eHealth Council
April 5, 2017
1:30 P.M. CT – 3:30 P.M. CT

Lower Level Training Room, 1526 K Street, Lincoln, NE
And Skype for Business Connections Upon Request

Tentative Agenda

1:30	Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting *Approval of Oct. 3, 2016 minutes** Public Comment
1:40	PDMP Update—Felicia Quintana-Zinn and Kevin Borcher
2:00	ONC Interoperable Health IT Services to Support HIE Grant Update—Anne Byers • Integrated Community Project and Training Modules—Gary Cochran
2:30	New NeHII Pricing Structure—Deb Bass
3:00	Other Updates/Reports • GAO Report—Health Information Technology: HHS Should Assess the Effectiveness of Its Efforts to Enhance Patient Access to Use of Electronic Health Information
3:15	Possible Topics for Next Meeting • Public Health Data—Kathy Cook • Population Health Analytics and Research • Telehealth Network
3:30	• Adjourn

* Indicates action items
Meeting notices were posted on the Public Meeting website on March 28, 217 and NITC websites on Feb. March 28, 2017. Meeting agenda posted on March 28, 2017.

EHEALTH COUNCIL
October 3, 2016, 1:30-4:00 p.m.
State of Nebraska Division of Administrative Services
1526 K St., Lincoln, Nebraska Lower Level Training Room
MINUTES

Members Present:
Gary Cochran for Marsha Morien
Kevin Conway
Kathy Cook
Joel Dougherty
Marty Fattig
Rama Kolli
Jim McClay
Dave Palm
June Ryan
Todd Searls
Linda Wittmuss
Delane Wycoff
Bridget Young
Kevin Borcher (nominated)

Members Absent: Kimberly Galt, Cindy Kadavy, Robin Szwanek, and Max Thacker

Members present at the participation sites: Anna Turman, Dr. Shawn Murdock and Brian Sterud (nominated)

Dr. Jim McClay arrived at the meeting.

ROLL CALL, NOTICE OF POSTING OF AGENDA, NOTICE OF NEBRASKA OPEN MEETINGS ACT POSTING

Dr. Wycoff called the meeting to order at 1:35 p.m. There were 10 voting members present at time of roll. A quorum was present. Meeting notices were posted on the Public Meeting calendar and NITC website on September 26, 2016. The meeting agenda was posted on September 27, 2016. Copies of the Nebraska Open Meetings Act were available on the front room table.

APPROVAL OF MARCH 17, 2015 MINUTES

Mr. Fattig moved to approve the March 17, 2016 minutes as presented. Ms. Cook seconded. All were in favor. Motion carried.

PUBLIC COMMENT

There was no public comment.

Anne Byers presided over the rest of the meeting.

MEMBERSHIP

Recognition of Dr. Delane Wycoff. A few months ago, Dr. Wycoff informed Ms. Byers and Ms. Morien that he would be resigning as co-chair of the council. Ms. Byers presented him with an Admiralship in the Nebraska Navy from the Governor Pete Ricketts in recognition of his contributions to the eHealth Council, NeHII, the NITC Community Council's Telehealth Subcommittee, and in the health IT field. Dr. Wycoff gave departing remarks to the group. Council members also provided comments of thanks and acknowledgement as well.

Nomination of New Co-Chair. Marty Fattig accepted a nomination to serve as co-chair and stated he felt honored. He commented on the impact that Dr. Wycoff has had has had on IT in the health field for Nebraska.

Mr. Kolli arrived at the meeting.

Mr. Searls approved the nomination of Mr. Fattig as Chair. Mr. Conway seconded. Roll call vote: Conway-Yes, Cook-Yes, Dougherty-Yes, Fattig-Abstained, Kolli-Yes, McClay-Yes, Cochran-Yes, Palm-Yes, Searls-Yes, Wittmuss-Yes, Wycoff-Yes, and Young-Yes. Results: Yes-11, No-0, Abstained-1. Motion carried.

Ms. Ryan arrived at the meeting.

New Member Nominations. There were two nominations for new council members. Each provided a few remarks about their interest and experience.
- Kevin Borcher, Director of Prescription Drug Monitoring Program for NeHII
- Brian Sterud, Chief Information Officer, Faith Regional Medical Services

Dr. Wycoff approved the nominations for approval by the NITC. Mr. Searls seconded. Roll call vote: Young-Yes, Wycoff-Yes, Wittmuss-Yes, Searls-Yes, Ryan-Yes, Palm-Yes, Cochran-Yes, McClay-Yes, Kolli-Yes, Fattig-Yes, Dougherty-Yes, Cook-Yes, and Conway-Yes. Results: Yes-13, No-0, Abstained-0. Motion carried.

PDMP UPDATES (CDC GRANT, AND HAROLD ROGERS GRANT)
Felicia Quintana-Zinn and Kevin Borcher

Ms. Roberts-Johnson had originally planned to give an update on the Prescription Drug Monitoring Program (PDMP) but had a conflict and asked Felicia Quintana-Zinn to give the update. In order to better accommodate Ms. Quintana-Zinn's schedule, this item was moved up on the agenda.

Harold Rogers Grant. This grant has provided additional funding to implement and enhance the PDMP system. Grant priorities are to:

- Enhance and Maximize the PDMP

    o Increase access and use of the PDMP by medical professionals

    o Utilize the PDMP data for public health surveillance

- Develop and encourage statewide uptake of pain management guidelines

- Conduct a needs assessment and educate on the expanded access to Naloxone

The first version of the implementation guide for dispensers was made available in May. An updated version was made available in September.

CDC Grant. The grant team has completed year 1 of the grant and begun year 2. During year 1 of the CDC grant, the project has accomplished the following:

- Hired Amy Reynoldson (project manager), Felicia Quintana-Zinn (epidemiologist) and Brian Harter (IT Business Analyst). Each position is funded by this grant. The PDMP Workgroup has had several meetings and has provided invaluable feedback and guidance.

    o There have been multiple meetings with the Implementation subcommittee, Training and Education subcommittee, and the Prescribing guidelines internal subcommittee and have made tremendous progress.

- Last week stakeholders were able to participate in a test drive of the PDMP system that the NMA organized. Helpful feedback was received from physicians and pharmacists regarding the system.
- The PDMP website ([www.dhhs.ne.gov/PDMP)](www.dhhs.ne.gov/PDMP) went live this fall.

Mr. Borcher reported that NeHII is also working on a one-stop user access registration form that can be used with the PDMP. The plan is to have system ready for pharmacies to send the data in to populate the data by November 22. Pharmacies are very much aware of the project. It is anticipated that the system will be ready and fully operational by December 13, but no later than January 1.

ONC ADVANCE INTEROPERABLE HEALTH IT SERVICES TO SUPPORT HEALTH INFORMATION EXCHANGE GRANT UPDATE —Gary Cochran, UNMC

The Integrated Community Project, which is part of the ONC Advance Interoperable Health IT Services to Support Health Information Exchange grant, involves working with healthcare providers in Auburn and O'Neill to integrate health information exchange into their workflow. The process starts by asking health care providers what information they would like to receive, determining technical capabilities to exchange information, and prioritizing use cases. Some of the use cases identified are listed below:

LTPAC, Hospital, Clinic:

- Be able to integrate demographic information from referral partners directly into the EHR without needing to manually re-enter the information.

Emergency Room:

- Screen for possible opiate abuse in the ER
- Check for advance directives for LTC admitted to the ER

Clinic:

- Medication refill history to evaluate compliance with ambulatory regimen
- Receive clinical summary from LTC for scheduled patient visits

LTC:

- Discharge medication orders - coordinate between the transferring hospital and the LTC and pharmacy to assist with medication reconciliation

Home Health:

- Notification of hospital admission would prevent sending a therapist to an empty house.
- Access to care notes while in the hospital would help with discharge planning

The UNMC team has also started planning the development of six training modules to help providers better integrate health information exchange into their workflow.

