The End of Telehealth
… as we know it

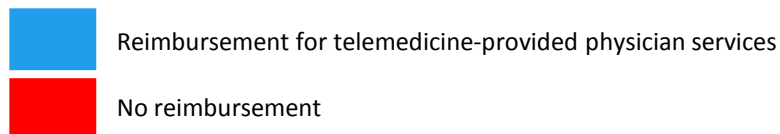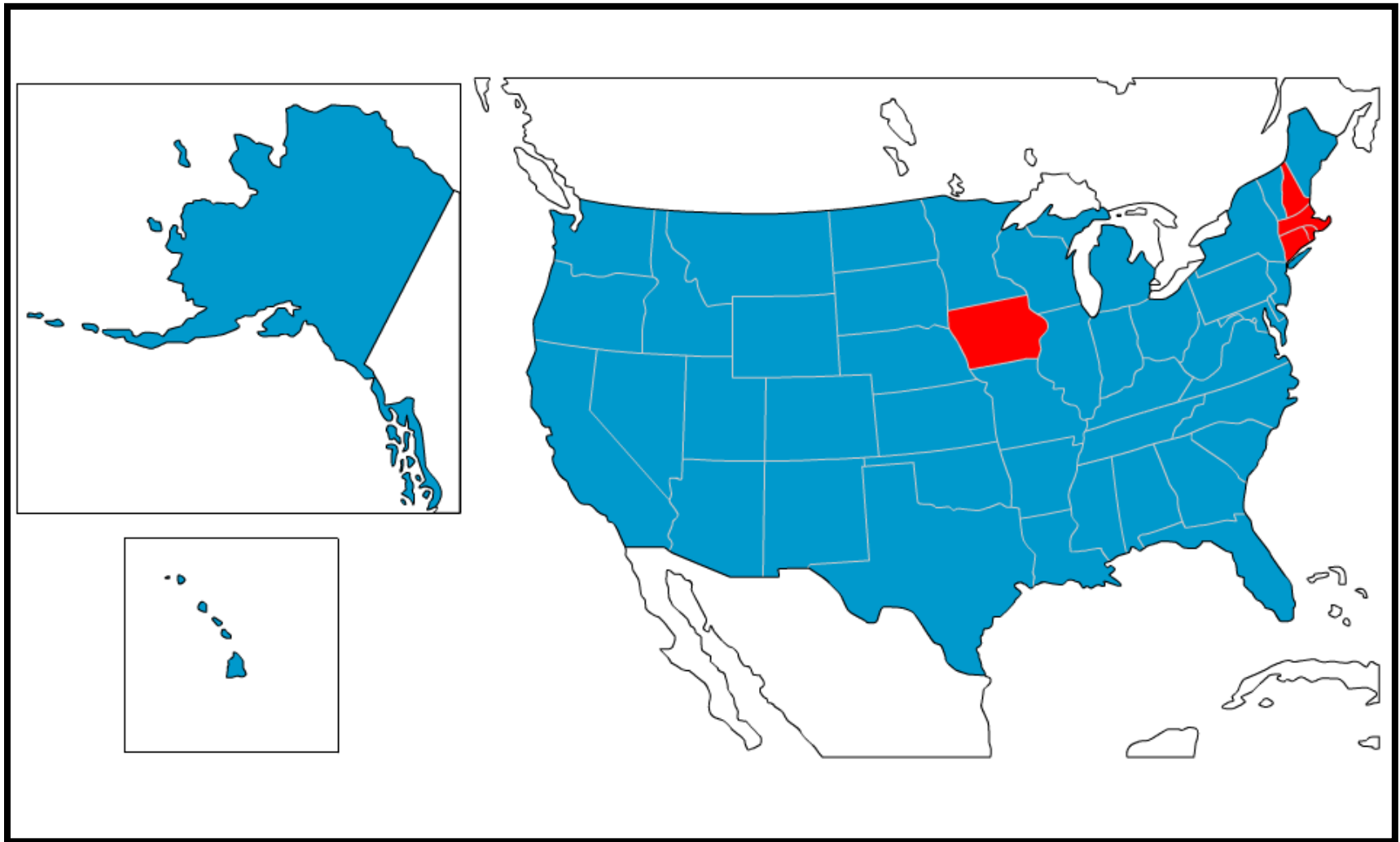Stewart Ferguson, PhD
Chief Information Officer (CIO)
Alaska Native Tribal Health Consortium

