eHealth Council

August 13, 2008
9:15 AM CT – 12:00 Noon CT
Governor's Residence
1425 H Street, Lincoln, Nebraska

Meeting Documents: Click the links in the agenda or click here for all meeting documents.

Tentative Agenda	
9:15	Roll Call Notice of Posting of Agenda Notice of Nebraska Open Meetings Act Posting Approval of April 15, 2008 Minutes Approval of May 29, 2008 Minutes* Public Comment
9:20	**New Business/Reports** ♦ HISPC
9:25	Community Technology Fund Proposals ♦ NeHII Proposal* ♦ Nebraska Public Policy Center Proposal*
9:45	e-Prescribing Panel *The Phone Number for Participants is 877 229-1563. The code is 08130857.* ♦ Chad Aicklen, SureScriptsRxHub o Presentation o Examples of E-Prescribing Initiatives o Nebraska Snapshot ♦ Cara Campbell, National Governors Association ♦ Joni Cover, Nebraska Pharmacists Association ♦ Mark Gorden, eHealth Initiative Background Information on e-Prescribing
10:45	Moving Forward ♦ Micro Actions o Review of Action Plans ♦ Macro Actions o Identify Areas in Which to Make Recommendations* o Form Work Groups to Work on Recommendations
11:45	New Business Next Meeting Date

12:00	Adjourn

*Action item

Meeting announcement was posted on the NITC Web site and on the Nebraska Public Meeting Calendar on July 15, 2008. The agenda was posted on August 4, 2008.

EHEALTH COUNCIL

April 15, 2008, 1:30 PM CT – 4:30 CT
Lincoln: Nebraska Educational Telecommunications, 1800 N. 33rd, Board Rm., 1st Floor
Chadron: Chadron State College, Burkheiser Building, Rm. 109, 10th & Main Street
North Platte: Educational Service Unit #16, 1221 W. 17th, Distance Learning Rm.
Omaha: UNMC, University Hospital, Room 3215
Phone Bridge

PROPOSED MINUTES

MEMBERS PRESENT:

Jamie Barbee, Alt. for Kimberly Galt
Dennis Berens, Department of Health and Human Services, Office of Rural Health
Vivianne Chaumont, Division of Medicaid & Long-Term Care, Department of Health and Human Services
Susan Courtney, Blue Cross Blue Shield
Daniel Griess, Box Butte General Hospital, Alliance (Alliance site)
Donna Hammack, Nebraska Statewide Telehealth Network and St. Elizabeth Foundation
Steve Henderson, Office of the CIO
Ron Hoffman, Jr., Mutual of Omaha (Omaha site)
C.J. Johnson, Southeast Nebraska Behavioral Health Information Network and Region V Systems;
Ken Lawonn, NeHII and Alegent Health (Omaha site)
David Lawton, Division of Public Health, Department of Health and Human Services
Dr. Keith Mueller, UNMC College of Public Health (Omaha site)
Amy Phillips, Alt. for Jim Krieger, Gallup
John Roberts, Nebraska Rural Health Association
Nancy Shank, University of Nebraska Public Policy Center
September Stone, Nebraska Health Care Association
Dr. Delane Wycoff, Pathology Services, PC (North Platte site)
Marsha Morien, Alt. for Henry Zack, HDC 4Point Dynamics

MEMBERS ABSENT: Joni Cover, Nebraska Pharmacists Association; Senator Annettte Dubas, Nebraska Unicameral; Alice Henneman, University of Nebraska-Lincoln Extension in Lancaster County; Harold Krueger, Western Nebraska Health Information Exchange and Chadron Community Hospital; Jeff Kuhr, Three Rivers Public Health Department, Fremont; Kay Oestmann, Southeast District Health Department; and Marie Woodhead (representative for Congressman Jeff Fortenberry)

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

Dr. Mueller called the meeting to order at 1:35 p.m. There were 18 members present at the time of roll call. A quorum existed to conduct official business. The meeting announcement was posted on the NITC Web site and on the Nebraska Public Meeting Calendar on March 26, 2008. The agenda was posted on April 8, 2008. A copy of the Nebraska Open Meetings Act was available on the table and on the wall.

APPROVAL OF FEBRUARY MINUTES

Dr. Wycoff moved to approve the February 11, 2008 minutes as presented. Mr. Berens seconded. All were in favor. Motion carried by unanimous voice vote.

PUBLIC COMMENT

There was no public comment.

NEW BUSINESS/REPORTS

Update – NeHII, Keith Harnish and Chris Henkenius, Bass & Associates. The project is working on the incorporation of NeHII and establishing the board and electing officers. The current focus of the board is to explore funding possibilities for a pilot project. It is anticipated that the project will start this summer.

Update - Hebron Area Health Information Exchange, Joyce Beck (via phone conference). The project went live this month. As of last week, everything in the hospital is electronic. Doctors will be educated and trained to begin using CPOE. The goal is to have a seamless transfer of health information from clinics to hospitals and hospitals to clinics. The project is exploring use of a bracelet that will contain health records. All efforts have to comply with state, federal and HIPAA regulations. The project is on schedule and under budget to date. Joyce will do a more detailed presentation at a future meeting.

Update - Southeast Nebraska Behavioral Health Information Network (SNBHIN), Wendy Baker and CJ Johnson. Blue Valley Behavioral Health Center, a private non-profit corporation that serves fifteen counties in Southeast and East Central Nebraska and a member of the Southeast Nebraska Behavioral Health Information Network (SNBHIN), received a Rural Health Network Development Grant from the U.S. Department of Health and Human Services' Health Resources and Services Administration. Through the grant, Blue Valley Behavioral Health will receive $180,000 a year for three years. The grant will provide partial funding for a network director as well as funding for technology that will facilitate Behavioral Health Information Exchange.

Updates - Nebraska Statewide Telehealth Network Update, Donna Hammack. Ms. Hammack reported that a total of 2,313,878 miles has been saved by hospital staff using the telehealth network, resulting in a mileage cost savings of $1,122,231 (computed at 48.5¢ a mile).

At the last meeting, members were informed that federal funding from the Universal Service Fund for the Kearney, Grand Island and Fremont hubs was in jeopardy, due to a change in the definition of "rural." Losing funding for these sites would close down the network. The FCC has granted approved a three year extension in funding for sites affected by the change in the definition of "rural." The project has three years to work on long-term solution to this issue. Ms. Hammack thanked members who provided support. Anne Boyle, Public Service Commissioner, was acknowledged and thanked for personally visiting and contacting each of the FCC Commissioners.

Update - Western Nebraska Update, Nancy Shank. The Western Nebraska Health Information Exchange (WNHIE) continues to make progress. The project is investigating the following components of the health information exchange:

- Master Patient Index
- Record Locator Service
- Possibly an Electronic Medical Record for those clinics that don't currently have one
- Revenue Cycle Management product

An RFP has been issued and vendor demonstrations have been held. It is possible that more than one vendor will be selected to perform the functions. Selections are expected to begin within the next several months. A final draft of the user's agreement has been developed.

Update - HISPC. David Lawton. Although Nebraska was not part of the Phase I of the national Health Information Security and Privacy Collaboration (HISPC), project leaders were impressed with what Nebraska was doing. Nebraska will be able to participate in Phase three which begins in 2008 and will be funded at $265,000. The third phase is comprised of 7 multistate collaborative privacy and security projects focused on analyzing consent data elements in state law; studying intrastate and interstate consent policies; developing tools to help harmonize state privacy laws; developing tools and strategies to educate and engage consumers; developing a toolkit to educate providers; recommending basic security policy requirements; and developing interorganizational agreements. Each project is designed to develop common, replicable multistate solutions that have the potential to reduce variation in and harmonize privacy and security practices, policies, and laws. A cross collaborative steering committee has been

established for phase 3 to facilitate knowledge transfer among collaboratives and identify points of intersection.

Nebraska is participating in the Adoption of Standard Policies Collaborative. The primary goals of the collaborative are to:

- develop a set of basic policy requirements for authentication and audit; and
- define an implementation strategy to help states and territories adopt agreed-upon policies.

Through its work, the collaborative will develop processes to help establish trust and bridge the policy differences between health information exchange models. (For more information go to: http://privacysecurity.rti.org/)

Mr. Lawton asked the eHealth Council to consider serving as the steering committee for Nebraska's participation in the HISPC collaborative. The steering committee will receive monthly written reports. The project is fairly well defined in the contract and the proposal. The steering committee would not need to give a lot of guidance during the project. If the project continued past the initial year, the steering committee would provide guidance on future activities.

Mr. Lawton and Anne Byers will be attending the national HISPC-National Health Information Network-State Level HIE Conference in Dallas, April 30-May 2.

Update - FCC Pilot project, Dan Griess. The project is trying to determine the in-kind match.

MATCHING CLIENT DATA FROM DISPARATE SOURCES
Dr. Steven Hinrichs and Marsha Morien, UNMC Center for Biosecurity and representatives of Nebraska's eHealth Initiatives

Dr. Hinrichs and Marsha Morien gave an overview of issues related to patient identification.

Challenges in Patient Identification:

- Inability to appropriately link patient information across systems for delivery purposes
- Inability to create longitudinal, multi-facility continuum-of-care episodes for a patient
- Inability to track patients across a full episode of care and monitor performance of health systems
- Lack of interoperability across systems forcing providers to jump from one system to the next and manually integrate available patient information
- Requires provider to know all unique identifiers
- Variability in methods across organizations to link patients to records
- Lack of agreed-upon patient-to-record matching standards to apply when interoganizational electonic HIE is conducted
- Lack of standards introduces potential for inappropriate use or disclosure of personal health information about the wrong patient
- Clinical and privacy risk

Solutions

- A system of identifying patients between entities must exist for true interoperability to occur
- Systems must include stringent matching criteria to ensure that patient records remain confidential
- HIPAA provided for creation of national unique identifiers; Congress adopted appropriations language to ensure no appropriated funds are used to promulgate such a standard Solutions
- State teams suggested creating standards for matching that included minimum as well as optional data elements
- Biometrics as preferred method
- Creating model policies and procedures to ensure appropriate capture of patient identifiers
- Development of a master patient index and incorporate as necessary patient identification algorithms to facilitate accurate exchange of information
- RLS - Records Locator Service

- Centrally administered function of a health information network
- Provides requestor of data with location of data about a specific patient
- Uses various identifying characteristics of individuals to create a match and point to the location of the heath information

The eHealth Initiative SAFE BioPharma 54-page report is available via the Toolkit.ehealthinitiative.org and www.safe-biopharma.org Web sites.

Dr. Hinrichs and Marsh Morien proposed a pilot laboratory data exchange project to address this issue. The pilot project would:

- Identify two or more health systems desiring to share lab test orders and results.
- Establish MPI operated by neutral third party.
- Test ability to identify multiple test orders and results on patients/clients
- If possible, compare with client matching algorithm

Members were given an opportunity to ask questions and/or provide comments. There were some concerns expressed regarding the need for a pilot. Mr. Berens recommend establishing a work group comprised of representatives of the state's health information exchanges and the telehealth network to further discuss the issue.

MEDICAID AND HEALTH IT
Vivianne Chaumont, Division of Medicaid & Long-Term Care, Department of Health and Human Services

The MMIS system pays medical claims. The current MMIS system is a legacy system and is outdated. An RFP has been issued to modernize the current system. The RFP is currently in legal litigation. The Intent to Award is scheduled for June 1st. The department is working with providers to explore electronic billing. Currently, everything is done via paper checks. An electronic Medicaid card is also being discussed.

COMMUNITY TECHNOLOGY FUND*
Steve Henderson

The NITC has monies available through the Information Technology Infrastructure Fund (ITIF) fund. Monies have been allocated to the GTCF (Government Technology Collaboration Fund) and the CTF (Community Technology Fund). There is currently approximately $290,000 - $310,000 in the Community Technology Fund. As of June 30, 2009, any remaining balance will be designated to the public safety wireless project. The NITC is asking the Community Council and the eHealth Council to recommend projects to be funded. The Community Council can request up to $40,000, leaving approximately $250,000 - $270,000 available for eHealth projects. Members were asked to consider the following question: Is there a project pertaining to the action items that these monies could be used and how will the council arrive to the decision? The NITC meets in June and would like to have proposals ready for their approval.

Dr. Mueller asked members to submit ideas to the co-chairs to be further developed for the May meeting. Co-chairs will review proposals prior to the next eHealth Council meeting. The Council will meet sometime towards the end of May to take action.

ROLE OF PAYERS AND EMPLOYERS IN HEALTH IT
Randy Palmer, DAS State Personnel, State of Nebraska; Dean Thompson, Coventry; and Amy Phillips, Gallup

Mr. Palmer, Mr. Thompson, and Ms. Phillips were invited for an informal discussion. Direct access to medical records for medical providers is invaluable. Concerns and issues of e-prescribing and buy-in from the insurance industry and medical associations were discussed.

Gallup conducted a recent survey regarding electronic health records. The survey indicated that 42% indicated that they would use eRecords. When informed that it would save on health care costs, the percentage went up to 72%.

CLOSING BUSINESS

There was no closing business.

ADJOURNMENT

With no further business, Dr. Mueller adjourned the meeting at 4:18 p.m.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by Anne Byers of the Office of the CIO/NITC.

