

eHealth Council

March 30, 2015

Nebraska Educational Telecommunications, Lower Level Conference Room, 1800 No. 33rd Street, Lincoln

Video sites: UNMC, Business Service Center (4230 Building), 42nd and Leavenworth, Room 3037 B

There is parking on the north side of the building (backside of the building). The north entrance is the only way to enter the building. Once in the parking lot, look for the green, metal awning over the main entrance. Enter the bldg, take the steps (there's an elevator too) to the 3rd level turn left, walk down the hall to Rm# 3037, (first door on the left). If someone needs assistance, they are welcome to call Brenda Jeter at 402-559-3868.)

See map on last page of meeting materials.

Other sites as requested by members

1:30 p.m. CT – 3:30 p.m. CT

Tentative Agenda

[Meeting Materials](#)

1:30	Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting <i>Approval of <u>Nov. 13, 2014 minutes</u>*</i> Public Comment
1:40	Updates <ul style="list-style-type: none">• New NITC Chair—Anne Byers• Direct and Provider Directory• NeHII migration to new platform• IAPD, Environmental Scan• E-Prescribing Controlled Substances-Kevin Borchert (See also http://surescripts.com/products-and-services/e-prescribing-of-controlled-substances)• Nebraska Statewide Telehealth Network
2:00	Behavioral Health CDS and Dialog —Sheri Dawson, Lisa Schafers, and Eric Henrichsen
2:30	PCORnet Initiative and Greater Plains Collaborative Research Network —Dr. James McClay
3:00	ONC Funding Opportunity*

3:30	<i>Adjourn</i>
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* Indicates action items.

Meeting notices were posted on the Public Meeting website on Feb. 23, 2015 and on the NITC website on March 13, 2014. Meeting agenda posted on March 25, 2015.

EHEALTH COUNCIL

Thursday, Nov. 13, 2014, 9:30 a.m. to 12:00 noon CT

Executive Building, Videoconferencing room

521 South 14th Street, Lincoln, Nebraska

Video Sites: [NEB. REV. STAT. § 84-1411(6) - Public Participation]: UNMC, Harold M. and Beverly Maurer Center for Public Health, Room 313; Nemaha County Hospital; Great Plains Regional Medical Center

MINUTES

Members Present

Wende Baker (arrived at 9:40)
Rama Kolli for Susan Courtney
Kevin Borchner
Marty Fattig (at Nemaha County public participation site)
Kevin Conway
Jenifer Roberts-Johnson
Marsha Morien
Taylor Thompson for John Roberts
Max Thacker (at UNMC public participation site)
Delane Wycoff (at UNMC public participation site)

Members Absent: Joel Dougherty, Senator Annette Dubas, Congressman Jeff Fortenberry, Kimberly Galt, Harold Krueger, Sharon Medcalf, and Greg Schieke.

ROLL CALL, NOTICE OF POSTING OF AGENDA, NOTICE OF NEBRASKA OPEN MEETINGS ACT POSTING, & REVIEW OF MINUTES

Co-Chair Marsha Morien called the meeting to order. Roll call was taken. Six members and alternates were present in Lincoln at time of roll: Rama Kolli, Kevin Borchner, Kevin Conway, Jenifer Roberts-Johnson, Marsha Morien, and Taylor Thompson. A quorum was not present. Approval of the minutes was tabled.

Marsha Morien noted that the meeting announcement was posted on the NITC and Nebraska Public Meeting websites on Nov. 4. The agenda was posted on Nov. 7. An electronic copy of the Nebraska Public Meeting Act was available.

E-Prescribing Controlled Substances Update—Kevin Borchner

The order of updates was modified because Wende Baker had not yet arrived and work was still underway setting up equipment for the NeHII presentation.

Kevin Borchner provided an update on Nebraska Methodist Health System's use of e-prescribing controlled substances. Methodist implemented electronic prescribing of controlled substances (EPCS) on June 21, 2014 using the Cerner EHR system. Nebraska Methodist is the first health system to use the

Cerner system and the first health system to implement electronic prescribing of controlled substances in Nebraska. Between June 21 and Nov. 9, over 29,000 prescriptions e-prescriptions were written by 162 providers and sent to 276 pharmacies including over 10,000 electronic prescriptions for controlled substances. The major chains including Walgreens, CVS, Walmart, and Target as well as local/regional chains such as HyVee, Kohll's and Kubat's accept e-prescriptions for controlled substances. A number of independent pharmacies are also using software which is certified for e-prescribing controlled substances.

DEA regulations require prescribers to use certified systems which use two-factor authentication. Nebraska Methodist prescribers have used biometrics, fobs, and a soft token on an iPhone.

In the early stages of the pilot, some pharmacies had questions about filling e-prescriptions for controlled substances. Joni Cover has included information in materials sent to members of the Nebraska Pharmacists Association about three times.

Outside of the Omaha area, only a few prescribers are using systems certified for e-prescribing controlled substances. Nebraska Medicine is in the process of implementing e-prescribing controlled substances. Members suggested including information on e-prescribing controlled substances in the Nebraska Hospital Association's newsletter. Deb Bass suggested including information on e-prescribing controlled substances in the next NeHII webinar in February or March.

NeHII and Direct Update—Lianne Stevens

NeHII now has approximately 4,000 users. With the approval of the IAPD by CMS for 90/10 matching funds to support health information exchange in Nebraska, NeHII is working with several hospitals to schedule their implementations. Interface fees charged by the hospital EHR vendors is a barrier.

NeHII announced a partnership with ICA in July and started planning the implementation of Direct in August 2014. Current Direct participants include Wayne Family Medicine, Colgazier Demmel Medical Clinic, and CHI Health. As of Sept. 25, 2014, 21 hospitals have tested Direct messaging successfully. Change management and impact on workflow is a significant issue. Some providers have commented that CCDs are not always the most useful document to send/receive. One CCD was 100 pages long.

Marty Fattig asked if there were plans to develop a provider directory. NeHII is developing a proposal to create a provider directory. Lianne Stevens is participating on the Mid-States Consortium Provider Directory Work Group. Marty Fattig, Kevin Conway, Anne Byers, and Wende Baker volunteered to participate in a provider directory work group. Anne Byers will work with Jenifer Roberts-Johnson and Ruth Vineyard to see if DHHS would like to have representatives participate.

eBHIN Update—Wende Baker

Wende Baker gave an update on EBHIN. The end of State HIE Cooperative Agreement funding and vendor delays in implementing the HIE led to sustainability issues for eBHIN. As a response, eBHIN

dropped its HIE services and partnered with its data center to reduce administrative costs. Regions can contract with the data center directly. The NextGen EHR includes Direct functionality. Direct is being piloted with People's Health Center and eBHIN providers.

HRSA initially declined to fund the proposal from Region 3. However, additional funding was found and the Region 3 proposal was funded.

Other Updates

With the election of Pete Ricketts as governor, state agencies are preparing for the transition to the new administration. Anne Byers informed members that state statute specifies that the NITC be chaired by the Governor or the Governor's designee. Currently, it is unclear who will be appointed to chair the NITC by Governor-elect Ricketts. The Lt. Governor has traditionally been named chair.