Alaska Native
Tribal Health Consortium

Patients Served by Telemedicine in North America

Courtesy of Jon Linkous, ATA
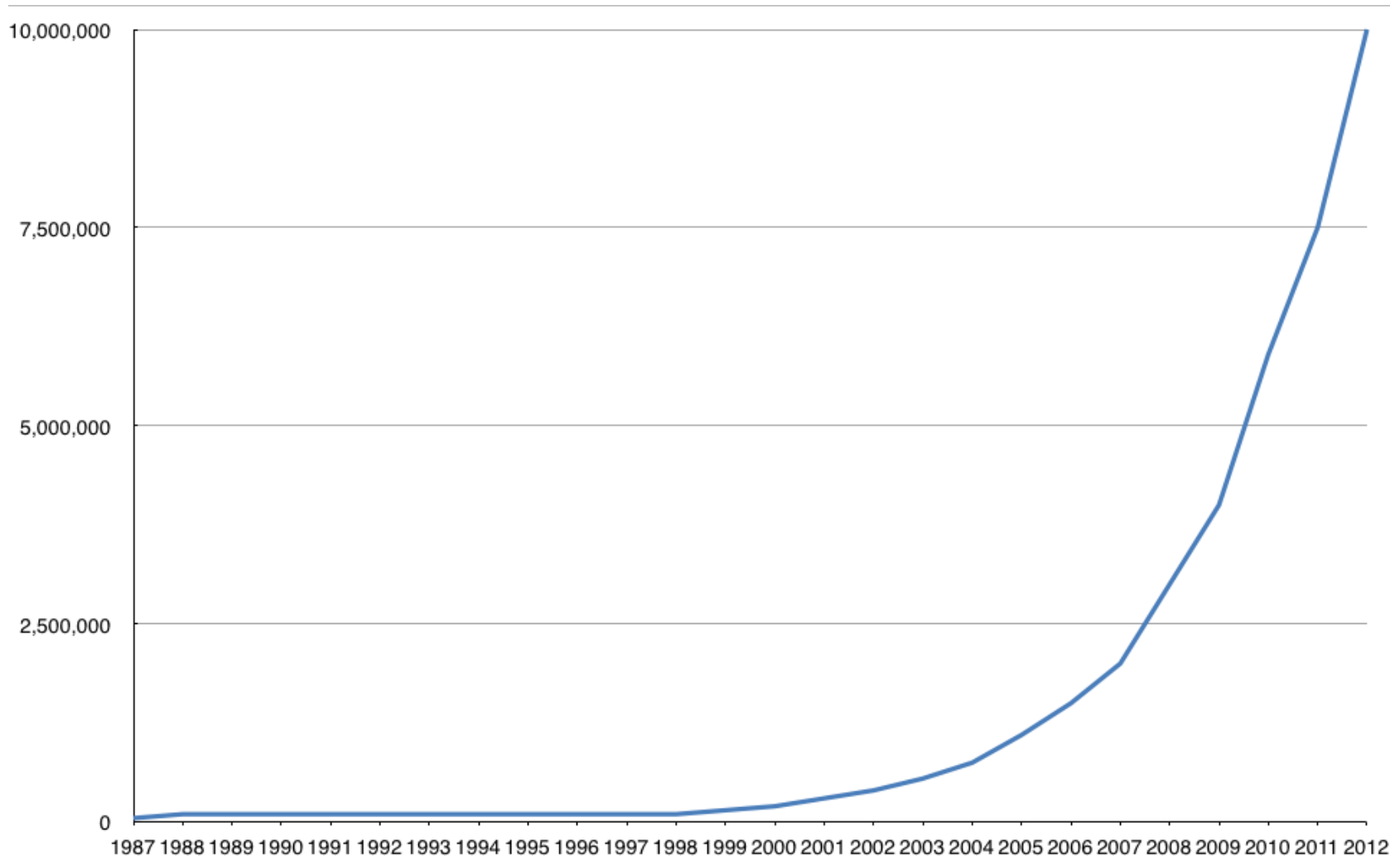
Medicaid - State Telemedicine Reimbursement for Physician Services (2014)

Legend:
- Reimbursement for telemedicine-provided physician services
- No reimbursement