Mr. Cochran entertained questions from the council members.

BEHAVIORAL HEALTH UPDATE ON NEW DATA SYSTEM—Heather Wood and Linda Wittmuss

Behavioral Health Update on New Data System. The Division of Behavior Health Centralized Data System (CDS) is a DHHS hosted web-based system that utilizes Compass software to collect information from behavior health providers for service authorization approval for higher levels of care, at admission into service, during the course of treatment, and at the time of discharge from behavior health services. Waitlist and capacity functionality exists in the CDS; however, formulas for calculating are under review to insure consistency in data collection and reporting across providers. Providers enter a variety of demographic, health status and presenting symptoms, trauma history, substance use and treatment progress-related data.

The CDS offers a variety of reports to support ongoing system evaluation, activity and population summaries, and performance outcome review. The CDS generates reports to satisfy state and federal requirements. Monthly service utilization reports are generated within the CDS to support billing activities based on services provided. The CDS will eventually interface with the Division's Electronic Billing System (EBS) which is scheduled for implementation in July 2017.

Ms. Witmuss and Ms. Wood entertained questions from the council members.

COUNCIL ENGAGEMENT AND PRIORITIES

The following were topics the council would like to explore further:
- Consumer engagement
- Small Hospital Improvement Program (SHIP)
- Medicaid Information Technology Architecture
- Correctional facilities – Interim study to examine the feasibility of creating a common data collection site for county jail information necessary to receive funding under the County Justice Reinvestment Grant Program (LR 550 report)
- LB 593, looking at all the current health data systems
- Public health and population health data and analytics—Kathy Cook, Dave Palm and Todd Searls volunteered to help Anne flesh this out.

The meeting frequency will remain twice a year. Members like the 1526 Building as a meeting site. The Lincoln-Lancaster Public Health Department was also suggested ads a possible meeting site. Members also liked using Skype for Business.

PUBLIC COMMENT

Nebraska HIMSS Chapter will be having their fall meeting on Wednesday, October 12. A couple of meeting topics will include MACRA and social media.

ADJOURN

With no further business, Ms. Byers adjourned the meeting at 4:02 p.m.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by Anne Byers of the Office of the CIO/NITC.
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Nebraska Advance Interoperable Health IT Services to Support HIE
## Project Summary, Progress, and Impact
April 3, 2017

The Nebraska Advance Interoperable Health IT Services to Support HIE cooperative agreement is supporting greater adoption of health information exchange in Nebraska through NeHII and helping health care facilities integrate health information technology into their workflow.

The Nebraska Information Technology Commission is partnering with the Nebraska Health Information Initiative (NeHII) and the University of Nebraska Medical Center (UNMC) on the two-year grant (July 2015-July 2017) from the Office of the National Coordinator for Health Information Technology. NeHII is one of the largest health information exchanges (HIEs) in the country with data on over 3 million individuals and over 7,500 users. This grant builds upon NeHII's successful track record by adding additional Critical Access Hospitals, long-term care facilities, and other providers to NeHII; increasing utilization by providing additional value-added functionality and workflow integration training; and increasing interoperability and integration with a focus on public health and research.

UNMC is providing assistance in workflow integration to facilities participating in two rural communities selected as integrated communities. Lessons learned will be shared through use case-based training modules.
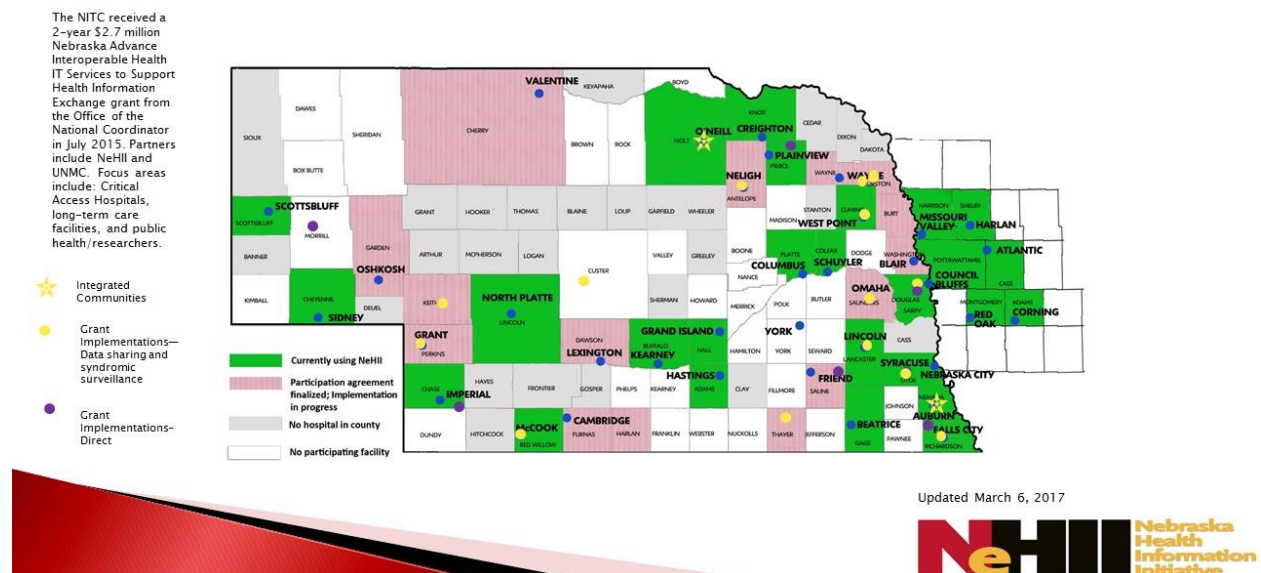
Lessons Learned

Recruitment and Engagement of Long-Term Care and Post-Acute Care Facilities (LTPACs) and Critical Access Hospitals (CAHs)

- It takes a lot of work to engage Critical Access Hospitals and long-term and post-acute care facilities.

  o The biggest barrier to health information exchange remains cost, including interfaces fees from the electronic health record vendors of hospitals, clinics, long-term and post-acute care facilities, and other health care providers.

  o A health information exchange is most valuable to participants when their key medical trading partners also participate. When a key hospital chooses to not participate, it can negatively affect recruiting efforts. The creation of private health information exchanges can present challenges to a public statewide health information exchange.

  o Patients are the primary beneficiary of health information exchange. More information on the impact of health information exchange on patient outcomes is needed to help facilities better understand the value of health information exchange.

  o Having a partnership with the State of Nebraska has been helpful particularly for the syndromic surveillance project. The support of the State of Nebraska adds credibility and increases the utility of participating.

Better Understanding the Needs of Long-Term and Post-Acute Care Facilities

- Work on the Integrated Community project has helped us better understand the needs of long-term and post-acute care facilities and the importance of including long-term care and post-acute care facilities and others providers in the health information exchange. Through the grant, the team has developed several use cases for exchanging health information with long-term and post-acute care facilities. Demonstrating the value of different use cases will facilitate efforts to engage long-term and post-acute care facilities. Some of the use cases currently being implemented in an integrated community include:

  o Long-term care facilities access the query-based health information exchange to support the pre-admission process for a patient being discharged from the hospital and admitted to the long-term care facility.

  o Long-term care facilities receive a continuity of care document (CCD) from the discharging hospital to support admission to the LTC facility.

  o A long-term care facility sends a continuity of care document to a physician clinic when a resident of the long-term care facility has an appointment at the clinic.

  o The Critical Access Hospital receives a continuity of care document from a large tertiary care hospital when a patient is transferred to assist with the admission of the patient to the Critical Access Hospital.

  o A physician's clinic receives a continuity of care document whenever a patient is discharged from the hospital to improve the continuity of care.

  o A long-term care facility and physician's clinic check the query-based health information exchange for lab results to ensure appropriate dosing of medications.