Anne Byers also briefly updated members on the state broadband plan. A copy of the executive summary was included in the meeting materials.

Members discussed changes in leadership at ONC. Marty Fattig has continued to communicate with Dr. DeSalvo and has extended an informal invitation for her to visit Nebraska. Members offered to help facilitate a meeting.

Next Steps

Marsha Morien led a discussion about next steps for the eHealth Council. The discussion generated the following points:

Roles. Members discussed the following roles:

- Identify and address issues related to health IT which require the involvement of multiple stakeholders;
- Act as an advocate for health IT;
- Provide information/education on issues related to health IT; and
- Encourage adoption of health IT.

Issues. Members identified the following issues which may be appropriate for the eHealth Council to address:

- **Provider Directory**--With Direct secure messaging now available in Nebraska through NeHII and other HISPs, there is a need for a statewide provider directory. NeHII is developing a proposal to create a provider directory. Because there are multiple HISPs and other potential uses for a statewide provider directory, this an issue which should involve NeHII as well as other stakeholders. Anne Byers, Wende Baker, Kevin Conway, and Marty Fattig volunteered to work with NeHII on a provider directory work group. Anne will also see if representatives of Medicaid and the Division of Public Health would like to be involved.

- **Prescription Drug Monitoring Program**--The Nebraska Medical Association has been providing leadership in bringing stakeholders together to address issues related to the Prescription Drug Monitoring Program. The eHealth Council may be able to support efforts by providing information to the NITC and other stakeholders.
- **Supporting Provider Adoption of Health IT**
- **Encouraging the Utilization of Health IT to Improve Quality of Care and Patient Outcomes**
- **Supporting Telehealth**
- **Encouraging Consumer Engagement and Consumer Use of Health IT**
- **Supporting Efforts to Leverage Health Information for Quality Reporting, Analytics, and Population Health**--The Health Care Database Advisory Group will be releasing recommendations soon.

Recommendations. eHealth Council members agreed that working with NeHII and other interested stakeholders in developing a provider directory was an appropriate role for the eHealth Council.

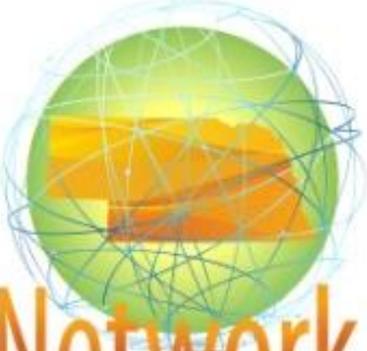
The eHealth Council could decide to address the other issues at some point in the future.

Members suggested meeting in the spring to further discuss membership and the role of the Council.

Adjournment

The meeting was adjourned at 11:40 a.m.

Nebraska Statewide Telehealth Network



Nebraska Statewide Telehealth Network Quantitative Evaluation January 1, 2013 – December 31, 2013

Prepared by Nebraska Statewide Telehealth Network – Education Committee
Utilizing Information Provided by the NSTN Hub Sites

A special thank you to the following individuals for their diligent work in gathering and submitting data for preparation of this report:

*Pat Hoffman, University of Nebraska Medical Center - Lead
Jim Harvey, Bryan Health Medical Center
Sally Kummer, Faith Regional Health Services
Wanda Kjar-Hunt and Kathy Gosch, Good Samaritan Hospital
Boni Carrell, Regional West Medical Center
Diane Vogel, Saint Elizabeth Regional Medical Center
Kay Taylor, Saint Francis Medical Center*

All NSTN members

About This Data

The goal of the Nebraska Statewide Telehealth Network (NSTN) Governing Committee is to gather as much data as possible about how the Network is being utilized. This information is used in many ways including:

- **Reporting usage statistics and value to the Nebraska Public Service Commission (NPSC).** The Nebraska Public Service Commission provides up to \$900,000.00 in funding support annually to members of the NSTN. This funding helps to pay for connectivity costs, routers, bridges and firewall equipment as well as a scheduling system. The data provided to the NPSC and their Commissioners helps to show that their money is well-spent in helping to increase access to health care and education for rural patients and providers.
- **Reports to legislators.** The Nebraska Statewide Telehealth Network provides information and statistics to State Legislators and their staff at their request. The information is used as they formulate and update Telehealth legislation.
- **Reports to members.** Organizations, continually under financial pressure, often ask themselves where they can cut costs. Telehealth, not traditionally a revenue producing service, has been questioned by cash-strapped organizations in the past as they consider their future. Data collected from sites can show how Telehealth saves money through decreased travel costs in mileage pay and staff down time for education and meetings. In addition, hospitals can look at the clinical consultations their patients receive and ascertain that a certain percentage of those patients likely were able to utilize the local facility for lab, x-ray and other support services while engaging in the clinical consult rather than using the services of another facility.

The Telehealth Coordinators who compile the data for the NSTN are all members of the NSTN Education Committee. The committee worked to educate new coordinators on data collection methods as well as providing updated compilation spreadsheets. The NSTN understands that it is nearly impossible to capture 100% of the activity that takes place on the network as it grows and as it becomes routine to provide these services within organizations. However, we believe this report shows diligence by the sites in collecting the data for NSTN to evaluate uses of the system.