American Telemedicine Association
Connected to Care

AFHCAN - by the numbers …

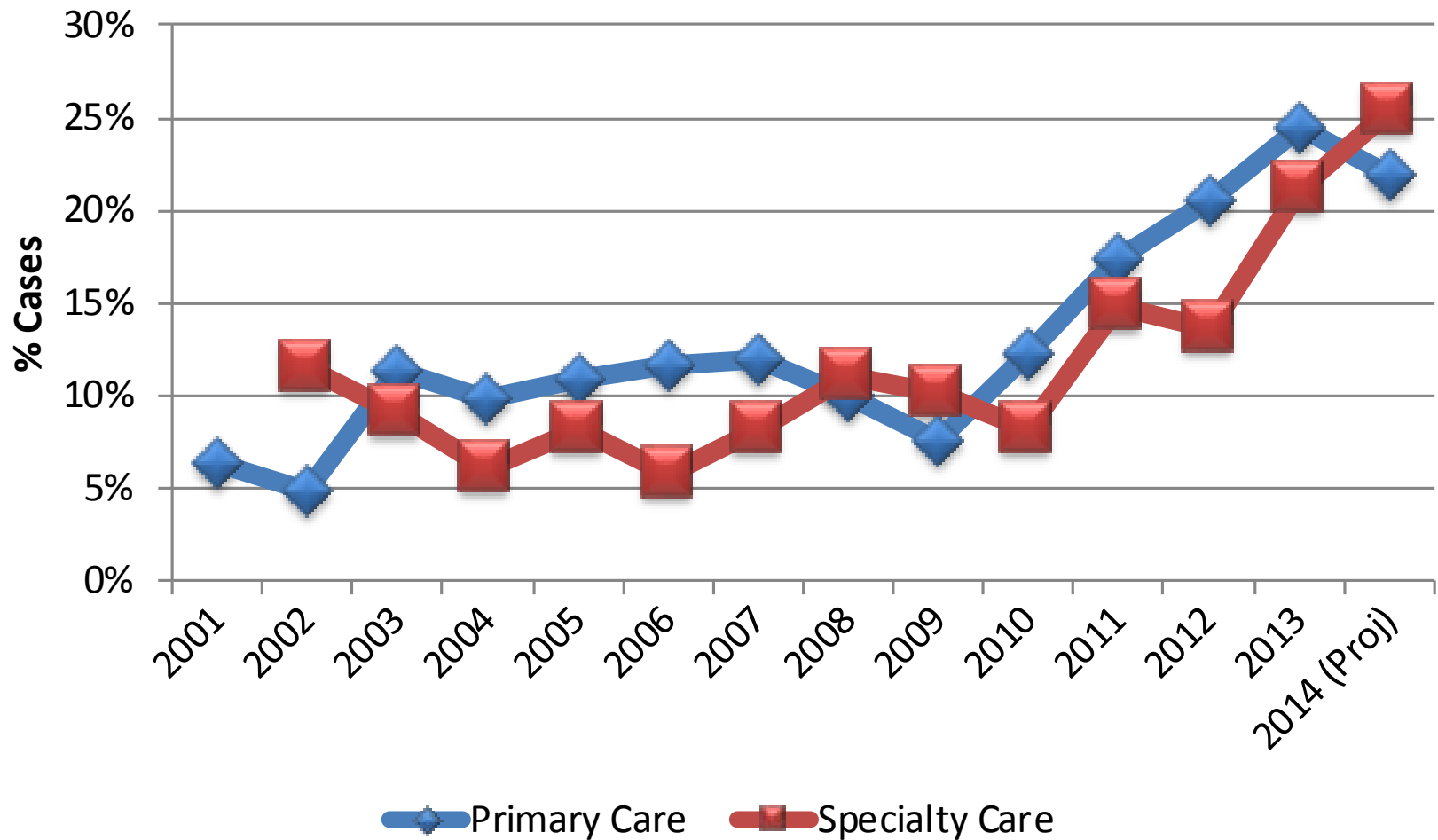| Since 2001		2014 (Proj)
208,276	**Cases created**	**45,526**
83,548	**Patients served**	**30,079**
3,968	**Providers involved**	**1,700**
2,278	**Providers creating**	**900**
$57.8m	**Travel Savings**	**$8.7m**

Travel CAUSED (by Case Role)

ATHS (Alaska Tribal Health System) (1/1/2000 to 6/30/2014)

Telehealth Impact on Extended Waiting Times (> 4 months)

Data courtesy of Phil Hofstetter

Post-Operative Followup

- Post-surgical follow-up is difficult for patients from remote settings.

- Telehealth provides ability to monitor and followup.
  - **Validated model**
 - "Reverse Consult" empowers CHA/Ps and midlevels to respond to requests from specialists.
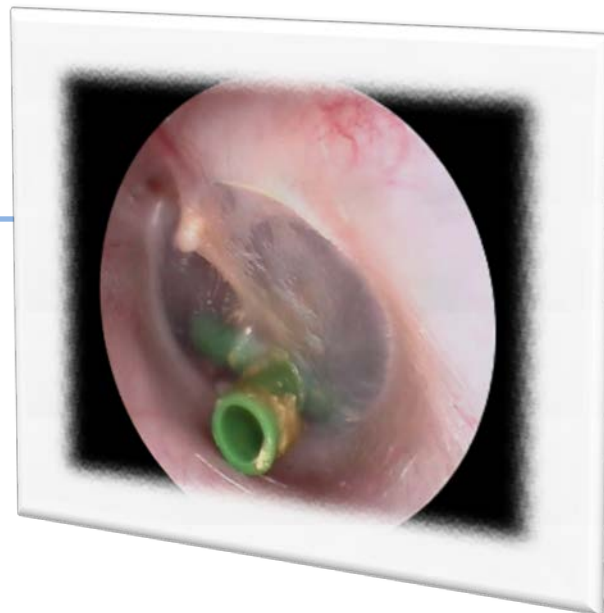
"Many simple problems, such as tympanostomy tube follow-up can be done with telemedicine without asking the patient to leave their village."