EHEALTH COUNCIL
May 29, 2008
1:30 PM CT – 4:30 CT
University of Nebraska Technology Park
4701 Innovation Drive, Lincoln, Nebraska

PROPOSED MINUTES

MEMBERS PRESENT:

Dennis Berens, Department of Health and Human Services, Office of Rural Health
Pat Darnell, Alt. for Vivianne Chaumont
Senator Annette Dubas, Nebraska Legislature
Marie Woodhead, representing Jeff Fortenberry, phone
Dr. Kimberly Galt, Creighton University School of Pharmacy and Health Profession, phone
Jamie Barbee, Alt. for Kimberly Galt
Alice Henneman, University of Nebraska-Lincoln Extension in Lancaster County
Ron Hoffman Jr., Mutual of Omaha
Harold Krueger, Western Nebraska Health Information Exchange and Chadron Community Hospital, phone
Ken Lawonn, NeHII and Alegent Health, phone
David Lawton, Division of Public Health, Department of Health and Human Services
Marsha Morien, Alt. for Dr. Keith Mueller
Nancy Shank, University of Nebraska Public Policy Center
September Stone, Nebraska Health Care Association
Dr. Delane Wycoff, Pathology Services, PC, phone

Staff and Guests: Anne Byers, Community Information Technology Manager, Ryan McCabe, eHealth intern, Cindy Kadavy, Nebraska Medicaid, Joyce Beck, Thayer County Health Services, Bill Bivin, Alt. for September Stone

MEMBERS ABSENT: Susan Courtney, Blue Cross Blue Shield; Joni Cover, Nebraska Pharmacists Association; Dan Griess, Box Butte General Hospital, Alliance; Donna Hammock, Nebraska Statewide Telehealth Network and St. Elizabeth Foundation; Steve Henderson, Office of the CIO; C.J. Johnson, Southeast Nebraska Behavioral Health Information Network and Region V Systems; Jim Krieger, Gallup; Jeff Kuhr, Three Rivers Public Health Department; Kay Oestmann, Southeast District Health Department; John Roberts, Nebraska Rural Health Association

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

Kimberly Galt called the meeting to order at 1:35 p.m. There were 13 members total, 5 of whom were on the phone. Not enough members were present in person for a quorum. The meeting announcement was posted on the NITC Web site and on the Nebraska Public Meeting Calendar on May 14, 2008.The agenda was posted on May 23, 2008. A copy of the Nebraska Open Meetings Act was available on the wall.

PUBLIC COMMENT

There was no public comment.

NEW BUSINESS/REPORTS

Update – HISPC

David Lawton gave an update on the HISPC Collaborative project. He mentioned the project is looking for partners to participate in environmental scans. The scans will help determine where RHIOs are in terms of privacy and security. He also informed the Council that he would be working with Thayer County Health Services on the HISPC Collaborative project.

Update – Matching Client Data Discussion

The discussions of May 13, 2008 on Matching Client Data concluded that it was premature to discuss RHIO to RHIO exchange at the time. RHIO representatives wanted to focus on getting their RHIOs up and running. Marsha Morien commented that everyone at the meeting was open to future discussions.

Senator Annette Dubas arrived at 1:50 p.m.

SOUTHEAST NEBRASKA HEALTH INFORMATION EXCHANGE (SENHIE) PRESENTATION

Joyce Beck, CEO, Thayer County Health Services, gave a presentation on their CAH/FLEX HIT Grant. Thayer County Health Services received the $1.6 million grant for full implementation of Electronic Health Records at their critical access hospital. The Southeast Nebraska Health Information exchange is the first initiative in the state to exchange health data. The system connects Thayer County Health Services in Hebron, five rural health clinics, a home health agency, a nursing home and an assisted living facility, several GMS units, two pharmacies, and St. Elizabeth Regional Health System in Lincoln. Their goals are to be totally paperless within 18 months, improve all communication lines, address safety and security of clinical information, provide continual care, and empower the patient. Ms. Beck expressed the importance of continuing technology education, an open culture, and positive people in implementing change. Input of end user is critical to the success of the project.

PRIORITIZATION OF PROPOSALS FOR FUNDING FROM THE COMMUNITY TECHNOLOGY FUND

The Council discussed prioritizing the projects for recommendation to the NITC. The amount requested for all projects was $388,414. Anne Byers informed the Council that there was $277,439 available for funding, leaving a difference of $110,975. Kimberly Galt thought it would be best to give a quick overview of each proposal, open to inputs and critiques, and then do an unofficial vote to prioritize.

Anne Byers gave an overview for two of the projects: **Health Information Security and Privacy Consumer Education and Health Information Privacy and Security Web Site**. Members agreed that these two proposals were low-risk and most likely to receive funding. Marsha Morien voiced her concern about the requested amount of funding being enough for the Web site. In an unofficial vote, all members were in favor of projects 6 & 7.

Nancy Shank gave a quick description of the **Western HIE Implementation proposal**. Most of the funding would go toward capital investment. In an unofficial vote, a majority of members were in favor, Dennis Berens-opposed, Nancy Shank abstained.

No members were present to overview the **Behavioral HIE Network Development project**. Kimberly Galt informed the Council that they have received a HRSA grant. Other comments were directed to specific details of the proposal, including the nature of the patient and their privacy and security. Most of the funding for this project would be for a server. Marsha Morien said that Keith Mueller thought the goals were well-stated, but links to information used were not well established. No unofficial vote was taken.

Senator Annette Dubas departed at 3:15 p.m.

Ken Lawonn updated the Council on the **NeHII proposal**. NeHII has developed a preliminary business model. NeHII is partnering with UNO to plan and work on costs of the project. So far, the project has been totally privately funded. He expressed that this project is the highest risk, but most in need. No unofficial vote was taken.

Kimberly Galt gave an overview of the **Public Input on Sharing Electronic Health Records**. David Lawton cross-referenced this project with the Health Information Privacy and Security Web site proposal. He thought these two proposals could work closely with each on consumer involvement. No unofficial vote was taken.

September Stone and Cindy Kadavy presented their **Medicaid Electronic Billing for Long-Term Care proposal**. Dennis Berens expressed his concern for the future MMIS system implementation and how this proposal is contributing or building towards it.

Due to lack of time, Kimberly Galt moved to present the idea of asking members rank proposals. Ken Lawonn seconded. Results would be sent back to Anne Byers and Ryan McCabe, organized and given to the Council's co-chairs and staff members for final recommendation.

NEW BUSINESS
Dr. Kimberly Galt said that she has been invited to give a presentation on the eHealth Council at the Nebraska Rural Health Association meeting in September.

NEXT MEETING DATE
There was no date presented.

The meeting adjourned at 4:10 p.m.

Nebraska Information Technology Commission

Community Technology Fund

Standard Application Form

For projects which meet all of the following characteristics:

- Moderate to high budget (over $40,000)
- Moderately difficult to complex implementation of technology
- Moderate to high risk
- Type of projects: Projects Involving Health IT

Project Title: Nebraska Health Information Initiative (NeHII) Health Information Exchange

Submitting Entity: NeHII, Inc in association with the University of Nebraska at Omaha

Grant Amount Requested: $100,000

Project Contact Information (Name, address, telephone, fax, and e-mail address):

Harris Frankel, MD
NeHII, Inc President
c/o Bass & Associates, Inc
2027 Dodge St., Suite 500
Omaha, Nebraska 68102
Office 402-346-1505
Fax 402-346-6454
hafrankel@hotmail.com

Executive Summary

Provide a one or two paragraph summary of the proposed project, clearly and succinctly describing the project goals, expected outcomes, the information technology required, and what the grant will fund.

In 2006, healthcare professionals from across Nebraska gathered to conduct a strategic planning session - the goal, to create a statewide health information exchange (HIE) for the betterment of patient care in the state. Once implemented, the system would enable physicians statewide to view consolidated patient medical history at the point of care, improving safety and care delivery while reducing duplicate or redundant procedures. Since that session, the progress of NeHII has outpaced all similar activities. NeHII hopes to begin exchanging data in the next six months, making it one of the first statewide HIEs in the country. The most significant aspect to the project is the innovative ideas used to fund the project and make it sustainable for future generations. Based on projected adoption rates, NeHII is expected to generate sufficient margins to not only fund operations, but also subsidize rural providers and decrease the financial impacts across the state. A proven sustainable business model ensures adequate project funding will be available when needed. The funds being sought with this grant application will be applied to fund a proof of concept pilot project and demonstrate the validity of exchanging medical information including clinical messaging, e-prescribing and physician referral.

NeHII's progress is due to its success at engaging and securing assistance from stakeholders across the state. Existing participants donated their time and money to make the initiative successful. As the project moves forward, discussions have moved from participant/stakeholder support to major employers, governmental officials and foundations to support the project implementation costs. All these activities and more led NeHII to a pilot phase that will begin live production use in fourth quarter 2008.

Goals, Objectives, and Projected Outcomes (15 points)

1. Describe the project, including:
   - Specific goals and objectives;
   - Expected beneficiaries of the project; and
   - Expected outcomes.

The goals of this initiative are to provide better patient care by

- Sharing timely and accurate patient healthcare information including clinical messaging, e-prescribing and physician referral in a secure environment among providers
- Allowing all providers the option to participate in this health information exchange
- Providing a patient focused interoperable online resource for medical information

The objectives of this initiative are

- Implement proof of concept pilot
- Install software
- Identify participants
- Determine success criteria
- Conduct pilot
- Complete evaluation scorecard
- Determine next steps for statewide implementation

The expected beneficiaries for this initiative

- Consumers
- Physicians
- Healthcare Providers
- Employers
- Health Plans
- Labs
- Pharmacies
- Public Health Agencies

At a recent site visit to a physician's office in Santa Cruz, California, Dr. Karl Johsens shared with us how he met with a patient that morning and discussed the improvement in her lab results for blood glucose and cholesterol levels after he had verified that she had filled prescriptions and was following her healthcare delivery plan. He verified prescriptions had been filled and conducted an online trend analysis using the vendor supplied software.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

The purpose of the pilot program is to evaluate the software to determine if the three goals previously cited are met. As we monitor the pilot's progress, we will readily know if the system provides the sharing

of timely and accurate patient healthcare information. A designated individual representing each participating healthcare agency will discuss how they are using clinical messaging and physician referrals and if they are getting the results they expected. The participants who use e-prescribing functionality should experience a reduced amount of time spent determining which drug to prescribe since the system will alert them to drug interactions.

Once the pilot is complete and planning begins for the statewide implementation, the rate of participation should increase. All providers will have the option to participate in this health information exchange and as the number of participants continue to increase we will have the ability to measure participation rates.

Qualitative measurements will be put in place to ensure the quality of care and patient safety has a positive effect due to this initiative.

Project Justification / Business Case (25 points)

3. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers)

NeHII is preparing to engage in a pilot evaluation using the selected software to create a HIE. The pilot participants will be specifically evaluating clinical messaging, e-prescribing and physician referral functionality as well as impact to workflow efficiency and patient safety.

Return on Investment (ROI) / Intangible Benefits to Nebraska's Citizens. By developing a health information exchange (HIE) that will link physicians, hospitals, pharmacies, laboratories and imaging centers through technologies and processes that protect patient privacy, NeHII anticipates improved outcomes for individual consumers as well as for the state at large, and better use of the dollars spent for healthcare in the state.

The business and financial model proposed for NeHII is realistic and sustainable for the foreseeable future, assuming adoption rates meet conservative estimates. Excess revenues are also expected, and will be used to subsidize participants and further increase the value to Nebraska consumers. The funds being sought with this grant application will be used to fund pilot project setup expenses.

In October a Request for Proposal with detailed functional requirements was released to the list of seven vendor candidates from the RFI process. The product selection was made in April and currently NeHII is in the process of vendor negotiations.

Principles. The NeHII principles were defined at the outset of the strategic planning process and have naturally evolved throughout the business planning process as a result of input from many participants. They are meant to create a framework for working together collaboratively and include:

- Statewide approach
- Patient-centric
- Collaboration and consensus
- Open and transparent process
- Neutrality
- Shared resources, shared burden, shared planning
- Investments should reflect benefit flow
- Economically self-sustaining
- Inclusion of those with less resources
- Keep it simple
- Incremental implementation with early victories

- Build on what is available
- Support quality improvement
- Ensure interoperability

4. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

Evaluated Solutions and Implications of Doing Nothing. The core of the NeHII system is a centrally-managed, enterprise-level, commercial-off-the-shelf (COTS) IT solution to securely control patient information and verifies that patient data gets exchanged with other agencies for the sole purpose to improve the delivery of healthcare to a specific patient. The web-based ASP model software securely brings together the specific data (clinical message, e-prescribing and physician referral) required to sustain a patient's medical condition while protecting privacy and gathering the critical data a hospital, pharmacy, clinic or doctor needs to make a medically-required assessment, diagnosis and treatment plan.

NeHII evaluated many vendors to find the right solution. Out of the "Request for Information" stage, seven vendors were identified that could meet the above requirements. Those seven were then given the opportunity to respond to the "Request for Proposal". Following this phase, a vendor was selected, and vendor negotiations are currently ongoing.

Other Solutions Evaluated – Strengths and Weaknesses. At a minimum, the following options with a brief description of their strengths and weaknesses were thoroughly analyzed and discussed by the NeHII Steering Committee. The ideal solution was integrating a solution, centrally managed, to provide the needed healthcare patient data to improve the care and treatment of the citizens of Nebraska.

- Perform little to no changes to the IT infrastructure as it exists for Nebraska's health providers:
  - Strength – IT systems at health providers' agencies are operational and with regularly scheduled maintenance would work for several years. Dollars already have been invested into these systems and IT, staff and managers are familiar with the current systems.
  - Weakness – The current IT systems have no connectivity, do not permit a rapid exchange of patient healthcare information, lack collaboration options, and continue to cost dollars to maintain as these IT systems become legacy labyrinths.
- Develop a new enterprise system locally which would interact with existing agency-based systems providing the required connectivity and interoperability:
  - Strength – A customized IT system would allow agencies to maintain their IT systems, thus promoting familiarity while minimizing the attitude associated with change and eliminating the need for training.
  - Weakness – Some continuity and interoperability may be lost. Errors in patient healthcare data may increase due to incompatibility of IT systems. Coordinating upgrades and version changes across the State would require dollars invested into maintenance as well as the development of enhancements which are time intensive and expensive.
- Identify and implement a statewide HIE system COTS solution:
  - Strength – The main strength is a tried and tested already operational system that could be implemented with the vendor carrying the costs of system development and maintenance. Healthcare provider agencies would serve a centralized master with several options in providing the required healthcare data. The barrier would be alleviated for the smaller hospitals.
  - Weakness – Beyond the necessity to assist some healthcare providers in making a decision to join with NeHII, funding the project along with long term project monitoring may be a concern for the agency.
- No Action Taken
  - Strength – None

- Weakness – Inaction has existed as the norm; yet can no longer be accepted. Minimal sharing of healthcare information results in diagnosis delays, a reduction in healthcare quality and adverse drug events. **Healthcare Transformation calls all stakeholders to take action**.