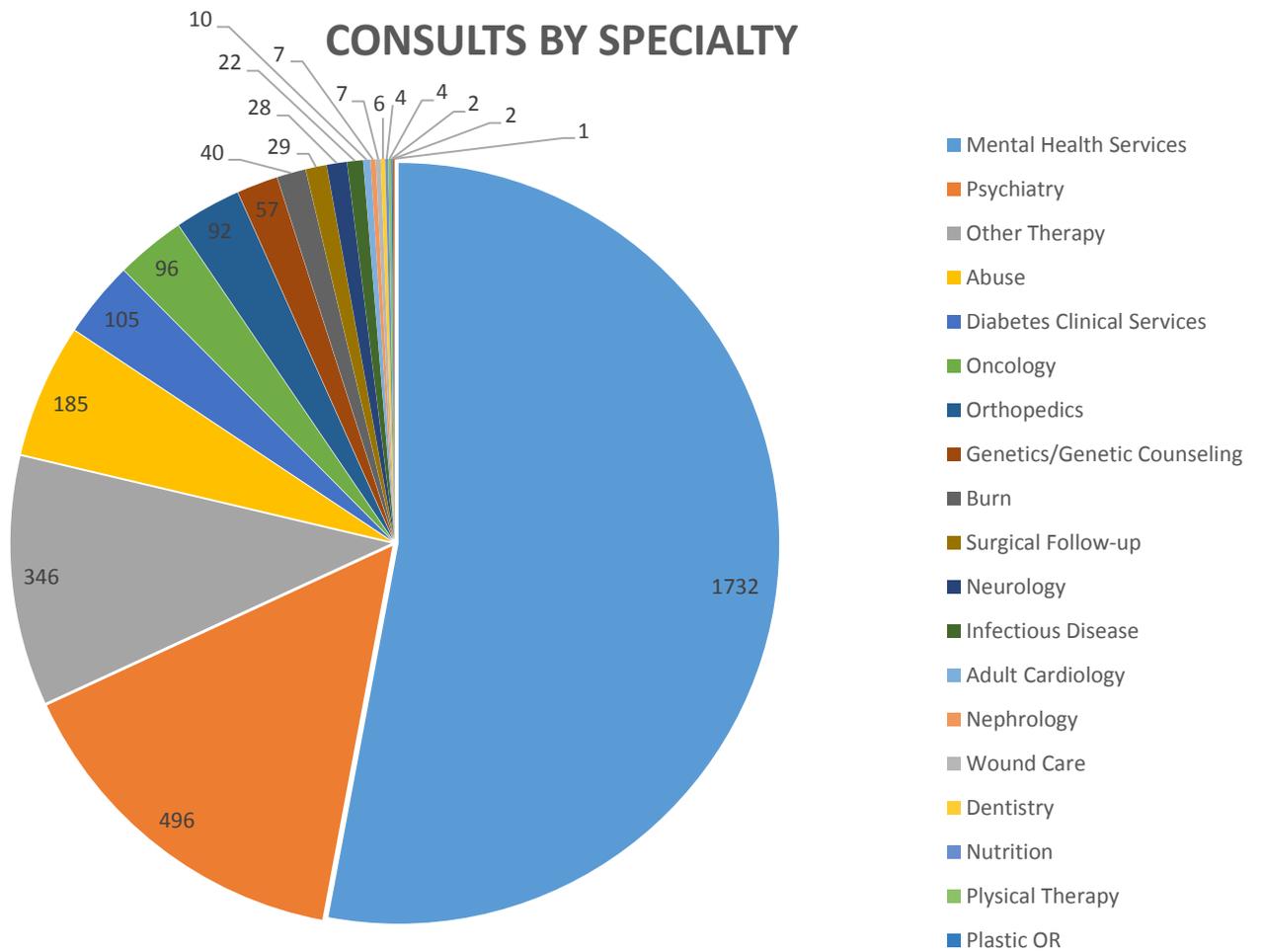
Clinical Consultations

Specialty and Volume of Clinical Consultations

Total Clinical Encounters		
Hospital Outpatient/In Home	Mental Health Services*	1,732
	Psychiatry	496
	Other Therapy	346
	Abuse	185
	Diabetes Clinical Services	105
	Oncology	96
	Orthopedics	92
	Genetics and Genetic Counseling	57
	Burn	40
	Surgical Follow-up	29
	Neurology	28
	Infectious Disease	22
	Cardiology	10
	Nephrology	7
	Wound Care	7
	Dentistry	6
	Nutrition	4
	Physical Therapy	4
	Plastic OR	2
	Smoking Cessation	2
	Neonatology	1
TOTAL		3,271

* "Mental Health Services" include any mental, behavioral, psychological, psychiatric or counseling services, including geriatric counseling, that may have been provided.

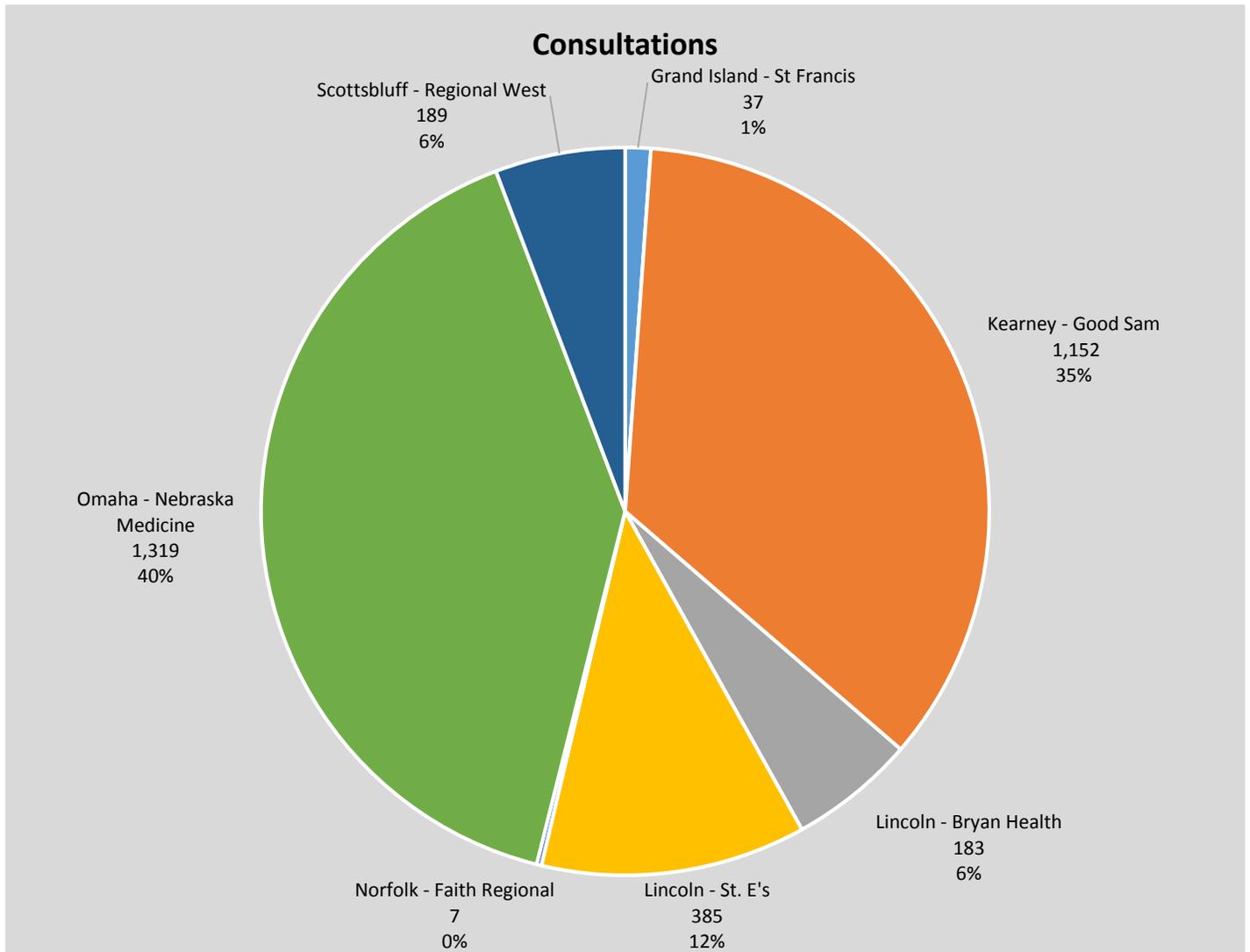
CONSULTS BY SPECIALTY



Mental Health Services	1,732	53%	Infectious Disease	22	1%
Psychiatry	496	15%	Cardiology	10	<1%
Other Therapy	346	11%	Nephrology	7	<1%
Abuse	185	6%	Wound Care	7	<1%
Diabetes Clinical	105	3%	Dentistry	6	<1%
Oncology	96	3%	Nutrition	4	<1%
Orthopedics	92	3%	Physical Therapy	4	<1%
Genetics	57	2%	Plastic OR	2	<1%
Burn	40	1%	Smoking Cessation	2	<1%
Surgical Follow-up	29	1%	Neonatology	1	<1%
Neurology	28	1%			

Telehealth Clinical Consultations Reported by Individual Hub Site Networks: Total

Network	January-December 2013	% of Overall Consults (rounded)
Bryan Health Medical Center Network	183	6%
Faith Regional Health Services Network	7	<1%
Good Samaritan Hospital Network	1,152	35%
Great Plains Regional Medical Center Network	0	0
Regional West Medical Center Network	189	6%
Saint Elizabeth Regional Medical Center Network	384	12%
Saint Francis Medical Center Network	37	1%
University of Nebraska Medical Center Network	1,319	40%
Total	3,271	100%



Telehealth Clinical Consults by Hub Network: Who is Doing What?