ENT Specialist

Pre-Operative Planning for Ear Surgery Using Store-and-Forward Telemedicine

John Kokesh M.D., A. Stewart Ferguson Ph.D., Chris Patricoski M.D.
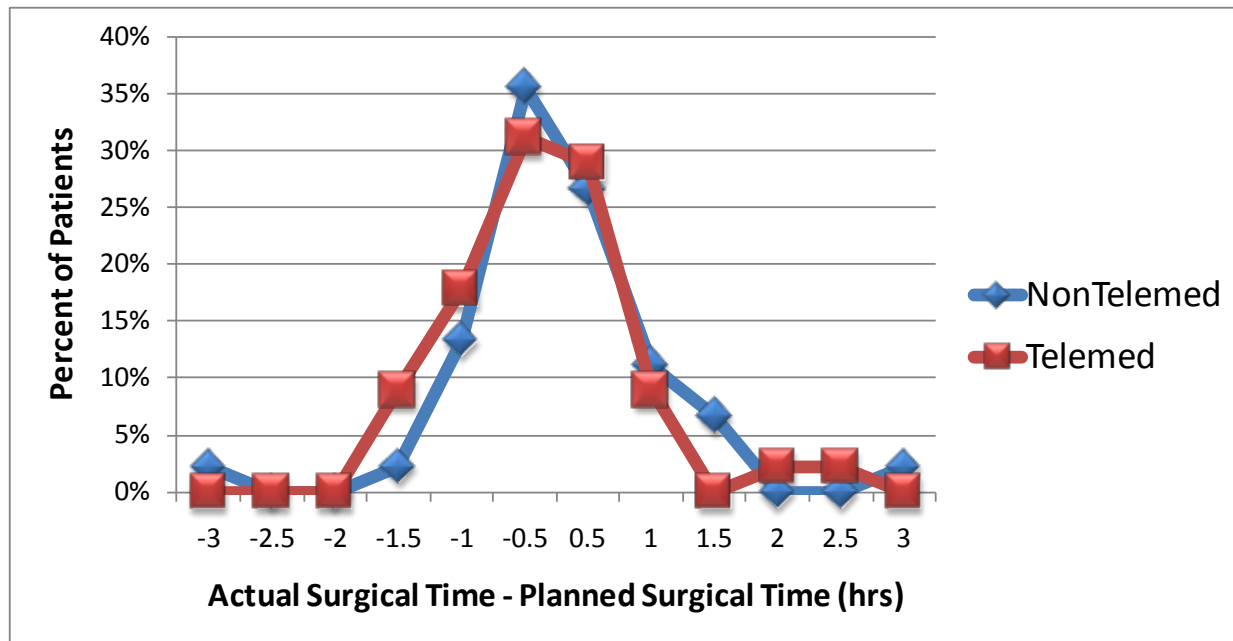
The average difference was not statistically different between the two groups: 32 minutes for the telemedicine evaluation group and 35 minutes for the in-person evaluation group