Technical Impact (20 Points)

5. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

Technological Impact of NeHII Project The identified vendor for the NeHII solution was chosen because of their delivering broad functionality to all stakeholders with minimal disruptions to the IT infrastructure.

Hardware, Software and Communication Requirements Most participants will access the system via the web, with no additional hardware or software requirements. Large healthcare systems will require the installation of an EdgeServer, installed and hosted at the vendor's facility. To access the system, all that is required is internet access for individual participants, or VPN access to the vendor's data center for institutions.

6. Address the following issues with respect to the proposed technology:
   - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.
   - Address conformity with applicable NITC technical standards and guidelines (available at http://www.nitc.state.ne.us/standards/) and generally accepted industry standards.
   - Address the compatibility with existing institutional and/or statewide infrastructure.

Reliability, Security and Scalability The solution to be implemented is an ASP model, utilizing web service capabilities. These features offer a safe, secure, reliable, and scalable environment for the healthcare providers of Nebraska. The software ensures HIPAA guidelines are followed and data is exchanged using secure and encrypted messaging. Vendor service-level agreements will require 24 hour a day access, 7 days a week for 99% of the time, barring pre-scheduled maintenance time. Participants can only be activated by the system administrator, following intensive identity verification. Finally, the web-based ASP model does not limit the number of participants. The more participants included, the lower the cost to each participant. Participant agreements for pilot participants as well as patient consent forms are currently being reviewed.

Technical Standards and Guidelines NeHII has accessed the http://www.nitc.state.ne.us/standards/ website. The NeHII project team understands, uses, and intends to follow the full intent of the standards and guidelines. IT personnel associated with the project are process savvy having implemented IT process improvement approaches using CMM, ITIL, PMP, ISO 9000 and local agency quality programs.

Compatibility with Existing Systems A critical factor in selecting an enterprise IT system is to ensure compatibility and interoperability with the many technologies and systems already operational in multiple organizations and agencies across the State of Nebraska. This includes other EMRs and systems installed at healthcare delivery agencies and RHIOs across the state. The vendor and NeHII project team are responsible for addressing and resolving reasonable compatibility issues and problems. The selected product will serve as an umbrella between practices with existing electronic medical records (EMRs) and the practices that opt-in to use EMR-Lite, a vendor offering for practices without electronic medical records.

Preliminary Plan for Implementation (10 Points)

7. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Preliminary Plan for Implementation NeHII will begin exchanging data in fourth quarter 2008. Participants that have agreed to participate are Alegent Health, The Nebraska Medical Center, Methodist Health System, Children's Hospital, Creighton Medical Associates, Blue Cross Blue Shield of Nebraska, and UnitedHealthcare. This pilot will last for three months, resolving implementation issues and validating processes. We are projecting the statewide health information exchange to occur in 2009. This project includes and invites all Nebraska's healthcare delivery agencies and stakeholders.

Preliminary Project Plan Sponsors, roles and responsibilities for the NeHII effort include those defined in Appendix A. Additionally, the NeHII Project includes healthcare agency types defined earlier in this proposal.

In preparation for the statewide rollout, there are ongoing efforts to make this system affordable to rural providers. With that in mind, NeHII, in partnership with the University of Nebraska at Omaha (UNO) will implement shared servers for use by multiple rural institutions. Not only will shared servers be provided, but Dean Hesham Ali from the College of Information Science and Technology located at The Peter Kiewit Institute is extremely interested and engaged in the development of the next generation of medical IT professionals in collaboration with their partners. They host undergraduate and graduate programs in Bioinformatics, a graduate specialization in health informatics, and are taking a leadership role in working collaboratively with University of Nebraska Medical Center and local firms in areas such as HL-7 and other clinical data exchange standards, public health informatics and related research and development activities. Their focus on this initiative will be two-fold:

- Develop a training program for HL-7 interface and integration needs for this initiative
- Maintain a pool of student developers to offer HL-7 integration support to NeHII participants while also providing real world experience to PKI/IS&T students.

NeHII is working with several public health initiatives and initial communications are ongoing with Dr. Ann Fruhling, Associate Professor, Information Systems and Quantitative Analysis at the University of Nebraska – Omaha, Peter Kiewit Institute College of Information Science and Technology.

Following a ninety day pilot phase, NeHII plans to provide functionality to all Nebraska providers that will:

- Allow real-time lookup of patient information, such as drug allergies or history
- Obtain lab or radiology reports quickly and electronically
- Allow members of RHIOs to exchange information with providers not in that RHIO
- Match patient records in different systems, ensuring the information is only shared in appropriate ways
- Ensure all information is transmitted and stored in a secure fashion
- Patient safety is maximized
- Provider costs are minimized
- And many, many more.

NeHII is a Nebraska corporation organized under the Nebraska Nonprofit Corporation Act. It was formed by a collaboration of not-for-profit Nebraska hospitals, private entities, state associations, healthcare providers, independent labs, imaging centers and pharmacies. Representatives of these entities and the Lt. Governor sit on the Board of Directors of NeHII.

NeHII was formed to:

- Provide Nebraska with a system for the secure exchange and use of health information;
- Be a leader in the secure exchange of health information enabling a healthier Nebraska;
- Enable the sharing of timely and accurate patient healthcare information in a secure environment to improve patient care;
- Provide a seamless, electronic patient-centric health information exchange allowing authorized access to health information;
- Improve the health status of the residents of Nebraska;
- Improve quality and safety in the delivery of healthcare throughout the state by facilitating the sharing of health information;
- Support state and federal initiatives to improve healthcare quality and safety and to reduce cost through shared access to health information;
- Establish the basis for development of statewide and regional electronic health records in Nebraska as a means to improve quality, reduce errors, and control healthcare costs;
- Conduct and support healthcare education for students, graduate students, providers, and other healthcare workers in Nebraska;
- Monitor and recommend strategies to assist Nebraska providers to comply with state and federal technology standards and mandates in the healthcare field.
- NeHII hopes to receive a 501(c)(3) designation under the Internal Revenue Code.

The NeHII Board is responsible for the activities of this collaborative. The entire board is listed at the end of this proposal; however, the executive committee consists of the following individuals

President:	Dr. Harris Frankel, MD
Vice President:	Ken Lawonn - Senior Vice President and CIO of Alegent Health
Secretary:	George Sullivan - Director of Information Technology Services at Mary Lanning Memorial Hospital
Treasurer:	Steve Martin - Chief Executive Officer of Blue Cross Blue Shield of Nebraska

Dr. Harris Frankel, MD is a native of Omaha, Nebraska. He obtained his BA in animal physiology from the University of California, San Diego, in 1982. He then attended the University of Nebraska, College of Medicine and received his MD degree in 1986. Thereafter he did a one year internship in general internal medicine at Creighton University and its affiliated hospitals in Omaha. He then completed a neurology residency at the University of Texas Southwestern Medical Center at Dallas in 1990. During the last year of training he served as chief resident for the Department of Neurology at Parkland Memorial Hospital and the Dallas VA Medical Center. Upon completion of his residency training, Dr. Frankel returned to Omaha, Nebraska and has since remained in the private practice of Neurology with Drs. Goldner, Cooper, Cotton, Sundell, Franco and Diesing. Dr. Frankel is board certified in the specialty of Neurology. He is a member of the active staff at the Nebraska Methodist Hospital, Alegent Immanuel Medical Center and the Nebraska Medical Center. He also serves as a volunteer clinical assistant professor in the Department of Neurosciences at the University of Nebraska Medical Center.

Dr. Frankel is a member of a number of professional organizations. He currently serves as President of the Metropolitan Omaha Medical Society and also the Nebraska Health Information Initiative (NeHII, Inc.). He chairs the committees on Medicare as well as the Electronic Health Records Task Force for the Nebraska Medical Association. He has also chaired the Professional Advisory Committee of the Midlands Chapter of the National Multiple Sclerosis Society with whom he has also been a member of the National Medical Advisory Board. He also serves on the medical advisory board of SimplyWell, a population-based, integrated health management solution.

Kenneth E. Lawonn is the Senior Vice President and Chief Information Officer of Alegent Health. As senior vice president and chief information officer, Kenneth Lawonn brings 30 years of information technology and over 22 years of management experience to Alegent Health. He is responsible for the information technology, telecommunications, construction, property management, planning, innovation management, retail, sustainability, security and biomedical functions throughout the enterprise. Lawonn has nurtured Alegent Health's relationship with Siemens Strategic Alliance, negotiating a 10-year agreement for medical, building and information technology. He has successfully completed a Strategic Systems Plan, calling for implementation of advanced clinical systems, and has helped Alegent Health to be named one of the Most Integrated Health Systems. In January of 2008 Lawonn received an Innovator Award form Healthcare Informatics Magazine.

Prior to joining Alegent, Lawonn served as the first corporate vice president of information technology for Banner Health System/Lutheran Health Systems, Fargo, North Dakota, for a year. Banner Health System was created in 1999 as the result of a merger between Lutheran Health Systems, Fargo, and Samaritan Health Systems, Phoenix, Arizona. Lawonn began his career at Lutheran Health Systems and served in a variety of technical and management roles. He was named corporate systems and programming manager in 1984 and corporate director of information systems in 1987. He led the system as vice president and chief information officer from 1992 until the merger with Samaritan Health Systems in 1999.

Lawonn received a BS in Computer Information Systems at Moorhead State University. Lawonn is a current member of the College of Health Information Management Executives, and the Healthcare Information Management and Systems Society.

George Sullivan's biographical information is unavailable at this time.

Steven S. Martin serves as president and chief executive officer for Blue Cross and Blue Shield of Nebraska, and is a member of the board of directors.

Martin joined Blue Cross and Blue Shield of Nebraska in March 2002 and currently serves on the board of directors of Blue Cross and Blue Shield Association (BCBSA) in Chicago, Illinois and serves as Chairman of the BCBSA Federal Employee Program Board of Managers. Martin also serves as vice chair and board director of the Wellness Councils of America.

Prior to joining Blue Cross and Blue Shield of Nebraska, Martin was the founding president, CEO of and a board director for Prime Therapeutics, Inc., a comprehensive pharmacy benefits solutions company. Martin spent 12 years with Blue Cross and Blue Shield of Nebraska before joining Prime Therapeutics. His previous positions included vice president of health services research and reimbursement and senior vice president for ProPar services.

He has also held management positions at American HomeCare, Inc, the Upjohn Company, HealthCheck, Inc. and the Menninger Foundation.

Martin earned his Bachelor of Science degree from Washburn University and his Master of Arts degree from the University of Nebraska.

The University of Nebraska at Omaha
The University of Nebraska at Omaha (UNO) is a public institution and is one of the four campuses of the University of Nebraska System. UNO is located in the heart of Nebraska's largest metropolitan area. UNO is a comprehensive university with over 100 undergraduate majors and 50 graduate majors, including several Ph.D. programs. Situated on 160 acres, the handsomely landscaped campus is

surrounded by beautiful parks and residential areas. A full-time faculty of more than 450 serves a student population in excess of 14,000. UNO is accredited at the doctoral level by the North Central Association of Colleges and Schools.

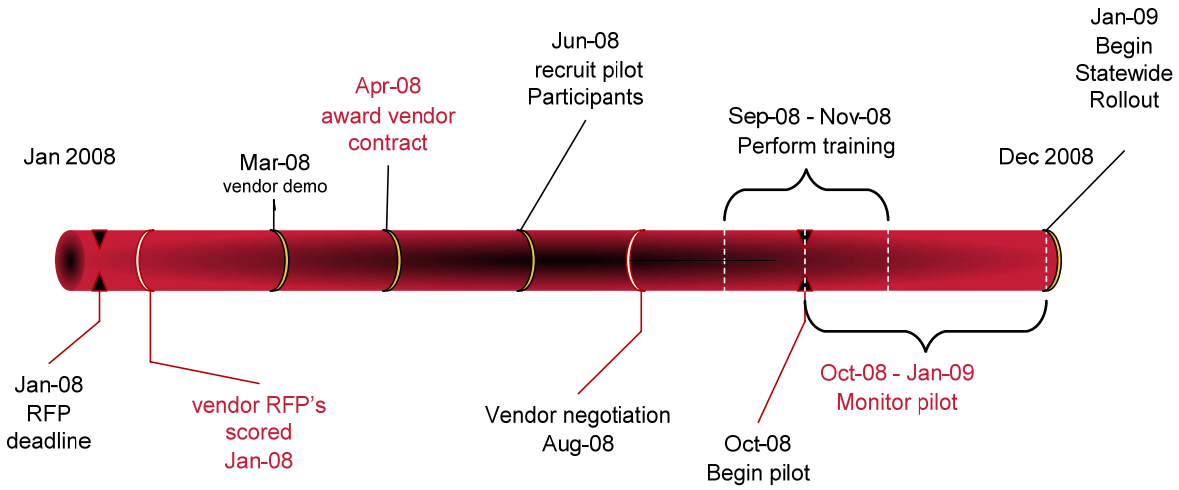
The College of Public Affairs and Community Service (CPACS) was created amidst the social and racial turbulence occurring in Omaha in the early 1970s to ensure the university was responsive to the critical social needs and concerns of our community and state.

Central to the new college's mission was the provision of educational and training programs of the highest caliber that would prepare students for careers and leadership in the public service. Today, the College remains one of the only such institutions in the United States to include "Community Service" in its title.

From those days 30 years ago the College has grown into a nationally recognized leader in public affairs research. Its faculty ranks among the finest in their disciplines. Faculty, staff, and students have become integral to the community and the state through applied research, service learning and various extensive outreach activities harkening back to our responsibility to address critical social needs and concerns.

