost to develop the individual HIE services including:
  - Cost of licensing
  - Cost of vendor implementation and customization
  - Project management costs to oversee development and implementation of solution
• Potential benefits of the proposed services, both quantifiable and non-quantifiable
• Potential market for the services
• Cost/benefit analysis and recommendation regarding how to proceed
5. Service Delivery

An extensive survey collected data from 27 hospitals, 180 clinics, and representing over 1900 providers from across Alaska provided information on the status of EHR implementations, need and type of HIE services required, and timelines for HIE implementation. Even though federal facilities were included in the surveys and the interviews, there is currently no way to estimate potential federal revenues. Therefore, no federal facilities are included in the implementation and revenue projections.

The following implementation schedule has been developed utilizing the data collected as a basis for the service delivery schedule and the financial projections:

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Implementations</td>
<td>5</td>
<td>8</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>DSM Users Implementations</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Provider Implementations (HIE, DSM)</td>
<td>300</td>
<td>700</td>
<td>1,200</td>
<td>2,000</td>
</tr>
<tr>
<td>Payer Implementations (covered lives)</td>
<td>76,000</td>
<td>200,000</td>
<td>300,000</td>
<td>350,000</td>
</tr>
</tbody>
</table>

It is estimated that FY 13 and FY 14 implementations and support can be completed with current staffing, but that staffing expansion will be necessary in FY15 and beyond as the existing users continue to expand the amount of exchanged information and implementations expand to support the Stage 2 Meaningful Use requirements.

Expansion beyond the already-defined services has not been included in the above projection or in the Finance section. AeHN will expand services and/or accelerate implementations with the approval of the Board and in a manner that as much as possible will be budget neutral.

Once the pilot projects are successfully completed it may be that potential participants will see the value proposition and will determine that it is in their best interest to slot their implementation sooner rather than later. Reaching critical mass of connected providers and data sources is key to a compelling value proposition, so AeHN wants to be in a position to meet participant needs and will do so as much as possible. Understanding and responding to participants’ needs on an ongoing basis such that AeHN is offering products and services that solve their problems will help ensure they are willing to pay for those products and service.

The cost to support service delivery is detailed in the Finance section.
6. Proposed Fee Structure

AeHN has been in operations since 2005 and therefore has a base of knowledge regarding the healthcare environment in the state of Alaska. At this time, with a base of operations and software already selected and installed, the organization is moving from start-up to operational mode. Based on surveys with users and an analysis from each of their perspectives (e.g., payer, provider, consumer), four funding strategies are projected in combination to fund the continued build and operation of AeHN.

Listed below are descriptions of each strategy as well as the advantages and the disadvantages of each.

**Strategy 1 – State Appropriation**

The State of Alaska has received Federal funding and has contracted State funds to support the benefits to the State population and operations that a robust HIE will afford.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Once appropriated, funding is usually available for the approved period of time</td>
<td>• Political issues in securing support</td>
</tr>
<tr>
<td>• May be seen as an obligation for the state</td>
<td>• State budget already under stress from the economy</td>
</tr>
<tr>
<td>• A very low per person funding requirement with significant long-term benefits in reduced health care costs</td>
<td>• Is dependent on annual appropriations</td>
</tr>
<tr>
<td></td>
<td>• General appropriations may be subject to across-the-board budget cuts</td>
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<tr>
<td></td>
<td>• Requires annual education for members of the legislature on the value of the HIE</td>
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</tbody>
</table>

**Strategy 2 - Participant Fees**

In this strategy, an assessment fee is charged to the participant based on a particular characteristic such as number of beds per facility, number of hospital discharges, total annual revenue, or the number of enrollees in a health plan. Assessment fees can vary by type of participant but are similar within type.
### Strategy 3 - Fees for Optional HIE Products/Services