Comparison of surgical time (actual surgical time – estimated surgical time) for telehealth and non-telehealth cases. Values in the right half of the plot represent cases which took longer than planned (42% of telehealth cases and 47% of non-telehealth cases); values in the left half represent cases that took less time than planned (58% of telehealth cases and 53% of non-telehealth cases)
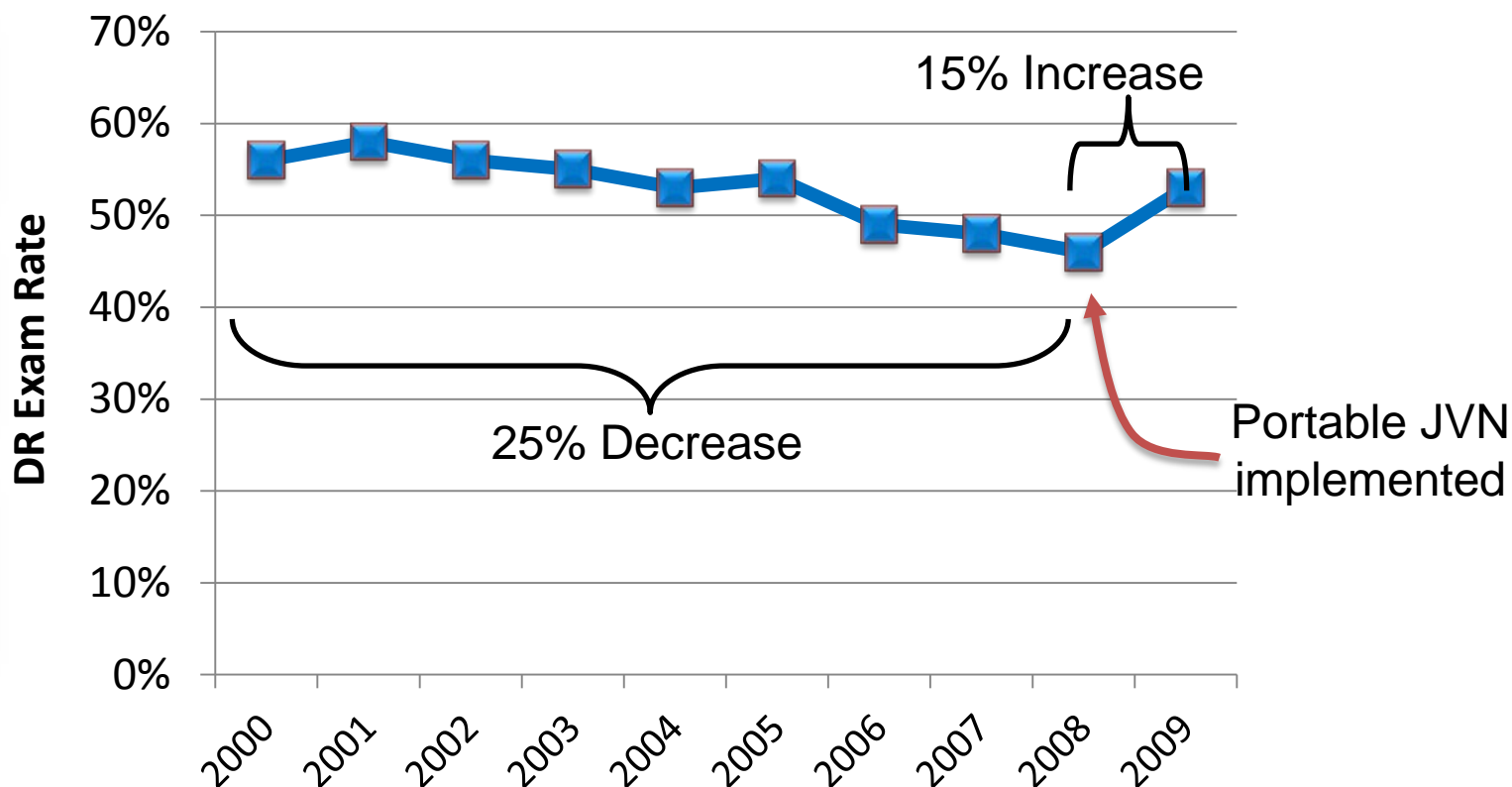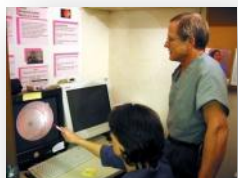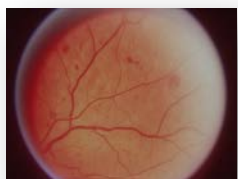
Joslin Vision Network (JVN)
Portable JVN Pilot

Deployment of the IHS-JVN in Alaska using a portable platform reversed a seven year decline in rates for the state

How much "Telehealth" can be done?

Specialty	Population to Require One FTE (6)	Total FTEs Required for IHS Population	% Workload that can be handled through Telemedicine			FTE Required for Telehealth Needs	
			via S&F only	via VtC (and S&F)	Confidence in Estimates	via S&F only	via VtC (and S&F)
Cardiology	32,000	47	10%	25%	Medium	4.7	11.75
Dermatology	47,000	32	30%	50%	High	9.6	16
Infectious Disease	132,000	11	20%	25%	Medium	2.2	2.75
Ophthalmology	25,000	60	25%	30%	Medium	15	18
Diabetic Retinopathy	25,000	60	90%	90%	High	54	54
Otolaryngology/ENT	39,000	38	10%	15%	High	3.8	5.7
Total		**248**				**89.3**	**108.2**

Notes

(1) User Pop for IHS assumed to be 1,500,044

(2) Family Medicine is used to support primary care given by non physician providers. Not included here as numbers unknown for population served by non physician providers.

(3) ENT telehealth utilization will double with good audiology support.

(6) Approximation for staffing needs based on average from multiple sources (Information compiled by Medicus Partners from GMENAC, Health Manpower Report, Medical Economics, Inforum, Current National Ratio, AMA, Mulhausen Staff Model HMO, Journal of American Medical Association, Hicks & Glenn.)