Specialty	Total Number	BLGH	FRHS	GSH	RWMC	SERMC	UNMC	SFMC
Mental Health Services	1,732			696	165	12	845	14
Psychiatry	496	183		9		295	9	
Other Therapy	346			5			341	
Abuse	185			185				
Diabetes Clinical	105			19			86	
Oncology	96			73				23
Orthopedics	92			92				
Genetics	57			1	24	2	30	
Burn	40					40		
Surgical Follow-up	29					29		
Neurology	28			28				
Infectious Disease	22			22				
Cardiology	10			4		6		
Nephrology	7		7					
Wound Care	7			7				
Dentistry	6						6	
Nutrition	4			4				
Physical Therapy	4			2			2	
Plastic OR	2			2				
Smoking Cessation	2			2				
Neonatology	1			1				
Total	3,271	183	7	1152	189	384	1,319	37

About the Sites and Practitioners Involved in Telehealth Clinical Consultations

	January-December 2013
Total Number of Consultant Sites *	12
Total Number of Patient Sites **	92
Total Number of Consulting Practitioners	98

**The 10 consultant sites are Bryan Health Medical Center, Faith Regional Health Systems, Good Samaritan Hospital, Premier Psychiatric Group LLC, Regional West Medical Center, Richard Young Hospital, Saint Elizabeth Regional Medical Center, Saint Francis Medical Center, University of Nebraska Medical Center, and University of Nebraska-Lincoln, Denver CO and Rapid City SD.*

***The patient sites include 75 Nebraska Statewide Telehealth Network members located in Nebraska, as well as an additional eighteen sites located in the following communities: Queen Creek, AZ; Key West and Melbourne, FL; Des Moines, Newton, Sioux City and Waukee, IA; Norton, Phillipsburg, Smith Center and St. Francis, KS; Elysian, Minneapolis, and Mound, MN; Nixa, MO; Norman, OK; Driscoll and Humble, TX.*

About the Patients Involved in Telehealth Clinical Consultations

	January-December 2013
	Total
Total Miles Saved	1,191,503
Total Financial Savings to Patients in Travel Costs (mileage x \$.56)	\$667,242

Sites Served by Telehealth Clinical Services

NEBRASKA			Other States
Ainsworth	Friend	Neligh	Queen Creek, AZ
Albion	Fullerton	North Platte	Key West, FL
Alma	Genoa	Omaha Childrens	W Melbourne, FL
Alliance	Gering	Omaha UNMC	Denver, CO
Atkinson	Gordon	O'Neill	Des Moines, IA
Auburn	Gothenburg	Osceola	Newton, IA
Aurora	Grand Island	Ord	Sioux City, IA
Axtel	Grant	Osmond	Waukee, IA
Bassett	Harvard	Pawnee City	Norton, KS
Beatrice	Hastings	Pender	Phillipsburg, KS
Benkelman	Henderson	Red Cloud	Smith Ctr, KS
Broken Bow	Holdrege	Schuyler	St. Francis, KS
Burwell	Holdrege 3 Rivers	Scottsbluff	Elysian, MN
Calloway	Imperial	St. Edward	Minneapolis, MN
Cambridge	Kearney	St. Paul	Mound, MN
Central City	Lexington	Sidney	Nixa, MO
Chadron	Lincoln Bryan	Stuart	Norman, OK
Cozad	Lincoln St. E	S Sioux City	Driscoll, TX
Creighton	Loup City	Superior	
Columbus	Macy	Valentine	
David City	McCook	Verdigre	
Elkhorn	Milford	Wayne	
Fairbury	Minden	Wisner	
Franklin	Mullen	York	
Fremont	Newman Grove		
	Nebraska City		

Other Uses of the Nebraska Statewide Telehealth Network: Interactions

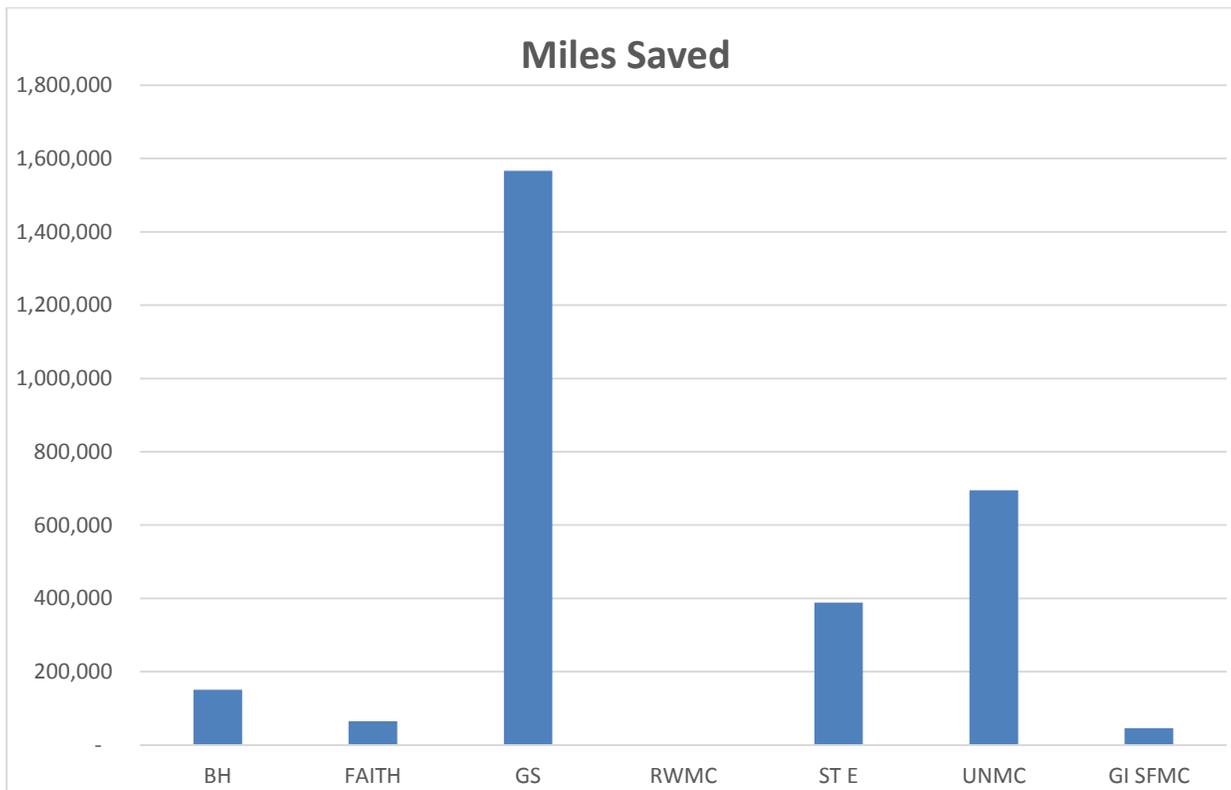
Education, Grand Rounds, Community Health/Support, and Administrative Meetings