- An emergency room physician checks the Prescription Drug Monitoring Program (PDMP) for controlled substances prior to prescribing an opiate.

Integration of Health Information Exchange into the Provider Workflow

- The process developed for the Integrated Communities Project is proving to be useful in engaging providers and helping them integrate health information exchange into their workflow.

  - The process started by bringing together providers within a community, including the hospital, clinic(s), pharmacy, and long-term and post-acute care facilities, to discuss their interest in sharing health information and to kick off the process.

  - The facilitators/workflow integration specialists from UNMC set up follow-up meetings with providers to identify what health information was needed from other health care providers.

  - With technical assistance from a NeHII project manager, the appropriate technologies for exchanging health information exchange were matched to each use case.

  - The team worked with facilities to prioritize use cases.

  - The team then worked with facilities to implement the appropriate technologies, test the technologies, evaluate the quality and timeliness of the information sent and received, and integrate the new process into the provider workflow.

- Having a facilitator to start the engagement process is a key component. It was also very helpful to have a project manager from NeHII as part of the team to provide technical assistance.

- Having all participating providers set up with both Direct and query-based exchange early in the process allows for the implementation of a greater number of use cases.

- Health information exchange isn't plug and play. It takes time and effort to integrate health information exchange into the provider workflow. For example, the NeHII Community Patient Profile (CPP) is easy to implement, but usage doesn't usually take off unless the CPP can be accessed with single sign on from the electronic health record. Direct has been touted as an easy first step for health information exchange, but in reality it takes time and effort to identify use cases and to work with other health care providers to begin exchanging information.

- Structured interviews were conducted with ADT subscribers to understand how ADT messaging was implemented and used and the impact and user satisfaction with the service.
  - Effective implementation requires careful attention to the specific workflow of the organization and the roles of the users.
  - It is usually more effective for messages to flow to case nurses rather than physicians.
  - It is difficult to make ADT message content and format consistent because of differing EMR source material and differences in charting conventions between institutions.
  - Users were satisfied that ADT improved services to patients and increased efficiencies and reduced costs by avoiding unnecessary deployment of personnel resources when patients were admitted to another facility.

Progress and Effort

Adding HL7 Data Sharing Participants

Add 18 Critical Access Hospitals (CAHs), long-term care/post-acute care facilities, and other data providers participating in NeHII through HL7 data exchange by the end of the grant period. Prior to the grant, 9 CAHs out of 64 CAHs in Nebraska and 4 in Western Iowa were participating in NeHII. No long-term care facilities are HL7 participants.

Project Description. CAHs play a crucial role in providing access to care for rural Nebraska residents. These hospitals often serve as the focal point or hub for all health care services in a region. HIE and the expanded exchange of patient data is vital to improving care coordination, monitoring and improving quality of care, access to specialty care and increasing patient access to clinical history information. NeHII has worked with the Nebraska Office of Rural Health to identify additional funding sources to defray both implementation costs and on-going costs for HIE participation. Once a facility commits to sharing data with NeHII, the NeHII CEO ensures that the appropriate legal agreements are in place. The technical implementation that follows includes the configuration of the connectivity between NeHII and the facility, the sending and subsequent validation of test messages, the training of hospital providers and staff on the use of the system, and education for the hospital team on patient consent and patient education regarding HIE. The facility team works closely with NeHII for data validation and training efforts. The EHR and HIE vendors provide technical expertise and ensure connectivity and data integrity.

Progress. Five facilities have been completed and ten are in progress. See the table on the following page.

Impact. With the latest round of commitments from additional critical access hospitals, NeHII will have greater than 50% of the CAHs in Nebraska participating in the statewide HIE. This allows for a greater exchange of pertinent data for patients who transition between these rural health care hubs and the acute care facilities in the Nebraska. These additional hospitals also support additional HIE users who increase the use of the data available in the exchange. The increased use of data leads to improved care coordination and a reduction in duplicated procedures and tests resulting in a better patient experience. In addition, the increased hospital participation creates more comprehensive readmission reports for each facility which can lead to a reduction in hospital penalties and the associated cost savings. The overall impact of the increased participation in the HIE by critical access hospitals is a higher quality of care provided by all facilities.

HL7 Implementations		
Facility/Organization	**Facility Type**	**Project Status**
1) Physicians Lab	Lab	Production port live
2) Community Memorial Hospital (Syracuse)	Critical Access Hospital	Production ports live
3) Auburn Family Health Center	Clinic	Production ports live
4) Community Medical Center (Falls City)	Critical Access Hospital	Production ports live
5) Colglazier Medical Clinic (Grant)	Clinic	Production ports live
6) CHI Health – Nebraska Heart Institute Clinics (Lincoln)	Clinic	In progress
7) Pender Community Hospital	Critical Access Hospital	In progress
8) Oakland Mercy Hospital	Critical Access Hospital	In progress. Tentatively scheduled to go live May 1.
9) Simply Well (Omaha)	Wellness Program	In progress
10) Think Whole Person Healthcare (Omaha)	Clinic/ACO	In progress. Scheduled to go live April 11.
11) Callaway District Hospital	Critical Access Hospital	In progress
12) Ogallala Community Hospital (Banner Health)	Critical Access Hospital	In progress
13) Saunders County Medical Center (Wahoo)	Critical Access Hospital	In progress
14) Thayer County (Hebron)	Critical Access Hospital	In progress
15) Perkins County Health Services (Grant)	Critical Access Hospital	In progress
16) Charles Drew Health Center (Omaha)	Federally Qualified Health Center	Heartland network resources will be available in the near future.
17) Community Medical Center – Falls City Family Medicine Clinic	Clinic	Slated for Q2.
18) Brown County Hospital (Ainsworth)*	Critical Access Hospital	Brown County signed the non-data sharing PA and would like to review the data sharing version to move forward.
19) Howard County Medical Center (St. Paul)*	Critical Access Hospital	Howard County signed the PA and would like to move forward.
20) Nebraska Spine Hospital (Omaha)*	Specialty Hospital	PA finalization in progress. Would like to start soon.
21) Nebraska Orthopaedic Hospital* (Omaha)	Specialty Hospital	Facility is reviewing PA.

The 19th facility will be determined based upon readiness to start.

Adding C-CDA Data Sharing Participants

Add 5 ambulatory clinics and long-term care facilities to NeHII through C-CDA data sharing. Currently no NeHII facilities are exchanging data through C-CDA exchange.

Project Description. The C-CDA project participants consist of independent physician clinics and clinic networks. These facilities many times do not have IT capabilities to send HL7 messages to share their data; however, their certified EHR platforms can send structured documents in the consolidated clinical document architecture or C-CDA. Care coordination for patients who receive primary and/or specialty care from these facilities is challenging without access to the clinical data available in these documents. The Nebraska grant team worked with the ONC to ensure grant funding is available to defray implementation and resource costs for this project as well. Once a facility commits to sharing data in this format with NeHII, the NeHII CEO ensures that the appropriate legal agreements are in place. The technical implementation that follows includes the configuration of the connectivity between NeHII and the facility, the sending and subsequent validation that the document meets all specifications, the review of the parsing of the source data into the designated locations for information in the NeHII HIE, the training of clinic providers and staff on the use of the system, and education for the clinic team on patient consent and patient education regarding HIE. The facility team works closely with NeHII for data validation and training efforts. The EHR and HIE vendors provide technical expertise and ensure connectivity, compliance with document specifications, and data integrity.

Progress

C-CDA Implementations		
Facility/Organization	**Facility Type**	**Project Status**
CHI Health – TPN Clinics (Lincoln, Kearney, Grand Island, Nebraska City, Crete)	Clinic	Optum resource assigned. CHI Health resources identified.
Grand Island Clinic	Clinic	Optum resource assigned. MQ from Allscripts is completing the form and expects to have it ready by the end of the week.
Think Whole Person Healthcare (Omaha)	Clinic	Need to review Think resource availability.
Family Practice of Grand Island	Clinic	Optum and Greenway have all of the project information that they need to get resources assigned. Project scheduled to start at the end of April.
SERPA ACO (Southeast Nebraska)	ACO	Kickoff call scheduled for March 23. Need to gather technical requirements to request SOW from Optum.