Alaska Native Tribal Health Consortium

Stages of Meaningful Use
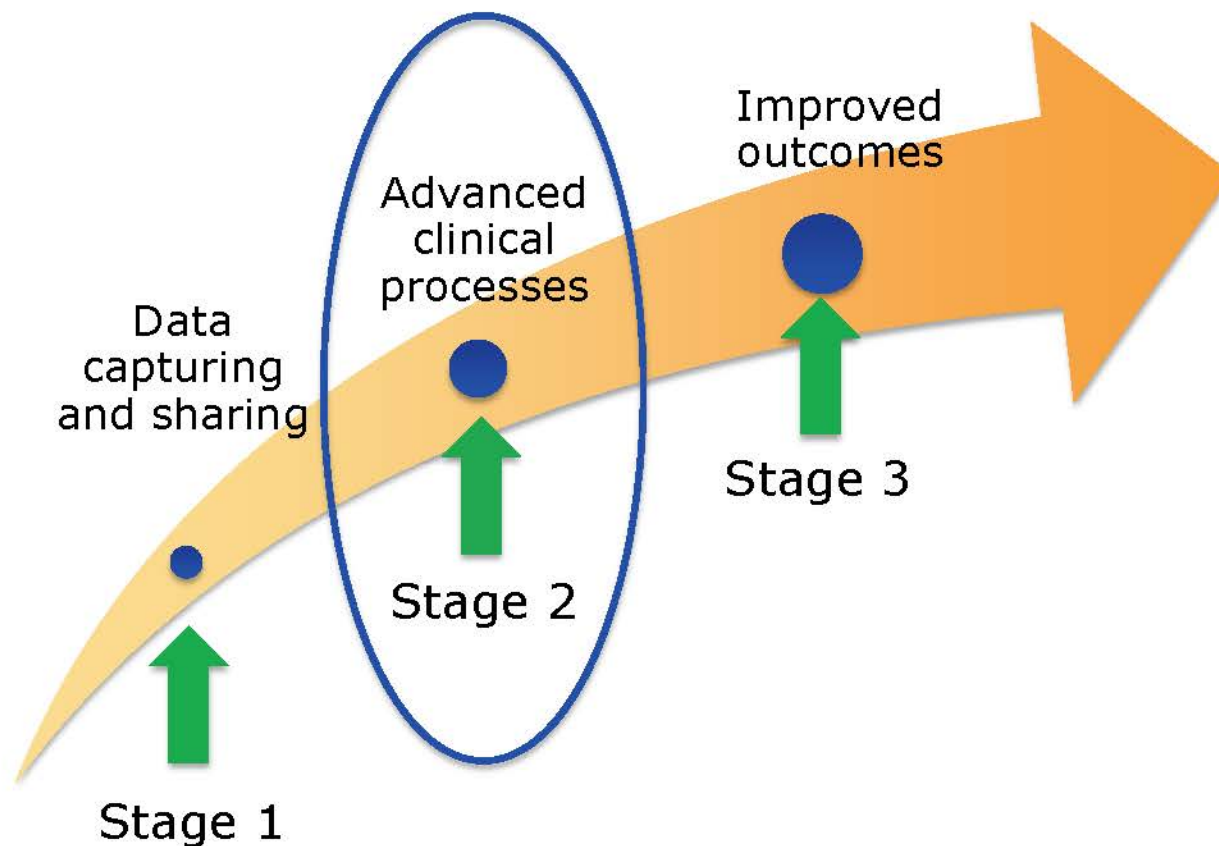
Meaningful Use Technology
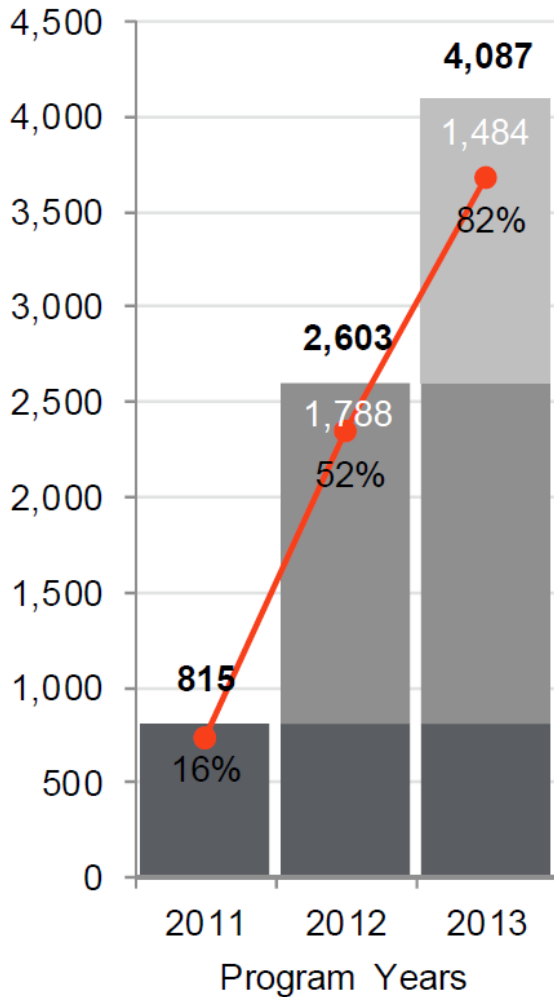
Patient Portals

Two Problems. Two Solutions.

What do we communicate?

- Purpose designed templates?
- Required information?
- Optional information?
- Human readable?
- Structured?
- Digestable?

Answer: CCDA ⬅

How do we communicate

- Secure – disclosure?
- Correct destination
- Who can access msg?
- Who sent it?
- Unchanged?
- Chain of trust?