	January-December 2013
Education for Health Professionals for Degree or Certification Requirements*	1,169
Grand Rounds*	416
Community Health Education and Support Groups*	177
Administrative Meetings*	1,264
Total	3,026
Total Number of Sites Involved in Offering or Receiving Services	9,586
Total Number of Participants Involved in Receiving Services	55,240
Total Miles Saved	2,910,306
Total Financial Savings to Organizations in Mileage Costs (miles x \$.56)	\$1,629,771

**A description of these categories is provided at the end of this document.*

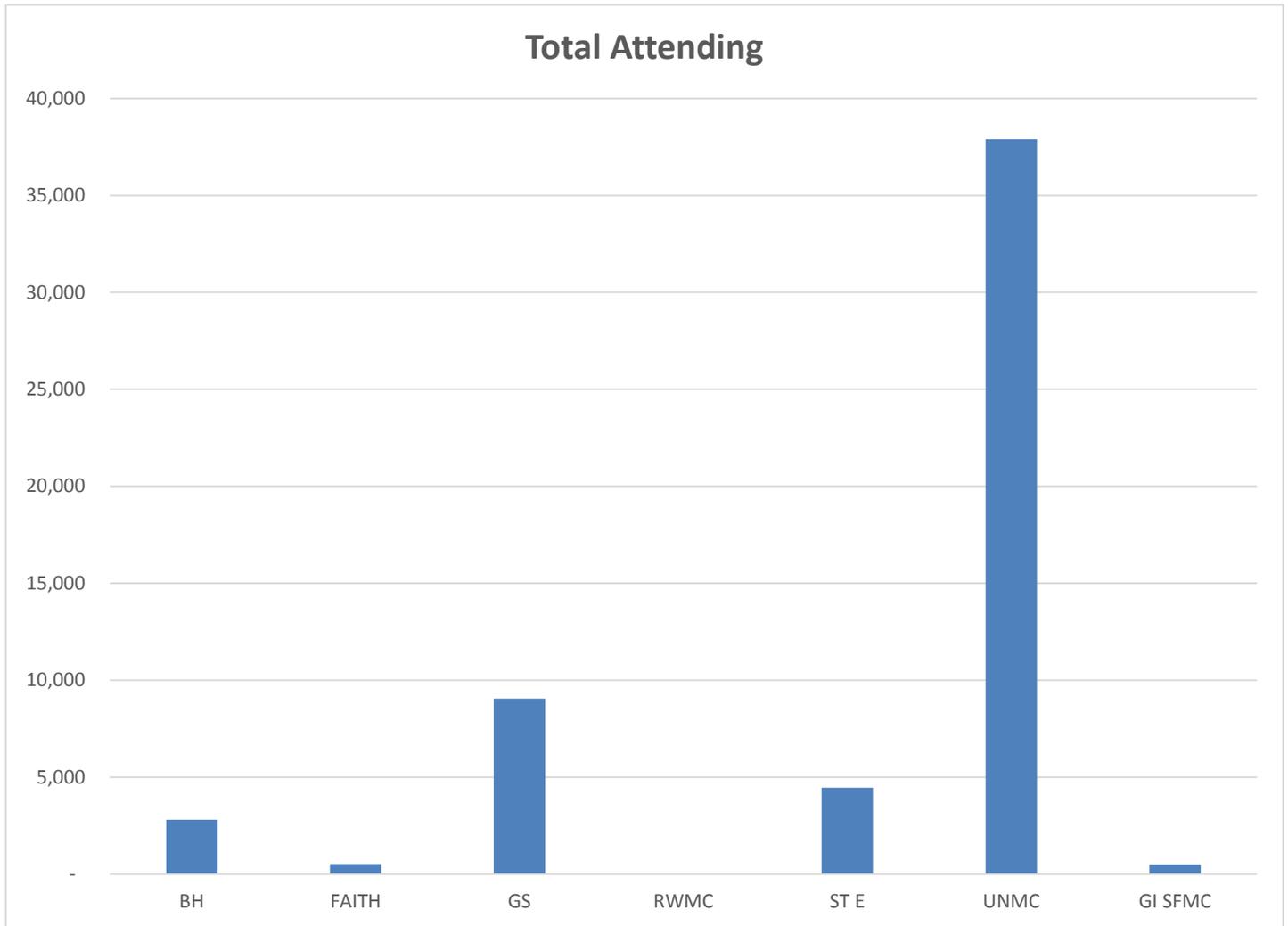
**This includes 108 Nebraska Statewide Telehealth Network members located in Nebraska, fourteen non-members in Nebraska, and three Kansas sites.*

Total Miles Saved by Attendees Participating in Education, Community Health/Support, Grand Rounds and Administrative Meetings