Impact. While the NeHII team continues to work through the administrative preparation process for these projects, the impact of participation in the HIE through sending data via C-CDA has not yet been enumerated.

Implementing Direct Secure Messaging

Implement Direct Secure messaging in 50 facilities with an emphasis on Long-term care and post-acute care facilities.

Project Description. Nebraska's long-term care and post-acute care facilities are faced with challenges associated with coordinating care for patients transitioning to and from multiple and diverse care settings. Challenges to adopting HIE include: cost; workforce related challenges; differences in clinical processes and information needs; lack of capacity to acquire, implement and use technology; and lack of awareness of the need for interoperable HIE. Direct Secure messaging is a comparatively low cost of entry technology solution that is standards-based and easy to implement from a technical perspective. Engagement of LTPAC facilities usually starts with an overview of Direct Secure messaging and how it relates to the exchange of patient information between the long-term care or post-acute care facility and its referral partners. Once a facility commits to the project, the NeHII CEO ensures that the appropriate legal agreements are in place. The technical implementation that follows includes the formal verification of the business and the primary responsible individual in keeping with DirectTrust requirements, the assignment of Direct Secure addresses by NeHII's HISP provider, ICA (Informatics Corporation of America), and training of the facility personnel on ICA's web-based Direct webmail system. In addition to these ICA webmail implementations, NeHII, within the scope of this project, is also implementing ICA's XDR integration with Howard County Medical Center's EHR system to allow sending of continuity of care documents directly from the EHR to long-term care, post-acute care and other referral partner Direct Secure addresses.

Progress. Fourteen facilities have been implemented with 73 total users.

Direct Secure Messaging		
Confirmed Facilities/Providers	**Facility Type**	**User Counts**
VNA of Omaha and Council Bluffs	Home Health	20
Immanuel Pathways (Omaha)	Daycare Program for Elderly	9
Sunrise Heights (Wauneta)	LTPAC	9
Ambassador Health Omaha	LTPAC	6
Florence Home - Omaha - Midwest Geriatrics	LTPAC	5
Public Health Solutions (Crete)	Public Health	4
Osmond General Hospital (Osmond)	Critical Access Hospital	4
Blue Cross Blue Shield Nebraska	Payer	4
Colonial Acres (Humboldt)	LTPAC	3
Hillcrest Health Services (Bellevue)	LTPAC	3
Royale Oaks - Midwest Geriatrics (Omaha)	LTPAC	2
Skyview at Bridgeport (Bridgeport)	LTPAC	2
House of Hope - Midwest Geriatrics (Omaha)	LTPAC	1
Home Nursing with Heart (Omaha)	LTPAC	1
Huntington Park Care Center (Papillion)	LTPAC	
Mitchell Care Center (Mitchell)	LTPAC	
Omaha Nursing and Rehab	LTPAC	

Ridgecrest (Omaha)	LTPAC	
Lancaster Rehab (Lincoln)	LTPAC	
Homestead Rehab (Lincoln)	LTPAC	
Ponderosa Villa (Crawford)	LTPAC	
Crowell Memorial Home (Blair)	LTPAC	
Douglas County Health - Public Health (Omaha)	Public Health	
Brookfield Park (St. Paul)	LTPAC	
Brookstone Acres (Columbus)	LTPAC	
Brookstone Meadows (Elkhorn)	LTPAC	
Brookstone Village (Omaha)	LTPAC	
Cloverlodge Care Center (St. Edward)	LTPAC	
David Place (David City)	LTPAC	
Heritage Care Center (Fairbury)	LTPAC	
Heritage Crossings (Geneva)	LTPAC	
Heritage of Bel-Air (Norfolk)	LTPAC	
Heritage of Emerson (Emerson)	LTPAC	
Heritage of Red Cloud (Red Cloud)	LTPAC	
Hooper Care Center (Hooper)	LTPAC	
Linden Estates (North Platte)	LTPAC	
Papillion Manor (Papillion)	LTPAC	
Ridgewood Rehab (Seward)	LTPAC	
Rose Lane Home (Loup City)	LTPAC	
South Haven (Wahoo)	LTPAC	
Southlake Village (Lincoln)	LTPAC	
Sumner Place (Lincoln)	LTPAC	
Tiffany Square (Grand Island)	LTPAC	
Howard County (St. Paul)	Critical Access Hospital	
Total: 14 facilities implemented		**73 users**

Impact. While NeHII cannot quantitate the traffic of messages delivered through the ICA Direct email, we have been able to anecdotally determine that the increased access and use of Direct Secure messaging has resulted in improved care coordination between hospitals and long-term care and post-acute care facilities. Long-term care and post-acute care facilities are using this method of communication prior to discharge to communicate their ability to provide the appropriate level of care for the patient. The implementation process identified above is simple, straightforward and does not require complex IT infrastructure which makes its impact significant in the long-term care and post-acute care community which has varying levels of health IT capabilities.

Increasing Utilization and Integration of HIE

Increase the utilization and integration of HIE into the provider workflow by creating two integrated communities, developing use case-based training modules, and conducting structured interviews of the recipients of Admission Discharge and Transfer (ADT) alerts.

Integrated Communities

Project Summary. Project team members from NeHII and UNMC worked to identify communities in which the hospital, clinic, long-term care/post-acute care facility, and pharmacy were interested in exchanging health information. Facilities in Auburn and O'Neill agreed to participate in the project. Team members are working with participants to identify and prioritize use cases, match use cases to the appropriate technology, implement the technology, test the technology, evaluate the quality and timeliness of the information sent and received, and integrate the technology into the provider workflow.

Progress. The following activities have been completed:

- UNMC investigators conducted on-site needs assessments to identify HIE "use cases" of value at all participating organizations in both integrated communities.
- NeHII personnel matched HIE technologies to the "use cases" identified by the participating facilities. The query-based CPP and CCD documents transmitted via Direct exchange were used to support a number of use cases.
- The technologies required to support use cases have been successfully tested in the Auburn integrated community (hospital, clinic and 2 long-term care facilities).

The following activities are planned or in progress

- "Use cases" are being implemented into workflow in the Auburn integrated community
- "Use cases" supported by the CPP will be tested and integrated into workflow in the O'Neill physician's clinic and long—term care facility.
- Demonstration of the O'Neill hospitals ability to send and receive CCD's via Direct exchange.

Impact. Members of the Auburn integrated community championed the adoption of a collaborative community-based approach to realize the value and utility of HIE. The hospital, ambulatory care clinic, and long-term care facility reported improved patient care and efficiency outcomes as a result of adopting electronic health information exchange technologies to support information exchange among their community partners. Community members were willing to adopt HIE solutions to meet their own needs and the needs of their community partners for the benefit of patients across the continuum of care.

This project can provide a roadmap for other communities considering the adoption of HIE.

Training Modules

Project Summary. Project team members from UNMC are working with production specialists to script, record and produce training modules. Additionally participants in the Auburn Integrated Community were filmed talking about the project and how they are using health information exchange. The first module introduces electronic health information exchange and its potential to improve safety, quality, and efficiency in health care. Module 2 walks providers through how to conduct a needs assessment to identify gaps in information exchange and opportunities to improve it. Module 3 discusses electronic health information exchange technologies that may serve as solutions to support your identified information needs. Module 4 discusses some of the use cases addressed and includes clips of Integrated Communities participants.

Progress. Modules 1, 2, and 3 have been written and recorded. The video scribe process continues for these three modules. Interviews of clinicians and administrators from one of the integrated communities were videotaped. Clips from the video are being identified and inserted into the training modules. A webpage that will house the modules and other related content has been drafted and reviewed by project members. The text for module 4 will be drafted in April. Content for module 4 (integration of "use cases" into everyday workflow) is still being identified/developed during site visits.