8. List the major milestones and/or deliverables and provide a timeline for completing each.

Major Milestones



Milestones -
January, 2008 – RFP responses due
March, 2008 – vendor presentations
June, 2008 – software vendor selected, negotiations begin
June, 2008 through August, 2008 – pilot participants selected and organizational agreements executed
Pilot participants – Alegent Health Systems, Children's Hospital, Methodist Health System, The Nebraska Medical Center, multiple physician practices, two medical labs including imaging facilities, Blue Cross and Blue Shield of Nebraska, and UnitedHealthcare.
September, 2008 through October, 2008 – perform on-site training
Fourth Quarter 2008 – 90 day pilot and evaluation period
End of Pilot – Evaluate next steps to implement statewide rollout

9. Describe the training and staff development requirements.

Training and Staff Development NeHII will administer training utilizing proven vendor-supplied materials. These training sessions will take place at participant sites throughout the state, via a full-time trainer utilizing train-the-trainer approaches.

10. Describe the ongoing support requirements.

Ongoing Support Requirements While negotiations are ongoing with the selected vendor, the base features of the proposed web-based ASP model minimizes the ongoing maintenance requirements for NeHII. In addition, NeHII has budgeted for operational management of the system using local resources not affiliated with the vendor. The exact size and scope of those resources will depend largely on statewide implementation specifics.

Risk Assessment (10 Points)

11. Describe possible barriers and risks related to the project and the relative importance of each.

Risk Assessment
The following issues have been identified as potential risks and consequently will be monitored

- Lack of adequate participation may result in insufficient volume-discounts to sustain operations
- Lack of complete participation may result in insufficient data for effective patient care and inhibit physician participation
- Lack of user functionality may inhibit physician participation
- Lack of physician acquisition and acceptance of technology
- Lack of a proactive patient engagement strategy may limit physician adoption success
- Public perception issues and legal risk regarding privacy may create barriers to success

12. Identify strategies which have been developed to minimize risks

Risk Mitigation Plan
A Risk Mitigation Plan has been implemented to address principle risks that have been identified which could affect the success of this effort. The following items will help alleviate potential risks

- Constant monitoring of participants' rates will allow NeHII to work with non-participating physicians to better educate and help relate the importance of utilizing the software
- User functionality will be measured during the pilot evaluation period
- Create an information packet to educate the public and reduce inaccurate perception issues
- Gallup has offered to conduct participant surveys to validate ROI and justify effectiveness

Financial Analysis and Budget (20 Points)

13. Financial Information

	GTCF Grant Funds	Other Sources / Match	Total
1. Personnel Costs			
2. Contractual Services			
2.1 Design			
2.2 Programming			
2.3 Project Management			
2.4 Other			
3. Supplies and Materials			
4. Telecommunications			
5. Training	$25,000		
6. Travel			
7. Other Operating Costs			
8. Capital Expenditures			
8.1 Hardware			
8.2 Software			
8.3 Network			
8.4 Other (including Pilot Implementation)	$75,000		
TOTAL COSTS	$100,000		

14. Provide a detailed description of the budget items listed above. Include an itemized list of hardware and software.

NeHII is currently in discussions with major foundations within the state to fund implementation costs. Meetings are currently set or in progress for the Hawks Foundation, Scott Foundation, Peter Kiewit Foundation and the Yanney Foundation. In addition, Alegent Health and Blue Cross Blue Shield of Nebraska have funded operations to this point, a total of more than $500,000 in the last year.

Other funding to support the HIE over the next three years is projected to include:

$ 11,337,000 subscription and usage fees
$ 3,400,000 contributions
$ 500,000 grant money

15. Describe how any ongoing costs will be sustained after the grant funds are expended.

Sustainability: NeHII is not reliant on grant or external funding sources for sustainability. NeHII will purchase user licenses from the vendor at volume-discount prices, and provide them to participants on a cost-plus basis. The margin generated will be sufficient to fund operations, while providing a positive return for participants. A copy of the income statement can be made available pending vendor negotiations and board approval.

NeHII Board Membership & Officers
(*Approved March 28, 2008*)

Board Officers

President:	Harris Frankel, MD - Goldner, Cooper, Cotton, Sundell, Frankel, Franco Neurologists, Omaha, NE
Vice President:	Ken Lawonn - Alegent Health System, Omaha, NE
Secretary:	George Sullivan - Mary Lanning Memorial Hospital, Hastings, NE
Treasurer:	Steve Martin - Blue Cross Blue Shield of Nebraska, Omaha, NE

Board Membership

Elected Directors

Delane Wycoff, MD - Pathology Services PC, North Platte, NE
Harris Frankel, MD
Steve Martin
Ken Lawonn
Michael Westcott, MD - Alegent Health System, Omaha, NE
George Sullivan
Lisa Bewley - Regional West Medical Center, Scottsbluff, NE
Dan Griess - Box Butte General Hospital, Alliance, NE
Roger Hertz - Methodist Health System, Omaha, NE
Bill Dinsmoor - The Nebraska Medical Center, Omaha, NE

Appointed Directors

Lt. Gov. Rick Sheehy
Kevin Conway - Professional Organizations, Nebraska Hospital Association, Lincoln, NE
Deb Bass - Executive Director (interim appointment until a permanent Executive Director hired), Bass & Associates Inc., Omaha, NE
Nancy Shank, Associate Director for the University of Nebraska Public Policy Center

Committee Structures

Executive Committee:

Harris Frankel, MD - Chair
Steve Martin
Ken Lawonn
George Sullivan

Governance:

Steve Martin - Chair
George Sullivan
Steve Martin
Dale Mahlman - Nebraska Medical Association, Lincoln, NE
Nancy Shank
Michael Westcott, MD
Lisa Bewley

Finance:

Steve Martin - Chair
Ken Lawonn
Kevin Conway
Bill Dinsmoor

Lisa Bewley
Roger Hertz

Business Plan:

Kevin Conway - Chair
George Sullivan
Lt. Gov. Rick Sheehy
Todd Sorenson, MD - Regional West Medical Center, Scottsbluff, NE
Joni Cover - Nebraska Pharmacist Association, Lincoln, NE
Delane Wycoff, MD
Bill Dinsmoor
Michael Westcott, MD
Dan Griess

Pilot/Phase Development Committee:

Harris Frankel, MD - Chair
Tom Haley - Creighton Medical Associates, Omaha, NE
Roger Hertz
Ken Lawonn
Tim Mergens - United Health Care, Omaha, NE
Kevin Ordway – Soteria Imaging Services, LLC, Omaha, NE
Lianne Stevens - The Nebraska Medical Center, Omaha, NE
Clint Williams - Blue Cross Blue Shield of Nebraska, Omaha, NE
Allana Cummings - Children's Hospital, Omaha, NE

Marketing:

Lt. Gov. Rick Sheehy
George Sullivan
Harris Frankel, MD

University of Nebraska Lincoln

OFFICE OF SPONSORED PROGRAMS
Pre-Award

August 5, 2008

via email

Re: letter of committment

Nebraska Information Technology Commission
501 South 14th Street, 4th Floor
Lincoln, NE 68509-5045

To Whom It May Concern:

The Board of Regents of the University of Nebraska, for the University of Nebraska-Lincoln (UNL) is pleased to submit a proposal to your organization on behalf of Tarik Abdel-Monem of the Public Policy Center, entitled "Public Input on Sharing Electronic Health Records: The Views of Nebraskans".

The total request is for $20,800 for the proposed period October 1, 2008 thru February 28, 2009. Our EIN # 47-0049123 and our DUNS # is 55-545-6995. Our participation is administratively approved on behalf of the Board of Regents by the appropriate University officials, as evidenced by my signature as an authorized official on this letter of transmittal.

Questions regarding the technical aspects of this project should be directed to Dr. Abdel-Monem at (402)472-3147. Administrative questions should be directed to Nancy Becker, Grants Coordinator, at (402)472-3601 or nbecker1@unl.edu. We look forward to participating in this project.

Sincerely,

Suzan G. Lund

Suzan G. Lund
Associate Director

SL/nb

Nebraska Information Technology Commission
Community Technology Fund

Simple Application Form

For projects which meet all of the following characteristics:

- Low budget (under $40,000)
- No or simple implementation of technology (By simple implementation of technology, we mean standard, plug and play technology.)
- Very low risk
- Type of projects: Training projects, HISPC legal review

Project Title: Public Input on Sharing Electronic Health Records: The Views of Nebraskans

Submitting Entity (Must be a public entity): Board of Regents, University of Nebraska on behalf of the University of Nebraska Public Policy Center

Grant Amount Requested: $20,800.00

Project Contact Information (Name, address, telephone, and e-mail address):

Tarik Abdel-Monem
University of Nebraska Public Policy Center
215 Centennial Mall South, Suite 401
Lincoln, NE 68588-0228
ph: 402.472.5678
fax: 402.472.5679
tarik@unl.edu

Executive Summary

Provide a one or two paragraph summary of the proposed project, clearly and succinctly describing the project goals, expected outcomes, the information technology required, and what the grant will fund.

The overall goal of the proposed project is to obtain perspectives of Nebraskans about electronic sharing of health information, and in particular, perspectives about legal and policy issues currently under consideration by the NITC, HISPC, e-Health council, and other state policymakers and advisory groups. The funds provided by the grant will support our activities to document Nebraskans' knowledge of and attitudes towards these issues by preparing for and convening two surveys and a Deliberative Poll®. Randomly selected residents of Nebraska from three communities across the state will be invited to participate in an online survey. Twenty five to thirty residents of Lincoln/Lancaster County will be invited to participate in the Deliberative Poll and take a second survey. The Public Policy Center will work closely with a stakeholders' working group composed of members of the NITC, HISPC, e-Health council, and others, to identify priority questions of interest that are either currently – or will soon be – under consideration by state policymakers, and which public input and commentary could shed light on. This project will simultaneously achieve three outcomes: It will 1) engage a sample of Nebraskans about important legal and policy issues surrounding e-sharing of health information; 2) increase knowledge and understanding of these issues among a sub-sample of Nebraskans; and 3) provide state policymakers and stakeholders with perspectives from the public about these important issues. The project completion date is December 2008, and all findings will be disseminated publicly prior to the January 2009 legislative session.

1. Describe the project and project goals. (10 points)

We propose to engage randomly selected Nebraskans about their perceptions of electronic sharing of personal health information. Specifically, we will gather both **quantitative and qualitative** data from residents through a public consultation process gauging their attitudes towards **current questions of legal and policy relevance** about e-sharing of health information. Working with a **stakeholders group**: members of the Nebraska Information Technology Commission (NITC), Nebraska Health Information Security and Privacy Committee (HISPC), e-Health council, and policymakers, our engagement activity will be designed to specifically solicit information from area residents that would be of benefit for state lawmakers.

Our public input process will be composed of two stages. **First**, we will administer an **online survey** to measure public knowledge of and attitudes towards e-sharing of health information, with an emphasis on gauging public perceptions about issues that may be considered by the state legislature or other administrative, consultative, or policymaking bodies. Participants will be selected from randomly generated lists of residents drawn from the Lincoln/Lancaster County area, Omaha, and a six county area surrounding Kearney.[1] **The survey questions will be developed with close consultation from our stakeholders group**, and in particular, the legal subcommittee of the HISPC. **Possible topics of interest might include** changing restrictions on releases of health information, handling of sensitive information such as HIV or mental health status, defining the acceptable parameters of exchanging personal health information between Regional Health Information Organizations, storage of health information records by private companies (i.e. Microsoft or Google), and other areas implicating possible changes in laws or regulations, as well as general questions assessing the public's current knowledge of and attitudes towards health information sharing. **Second**, we will convene a forum utilizing the **Deliberative Polling®** model to gather further input on legal and policy issues related to e-sharing of health data from Lincoln/Lancaster County respondents of the online survey. The Deliberative Poll will provide an opportunity for participants to discuss and deliberate these issues amongst themselves and with **a panel of experts** composed of representatives from the stakeholders group. The Deliberative Poll will provide an opportunity for the stakeholders group to **educate** participants about the issues, **present** them with the difficult policy questions they face, and **seek their input**.

Deliberative Polling is a novel method that has been employed in recent years by government entities to much success.[2] Unlike traditional notice and comment proceedings, public hearings, or telephone surveys standing alone, Deliberative Polling combines random sampling with deliberative discussions as a means to measure attitudes and knowledge about policy issues among an informed and representative sample of participants. Deliberative Polls were first conducted in the United States in 1996, but have since been convened in Australia, Britain, China, Denmark, Greece, Italy, Northern Ireland, and various other nations.[3]

In the Deliberative Polling model, a **survey** (survey 1) is conducted of a **random sample** of individuals about the public policy issue(s) of interest. That sample is then provided with educational **background materials** about the issues of interest, and then invited to participate in small group deliberations and engage a panel of experts in a question-and-answer period. A **follow-up survey** (survey 2) of the sample is then conducted which measures the extent to which the deliberative process altered opinions or knowledge of the issue(s) of interest. Deliberative Polling provides an opportunity for participants to discuss their viewpoints with others and learn

[1] We will invite up to 450 randomly selected residents of Nebraska to participate in the survey. We expect a response rate of anywhere from 15%-25%.
[2] *See* James F. Fishkin, Center for Deliberative Democracy, Stanford University, *Deliberative Polling®: Toward a Better-Informed Democracy, available at* http://cdd.stanford.edu/polls/docs/summary/.
[3] *See* Center for Deliberative Democracy, Stanford University, http://cdd.stanford.edu/.

more about the topic(s) of interest. A Deliberative Poll thus **measures changes in knowledge and attitudes** towards the topic(s) of interest among a random sample of individuals who have become more informed about an issue. Because participants are drawn from a random sample of the public, a Deliberative Poll indicates what the general population would conclude (within a margin of error) about an issue if it were to learn more about the issue and had a chance to discuss it. More information about Deliberative Polling can be found at the website of the Center for Deliberative Democracy at Stanford University (http://cdd.stanford.edu/).