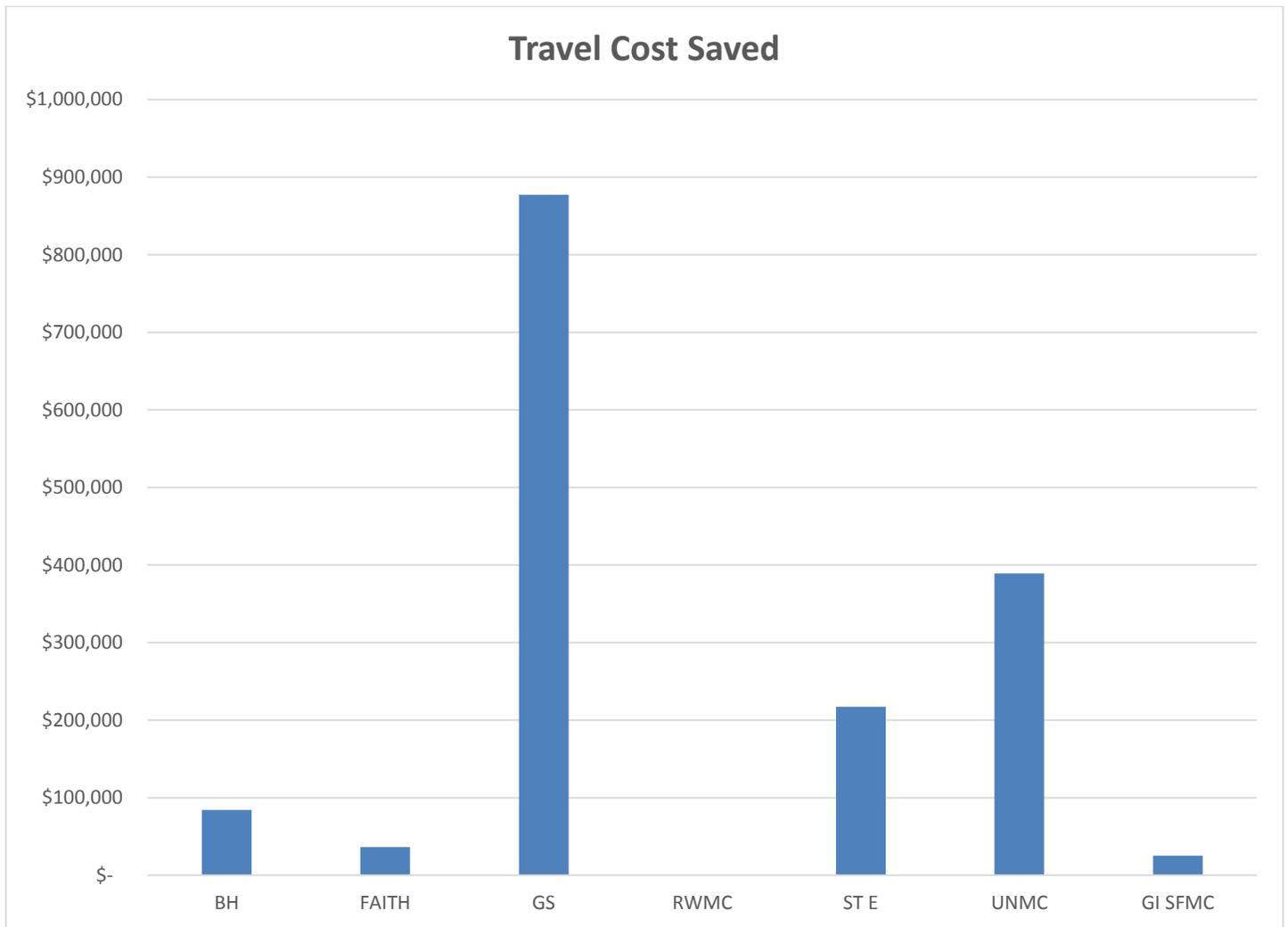
RWMC data not available

Total Numbers for all Attendees at Hub Sites Other Uses



RWMC data not available

Total Travel Costs Saved by Attendees Participating in Other Interactions



RWMC data not available

Other Usage

Biometric Monitoring* Interactions Utilizing Telehealth Lines (Norfolk FR hub only)

	January-December 2013
Teleradiology	1914
Telemetry	400
Total	2,314

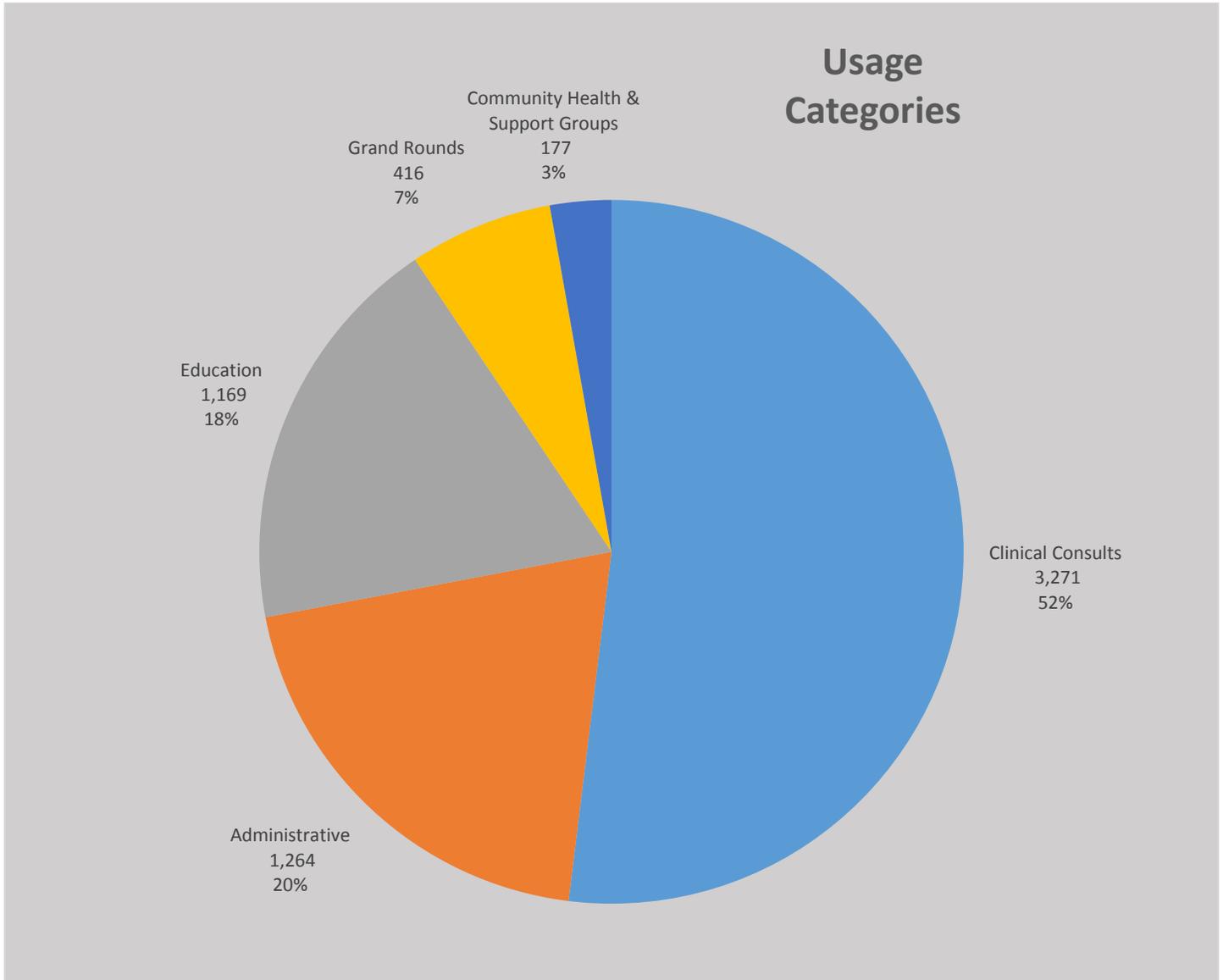
**A description of this category is provided at the end of this document.*

Tele-Pharmacy Interactions Utilizing Telehealth Lines

	January-May 2013
Images received	14,490
Orders on Images	19,191
RP hours for months	3,600

*After May 2013, pharmacy transitions to web conferencing.