Impact. The training modules will be used to educate clinicians and administrators about Health Information Exchange including:

- How to conduct a needs assessment to identify institutional value
- Common "Use cases" identified by peer organizations
- Existing technologies that support the exchange of health information
- Workflow considerations necessary for the successful adoption of HIE technologies.

The modules will be accessible through the NeHII website to a local and national audience.

Structured Interviews of Recipients of Admission, Discharge, and Transfer (ADT) Alerts

Project Summary. Project Team Members from UNMC and the NITC developed a list of questions for the interviews with users of NeHII's ADT alert service, scheduled and conducted interviews with users, transcribed the interviews, and have completed report of the findings.

Progress. The project has been completed.

Impact. The study has helped team members better understand how ADT alerts are being used. Lessons learned include:

- Effective implementation requires careful attention to the specific workflow of the organization and the roles of the users.
- It is usually more effective for messages to flow to case nurses rather than physicians.
- It is difficult to make ADT message content and format consistent because of differing EMR source material and differences in charting conventions between institutions.
- Users were satisfied that ADT improved services to patients and increased efficiencies and reduced costs by avoiding unnecessary deployment of personnel resources when patients were admitted to another facility.

Quality Improvement Project: Evaluating Providers' Ability to Query NeHII, Nebraska's Health Information Exchange

Project Summary. The purpose of this quality improvement project is to evaluate the training that the Nebraska Health Information Initiative (NeHII) users currently receive and identify opportunities for improvement. The survey assesses the ability of NeHII users to navigate NeHII's Community Patient Profile (CPP) and identify demographic and clinical information from a "test" patient.

A list of approximately 500 current NeHII users (names and email addresses) who have received training for the NeHII CPP will be provided to UNMC study personnel. These NeHII users will receive an email invitation to participate. NeHII users that choose to participate will complete an online survey. The survey consists of several demographic questions (age, gender, profession type, and frequency of NeHII use) and 5 questions that will require information from the NeHII Community Patient Profile (CPP) to complete. The survey will also contain questions about perceived barriers and a free text field for user comments. This survey should require less than 5 minutes to complete. Two reminder emails will be sent to non-respondents at one-week intervals.

Basic descriptive statistics will be calculated from the survey results. Success rates will be calculated for each of the questions that required information from the CPP. Success rates will be stratified by user demographic characteristics (degree: MD, RN...) and self-reported frequency of CPP use during the last month. UNMC investigators will scan responses to the open-ended question and remove any identifying information before providing a final report to NeHII. Open-ended responses will be aggregated by theme when possible.

Progress. The survey has been created and is currently being tested by the grant team. The IRB application has been prepared and will be submitted when the testing is complete. We plan to submit the IRB application in early April. We plan to distribute the survey in early May.

Impact. The results will provide NeHII with information about the effectiveness of the current training program. In addition, the identification of characteristics associated with successful CPP queries will allow NeHII to develop a targeted training strategy based on user characteristics.

Implementing HIE to HIE Gateways

Increase the ability to exchange data between HIEs by implementing 5 HIE to HIE gateways. NeHII currently has no HIE to HIE gateways in place.

Project Description. Once an HIE commits to sharing data with NeHII, the NeHII CEO ensures that the appropriate legal agreements are in place. The technical implementation that follows includes an evaluation of the configuration options and consensus gathering for the best method of connecting whether it be through system query and response, cross community access, or the exchange of notifications. Once the method of the connectivity between NeHII and the HIE is determined and the method of sending data is confirmed, the organizations send and validate test messages to ensure compliance with specifications. The HIE team works closely with NeHII on data validation and training efforts. The HIE vendors provide technical expertise and ensure connectivity and data integrity.

Progress. The NeHII team is working through the administrative preparation process for the HIE to HIE gateway project.

HIE to HIE Gateway		
Facility/Organization	**Facility Type**	**Project Status**
Kansas Health Information Network (KHIN)	Health Information Exchange	Specifications provided on Feb. 3. NeHII and KHIN are determining which agreement to sign.
Colorado Regional Health Information Organization (CORHIO)	Health Information Exchange	HIE is reviewing funding to cover their costs and requires eHealth Exchange Participation
Missouri Health Connection	Health Information Exchange	Gathering information on whether to implement notifications or the longitudinal patient record as the technical requirements would be different.
South Dakota HealthLink	Health Information Exchange	HIE requires eHealth Exchange participation
Mary Lanning	Private Exchange in Nebraska	Need follow up to determine next steps

Impact. While the NeHII team continues to work through the administrative preparation process for these projects, the impact of participation in HIE to HIE gateway projects has not been measured.

Connecting Hospitals to Nebraska's Syndromic Surveillance System

Increase interoperability by connecting 8 hospitals with an emphasis on Critical Access Hospitals to the State of Nebraska's syndromic surveillance system through NeHII. Prior to the grant, one Critical Access Hospital was submitting data to the syndromic surveillance system through NeHII.

Project Description: Once a facility commits to using NeHII to submit syndromic surveillance data to the Nebraska Division of Public Health (DPH) through NeHII, the NeHII CEO ensures that the appropriate legal agreements are in place. The technical implementation that follows includes the configuration of the connectivity between NeHII and the facility (if not already connected), evaluation of the data content compliance with the DPH specifications, the addition of required elements that are not already being sent, the validation of data content, and the confirmation of data delivery to DPH. The facility team works closely with NeHII and the DPH team for data element evaluation and appropriate modifications. The DPH team confirms compliance with requirements and receipt of the data. The EHR and HIE vendors provide technical expertise and ensure connectivity and data integrity.

Progress

Syndromic Surveillance Projects		
Facility/Organization	**Facility Type**	**Facility/Organization**
1) Community Hospital–McCook	Critical Access Hospital	Production Live
2) St. Francis Memorial – West Point	Critical Access Hospital	Testing in progress
3) Children's Hospital and Medical Center	Hospital	3/29 Hospital ready to start project; SOW being requested
4) Providence Medical Center	Critical Access Hospital	Cerner scoping & quote call – 3/21/17
5) Regional West Medical Center	Hospital	On DHHS list; waiting for hospital go ahead
6) Mary Lanning Healthcare	Hospital	On DHHS list; waiting for hospital go ahead
7) Great Plains Health	Hospital	On DHHS list; waiting for hospital go ahead
8) Community Medical Center – Falls City	Critical Access Hospital	Need to confirm w/hospital

Impact. The use of NeHII for submission of syndromic surveillance data from hospitals enables the hospital and DPH to reduce the number of data feeds that they need to maintain. Submission through NeHII also results in more robust data to DPH and more comprehensive patient data available in the HIE for exchange. This work has also increased the number of hospitals sending their syndromic surveillance data to DPH.

Implementing Population Health Analytics

Increase interoperability by implementing population health analytics for five facilities. Prior to the grant, population health analytics was not available through NeHII at baseline.

P**roject Description.** NeHII has partnered with their HIE vendor, Optum, to implement a population health analytics tool to increase the understanding of the patient data in the HIE at an aggregate level. The project consists of source to standard mapping for data fields from each facility, data review, user interface validation, measure identification and development, measure implementation and validation, consent implementation, user access evaluation through the NeHII use case process, user training and finally access to the tool.

Progress. Nebraska Medicine has been provided with measure validation documentation. The other facilities will follow in the near future.

Population Health Analytics		
Confirmed Facilities	**Facility Type**	**Status**
1) Nemaha County Hospital, Auburn	Critical Access Hospital	Will receive measure validation documentation in the near future.
2) Nebraska Medicine	Health System	Nebraska Medicine has been provided with measure validation documentation.
3) Nebraska Methodist	Health System	Will receive measure validation documentation in the near future
4) CHI Health	Health System	Will receive measure validation documentation in the near future
5) Avera St. Anthony's, O'Neill	Critical Access Hospital	Will receive measure validation documentation in the near future

Impact: While the NeHII team continues to work through the implementation process to ensure data integrity and measure accuracy, the impact of participation in the population health tool has not been assessed.