We will convene one Deliberative Poll in Lincoln, with 25-30 randomly selected residents of the **Lincoln/Lancaster County** area. Although the small size of this sample will place constraints on generalizing any results from the discussion to other communities, it will serve to provide insight into what ordinary individuals know of and think about these issues. **We will invite members of the NITC, HISPC, the e-Health council, and policymakers to serve as expert panelists and observers** at the deliberation itself, as well as provide guidance as to the content of the discussion and overall project development. In addition to surveys, qualitative data will be gathered from the deliberative discussions through audio-recordings, which will be transcribed and analyzed. Working with this stakeholders group, we will generate a **background document** about current legal and policy issues facing the state that will be disseminated to the participants prior to the Deliberative Poll. We will also make this document available on our website as an **educational tool** for wider consumption by the public.

Public Input Process
Step 1. Randomly selected residents will be invited to participate in an online survey (survey 1). Hard copies will be available upon request. Residents will be from Lincoln/Lancaster County, Omaha, and a six county area surrounding Kearney.
Step 2. 25-30 Lincoln/Lancaster County area respondents from survey 1 will be invited to attend the Deliberative Poll in Lincoln. Deliberative Poll discussions will be audio-taped.
Step 3. Survey 2 will be administered following the Deliberative Poll.

The project specific goals we will accomplish include:

- **Documenting knowledge of and attitudes towards** e-sharing of health records among members of the public using both surveys and discussions;
- **Engaging stakeholder partners** such as the NITC, HISPC, the e-Health council, and policymakers, in an interactive discussion with members of the public through a Deliberative Poll;
- **Analyzing perceptions of important legal and policy questions** related to e-sharing of health records from the public's perspective.

2. Describe the project team and project activities. (10 points)

The Public Policy Center is well-equipped to implement this assessment of public opinion and knowledge. **Public participation is one of the Policy Center's five strategic areas of research**. Since 2004, the Center has convened eight deliberative discussions – primarily in partnership with NETV and PBS's McNeil/Lehrer Productions – in communities across Nebraska on topics ranging from public perceptions of genetically modified foods to K-12 public education in rural areas. Most recently, the Center coordinated the City of Lincoln's five-prong public

participation initiative regarding budget priorities for 2008-09 that involved collecting a variety of input from Lincoln residents: 1) a telephone survey of 600+ randomly-selected sample of residents; 2) a deliberative discussion involving 51 residents; 3) a non-random sample survey, available online and in hard copy, that was taken by over 1,500 residents; 4) four town hall meetings (convened and coordinated by Leadership Lincoln); and, 5) a focus group discussion.

The Policy Center will identify a **stakeholders group** of representatives from the NITC, HISPC, the e-Health council, and policymakers to serve as project consultants, as well as expert panelists at the Deliberative Poll. Development of our survey instruments and background educational document will be facilitated by active consultation with this stakeholders group.

Tarik Abdel-Monem is the PI for the project. He will be responsible for daily management of the project and specific project tasks including development of survey materials and the background document, recruitment of participants, and management of the Deliberative Poll. He also will be the project's liaison with the working group. Abdel-Monem has coordinated or co-coordinated eight deliberative discussions in Nebraska on a wide range of topics, including foreign policy (2004), globalization (2004), future community development of Lincoln (2005), consumption and labeling of genetically modified foods (2005), K-12 education in Nebraska (2005), water management in Nebraska (2006), immigration issues (2007), and outcomes-based budgeting for the City of Lincoln (2008). Abdel-Monem's responsibilities have included managing recruitment of participants, training project staff, developing educational materials and survey tools, administering deliberative activities, coordinating with community and academic partners, and serving as a liaison with affiliated media partners.

Alan Tomkins will work with PI Abdel-Monem. Tomkins will assist Abdel-Monem with project visioning and will serve as the described above. He has directed the University of Nebraska Public Policy Center for 10 years. Prior to being selected as the Center's founding director in 1998, Tomkins was a professor in the Law-Psychology Program at the University of Nebraska-Lincoln. From August 2005-July 2006, he was one of two inaugural William J. Clinton Distinguished Fellows at the University of Arkansas School of Public Service. He is a Fellow of the American-Psychology Law Society (Division 41 of the American Psychological Association) and the Society for the Psychological Study of Social Issues (Division 9 of the American Psychological Association). Tomkins serves as Co-Editor of *Court Review: The Journal of the American Judges Association*, working with Editor Judge Steve Leben of the Kansas Court of Appeals. Tomkins is the first non-judge to serve as an editor of *Court Review*. His primary research interests include public participation and its implications for democracy in policymaking, and public trust and confidence in government and other institutions.

Both Abdel-Monem and Tomkins were part of the Center's team that evaluated the CDC's Public Engagement Pilot Project on Pandemic Influenza that included public input from residents in four cities in four different states across the country (see http://ppc.nebraska.edu/publications/documents/PEPPPI_FINALREPORT_DEC_2005.pdf). The triangulation of quantitative and qualitative data revealed that the public felt pleased about their involvement and increased their knowledge about pandemics and vaccination policies during the process. As one stakeholder noted, "I still have the same opinions, but it clarified them a bit about why I feel this way." Anecdotal evidence indicates that US HHS Secretary Leavitt was aware of the project and its results, and used the information from the project as part of his input when President G.W. Bush held a table-top exercise on pandemic influenza for his Cabinet.

3. Describe the expected outcomes and benefits. (30 points)

As technology continues to evolve, e-sharing of health data has enormous potential for improving health care and reducing health care costs. For the general public, however, the notion that their individual health records be shared electronically raises a number of concerns – some

unfounded, some not—about privacy, accuracy, employer-employee relations, and other issues.[4] Many lay members of the public know little about the current state of electronic health data sharing, and what its potential advantages, and potential disadvantages, are. This dearth in public understanding could alter or delay industry and/or government efforts to expand electronic sharing of health data. **For these reasons, it is important that policymakers engage members of the public and understand what their knowledge and attitudes are of electronic health data sharing**.[5]

Public participation in policymaking is important for a number of interrelated reasons. Understanding the public's views can help in **fashioning effective policies and practices** that are compatible with public beliefs and expectations. Understanding public views can also provide guidance about **developing educational strategies** if it is found there are public misunderstandings that can be addressed via appropriate information. Additionally, ordinary people have **opportunities to learn what challenges and trade-offs** policymakers face when it comes to important issues. Moreover, public participation comports with people's sense of **fairness and procedural justice**. Research has clearly shown that when people feel they have been treated fairly, they are more likely to report feeling positive about decision-making processes and outcomes, even if those outcomes are adverse to their own interests.[6] In other words, they are more likely to support government actions in which they have had an opportunity to provide input. In short, **public participation enables policymakers to make informed decisions with input from people their policies might impact**.

This project will achieve the **following outcomes** - We will:

1) **Engage a randomly selected group of Nebraskans** about e-sharing of health information vis-à-vis a survey(s) and Deliberative Poll;
2) **Increase knowledge and understanding** of the issues surrounding e-sharing of health data, and the key legal and policy questions currently facing state policymakers;
3) **Provide Nebraska's policymakers with meaningful quantitative and qualitative input** from a segment of the public about these issues.

Essentially, this project is intended to **enhance the state's capacity to adequately address questions of legal and policy relevance surrounding e-sharing of health data** by providing a sample of Nebraskans with an opportunity to consider these issues, and inform **policymakers about their perspectives**.

We expect that at baseline, our sample of residents may not know much about the mechanics of e-sharing of health data, nor have well-informed opinions about some of the legal and policy relevant questions of interest to stakeholder groups like the NITC or HISPC. We also expect that many of these Nebraskans may share the same reservations about privacy and security implications that Americans in general have about electronic data sharing of personal information.

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[4] *E.g.*, Shreema Mehta. (2006, July 25). Electronic patient data system raises privacy concerns. *The New Standard*. Available on –line at http://newstandardnews.net/content/index.cfm/items/3456; Alan F. Westin. (2005, February). Public attitudes toward electronic health records. *Privacy and American Business*, 12(2), pp. 1-5.

[5] *E.g.*, Remarks of Dan Rode, vice president of policy and government relations, American Health Information Management Association, at the 2003 meeting of the National Health Information Infrastructure, US Health & Human Services, Privacy Track, Slide 14. Available at http://aspe.hhs.gov/sp/NHII/Conference03/PrivacyAB.pdf.

[6] *See* Amy Gangl, *Procedural Justice Theory and Evaluations of the Lawmaking Process*, 25 Political Behavior 119-149 (2003); Jeffery Mondak, *Institutional Legitimacy and Procedural Justice: Reexamining the Question of Causality*, 27 Law & Society Review 599-608 (1993); Tom Tyler, *Governing Amid Diversity: The Effect of Fair Decision Making Procedures on the Legitimacy of Government*, 28 Law & Society Review 809–831 (1994).

However, we also expect to see a gain in knowledge and change in attitudes toward the legal and policy issues surrounding e-sharing. In our experience with other deliberative discussions, there have been significant changes in knowledge and attitudes about a variety of public policy issues after members of the public have an opportunity to learn about and discuss them.[7]

The **primary product** from the project will be a Final Report that synthesizes the results from the Deliberative Poll, both the quantitative data (surveys 1 and 2) and qualitative data (transcriptions of audio-recorded deliberations). The Final Report will be issued to the funders, and made available to policymakers and the public via the Public Policy Center's website. **The Final Report will be written prior to the beginning of the legislative session in January 2009**. The **beneficiaries** of the project will be those with interests in electronic health records, and particularly questions of legal and policy relevance currently under consideration: I.E. the public; policymakers; policymaking or consultative bodies like the NITC, HISPC, and e-Health council; and health care and information technology professionals in general.

4. List the major activities (or milestones) and a timeline for completing each activity or milestone. (10 points)

Week 1: Preparation (identification of working group and other stakeholders)
- NITC and PPC agree on working group membership
- Invitations issued to working group membership

Weeks 1-4: Development of survey instruments and briefing document
- Meetings established with working group
- Surveys and briefing document approved by working group
- Date for deliberation determined
- Expert panelists identified

Weeks 5-6: Recruitment of participants and Implementation of survey 1
- Final plans for deliberation approved

Weeks 6-7: Hold deliberation discussions and implement survey 2
- Hold debriefing session with working group after deliberation and finalize dissemination strategies

Weeks 7-8: Analyze findings
- Review results and implications with working group

Week 10: Issue final report
- Implement report distribution plan and other dissemination strategies

5. Describe how the project will be sustained. (10 points)

This project is a one-time set of activities intended to gather information from the public that will provide insight about current issues of legal and policy relevance related to e-sharing of health data. We will synthesize all quantitative and qualitative data into the Final Report, which will be issued to the NITC and other stakeholders prior to the opening of the 2009 legislative session.

It is nonetheless the case that the public participation processes used in the proposed project will be useful for the NITC when it confronts policy questions in the future that benefit from the public's input. In that sense, the proposed project can be seen as a proof of concept, and once the benefits of the public input approaches proposed here are demonstrated to the NITC, these

[7] To access reports of deliberative discussions previously convened or co-convened by the Public Policy Center, see PRIORITY LINCOLN FINAL REPORT (2008), *available at* http://ppc.nebraska.edu/program_areas/documents/Mayor%27sDeliberation.htm; BY THE PEOPLE IMMIGRATION REPORT (2007), *available at* http://ppc.nebraska.edu/ByThePeople/10-07event.htm; BY THE PEOPLE: A CITIZEN DISCUSSION ON EDUCATION POLICY, *available at* http://ppc.nebraska.edu/ByThePeople/10-05event.htm.

techniques can be used – either by the Commission itself or by a group hired by the Commission – whenever the need arises.

6. Describe the project's evaluation plan, including measurement and assessment methods that will verify project outcomes. (10 points)

Evaluation and assessment of project objectives are tied to execution and completion of the project activities. A Final Report will be issued to the project funders and other stakeholders prior to the Nebraska legislative session in January of 2009.

Objective	Measurement and Assessment
Engage a randomly selected group of Nebraskans about e-sharing of health information vis-à-vis a survey(s) and Deliberative Poll.	• Lists of randomly selected residents of Nebraska will be used to identify and recruit participants to complete surveys and participate in a Deliberative Poll. • Stakeholders working group composed of members of the NITC, HSPC, the legal team, e-Health council, and others will provide guidance in identifying topics of interest for both the surveys and the Deliberative Poll, and be invited to attend as expert panelists and observers.
Increase knowledge and understanding of the issues surrounding e-sharing of health data, and the key legal and policy questions currently facing state policymakers.	• Survey 1 will measure participants' baseline knowledge and attitudes about current legal and policy issues related to e-sharing of health data currently facing the state. • Survey 2 will measure participants' knowledge and attitudes about those same items following the Deliberative Poll. Survey 2 will also measure overall participant satisfaction with the event. • Portions of the Deliberative Poll will be audio-taped to capture qualitative data from the process.
Provide Nebraska's policymakers with meaningful quantitative and qualitative input from a sample of the public about these issues.	• The Policy Center will issue a Final Report synthesizing findings from this engagement project to the project funders and other stakeholders, as well as make it publicly available online. The Final Report will be written prior to the beginning of the legislative session in January 2009.

7. Describe the hardware, software, and communications needed for this project and explain why these choices were made. (10 points)

No specialty computer hardware or software, or communications equipment, will be needed for this project.

Financial Analysis and Budget (10 points)

The budget will be scored on reasonableness (up to 5 points) and mathematical accuracy (up to 5 points).