In this strategy, AeHN would create products and/or services for which it can charge fees for stakeholders to use. Fees are established for various services (consumer services such as personal health record support, advertising/sponsorships; payer services such as obtaining records for payer-provider operations; provider services such as submitting immunization records to reporting bodies, etc.) that stakeholders will pay for beyond the basic services they receive from AeHN.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Direct correlation between fees and services</td>
<td>• Difficult to determine basic from added value services</td>
</tr>
<tr>
<td>• Stakeholders only pay for the services they desire</td>
<td>• May price some services outside the affordability of smaller stakeholders</td>
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</tbody>
</table>

### Strategy 4 – Grants/Donations

In this strategy, grants from a variety of sources (philanthropic, government, stakeholders) may be used to fund AeHN expansion and sustaining operations. Frequently, grants are limited to a specific purpose and are generally viewed as better for capital purposes than operational funding.
### Advantages

- Can be a good source for capital projects and may be a good way to support specific components of IHIE development
- Many grant makers are interested in improving health care outcomes
- May include a broader group of stakeholders

### Disadvantages

- Every HIE will be applying for funding
- They are a good source of capital and a poor source of operating funding
- Scope and requirements may change – resulting in the need to supplement funding to meet stakeholder objectives
- Health outcome and return on investment measures may be difficult to formulate or prove
- Generally they are for a specific purpose and for a limited time frame
- May require some form of match
- May require significant time to prepare application and receive notification of award
- Usually requires many applications to secure a few grants

A survey of current fees in other states was completed as there were no other HIE or DSM competitors in Alaska for comparable fee structures. These fees were then vetted with a number of Alaskan stakeholders in an effort to ensure affordability from a stakeholder perspective.

The fee schedule will include four classes of service as follows:

**Class of Service**

- **Basic** – Direct Secure Messaging Service (DSM) which allows a provider to send a secure, encrypted email with or without attachments from one system to another using current Direct standards.
- **Silver** – HIE query based service which allows a provider to request additional clinical information based on access levels and roles. DSM is included in this class if the provider requires it.
- **Gold** – EHR (certified) cloud-based services with access to HIE query based service and DSM if required.

As a patient portal and notification services are available, they will be included in the fees for Silver and Gold class of service.
Description of Services | Class of Service  
---|---
| | Basic | Silver | Gold  
DSM | X | X | X  
HIE/Clinical Portal | | X | X  
EHR Lite | | | X  
Patient Portal (when available) | | X | X  

Fees

<table>
<thead>
<tr>
<th>Providers</th>
<th>Hospitals</th>
<th>Payers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>$9/user/year</td>
<td>$9/user/year</td>
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<tr>
<td>Silver</td>
<td>$100 per provider/year</td>
<td>First year: $460/bed Year 2+: $360/bed</td>
</tr>
<tr>
<td>Gold</td>
<td>$250/provider/year</td>
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POTENTIAL ADD ONS:

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<th>Payers</th>
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<tr>
<td>Imaging</td>
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<td>$50/provider/year</td>
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<tr>
<td>Population Health</td>
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<td>$60/user/year</td>
</tr>
<tr>
<td>Disease Management</td>
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<td>$50/user/year</td>
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<tr>
<td>Notifications</td>
<td>Included in Silver or Gold</td>
<td>Included in Silver</td>
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</table>

Fees for additional service delivery options will continue to be evaluated using these strategies for sustainment. Whenever possible evaluation of services will include:

- Type of fee structure (e.g. Subscription fees, transaction fees, utility fees) that will support the value proposition and service delivery costs described above.
- Justification for the selected fee structure, relative to other fee options available to support the Board’s review.
- Fees identified by stakeholder type (if appropriate) or service as determined by the value proposition and service delivery costs.
- As patient portal is rolled out, fees may be adjusted to reflect the cost of providing the service.

Prior to adoption of a fee schedule there will be a public comment period to help insure that the fees reflect the value to stakeholders, and that the fees provide a uniformly-
applied cost burden. Participation agreements allow for a 90-day notification prior to any fee allocation.
7. Finance

The budget for HIE and DSM is constructed on findings from the HIE Pilot and the Stakeholder survey. In addition, fee schedules were collected from HIEs that have fully developed participant plans. The final fees were a combination of findings from both stakeholders and other HIEs.