Developing Demonstration Projects for Research

Increase interoperability by developing demonstration projects which integrated HIE data for comparative effectiveness research.

PCORnet Project

Project Summary. UNMC and Nebraska Medicine are a participating site in the National Patient Centered Research Network (PCORnet.org). UNMC maintains a de-identified, standardized data mart containing detailed patient level records extracted from the Nebraska Medicine EHR and linked to other patient level data. This project is designed to leverage NeHII to expand the comprehensiveness of this data set. Specifically, the project utilizes the NeHII Event subscription to received updates from providers caring for Nebraska Medicine patients who are not using the Nebraska Medicine OneChart Epic System. Incoming data will matched to NM patient records, de-identified and included in the local data mart for participation in PCORnet projects.

Progress

- The teams have met and determined the technical requirements for the project.
- Demonstration HL7 messages have been passed.
- A review the NeHII Privacy and Security committee raised concerns about UNMC being both the receiver of identified data and performing the de-identification.
  At this time a re-assessment of feasibility is under way.

Impact. This is intended to be a demonstration project informing other health information exchanges and their member organization on how to reuse de-identified patient level data for this national research network. The major impact is to avoid moving patient data out of the control of the local health system and their patients while enabling a national learning health system.

NeHII as a Data Source for Comparative Effectiveness Research

Project Summary. The objective of this project was to demonstrate the ability and value of using the available data for population analytics. The intent is to provide a comprehensive de-identified research data set combining NeHII data, EHR data, registry data & charge data for comparative effectiveness research.

Progress. After several rounds of discussion with the Optum Analytics team, a data request was submitted in February 2017. The data request is intended to identify a patient population with a given diagnosis (influenza) and follow their healthcare utilization and outcomes over a defined treatment period. The data request has been refined, and Optum is currnently re-running their query.

Impact. The intent of this project is to demonstrate that NeHII data can be accessed and used for user-specified analytics purposes. It will also show the practicality of accessing data for research purposes.

ONC Grant Update:
Integrated Communities, Use Case Identification, and Training Modules

Gary L. Cochran, PharmD, SM
Associate Professor, Department of Pharmacy Practice
University of Nebraska Medical Center

UNIVERSITY OF NEBRASKA MEDICAL CENTER™
COLLEGE OF PHARMACY

Grant Activities

- Create Integrated Communities

- Identify "use cases"

- Discuss current work processes / workarounds
    - Influences perception of value / willingness to pay

- NeHII match available technology to "use case"
    - Multiple options for a single "use case" may exist

- Facilities choose "use cases" to implement
    - Demonstration

- Integrate "use case" into regular workflow

- Create training modules

"Use Case" Identification

- What information is needed from outside of your organization that could improve clinical care, patient safety, or organizational efficiency?

- Data collected
    - Data to exchange
    - Trading partners and systems
    - Story
    - Goal of "use case"
    - Current work process

Urban vs. Rural

- Significant differences exist between valuable "use cases" for large (urban) and small (rural) facilities
    - Integrated systems
    - Challenges exist for most LTC facilities

Use Cases*

Critical Access Hospital	18
Ambulatory Clinic	11
Community Pharmacy	12
LTC Facility	18
Acute Care Rehabilitation / Rehab	40
Care Coordination	*18*
Organizational Efficiency	*16*
Clinical Use / Safety	*6*

* Not all use cases are mutually exclusive

Hospital "Use Cases"

- Send and Receive CCDs for patients transferred to or from Nebraska Medicine to support clinical care and Meaningful Use

- Receive a care summary and medication list (CCDs) from LTC facility for ER visits

- Screen for possible prescription drug abuse in the ER prior to writing prescriptions for controlled substances.

Clinic "Use Cases"

- Receive care summaries and a current medication list (CCD) from the LTC facility prior to scheduled appointments.
  - May be more beneficial to the LTC facility.

- Clinic physicians would like to integrate data from CCDs directly into their EHR.

LTPAC "Use Cases"

- Preadmission: Review patient information in the CPP to determine if the facility can safely accept a patient being discharged from the hospital
- Admission: Receive a CCD for patients discharged from the hospital to support the admission process
  - Demographics, orders, medication list…
- Send CCDs for all residents with scheduled appointments to the ambulatory care clinic or transferred to the emergency room
  - Saves time aggregating and printing/faxing information
- Use the CPP to find lab values for patients on warfarin and other medications that require monitoring

Long-Term Post Acute Care (LTPAC) Community of Practice

Date: January 4, 2017
Office of Programs and Engagement
Health Information Exchange Programs

The Office of the National Coordinator for
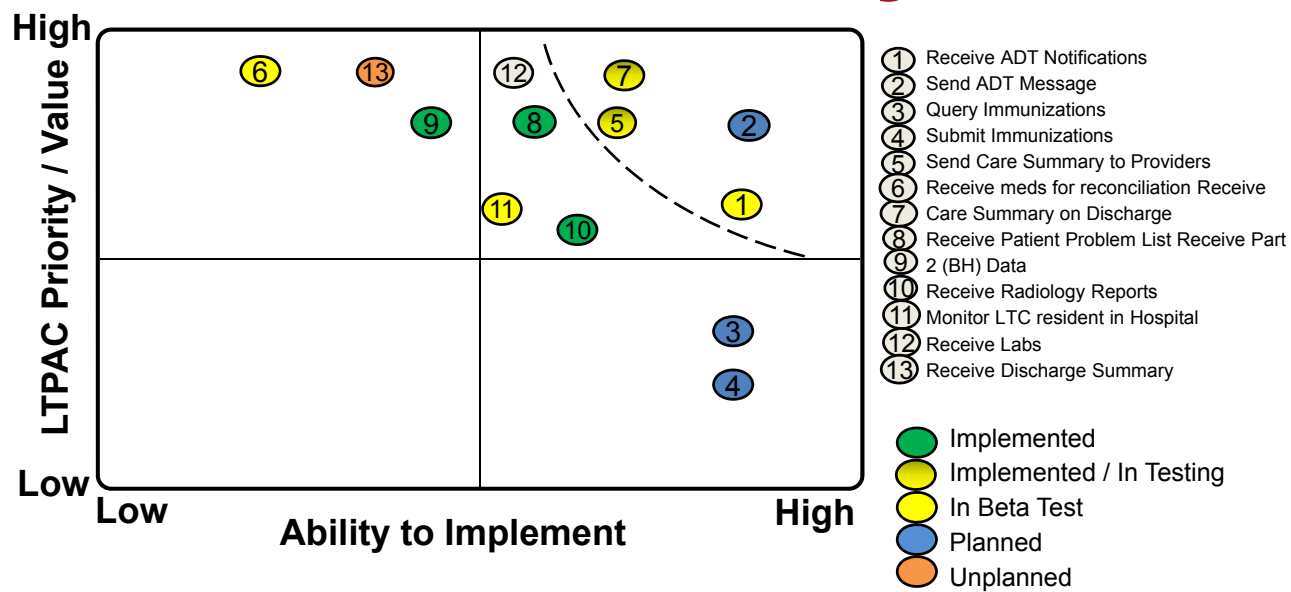Health Information Technology

Workgroup Members

Greg Alexander
Janis Bartlett – Arkansas
Deborah Bass – Nebraska
Anne Byers – Nebraska
Gary Cochran - Nebraska
Jennifer Cormier –Rhode Island
Chuck Czarnik
Donna Doneski
Michelle Dougherty
Nancy Fennell – New Hampshire