Provide the following financial information:

Category	Description	Request for FY2008-09
1. Personnel Costs		
PI Abdel-Monem	175 hours project mgmt. and survey/delib development	$8,539
PPC Director Tomkins	19 hours project consultation	$2,161
Research Specialists	14 hours for survey development and data analysis	$683
Administrative Assistance	31 hours for logistics and deliberation support	$1,332
Undergrad Research Assistants	159 hours for briefing docs, delib. support, data entry	$3,907
	Personnel Subtotal	*$16,623*
2. Contractual Services	N/A	$0
3. Supplies & Materials	paper, envelopes, labels, nametags, signage, etc.	$366
4. Telecommunications	N/A	$0
5. Training	N/A	$0
6. Travel	N/A	$0
7. Other Costs		
Moderator Stipends	$100 for MC, $25 x 3 for group moderators	$175
Copying/Printing	postcards, surveys, briefing docs, correspondence, etc.	$1,245
Postage	postcards, surveys, briefing docs, correspondence, etc.	$893
Facilities	deliberation meeting rooms, A/V equipment, etc.	$300
Catering	catering $30/person x 40 people	$1,200
	Other Costs subtotal	*$3,812*
8. Capital Expenditures	N/A	$0
TOTAL COSTS		**$20,800**
General Funds		$0
Cash Funds		$0
Federal Funds		$0
Revolving Funds		$0
Other Funds		$0
TOTAL FUNDS		**$0**

*Personnel costs are included at the expected hourly rate for the project period, inclusive of salary and benefits. If additional time is needed to complete the project, it will be provided.

Financial Narrative Notes and Instructions

Several categories (see below) **require** further itemization.

1. Please include estimated number of hours or full-time equivalent (FTE) by position. Include separate totals for salary and fringe benefits. If it is necessary to itemize on a separate sheet, include only the subtotal in this table.
2. Please itemize other contractual expenses on separate sheet.
3. Please itemize capital expenditures by categories (hardware, software, network, and other) on a separate sheet.
4. Please itemize other operating expenses on a separate sheet.
5. Please indicate the source of any cash match.
6. Please indicate the source of any in-kind match and how it will be documented.
7. Please provide a breakdown of any other external funding sources. Sources of external funds may include grants from federal agencies or private foundations.

Please keep supporting documentation to a minimum. For example, rather than including a printout of a quotation from Dell for a new computer, include all relevant information in the budget narrative.

Personnel costs are included at the Center's expected hourly rate for the project period, inclusive of salary and benefits. Rates are established using University of Nebraska-Lincoln service center costing guidelines. No new FTE positions are anticipated for this project. If additional time is needed to complete the project, it will be provided and funded by general Public Policy Center operating funds.

Costs are included to conduct a survey of up to 450 people and convene deliberative discussion in Lincoln, Nebraska with approximately 25 participants. We expect up to 80-100 individuals will complete the survey. While the survey will be conducted on-line, it is anticipated that hardcopy surveys will be printed and mailed to 20% of participants, on their request. Supplies and materials for the project, such as paper, envelopes, postcards, mailing labels, name tags, etc. will cost approximately $366. Printing costs totaling $1,245 are included for postcards ($90), hardcopy surveys ($50), briefing documents ($1,000), and correspondence/other project copying ($105). Postage costs of $893 is budgeted to mail postcards to invite 450 people to participate in the on-line survey; mailing hardcopy surveys and providing pre-paid return postage envelopes; and mailing briefing documents and correspondence to deliberation participants. Costs for hosting a half-day Deliberation also include facilities for meeting room and A/V costs ($300) and catering to provide a meal for participants ($1,200).

No hardware or software will be purchased for the project. No on-going operation or replacement costs are anticipated for the project.

SureScripts-RxHUB

Focus on Physician Adoption

Two Sources of Information for ePrescribing Merged

News announced on July 1, 2008

Modern Physician **Alert**

- Thursday, August 7, 2008 7:49AM EDT
- *Breaking News*
- Nearly 90% of the respondents to the Harris Interactive survey said they want their doctors to be able to share information electronically, and another 71% said they want their doctors to be able to order prescriptions by way of computers.

SureScripts-RxHUB

SureScripts and RxHub

SureScripts

- *Formed in 2001 by pharmacy associations representing nation's 57,000 retail pharmacies.*
- *Focused on electronic prescription routing between physician practices and retail pharmacies.*

NCPA

NACDS National Association of Chain Drug Stores

RxHub

- *Formed in 2001 by 3 largest PBMs and now provides access to more than 200 million patient records.*
- *Focused on patient pharmacy benefit and medication history information exchange between payers and physician practices.*

CVS CAREMARK · EXPRESS SCRIPTS · medco

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Progress Report

Starting at "0" in 2003…vs. estimates for full year 2008:

Member Records	200 million (66%)
Patient Visits*	70 million (14%)
E-Prescribers	85,000 (15%)
E-Prescribing Retail Pharmacies	45,000 (79%)
E-Prescribing Mail Order Pharmacies**	6 of the Top 10 (70%)
E-Prescriptions	100 million (6%)

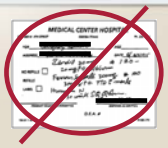
*Patient eligibility, formulary and medication history requests. National Center for Health Statistics estimates 964 million patient visits per year.

**Percent of prescriptions processed by these mail order pharmacies

SureScripts-RxHUB 4

Definition of E-Prescribing

Prescribing without paper.



When a physician uses a computer or hand held device with software that allows them to:

1. With a patient's consent, electronically access information regarding a patient's drug benefit coverage and medication history.
2. Electronically transmit the prescription to the patient's choice of pharmacy. When the patient runs out of refills, their pharmacist can also electronically send a renewal request to the physician's office for approval.

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MEDICAL CENTER HOSPITAL

500 - 600 W 4TH STREET ODESSA, TEXAS Ph 333 7111

FOR Vargney Ramon AGE

ADDRESS DATE 6/23/95

Zerdil 20mg # 120 –
20mg P.O. Q6hrs prn

NO REFILLS ☐

REFILLS Ferrous Sulfate 300mg # 100
300mg P.O. TID c meals

LABEL ☐ Humulin N
30 units SQ Q AM.

PRODUCT SELECTION PERMITTED DISPENSE AS WRITTEN

D.E.A. #

IH 88-270

Businss Case for Physicians

Unclear prescriptions yield > 150 million calls from pharmacists to physicians[1]

- **MGMA**
  - E-prescribing with pharmacy interoperability can significantly reduce the ***$10,000 spent annually per physician*** on phone calls with pharmacies related to prescription refills[2]
- **SureScripts**
  - Refills management costs ***$50,000 a year/per practice***[3]
  - Practices spend on average **4.78 to 4.92 hours/day**[3] managing refills
    - Prescribers spend on avg.1.84 – 1.88 hrs/day
    - Staff spend on avg. 2.94 to 3.04 hrs/day
      Satisfaction
  - The "hassle factor" decreases for everyone.
- **MMA E-Prescribing Pilots**
  - ***Average time spent per day on renewals was cut in half*** [4]

(1) Institute for Safe Medicine Practices. A Call to Action: Eliminate Handwritten Prescriptions Within Three Years, 2000.
(2) 2004 MGMA – Analyzing cost of administrative complexity in group practice.
(3) 2006 SureScripts Get Connected Campaign Report
(4) Brown University: 2006 MMA E-Prescribing Pilots

SureScripts-RxHUB

Access to Real-time Information

- ***Person Index:*** Access to more than **200M** members uniquely identified using demographic elements.
- ***Patient Eligibility:*** Patient eligibility, benefit and coverage, and formularies for authorized clinicians at the point of care. Patient eligibility is also available to pharmacists at the point of dispensing.
- ***Patient Medication History:*** Drug history for all patient coverages and includes original prescription and refills. Data can indicate:
  - **Patient compliance with prescribed regimens**
  - **Therapeutic interventions**
  - **Drug-drug and drug-allergy interactions**
  - **Adverse drug reactions**
  - **Duplicate therapy**

  Information is available for outpatient, inpatient and emergency departments.
- ***Patient Prescriptions:*** Bi-directional electronic delivery of prescriptions between physicians and retail and mail order pharmacies.

SureScripts-RxHUB

Clinical Decision Support Information

Healthcare Data Sources

Patients *provide consent for use of their data for healthcare treatment and select pharmacy to fill prescription.*

PBMs / Payers *provide real-time access to patient pharmacy eligibility, benefits & formulary, and medication history at the point of care for more than 200 million patient records.*

70% of safety and savings advantages of e-Prescribing result from **Decision Support Information**

Patient Eligibility Data

Name, Address, Date of Birth, Gender, Cardholder, Group, Health Plan, PBM, Retail/Mail Benefit Status, Student Status

Patient Formulary Data

Formulary Status, Alternatives, Drug Coverage, Co-pay

Patient Medication History Data

Date Range, Drug Name, Oldest Fill Date, Most Recent Fill Date, Number of Fills, Days Supply, Quantity Dispensed, Pharmacies/Prescribers

Technology Applications

Physicians *utilize SureScripts-RxHub certified technology applications to review real-time decision support information and electronically transmit prescriptions to the patient's choice of pharmacy.*

Pharmacists *utilize SureScripts-RxHub certified technology applications to review real-time decision support information and process electronic prescriptions and request refills directly from physicians offices.*

SureScripts-RxHUB

Political & Regulatory Landscape

- HIT continues to have broad bi-partisan support in Congress and presidential candidates view HIT as a positive issue
- E-MEDS Bill
- Wired For Healthcare Quality Bill
- Other legislation of note
  - Several pieces of legislation under consideration to eliminate scheduled Medicare physician fee cuts, and may include language for mandatory ePrescribing in Medicare Part D
  - Regulation from DEA is evolving concerning ePrescribing for controlled substances
- In addition, privacy and security advocates are vocal and proactive, trying to influence or stall legislation

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Privacy

- Virtually every state board of pharmacy has laws and regulations in place that strongly protect the confidentiality and integrity of prescription information as it is transmitted from prescribers to pharmacies through the e-prescribing infrastructure. SureScripts-RxHub complies with all such rules.
- Many professional medical societies have examined eprescribing carefully and can help guide physician education.
  - American Academy of Family Physicians
  - American Academy of Nurse Practitioners
  - American Academy of Pediatrics
  - American Academy of Physician Assistants
  - American College of Cardiology
  - American College of Obstetricians and Gynecologists
  - American Osteopathic Association
  - American Urological Association
  - Medical Group Management Association

SureScripts-RxHUB

- **The Center for Improving Medication Management** serves as a center for excellence. The Center is a collaborative forum that establishes project specific priorities to demonstrate the value of pharmacy interoperability with both patients and physicians for the purpose of improving the medication management process. The aspects of the medication management focused on are
  - Best practices as it relates to processing prescriptions electronically and
  - Improving patient compliance with physician medication orders by utilizing electronic communications between the patient, pharmacist, and physician.

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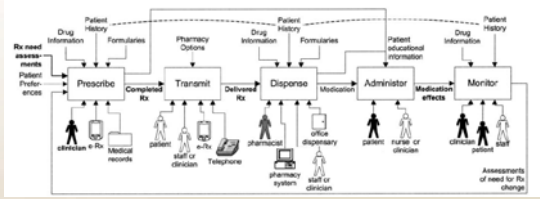
The Center for Improving Medication Management



Bell DS, Cretin S, Marken RS, and Landman AB, "A Conceptual Framework for Evaluating Outpatient Electronic Prescribing Systems Based on Their Functional Capabilities," *Journal of the American Medical Informatics Association*, Vol. 11, No. 1, January/February 2004, pp. 60–70.

The Center for Improving Medication Management

	Low					High		
Barriers to Success	Community Health Center 1 (Vendor A)	Medical Clinic 2 (Vendor A)	Medical Clinic 3 (Vendor B)	Medical Clinic 4 (Vendor C)	Medical Clinic 5 (Vendor C)	Clinic 6 (Vendor B)	Family Practice 7 (Vendor A)	Medical Group 8(Vendor A)
Limited training	✓			✓		✓		
Resistance to Change		✓		✓	✓	✓		
Pharmacy issues "mishandled" scripts	✓	✓	✓		✓	✓		✓
Fax and duplicate renewal requests	✓	✓	✓	✓	✓	✓	✓	✓
Lack of confidence		✓	✓	✓	✓			
Where to go for help	✓	✓	✓			✓		✓
Difficult pharmacy selection	✓							
Pharmacy directory not up-to-date	✓				✓			✓
Product usability	✓	✓	✓	✓	✓	✓	✓	✓
Work flow	✓	✓	✓	✓		✓		
Mail order	✓	✓	✓	✓	✓	✓	✓	✓

The Center for Improving Medication Management

	Low					High		
Success Characteristics	Clinic 1 (Vendor A)	Clinic 2 (Vendor A)	Clinic 3 (Vendor B)	Clinic 4 (Vendor C)	Clinic 5 (Vendor C)	Clinic 6 (Vendor B)	Clininc 7 (Vendor A)	Clinic 8 (Vendor A)
Fully Utilized							✓	
Champion		✓	✓		✓	✓	✓	✓
Incentives				✓			✓	
Leadership commitment			✓		✓		✓	✓
No Opt Out							✓	
Shared Data	✓						✓	
Strong Communication			✓			✓	✓	✓
Trouble Shooter	✓	✓	✓	✓	✓	✓	✓	
Recognize value/benefit	✓		✓	✓	✓	✓	✓	✓
Stick with it	✓		✓			✓	✓	✓
Networking							✓	

David Bauer MD PhD

Residency Director, Memorial Family Medicine Residency Program
Memorial Hermann, Houston

"From a clinical point of view, everyone benefits"

- The Patient
  - Gets a "right first time" prescription
  - Doesn't have to wait in the physician's office while prescriptions are written
  - Doesn't have to wait in the pharmacy
  - Doesn't have to wait on hold to request refills from the office
  - Has confidence in the system!

SureScripts-RxHUB

David Bauer MD PhD

Residency Director, Memorial Family Medicine Residency Program
Memorial Hermann, Houston

"From a clinical point of view, everyone benefits"

- The Health Plan
  - Greater use of generic medications, leading to cost savings
  - Fewer adverse drug effects, leading to decreased hospitalizations
  - Less duplicate prescriptions, leading to cost savings
  - Happy subscribers, serving as walking advertisements.