Revenues
Participants will contribute to ongoing operations through fees established by the Board of Directors.
Fees have been identified for four (4) primary stakeholders; State of Alaska Department of Health and Social Services, Hospitals, Providers and Payers. While there are many other potential revenue sources and stakeholder types (see above) the revenue projections are based solely on the Basic, Silver, and Gold revenue streams as well as the payer notifications. State of Alaska revenue is based on contractual fees and covers all state providers and users within multiple departments and agencies. Hospital fees are based on licensed beds. Provider fees are based on individual providers. Payer fees are based on covered lives. Attachment B provides backup for the fee calculations. Service implementation timelines were determined through surveys and conversations with key stakeholders. It is estimated that full deployment will be completed by end of FY15 (June 2015) and will cover 80% of each stakeholder group.
Even though federal facilities were included in the surveys and the interviews, there is currently no way to estimate potential federal revenues. Therefore, no federal facilities are included in the implementation and revenue projections.

Expenses
Expenses are estimated from the current Orion Health contract, discussions with Orion Health, and knowledge gained from the support needed for the initial pilot. This plan utilizes a Software as a Service (SaaS) model solution. Therefore, no infrastructure or capital replacement costs have been projected. Those costs are included in the SaaS contract and born by Orion Health. While the SaaS model is a Commercial Off-the-Shelf solution, there are occasional state regulations or stakeholder preferences requiring software customization. Based on findings from the pilot, customization costs while minimal, have been identified and estimated.
The majority of expense is in Personnel and the support services necessary for those personnel. Personnel will be responsible for communication and outreach, participant workgroup coordination, participant setup and support, first tier system support, and daily office operations. Orion Health SaaS contract will cover hardware and software maintenance, upgrades and tier 2-5 support.
Professional Services are estimated where appropriate for purposes of keeping costs at a minimum. For example, AeHN has found that it is cost effective to partner with other non-profits and utilize contractual services for legal fees rather than staffing a full time legal employee. Similar circumstances are true for accounting and project management. This will be evaluated routinely and when cost effective, contractual positions may be moved to employed positions.
Entities which have shown interest in participating but are not included in the modeling due to lack of knowledge around appropriate fees and data needs are Department of Defense hospitals and clinics, Veterans clinics, nursing homes, behavioral health...
services, and laboratories and pharmacies. This financial model will continue to be modified as more information becomes available regarding these entities.

Financial Projections

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
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<tr>
<td>Total Expenses</td>
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<td>$2,664,700</td>
<td>$2,870,000</td>
<td>$2,920,000</td>
<td>$2,980,000</td>
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<td>Net Operating Income</td>
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</tr>
</tbody>
</table>

Future deployments and additional service delivery options will continue to be evaluated using these strategies for sustainment. Whenever possible budgets for new or expansion of services will include:

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

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

Adhering to these guidelines will provide the Board of Directors with sound business reasons for making decisions regarding AeHN projects and expansions.
Attachment A – AeHN Guiding Principles

The following Guiding Principles were developed and approved by the AeHN Board:

- **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 of its use, who can access and use it, and where it resides.

- **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 data subject.

- **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.

- **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.

- **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 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 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, audit, and informed consent.

- **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.
Attachment B – Financial Worksheets

Hospital Projections: based on interviews with hospitals and current Meaningful Use attestation dates, this draft implementation schedule is proposed. Note that actual deployments may vary during FY13 and FY14 based on hospital resource availability. However, most hospitals have agreed that deployments must be completed by FY16.

<table>
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<th>Hospital Name</th>
<th>Beds</th>
<th>1st Year</th>
<th>Annual</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
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<td>149,960</td>
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Providers/Clinicians/Users Projections: provider projections are estimated using numbers provided from the Regional Extension Center, CMS and Medicaid based on Meaningful Use attestation dates, and on projected attestation dates from the provider surveys.