Liz Hansen – South Carolina
Michelle Marki – New Jersey
Terrence O'Malley, M.D.
Merri Rock – Utah
Pam Russell
Lianne Stevens - Nebraska
Billy Waldrop
Lauren Wiseman – Central Illinois
Larry Wolf
Jim Younkin

The Office of the National Coordinator for
Health Information Technology

Use Case Analysis

LTPAC Priority / Value (vertical axis, High to Low)
Ability to Implement (horizontal axis, Low to High)

1. Receive ADT Notifications
2. Send ADT Message
3. Query Immunizations
4. Submit Immunizations
5. Send Care Summary to Providers
6. Receive meds for reconciliation Receive
7. Care Summary on Discharge
8. Receive Patient Problem List Receive Part
9. 2 (BH) Data
10. Receive Radiology Reports
11. Monitor LTC resident in Hospital
12. Receive Labs
13. Receive Discharge Summary

- Implemented
- Implemented / In Testing
- In Beta Test
- Planned
- Unplanned

Training Modules

Purpose is to provide background and direction for facilities considering the adoption of HIE
Uses lessons learned from integrated communities

1. What is HIE and Why do I care?
2. Is HIE right for me? Finding Value
3. HIE solutions
4. Integrating HIE into your facility

How to Perform a Needs Assessment
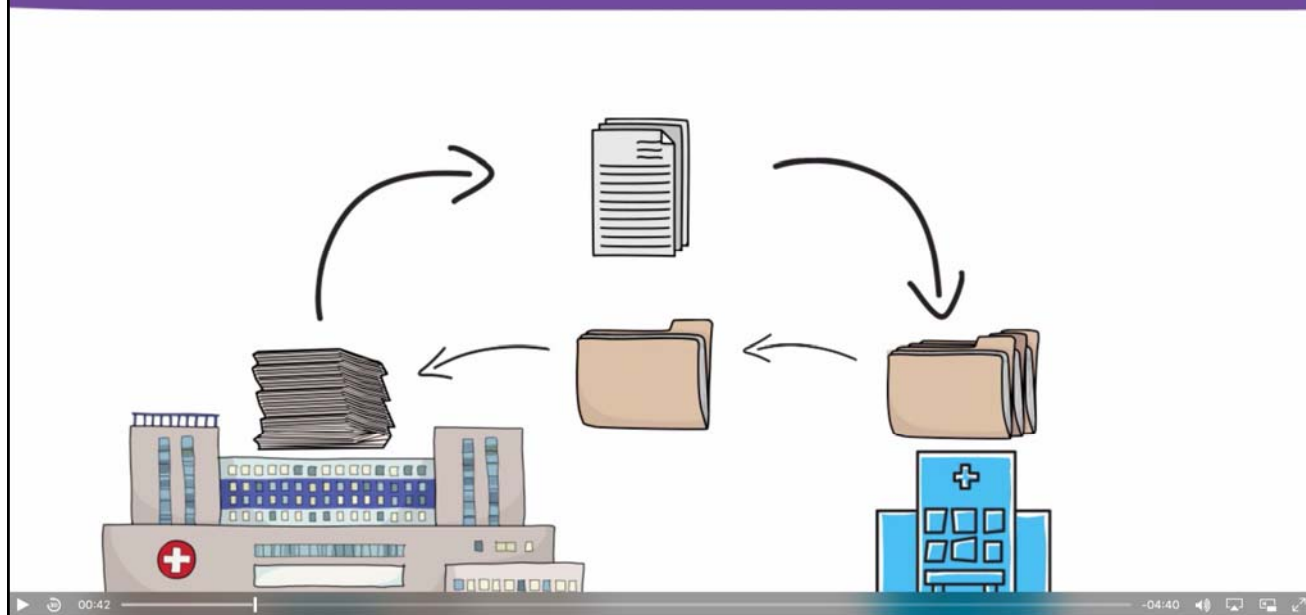
Who Participates in a Needs Assessment?

http://webmedia.unmc.edu/eLearning_open/COP/NEHIEmod2.mp4

NeHII
Nebraska
Health
Information
Initiative
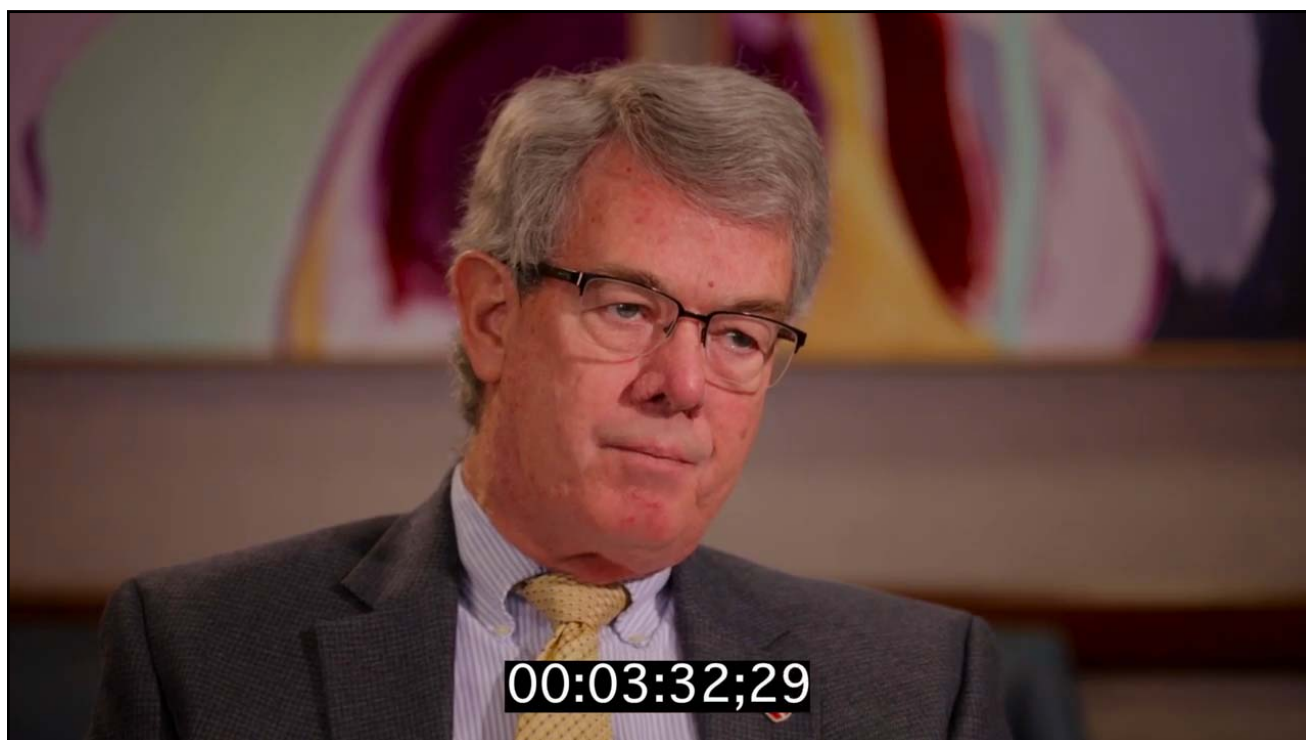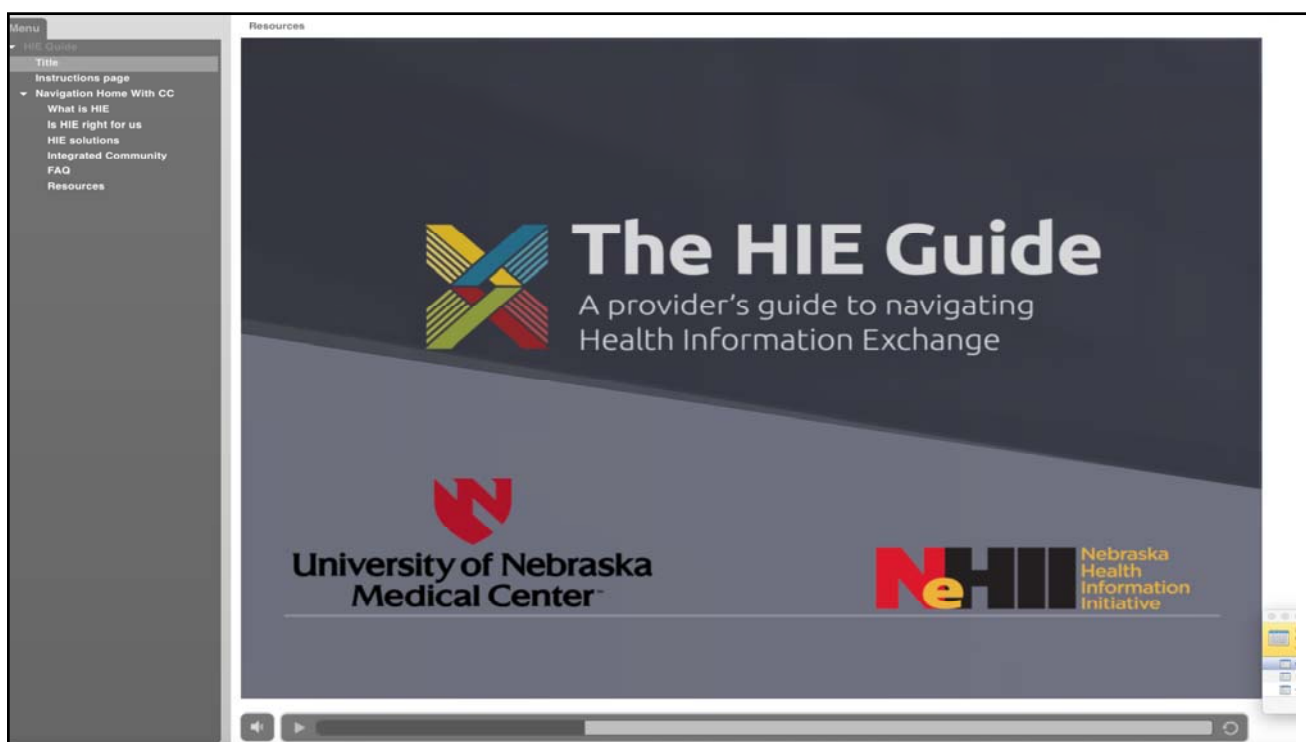
Community Betterment Through HIE
"Engaging Community Stakeholders to Create a Sustainable, Large-Scale HIE"