Overall Videoconference Usage



Total Number of Interactions*:	6,297	100%
Clinical Consults:	3,271	52%
Administrative Meetings:	1,264	20%
Educational Offerings:	1,169	18%
Grand Rounds	416	7%
Community Health & Support Groups:	177	3%

**These numbers do not reflect biometric or tele-pharmacy monitoring interactions.*

Description of “Other Uses”

Administrative Meetings. Administrative meetings, for the purpose of this document, are defined as meetings of one or more organizations or individuals held for the purpose of advancing the core business practices of the participating organization.

Biometric or Remote Monitoring. As defined by the American Telehealth Association, remote patient monitoring (RPM), or tele-monitoring, describes services where a patient’s vital signs (e.g., blood pressure, weight) and other biometric data (e.g. pulse oximetry, blood glucose levels) and subjective data (e.g. disease signs and symptoms, medication and/or diet compliance) is collected by monitoring devices and transferred electronically to a clinician (provider, nurse or allied health professional) who analyzes, responds and stores the data.

Community Health Education. Health education provided to members of the community by a health care professional or other affiliated entity or individual.

Education for Health Professionals. Didactic education for degree seeking participants, CME courses, health education for practicing health professionals, case reviews.

Grand Rounds. Grand rounds are formal meetings at which physicians discuss the clinical case of one or more patients, usually focusing on current or interesting cases. Grand rounds are an integral component of medical education for students and practicing providers.

Network Highlights

Using the NSTN to Bring Didactic Education to Students in Nebraska

- Since 2005, the School of Allied Health at UNMC has outreached to Columbus, Grand Island, Scottsbluff and Lincoln to reach students who are fulfilling degree requirements for radiation science.
- The SAHP relies on the Nebraska State Telehealth hospitals at those locations to offer videoconference rooms for the classes. Additionally, Telehealth coordinators at each of the sites assist the students with technology and scheduling.
- Each semester, the Radiation Science department typically sends 8 or more classes to these sites.
- Since 2005, more than 50 students have graduated with their bachelor of science degrees in radiation science.

Geriatric Psychiatry in Rural Nebraska

One of UNMC's geriatric psychiatrists, Dr. Tom Magnuson, embraces the use of Telehealth for reaching his patients in rural Nebraska. Dr. Magnuson has used videoconference technology for clinical consults since 2009. He reaches his geriatric patients in hospitals in Ord, Osceola, Cambridge, Bassett, Ainsworth, Superior, Albion, and many other small Nebraska towns. In 2013, Dr. Magnuson did over 100 mental health consults via Telehealth, using the NSTN system.

Norfolk Faith Regional Outreach on Pertinent Issues

Faith Regional Health Services in Norfolk has been utilizing telehealth as a means of providing educational opportunities for healthcare providers for several years including several successful conferences in the past two years via Telehealth. Serving Victims of Abuse Conference (2-25-14) included 6 hospitals throughout the state, including Kearney and Scottsbluff, that participated and Trauma Update Conference (4-16-13) which involved 11 area hospitals. Telehealth continues to be an excellent avenue in which one can coordinate a national presenter whose expertise can then be shared statewide via Telehealth.

The primary goal of this grant proposal is to increase the adoption and use of interoperable health IT tools and services to support the exchange of health information within the state of Nebraska and with neighboring states. We aim to accomplish this goal by three primary activities: 1) increasing adoption by bringing new facilities on board the exchange with a specific focus on critical access hospitals/rural hospitals and long-term care facilities; 2) providing additional value-added functionality for existing participants; and 3) implementing information exchange with neighboring states via the HIE to HIE Gateway. For intra-state exchange, we will target facilities by specific regions to provide the most value. We have selected the Northwest Region centered in Scottsbluff, Nebraska; the East-central Region centered in Fremont, Nebraska; and the East region centered in Omaha.

- 1) Increasing adoption.
 - a. New data sharing participants for the HIE (**Project B**) - The Nebraska Health Information Initiative (NeHII) currently has 26 critical access hospitals (CAHs) participating or preparing to participate in the HIE in Nebraska and Western Iowa. We propose adding 7 more CAHs in Nebraska, two specialty hospitals, two long-term care hospitals and five long-term care (skilled nursing) facilities.
 - b. New data sharing participants via C-CDA exchange (**Project D**) - Facilities can provide data to the exchange by providing C-CDA documents. NeHII will accept, parse, and integrate the information into the exchange. We propose adding 20 different providers who do not currently participate in the HIE over the two year period covered by the grant. We will target additional CAH facilities, non-participating acute hospitals, and physician provider networks affiliated with these hospitals.
 - c. New Direct secure messaging participants (**Project C**) – Facilities that do not have EHR software can still receive C-CDA documents via Direct secure messaging. We will target long-term care/skilled nursing facilities in the targeted regions to provide this service. We propose adding 50 additional facilities during the two year grant period.
- 2) Provide existing participants with additional services to increase the use of NeHII.
 - a. Work flow analysis for new and existing participants to incorporate HIE and C-CDA data into daily processes (**Project B**).
 - b. Population health data analytics for participants electing to add the Optum One services to their NeHII functionality suite. Target Nemaha County Hospital and the Nebraska Medical Center as pilot participants (**Project A**).
 - c. Syndromic surveillance functionality for data submission directly to the Nebraska DHHS reporting system (**Project B**).
 - d. Provider directory for Direct participants to foster data sharing (**Project C**).
 - e. Pain contract information displayed in the NeHII VHR (**Project F**).
- 3) Implement HIE-to-HIE Gateway
 - a. Enable interstate information exchange with Kansas, Iowa, South Dakota, Missouri, and Colorado (**Project E**).

Project A: Optum One Analytics

The Optum One Analytics project will provide clinical data analysis tools for health information exchange participants. The software package provides reporting capabilities for population health, quality metrics, and risk measurement. The clean, validated data available through the platform can be used to make more accurate predictions of population health needs by focusing on the patients who have the most potential for

clinical improvement and cost savings. The tool can be used to help healthcare providers be pro-active rather than reactive with patient care.

NeHII will provide access to the software via the health information exchange. Participating facilities will be able to send data to the analytics platform for inclusion in the population health metrics. These facilities will be able to develop unique reports for data from their facilities to use for reporting measures and quality evaluations. They will also be able to compare their information to similar de-identified aggregate data from around the country. NeHII will need to set up data feeds from the participating facilities to receive data for use in the analytics software and will set up feeds to transmit developed reports back to the provider. NeHII will work with the participant to design scripts to determine the appropriate data for inclusion in the desired reports. We will bring on a pilot facility (Nebraska Medicine) and four additional facilities with the funding from this grant.

Project B: Critical Access Hospital, Specialty Hospital, and Long Term Care Facility Implementation with Syndromic Surveillance

Provider participation in health information exchange is critical to care coordination and other improvements to the quality of health care provided and to controlling rapidly increasing costs. Participating facilities are able to increase efficiency and decision-making by providing more complete patient information at the point of care. Every additional facility that participates in the HIE provides more data for a wider patient group and thus increases the value of the exchange for all other participants. Participation enables a more streamlined physician referral processes and care transition and can enhance relationships between patients and families by improving communications and the sharing of data.