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<tr>
<th>Clinicians/Users</th>
<th>Per User Per Year</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
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<td>Users (DSM)</td>
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<td>$35,000</td>
<td>$150,000</td>
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<td>Total User Fees</td>
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<td>$37,000</td>
<td>$71,000</td>
<td>$186,000</td>
<td>$236,000</td>
<td>$296,000</td>
</tr>
</tbody>
</table>

Payer Projections: projections are based on discussions with payers and are estimated using total number of covered lives in Alaska (excluding federal and Medicaid covered lives). No attempt was made to estimate additional covered lives under the Affordable Care Act.

<table>
<thead>
<tr>
<th>Covered Lives (CL)</th>
<th>Per CL Per Year</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
</tr>
</thead>
<tbody>
<tr>
<td>350,000 Covered Lives (CL)</td>
<td>$1.50</td>
<td>$114,000</td>
<td>$300,000</td>
<td>$450,000</td>
<td>$525,000</td>
<td>$525,000</td>
<td>$525,000</td>
</tr>
</tbody>
</table>
APPENDIX B- PHASE 1 LESSONS LEARNED

The Alaska HIE Program identifies the following “Lessons Learned through the implementation of DSM and the development of the Lab Pilot:

**DSM Challenges**

Alaska has experienced challenges in the implementation of Direct services through the web portal functionality both with providers and state personnel. A web portal solution can be cumbersome and difficult to incorporate into the provider's business processes which have caused many to return to old methods of exchange such as faxing and regular mail. Alaska is working to address each concern and has taken steps to implement Outlook client access to Direct for state personnel to help streamline processes. Alaska is also working on developing shared or group DSM mailboxes to allow for users within an organization to access a single DSM mailbox but still track and audit by individual user for use cases where reports or documents are submitted to an entity where multiple persons may be responsible for processing incoming messages. The shared mailbox functionality will also streamline business processes.

**Lab Results over Direct Pilot Challenges**

The Lab Pilot continues in Alaska between the partners: State of Alaska Lab, Anchorage Neighborhood Health Clinic (ANHC) and LaTouche Pediatrics. The State Lab's Chemware HL7 messaging has been upgraded. The HIT Program office is working with State of Alaska IT and Orion Health to establish a VPN tunnel to allow for state systems (such as the State LIMS or State immunization registry) to connect to the HIE. It is anticipated the VPN tunnel work will be completed in early January 2013. Alaska participated in the ONC Annual Grantee conference in Washington DC in December 2012 and demonstrated MDN functionality for lab results. Alaska plans to move the Lab Pilot into production status for the pilot partners in Q1 2013. Once the Lab Pilot has been shown to be successful and lessons learned have been developed a strategic plan for rolling out this functionality to other labs and providers will be developed. Alaska continues to research and monitor other state's implementation of lab pilots and lab exchange initiatives to help plan strategies. Alaska continues to participate in the Lab Exchange Community of Practice to share experiences.
APPENDIX C - ACRONYMS