Answer: DSM ➡

C-CDA IG Purpose: Single Source for CDA Templates

HL7 Implementation Guide for CDA R2: IHE health story consolidation, DSTU
Release 1.1
(US Realm)
July 2012

Document Templates: 9
• Continuity of care document (CCD)
• Consultation note
• Diagnostic imaging report (DIR)
• Discharge summary
• History and physical (H&P)
• Operative note
• Procedure note
• Progress note
• Unstructured document

Section Templates: 60

Entry Templates: 82

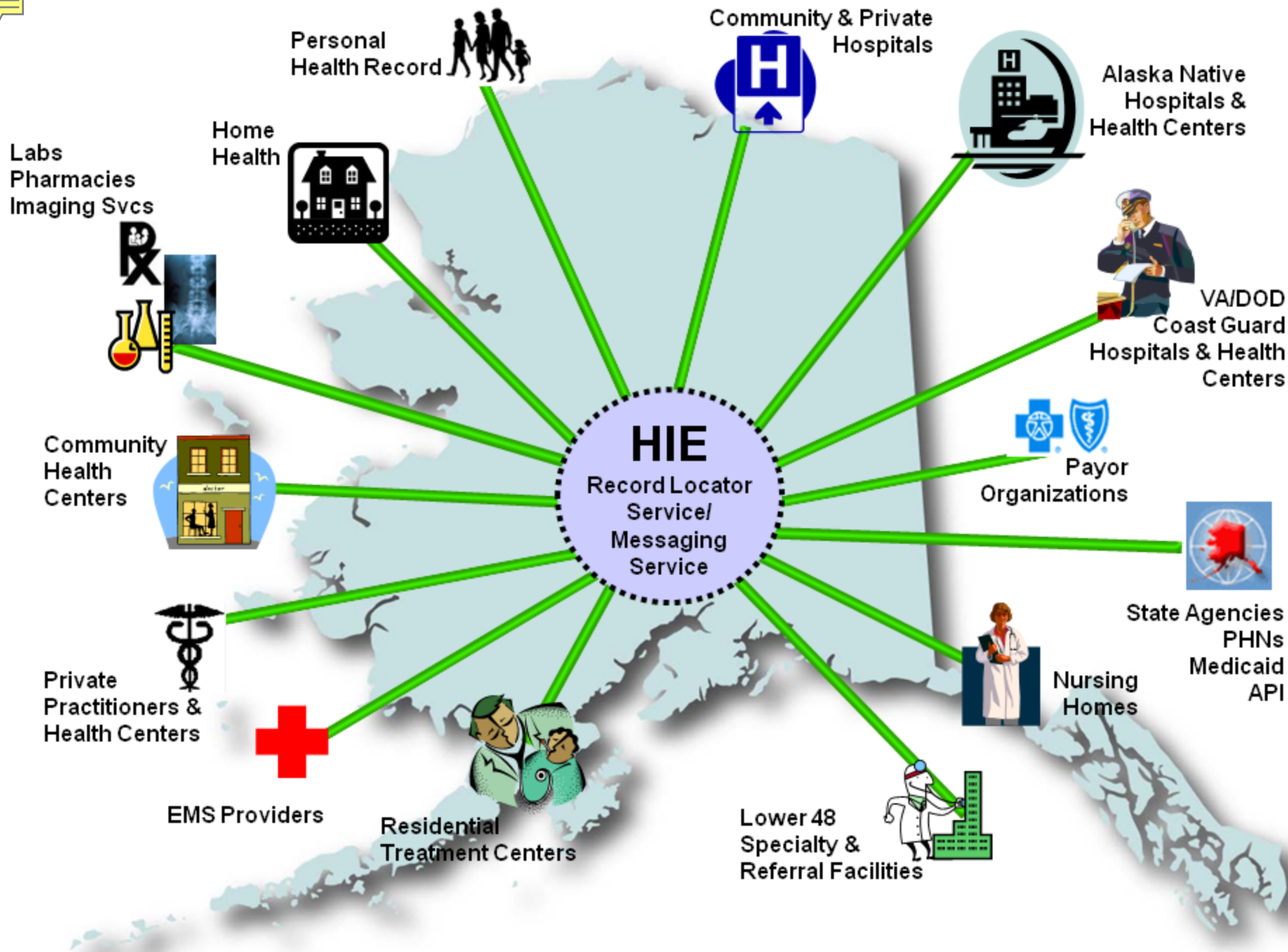| Document Template	Section Template(s)		
Continuity of care Document (CCD)	Allergies Medications Problem List Procedures Results Advance Directives Encounters	Family History Functional Status Immunizations Medical Equipment Payers Plan of Care	Section templates in GREEN demonstrate CDA's interoperability and reusability.
History & Physical (H&P)	Allergies Medications Problem List Procedures Results Family History Immunizations Assessments	Assessment and Plan Plan of Care Social history Vital Signs History of Present Illness History of Present Illness	Chief complaint Reason for visit Review of systems Physical exam General status