SureScripts-RxHUB

David Bauer MD PhD

Residency Director, Memorial Family Medicine Residency Program
Memorial Hermann, Houston

"From a clinical point of view, everyone benefits"

- The Employer
  - Controlling premiums due to cost savings
  - Less absenteeism related to:
    - Less time in the pharmacy
    - Fewer adverse events
    - Fewer hospitalizations and complications due to better medication compliance
  - Satisfied employees
    - Increased retention

SureScripts-RxHUB

David Bauer MD PhD

Residency Director, Memorial Family Medicine Residency Program
Memorial Hermann, Houston

"From a clinical point of view, everyone benefits"

- The Physician
  - More time taking care of patients
  - Fewer distracting pharmacy call-backs
  - Higher quality care
  - Satisfied patients

The Center for Improving Medication Management

Drivers of Success with High Volume Users:

-Vision of paperless prescribing process
-Strong belief that technology will make it safer and more efficient so they stick with it
-Strive to achieve full advantage of the technology
-Think through workflow implications for medication management
-Stick with the technology even though it is not perfect
-Someone in charge of making it work who is the expert and problem solver, others willing to follow that leader, all use
-Financial incentives – profit sharing, subsidies, incentives for use, pay for performance
-Share e-prescribing utilization data with practice so there is peer pressure to e-prescribe rather than fax or print
-Good communication on e-prescribing within practice, with patient, with pharmacies, with vendor
-Proactively reach out to pharmacies and escalate issues for resolution

The Center for Improving Medication Management

Problems Low Volume Users Struggle With:

-Inadequate training and information on e-prescribing from vendor
-Overwhelmed with implementation of EMR as a whole
-Do not know where to turn to address technical and workflow issues (e.g., mishandled scripts, fax renewals that should be electronic, inconsistent renewals management workflow, product usability)
-Vendor support is black hole; practices have given up on them
-Accurate, timely pharmacy directory is critical and often practices are unaware
-Faxing to electronically enabled pharmacies
-Loss of physician / staff confidence in electronic transmission as a result of "script not found" and patient complaints so they print prescriptions
-No confirmed delivery messages and unaware of status and verify
-Pharmacy Fax Refill Requests
-Prescriber registration, pharmacy matching
-Phone/fax from patient or pharmacy regarding prescription may result in new scripts instead of renewal response triggering additional faxes from pharmacies
-Vendor applications have awkward workflows and systems design, e.g., too many clicks, write/renew one prescription at a time
-Mail order not connected
-Very much want to make e-prescribing work but desperate for help and don't know where to turn for answers

The Center for Improving Medication Management

Best Practices and Remediation – Confidence is Key:

-Accurate prescriber registration with vendor/SureScripts for e-prescribing
-Prescribers must be fully matched in pharmacy systems to minimize fax renewal requests
-Ensure timely and accurate pharmacy database updates are provided to practice through vendor
-Be conscious of medication management workflow and implications for e-prescribing
-Pharmacies automatically generate additional renewal requests if they do not get a response
-Deny with new to follow response to renewal request for controlled substance to close loop
-Consistently log cases with vendor on prescribing issues – mishandled scripts, fax renewals
-Communicate within practice, with patient, with pharmacies and with vendor about e-prescribing workflow and issues
-Tools are available to help
-Encourage patients to call pharmacy when prescriptions need to be renewed
-Monitor prescription log throughout day to gain confidence that prescriptions go through electronically and if there is an issue, it is addressed timely
-Be aware of cost of printing prescriptions and reliability of faxing compared to e-prescribing
-Sending all new prescriptions electronically is likely to lead to more electronic renewals
-Share e-prescribing utilization data with prescribers and encourage use of e-prescribing
-Monitor prescription writing trends; practices not aware that they are printing/faxing prescriptions that should be sent electronically
-Create workflow so physician does not need to worry about pharmacy selection
-Practices need high touch follow up to diagnose problems and provide solutions

The Center for Improving Medication Management

www.thecimm.org Programs & Research




-Electronic Prescribing Becoming Mainstream Practice
-A Guide for Healthcare Payers to Improve the Medication Management Process
-A Consumer's Guide to E-Prescribing
-Understanding the Benefits of E-Prescribing

For More Information

- Prescribers
  - GetRxConnected.com
  - RxSuccess.com
- Policymakers
  - SureScripts.com/Safe-Rx
- Consumers
  - LearnAboutEPrescriptions.com
- Media
  - SureScriptsRxHub.com/mediaguide
- All
  - TheCIMM.org

Thank You!

Lincoln Pharmacy Connectivity

MSA	Name	Pharmacy Count	Certified	% Certified	Activated	%Activated	Active	%Active
Lincoln, NE MSA	CVS	4	4	100.%%	4	100.%	4	100.%
	HY-VEE PHARMACY	4	4	100.%%	4	100.%	3	75.%
	INDEPENDENTS	20	1	5.%%	1	5.%	1	5.%
	MEDICINE SHOPPE	1		0.%%		0.%		0.%
	NASH FINCH COMPANY	1	1	100.%%	1	100.%	1	100.%
	NoSuperAffiliation	9		0.%%		0.%		0.%
	SHOPKO	4	4	100.%%	4	100.%	4	100.%
	TARGET PHARMACY	2	2	100.%%	2	100.%	2	100.%
	WALGREENS DRUG STORE	13	13	100.%%	13	100.%	13	100.%
	WAL-MART PHARMACY	3	3	100.%%	3	100.%	3	100.%
	Total	61	32	52.5%	32	52.5%	31	50.8%

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Non-MSA Pharmacy Connectivity

MSA	Name	Pharmacy Count	Certified	% Certified	Activated	%Activated	Active	%Active
Non-MSA	HY-VEE PHARMACY	5	5	100.%%	5	100.%	5	100.%
	INDEPENDENTS	134	25	18.7%%	25	18.7%	14	10.4%
	K MART PHARMACY	3	3	100.%%	3	100.%	2	66.7%
	KROGER	1	1	100.%%	1	100.%	1	100.%
	MEDICINE SHOPPE	2		0.%%		0.%		0.%
	NASH FINCH COMPANY	2	2	100.%%	1	50.%	1	50.%
	NoSuperAffiliation	28		0.%%		0.%		0.%
	PAMIDA	17	5	29.4%%		0.%		0.%
	SAFEWAY	4	4	100.%%	4	100.%	1	25.%
	SHOPKO	3	3	100.%%	3	100.%	3	100.%
	STONER DRUG	2		0.%%		0.%		0.%
	TARGET PHARMACY	1	1	100.%%	1	100.%	1	100.%
	U SAVE PHARMACY INC	19	15	78.9%%	15	78.9%	14	73.7%
	WALGREENS DRUG STORE	8	8	100.%%	8	100.%	8	100.%
	WAL-MART PHARMACY	19	19	100.%%	19	100.%	19	100.%
	Total	248	91	36.7%%	85	34.3%	69	27.8%

SureScripts-RxHUB

Omaha Pharmacy Connectivity

MSA	Name	Pharmacy Count	Certified	% Certified	Activated	%Activated	Active	%Active
Omaha, NE-IA MSA	ACCREDO THERAPEUTICS	1		0.%%		0.%		0.%
	COSTCO PHARMACIES	1	1	100.%%		0.%		0.%
	CURASCRIPT	1		0.%%		0.%		0.%
	HY-VEE PHARMACY	12	12	100.%%	12	100.%	11	91.7%
	INDEPENDENTS	37	9	24.3%%	9	24.3%	6	16.2%
	K MART PHARMACY	3	3	100.%%	3	100.%	2	66.7%
	KOHLLS PHARMACY AND	6	6	100.%%	6	100.%	2	33.3%
	KROGER	11	11	100.%%	7	63.6%%	6	54.5%
	MEDICINE SHOPPE	1		0.%%		0.%		0.%
	NASH FINCH COMPANY	2	2	100.%%	2	100.%		0.%
	NoSuperAffiliation	39	1	2.6%%	1	2.6%		0.%
	PAMIDA	2		0.%%		0.%		0.%
	PHARMACY EXPRESS	4	4	100.%%	4	100.%		0.%
	SHOPKO	4	4	100.%%	4	100.%	3	75.%
	TARGET PHARMACY	8	8	100.%%	8	100.%	8	100.%
	U SAVE PHARMACY INC	10	8	80.%%	8	80.%	2	20.%
	WALGREENS DRUG STORE	28	28	100.%%	28	100.%	28	100.%
	WAL-MART PHARMACY	7	7	100.%%	7	100.%	7	100.%
	Total	177	104	58.8%%	99	55.9%	75	42.4%

SureScripts-RxHUB

Sioux City (NE) Pharmacy Connectivity

MSA	Name	Pharmacy Count	Certified	% Certified	Activated	%Activated	Active	%Active
Sioux City, IA-NE MSA	HY-VEE PHARMACY	1	1	100.%%	1	100.%	1	100.%
	INDEPENDENTS	1		0.%%		0.%		0.%
	WALGREENS DRUG STORE	1	1	100.%%	1	100.%	1	100.%
	WAL-MART PHARMACY	1	1	100.%%	1	100.%	1	100.%
	Total	4	3	75.%%	3	75.%	3	75.%
Total		490	230	46.9%%	219	44.7%	178	36.3%

SureScripts-RxHUB

Prescribers

MSA	PrescriberCount	Activated	Active	% Active	PrescriberCount	Activated	Active	% Active
Lincoln, NE MSA	46	34	10	29.41%%	46	34	10	29.41%
Non-MSA	108	98	69	70.41%%	108	98	69	70.41%
Omaha, NE-IA MSA	87	53	19	35.85%%	87	53	19	35.85%
					1			
Total	241	185	98	52.97%%	242	185	98	52.97%

SureScripts-RxHUB

Installed Certified Solution Partners

Nebraska

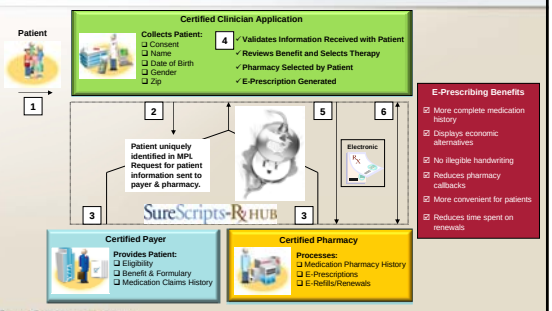
Allscripts
Emdeon
BondMedical
Misys
eClinicalWorks
iScribe
PracticePartner
DrFirst
MedPlus
iMedica

U.S.

Allscripts
DrFirst
Emdeon
ZixCorp
eClinicalWorks
NextGen
EPIC
iScribe
RxNT
GE/Kryptiq

SureScripts-RxHUB

E-Prescribing: How it works



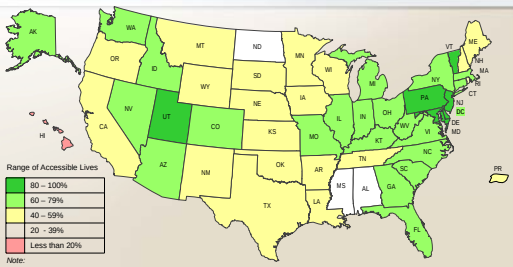
SureScripts-RxHUB

Progress on Legal and Regulatory Status

SureScripts-RxHUB

Master Person Index Coverage – July 2008

SureScripts-RxHub National Patient Health Information Network

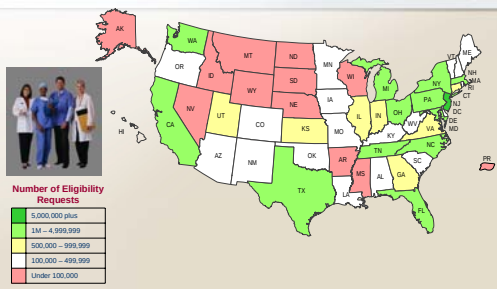


Note:

- *Includes lives accessible in production, does not include lives under contract*
- *39 states have patient accessibility of 50% or greater*

SureScripts-RxHUB

Patient Events – Eligibility Requests



SureScripts-RxHUB

Competition Between The States Is Good

SureScripts-RxHUB

Examples of E-Prescribing Initiatives

Good Documents and Links:
http://gita.state.az.us/tech_news/2006/Arizona%20Health-e%20Connection%20Roadmap.pdf

http://www.medivoicerx.com/files/news/Arizona-orders-stepped-up-e-Prescribing_05.06.08.pdf

http://www.azhec.org/ePrescribing.jsp

http://www.rxhub.com/index.php?option=com_chronocontact&chronoformname=DownloadDocument

http://www.rxhub.com/index.php?option=com_content&task=view&id=37&Itemid=48

The Highmark eHealth Collaborative

The goal of the Highmark eHealth Collaborative is to encourage the adoption of health information technology used in patient care in order to improve patient safety and quality of care, while increasing cost efficiency. Highmark contributed $26.5 million to the Pittsburgh Foundation, which established the Highmark eHealth Collaborative.

The ePrescribing initiative was chosen as the first project of the Collaborative because of its direct impact on patient safety. Since its launch in late 2005, the response to the Collaborative has been unprecedented. And, there is an ever-growing interest in education related to the adoption of health information technology.

To receive funding, physicians in Western and Central Pennsylvania must fill out an online application at www.highmarkehealth.org. To be eligible, physicians must be licensed to practice medicine in Pennsylvania and be a licensed prescriber. The Collaborative will pay up to 75% of the cost for a physician practice to acquire, install and implement the electronic technology system, up to a maximum of $7,000 per physician, with the practice to pay the remaining balance.

Massachusetts eRx Collaborative

The eRx Collaborative was established in October 2003 as an outgrowth of individual ePrescribing pilots at Blue Cross Blue Shield of Massachusetts and Tufts Health Plan. Neighborhood Health Plan joined in August 2004. Initially the eRx Collaborative partnered with ZixCorp® as the technology provider and added DrFirst™to the program in 2005. Together they collaborate to promote and enable the use of electronic prescribing in Massachusetts.

Through the Program, eligible prescribers can receive sponsorship which includes: Hand-held device loaded with ePrescribing software, one year license fee and support, 6 months of Internet connectivity where applicable, Deployment (including training & one

time patient data download where feasible), Access to a browser version of the software from any PC with Internet connectivity.