NeHII will use the grant funding from the adoption milestone to a) increase participation in the exchange across the care continuum in areas of the state of Nebraska where hospital participation is already high and b) increase participation in regions of the state where the hospital adoption rate is low. In the high adoption areas, we will strive to fill in the gaps in missing information to provide a more complete patient data package. We are proposing adding two long-term care hospital facilities in the Omaha area and five skilled nursing facilities to increase participation across all care settings. We will also use the funding to bring on critical access hospitals and supporting skilled nursing facilities clustered around participating acute care centers in regions of Nebraska where participation is not as great.

In addition to providing monies to cover the initial set up and implementation fees, we have also proposed significant labor resource hour funding to provide care setting-specific work flow analysis and in-depth training by qualified, experienced health care professionals with significant information technology incorporation experience. We want the adoption of health information exchange to strengthen the provider-patient and the hospital-community relationships rather than frustrate and inconvenience the providers and hospitals.

We recognize that current HIE participants may not have recognized the utility of data from the exchange and have not fully implemented the use of the exchange into their regular clinical work flows. We have also proposed additional funding to support the review of existing work flows and analysis to provide additional ways to gain value from the exchange data. This resource time will also provide training hours to help solidify the use of the exchange in the daily routine for providing care.

We will also use grant funding to provide facilities with the technology required to submit data electronically to the Nebraska Department of Health and Human Services syndromic surveillance program (Syndromic Surveillance Event Detection of Nebraska (SSEDON)).

Project C: Direct Provider Directory and Implementation of Additional Facilities

Full data sharing participation in the health information exchange is not practical for all care facilities. Those smaller, specialized providers may not have the information technology infrastructure to send and receive data directly with the exchange platform. However, these facilities are able to participate in entry-level, value-added health information exchange via Direct secure messaging services offered through the Nebraska Health Information Initiative. Direct enables a healthcare provider with the ability to electronically and securely push specific health information, such as discharge summaries, clinical summaries from primary care providers (PCP) and specialists, lab results to ordering providers, or referrals over the internet to another healthcare provider(s) who is a known and trusted recipient. Direct supports simple scenarios of pushing data from where it is to where it is needed, in a way that will support more sophisticated interoperability in the future. NeHII will use the grant funding from the adoption milestone to add 50 additional Direct messaging participants. We will focus on bringing on skilled nursing facilities clustered around participating acute care centers and critical access hospitals in the target regions of Nebraska.

Direct allows for the transmission of health information in a uni-directional flow using a secure, standard, scalable encrypted format and ensures that the information goes to the correct provider, organization or patient. It augments previous inadequate, outdated and more expensive forms of sharing information such as fax or delivery of paper charts. Direct participants may send health data to any other individual or organization that is also a Direct participant outside of a formal HIE (Health Information Exchange) or other private network. Direct Addresses are available from HISPs (Health Information Service Providers), and are verifiable and "unspoofable". Direct is an initiative created by the ONC and is well-supported and Internet-friendly. This solution can facilitate a fast, cost-effective alternative for exchange of patient health information and can enhance transitions of care with direct communication to receiving providers. Direct also provides the ability to track successful delivery of messages. Direct will support the ability of participants to meet key Stage 2 Meaningful Use requirements by providing an approved transport mechanism for 1) electronically sending Transitions of Care summary care records and 2) providing patients with the ability to view, download and transmit their visit information.

Direct can be used in two different ways: 1) electronically sending messages to one another by attaching and exchanging health information documentation through secure email over an Internet connection or 2) integrating Direct messaging with the provider's EHR system to streamline the workflow process of sending/receiving summaries of care from within the EHR.

Project D: HIE to HIE Gateway

Although the Nebraska Health Information Exchange's primary goal is to serve the data exchange needs within the state, no state operates in a healthcare silo. Many patients cross state lines for specialized care or during vacation and travel. Nebraska shares borders with Iowa, South Dakota, Colorado, Wyoming, Missouri, and Kansas. Many Iowa hospitals participate directly in the Nebraska Health Information Exchange due to their geographic proximity to Omaha, Nebraska's largest city and a major health care hub. However, many patients in Iowa obtain care from hospitals around the state. The HIE to HIE gateway project will provide the

means for NeHIE participants to query and retrieve patient data from other HIE entities without requiring the individual hospitals to directly connect to the Nebraska exchange. Through the Cross-Community Access (XCA) profile, participants can access relevant medical data held by other HIEs. We propose using funding from the exchange milestone to cover the initial implementation costs of connecting to the state HIE in Iowa (IHIN), the state HIE in Colorado (CORHIO), the state HIE in Kansas (KHIN), the state HIE in Missouri (Missouri Health Connection), and the state HIE in South Dakota (South Dakota Health Link).

Project E: C-CDA Exchange (XDS Repository)

When providing value-added services, NeHIE recognizes that a “one-size fits all” approach does not always work. While many participants elect to use HL7 data feeds as the primary method for providing data to the exchange, providers can also submit care documentation in another standard format for incorporation into the patient’s health record within the exchange. Whether seeing a patient for the first time or checking up on a patient recently discharged from the hospital, a provider will make better treatment decisions when he or she has a summary of the care administered to the patient by other providers.

NeHIE offers Cross-Enterprise Document Sharing (XDS) capabilities that facilitate clinical document sharing among various systems in the HIE. Participants can provide documents to the HIE’s XDS Repositories and register documents with the HIE’s XDS Registry. Users can query the HIE’s XDS Registry for documents for a patient and retrieve documents from the appropriate repositories. When a user queries for data, the HIE will return the list of documents matching the query parameter, along with their metadata, as sent by the document source. The search matching is based on the metadata provided by the data source. Furthermore, the displayed metadata helps end users to determine which documents are of interest. This functionality is different from the exchange of data through Direct as the information is stored and can be queried at any point in the future. We propose using funding from the exchange milestone to cover the initial implementation costs of connecting 20 new facilities with C-CDA exchange capabilities. We will target facilities (acute care hospitals, CAHs, and physician clinics) who elect to participate in this type of data sharing in the previously-identified regions of Nebraska.

Project F: Pain Contracts

Managing chronic pain with opioids is complicated and challenging. Doctors need to know if patients can follow the treatment plan, if they get desired responses from the meds, and if there are signs of developing addiction. Physicians use “pain contracts” to monitor patients’ adherence or to help check that patients are compliant with the medications ordered. Such agreements are most commonly used when narcotic pain relievers are prescribed due to the potential for addiction if not taken as prescribed by a doctor. The contract will spell out the rules patients must follow to take these drugs safely. The contracts aim to discourage people from taking too much medication, mixing medications, or sharing or selling them. The agreements may require patients to submit to blood or urine drug tests, fill their prescriptions at a single pharmacy or refuse to accept pain medication from any other doctor. If patients don’t follow the rules, the agreements often state that doctors may drop them from their practice.

The use of a pain management agreement allows for the documentation of understanding between a doctor and patient. Such documentation, when used as a means of facilitating care, can improve communication amongst all of the patient’s care providers. We propose using funding from the interoperability milestone to

cover the initial implementation costs of receiving and displaying pain contract information from one pilot site facility in the virtual health record.