HISP to HISP Communication
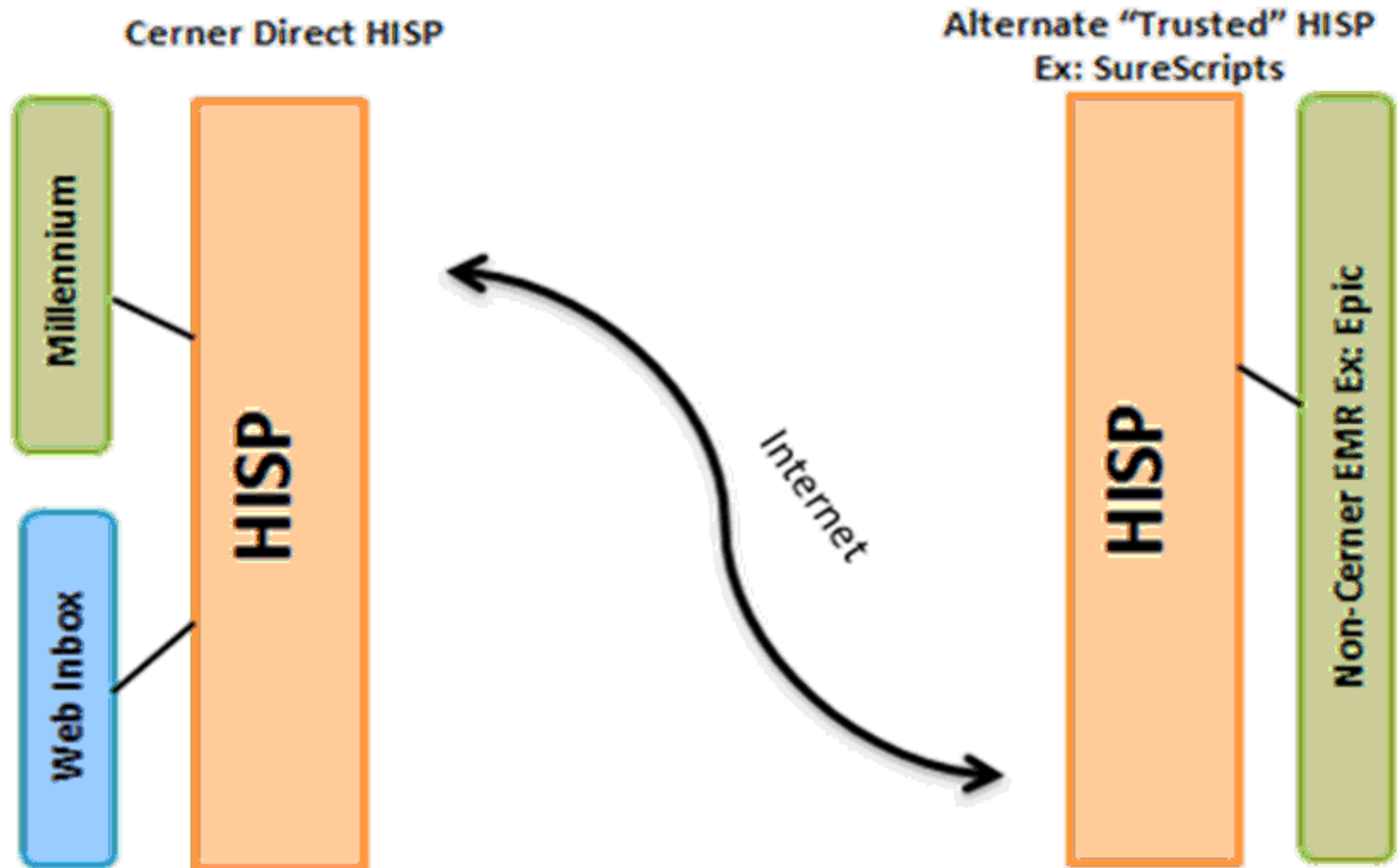
Alaska now has the largest Direct Secure Message network of any state, with 4800 secure mailboxes for Alaska providers.

Over 290,000 messages have been sent, about 5,000 per day.

Personal Health Record

Home Health

Community & Private Hospitals

Alaska Native Hospitals & Health Centers

Labs Pharmacies Imaging Svcs

VA/DOD Coast Guard Hospitals & Health Centers

Community Health Centers

HIE
Record Locator Service/ Messaging Service

Payor Organizations

State Agencies PHNs Medicaid API

Private Practitioners & Health Centers

EMS Providers

Residential Treatment Centers

Lower 48 Specialty & Referral Facilities

Nursing Homes

HIE-based S&F Telehealth

- Access to health summaries, notes
- Offers an MPI to match patients and MRNs
- A single place for shared solutions
  - E.g. Case Management
- Future Capabilities
  - E.g. eVisits (specific to Epic and Siemens portals)

The Challenges

- Need to develop standards (e.g. CCDA), processes, service agreements, testing methodologies, etc. to connect our EHRs.

- Need shared solutions to shared problems: multimedia components, scheduling, marketing/broker service, eVisits.

- **Where do we have these discussions?**

Stewart Ferguson, PhD
Chief Information Officer
Alaska Native Tribal Health Consortium
4000 Ambassador Drive
Anchorage, AK 99508

(907) 729-2262
sferguson@anthc.org