The following acronyms are used throughout this document:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADT</td>
<td>Admission Discharge and Transfer</td>
</tr>
<tr>
<td>AeHN</td>
<td>Alaska e Health Network</td>
</tr>
<tr>
<td>AHCC</td>
<td>Alaska Health Care Commission</td>
</tr>
<tr>
<td>AKAIMS</td>
<td>Alaska’s Automated Information Management System</td>
</tr>
<tr>
<td>ANHC</td>
<td>Anchorage Neighborhood Health Center</td>
</tr>
<tr>
<td>APCD</td>
<td>All Payor Claims Database</td>
</tr>
<tr>
<td>API</td>
<td>Alaska Psychiatric Institute</td>
</tr>
<tr>
<td>CCD</td>
<td>Continuity of Care Document</td>
</tr>
<tr>
<td>CDA</td>
<td>Clinical Document Architecture</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CDR</td>
<td>Clinical Data Repository</td>
</tr>
<tr>
<td>CQM</td>
<td>Clinical Quality Measures</td>
</tr>
<tr>
<td>DHSS</td>
<td>Department of Health and Social Services</td>
</tr>
<tr>
<td>DoD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>PHI</td>
<td>Protected Health Information</td>
</tr>
<tr>
<td>DMV</td>
<td>Department of Motor Vehicles</td>
</tr>
<tr>
<td>DPH</td>
<td>Department of Public Health</td>
</tr>
<tr>
<td>DW</td>
<td>Data warehouse</td>
</tr>
<tr>
<td>EBM</td>
<td>Evidence Based Medicine</td>
</tr>
<tr>
<td>EH</td>
<td>Eligible Hospital</td>
</tr>
<tr>
<td>EHR</td>
<td>Electronic Health Record</td>
</tr>
<tr>
<td>EMPI</td>
<td>Enterprise Master Patient Index</td>
</tr>
<tr>
<td>EMR</td>
<td>Electronic Medical Record</td>
</tr>
<tr>
<td>EP</td>
<td>Eligible Professional</td>
</tr>
<tr>
<td>ESB</td>
<td>Enterprise Service Bus</td>
</tr>
<tr>
<td>FOA</td>
<td>Funding Opportunity Announcement</td>
</tr>
<tr>
<td>HIE</td>
<td>Health Information Exchange</td>
</tr>
<tr>
<td>HIO</td>
<td>Health Information Organization</td>
</tr>
<tr>
<td>HIPAA</td>
<td>Health Insurance Portability and Accountability Act</td>
</tr>
<tr>
<td>HIT</td>
<td>Health Information Technology</td>
</tr>
<tr>
<td>HL7</td>
<td>Health Level 7</td>
</tr>
<tr>
<td>ID</td>
<td>Identity</td>
</tr>
<tr>
<td>IRB</td>
<td>Internal Review Board</td>
</tr>
<tr>
<td>LIMS</td>
<td>Laboratory Information Management System</td>
</tr>
<tr>
<td>LOINC®</td>
<td>Logical Observation Identifiers Names and Codes</td>
</tr>
<tr>
<td>MCI</td>
<td>Master Client Index</td>
</tr>
<tr>
<td>MDN</td>
<td>Message Disposition Notification</td>
</tr>
<tr>
<td>MMIS</td>
<td>Medicaid Management Information System</td>
</tr>
<tr>
<td>MPI</td>
<td>Master Patient Index</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>MU</td>
<td>Meaningful Use</td>
</tr>
<tr>
<td>NwHiN</td>
<td>Nationwide Health Information Network</td>
</tr>
<tr>
<td>ONC</td>
<td>Office of the National Coordinator for Health Information Technology</td>
</tr>
<tr>
<td>PCMH</td>
<td>Patient Centered Medical Home</td>
</tr>
<tr>
<td>PFD</td>
<td>Permanent Fund Dividend</td>
</tr>
<tr>
<td>PHIN</td>
<td>Public Health Information Network</td>
</tr>
<tr>
<td>PHR</td>
<td>Patient Health Record</td>
</tr>
<tr>
<td>PII</td>
<td>Personally Identifiable Information</td>
</tr>
<tr>
<td>PIN</td>
<td>Program Information Notice</td>
</tr>
<tr>
<td>REC</td>
<td>Regional Extension Center</td>
</tr>
<tr>
<td>RHIO</td>
<td>Regional Health Information Organization</td>
</tr>
<tr>
<td>SaaS</td>
<td>Software as a Service</td>
</tr>
<tr>
<td>SDE</td>
<td>State Designated Entity</td>
</tr>
<tr>
<td>SLR</td>
<td>State Level Registry</td>
</tr>
<tr>
<td>VA</td>
<td>Veterans Affairs</td>
</tr>
<tr>
<td>VPN</td>
<td>Virtual Private Network</td>
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</tbody>
</table>