NeHII Updates
eHealth Council
April 5,2017
Deb Bass, CEO

Overview

▶ NeHII's New Pricing Model
▶ 2016 Annual Report
▶ 2017 Annual Meeting
▶ Q&A

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NeHII
Nebraska
Health
Information
Initiative

New Pricing Model Development

‣ With migration to new platform, edge server pricing strategy based upon hospital bed size ended
‣ Bed size tiers had grown from the original five tiers to eight
‣ Participants asking for more tangible, customized method to determine participation fees
‣ Workgroup formed to develop pricing model and future value added services strategy
‣ Pricing model finalized in January 2017
‣ Announcements letters distributed in February and March 2017

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NeHII Nebraska Health Information Initiative

Additional Background

‣ Created as a more equitable manner to allocate costs based on a facility's potential use of the HIE
‣ Not intended as a method to increase revenue
‣ Increased revenues less than 2% annually when modeled against the Medicare Cost Report for the past two years
‣ Hospital license fees had remained unchanged since NeHII's go live in 2009
‣ Large health systems paid a three year sustainability surcharge in 2013 – 2015
‣ All other health systems paid a two year sustainability surcharge in 2014 – 2015
‣ Five hospitals are paying slightly higher participation fees

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NeHII Nebraska Health Information Initiative

Details Behind the Pricing Model

- Eliminate fees for licensed healthcare professionals to have access to the data
- Share the cost of the exchange evenly between payers and hospitals
- State of Nebraska considered a payer
- Utilize the 2015 Medicare Cost Report and adjusted discharges as the tangible number
- Phased three year implementation schedule to allow for ease of transition

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NeHII Nebraska Health Information Initiative

Phased Implementation Schedule

- First year – 2017: 2/3s licensed bed model, 1/3 adjusted discharge
- Second year – 2018: 2/3s adjusted discharge, 1/3 licensed bed model
- Third year – 2019: full adjusted discharge

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NeHII Nebraska Health Information Initiative

Licensed Healthcare Professionals

▸ All will have free access to the data in the HIE
▸ If an ambulatory clinic becomes a data provider there will be a $500/month participation fee
▸ Eliminate site license model for hospitals
▸ Eliminate 1:3 ratio for allied professionals per provider
▸ Comparable to free access to the PDMP data
▸ Letter distributed February 20, 2017

NeHII Nebraska Health Information Initiative

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Hospitals & Health Systems

▸ Based upon adjusted discharge rate
▸ $4.96 per discharge
▸ Three year phased implementation schedule
▸ Letters distributed March 7, 2017
▸ Calls made to all CEOs
▸ Limited number saw increases
▸ For CAH minimum fee of $500/month
▸ Use SHIP funding to offset HIE participation costs
▸ Reminder made of free access to all providers

NeHII Nebraska Health Information Initiative

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Payers

- ‣ $25,000 annual fee plus PMPM fee
- ‣ Sliding scale based upon number of covered lives
- ‣ Eight tiers in the scale
- ‣ Lowest tier:1 to 74,999 lives = 0.17 cents PMPM
- ‣ Highest tier: more than 450,000 lives = 0.10 cents PMPM
- ‣ Includes ADT event notification and other value add services

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NeHII Nebraska Health Information Initiative

Results Thus Far

- ‣ Twenty-three non-data sharing participation agreements (PA) have been collected
- ‣ Two additional data sharing participation agreements from CAH have been received
- ‣ Expecting two or three more
- ‣ Currently have 48.8% of the CAH beds either implemented or have signed PAs

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NeHII Nebraska Health Information Initiative

Thank You to the Workgroup

- Stephanie Daubert, NE Med, Chair
- Jeanette Wojtalewicz, CHI
- Ann Oasan, UniNet
- Jeff Francis, Methodist Health System
- Marty Fattig, Nemaha County
- Kevin Conway, NHA
- Lee Handke, NHN
- Dr. Michael Hein, Enhance
- Russ Gronewold, Bryan Health
- Eric Bremers, NeHII CFO
- Gary Cochran, UNMC College of Pharmacy
- Dr. Stephen Lazoritz, WellCare

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2016 Annual Report

- Approved for release at March BOD meeting
- Sections include:
  ◦ Usage & Adoption
  ◦ Financial Management Practices
  ◦ 2016 Major Projects
  ◦ NeHII Staffing
  ◦ Preview of the Future
  ◦ Exhibits
- Link to complete copy:
  http://www.nehii.org/index.php?option=com_doc
  man&view=download&alias=165-2016-nehii-
  annual-report&category_slug=forms-
  documents&Itemid=59
- Hosting Town Hall Webinar May 4, 2017

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2017 Annual Meeting

‣ Planning in progress
‣ Considering Kearney, NE conference facilities
‣ Last week of July
‣ Sponsorships available
‣ Suggestions for keynote speakers

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NeHII Website, Twitter, and Facebook

‣ www.nehii.org
‣ www.connectnebraska.net
‣ Follow us on Twitter @NeHIIorg
‣ Like us on Facebook
https://www.facebook.com/NeHIIorg

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Q&A

NeHII Contact Information

› Dr. Michael Westcott – President, NeHII Board of Directors
› Deb Bass – Chief Executive Officer, NeHII

NeHII, Inc.
P.O. Box 27842
Omaha, NE 68127
Cell: 402.981.7664
dbass@nehii.org
www.nehii.org