During 2007, the Collaborative will continue to promote ePrescribing in Massachusetts and implement programs to increase utilization. Specific areas of focus include: Sponsor 200 new licenses for eligible prescribers, Continue to serve as a model for ePrescribing implementation across the nation, Further evaluate ePrescribing's impact on quality, safety and affordability, Focus on patient safety and healthcare quality research, Expand stakeholder relationships in MA to further promote adoption.

Blue Cross Blue Shield of Illinois

In an effort to make prescription medications safer and to improve the quality of care in Illinois, Blue Cross and Blue Shield of Illinois announced in February 2007 the implementation of a statewide, collaborative program that will unite the health care industry and expand e-prescribing throughout Illinois.

The Illinois e-Prescribing Collaborative is the first of its kind in the nation, as insurers, technology vendors, pharmacies, employer groups, physicians and other organizations involved in the prescription process are working together to increase the use of e-prescribing. The organizations involved in this ground-breaking collaborative are the health plans and pharmacies in Illinois, Midwest Business Group on Health, Chicago Patient Safety Forum, Illinois Academy of Family Physicians, Illinois chapter American Academy of Pediatrics, Illinois Foundation for Quality Healthcare, Illinois State Medical Society, Midwest Business Group on Health, Illinois Healthcare and Family Services, Illinois Hospital Association, Jewish Federation of Metropolitan Chicago.

Initial costs for the implementation of approximately 500 physicians will be funded by Blue Cross and Blue Shield of Illinois. Additionally, the program's innovative service and support model gives every physician throughout the state an opportunity to participate by providing funding and technology support for e-prescribing. "As other health plans join in and as physicians generate e-prescriptions, additional funds will be generated to bring on additional doctors," said Stan Borg, chief medical officer for Blue Cross and Blue Shield of Illinois. "An e-prescription is a safer prescription and our goal is to achieve widespread adoption of the technology throughout Illinois."

Horizon Blue Cross Blue Shield

Horizon Blue Cross Blue Shield of New Jersey (Horizon BCBSNJ) is sponsoring e-prescribing for select network physicians with OnCallData, Allscripts and iScribe. This is part of a $5 million Horizon’s Health Connections initiative. The goal of Horizon BCBSNJ’s efforts is to provide tools to its network physicians in order to increase the quality, efficiency, and safety of care for its members.

The Horizon’s Health Connections program is working to remove the barrier most often cited as the reason why physicians are slow to adopt electronic prescribing tools: the cost of the tools themselves. Horizon BCBSNJ is among the first of the nation’s major health plans to pay the full cost of acquiring e-Prescribing software.

Southeast Michigan e-Prescribing Initiative

The nation's three largest automakers, General Motors (NYSE: GM), Ford Motor Company (NYSE: F) and DaimlerChrysler Corp. (NYSE: DCX), and the International Union, UAW, have joined forces to launch a major quality initiative aimed at addressing medication errors and the subsequent effect on health care quality and costs.

The three companies announced the Southeast Michigan e-Prescribing Initiative (SEMI), a far-reaching electronic prescribing collaboration with Michigan health plans, electronic prescribing technology providers and pharmacy benefit manager Medco Health Solutions, Inc. (NYSE:MHS).

The initiative encourages physicians to write prescriptions on a personal computer or wireless device and send them directly to the pharmacy for filling. Electronic prescribing gives physicians real-time access to important safety and coverage information when making prescribing decisions.

As part of the Southeast Michigan initiative, Henry Ford Health System first implemented e-Prescribing in January 2005 through a collaboration with the Henry Ford Medical Group - an 800-member group practice - and its insurance arm, Health Alliance Plan (HAP). The launch at Henry Ford is just the first example of what is planned across Michigan. In addition to HAP, Blue Cross Blue Shield of Michigan will implement the program with 6,400 physicians in its Blue Preferred Plus product.

CareFirst Blue Cross Blue Shield

CareFirst BlueCross BlueShield gave PDAs to 500 physicians, along with one-year licenses for e-prescribing software. The organization also designed its e-prescribing pilot in a way that garnered concrete statistics upon which to decide the future of the program and, in the fourth quarter last year, announced plans for a second year of supported e-prescribing for network providers, along with some impressive stats from the first year. The goals of the program were first, the health plan wanted to encourage providers to use information technology; and second, CareFirst wanted to nurture and augment its existing provider relationships in a visible way that would simultaneously demonstrate its own support for IT.

CareFirst chose Rcopia from Rockville, Md.-based DrFirst Inc. because of the level of drug referencing that came with the software and because they were pushing patient safety benefits just as much as the savings potential of the software. CareFirst preferred the speed and layout of the DrFirst application to others it tested and they thought that would help with physician adoption and integration with practice workflow.

The program focused on e-prescribing because it was the right fit for everyone in the equation. It would benefit providers to use information technology, and it would strengthen patient safety initiatives for members. In addition, the IT adoption would streamline and eliminate phone calls and faxes between pharmacies and office staff, and

would demonstrate to the employer community a commitment to technology-supported healthcare.

ePrescribe Florida

Several Florida health plans and provider organizations are working together to provide Floridians access to improved health, safety and affordability through electronic prescribing. The goal is to collaborate and oversee the adoption of electronic prescriptions in Florida. Retail pharmacy chains, state and regional health plans and core technology vendors will all be targeted by the group to collaborate on adopting e-prescribing in Florida.

The steering committee for ePrescribe Florida is made up of representatives from Jacksonville-based Blue Cross and Blue Shield of Florida**,** Kentucky-based Humana**,** UnitedHealthcare and Florida-based AvMed**.** ePrescribe Florida will create a forum among its members and its target audience to discuss the benefits and needs of e-prescribing in Florida, as well as discussing and explaining the industry standards and practices.

http://www.eprescribeflorida.com/

Southwest Medical Associates and Sierra Health Services

At Southwest Medical Associates in Las Vegas, use of generic drugs by its 235-physician group practice was at 65% as of early 2003, a rate described as "excellent" by Craig Morrow, M.D., medical director. Yet the numbers would improve as more physicians embraced technology. Southwest Medical Associates is part of Sierra Health Services, a health care organization that includes health benefits services, care delivery and a health plan with 580,000 covered lives.

The group practice began using e-prescribing software from Allscripts Inc., Chicago, in February 2003. PDAs were used to send prescriptions to printers, and the drug orders then were handed to patients or faxed to a pharmacy. In September 2003, the e-prescribing application became a component of an electronic medical records system developed by Allscripts. Since that time all of the group's prescriptions have been computer generated. From February 2003 until December 2005, the group raised its generic rate to 73%, translating into substantial savings for the payer arm of Sierra Health Services. "Every percentage point improvement in the generic rate saves 1.5% of our total drug expenditure," Morrow says. "We estimate we saved $4.75 million annually by improving our generic rate."

Other savings are less direct, such as those from electronic prescription renewal, but no less valued. When a patient contacts a pharmacy for a refill, the pharmacy sends an e-mail to Southwest Medical. "It comes into our computer and the average refill is

completed in 20 seconds," Morrow says, compared with about four-and-a-half minutes the old way of documenting the refill in a paper chart and calling the pharmacy. "We're saving our nurses four minutes times 9,500 renewals a year. At a conservative pay rate of $18 an hour, this translates into soft savings of about $209,000."

Sierra Health's initial investment in e-prescribing technology in 2003 was just over $700,000, which increased an undisclosed amount with the addition of more clinics and the EMR system. The organization's success with e-prescribing prompted it to underwrite the cost of the software and make it available to all 5,000 physicians in the state via the Clark County Medical Society.

Blue Cross Blue Shield of Delaware

Blue Cross Blue Shield of Delaware (BCBSD) is partnering with DrFirst to provide an electronic prescription management system to 150 physicians in the BCBSD network. The pilot program will address the issue of patient safety and respond to a recent report from the Institute of Medicine, *Preventing Medication Errors*, that recommends all health providers and pharmacies install electronic prescribing (e-prescribing) systems by 2010.

BCBSD's pilot program provides physicians with personal digital assistants (PDAs) and DrFirst's Rcopia™ software to allow them to access up to 10 years of their patients' medication histories, including active medications, allergy information and diagnosis information. The system also recommends generic replacements for brand name drugs, when appropriate.

Using the PDAs, physicians can confidentially transmit a new prescription or renewal electronically to a patient's retail or mail order pharmacy, minimizing the time that physicians and pharmacists spend on phone calls and faxes regarding prescriptions. The system also prevents errors due to illegible handwriting and the mistyping of prescription information into the pharmacy database. It further benefits the patient by eliminating a trip to the pharmacy to drop off the prescription to be filled. The physicians participating in the pilot program will be able to use the system for all patients, not just those with BCBSD coverage.

Blue Cross Blue Shield of North Carolina

As many as 1,000 North Carolina physicians will receive PDAs as part of a new electronic prescription service being rolled out by Blue Cross and Blue Shield of North Carolina in 2006. The company plans to begin its new ePrescribeSM electronic prescription service this year and will give each doctor included in the plan a free personal digital assistant, electronic prescription software licenses and wireless network hardware.

The results, according to Blue Cross, will include no more handwritten prescriptions, fewer unnecessary or inappropriate prescriptions and lower prescription costs. The technology will enable physicians to access patients' medical and drug history, allergies and health plan information and will help doctors avoid prescribing drugs that disrupt or affect the patient's current drug regimen. According to Blue Cross, the new technology will save doctors $250 per month because of increased use of generic drugs and elimination of other inefficiencies.

Anthem Blue Cross and Blue Shield

Anthem Blue Cross and Blue Shield launched a pilot ePrescribing program in two Ohio communities that will help reduce medication errors and the time physicians spend managing prescriptions.

The ePrescribing pilot will equip 100 physicians in Dayton and Warren/Youngstown with computer equipment and free use of an online tool that provides instant access to current patient formulary information and medication history. Anthem Blue Cross and Blue Shield will provide financial incentives for participating physicians throughout the pilot. Incentives are also available to all physicians who ePrescribe and are eligible for Anthem’s payment-for-performance programs in these areas.

The ePrescribing pilot provides real-time prescription support to physicians, including access to formularies, drug-drug and drug-allergy alerts, and a patient’s medication history including medications prescribed by physicians outside of the practice.

The current ePrescribing pilot further illustrates Anthem Blue Cross and Blue Shield’s ongoing commitment to deliver innovations in health care by piloting new programs in local markets to evaluate their effectiveness.

Blue Cross Blue Shield of Louisiana

A group of 500 Louisiana physicians will be chosen as the first to test a new e-prescribing service designed to reduce errors and increase patient safety. These doctors will participate in a pilot of the e-prescribing program offered by Blue Cross and Blue Shield of Louisiana, the first insurer in the state to launch such a pilot.

BCBS LA anticipates that e-prescribing will help to reduce errors caused by hard-to-read handwriting because physicians transmit the prescription electronically to the patient’s pharmacy of choice. The pilot program service also checks for drug-to-drug and drug-to-allergy interactions.

The physicians participating in the pilot program will use PocketScript®, Zix Corporation’s e-prescribing service. ZixCorp® (Nasdaq: ZIXI), is a leader in hosted services for e-mail encryption and e-prescribing.

Blue Cross Blue Shield of Alabama

InfoSolutions e-Prescribing from Blue Cross and Blue Shield of Alabama gives physicians PDA and web prescribing capability. Pre-populated patient demographics, real-time access to Alabama Medicaid and Blue Cross drug formularies, automatic interaction alerts, and medication history from multiple treating physicians promote long-term tracking and monitoring of patients' active medications to reduce medication errors and increase efficiency.

Henry Ford Health System

As part of the Southeast Michigan ePrescribing Initiative, Henry Ford Health System deployed electronic prescribing with its physicians. The Health System's Health Alliance Plan (HAP) and the Henry Ford Medical Group (HFMG) collaborated on the effort. HAP led the software selection, negotiated the vendor contract, designed key functional and technical aspects of the solution, developed the training material and roll out approach, trained the clinic staff, assisted with clinic process redesign and role changes, provided ongoing clinic support, developed and evaluated the business case, continue to resolve operational issues, manage vendor relationship and drive system enhancements. HFMG participated in software selection, conducted site visits, designed, built and maintained system interfaces and data loads, implemented hardware and infrastructure, provided clinician leadership during roll outs, assisted with clinic training, continue to identify system enhancement opportunities.

e-Prescribing

An Overview of the Current Status, Benefits, Barriers, Recommendations by Stakeholder Groups, and Statewide Initiatives

By Ryan McCabe and Anne Byers, Nebraska Information Technology Commission

Electronic Prescribing (eRx) is the use of handheld or personal computer devices to review drug and formulary coverage and to transmit prescriptions. E-prescribing software can also allow physicians to screen for drug interactions and allergies (9). Currently only 2% of prescriptions are transmitted electronically. Greater use of e-prescribing could improve patient safety, reduce medication costs, increase efficiency, and improve quality of care. Barriers to successful adoption of e-prescribing include costs, regulations regarding the prescription of controlled substances, workflow changes, difficulty in selecting hardware and software, and connectivity. Stakeholders and advisory groups have made recommendations to promote and further advance e-prescribing. These recommendations have focused on the importance of allowing controlled substances to be e-prescribed, the continued development of standards, and providing incentives for e-prescribing. Some states are actively advancing and promoting e-prescribing through statewide initiatives, while other states are in the beginning stages.

Current Status

Only 2% of the estimated 1.47 billion eligible new prescriptions and renewals were sent electronically in 2007. SureScripts estimates that approximately 7% of new prescriptions and renewals will be sent electronically in 2008 (3). Currently over 35,000 healthcare providers e-prescribe in the U.S. (3).

Nebraska ranked 43rd in e-prescribing in 2007 with 50,755 prescriptions sent electronically. The total percent of prescriptions transmitted electronically grew to .48% in 2007, up from .02% in 2006. In 2007, 220 pharmacies were able to receive e-prescriptions. (1). Nebraska had just 41 e-prescribers in 2007 (1).

Benefits of e-prescribing

E-prescribing has the potential to significantly reduce adverse drug events. The Institute of Medicine has recommended that all prescribers and pharmacies use e-prescribing by 2010 in order to improve patient safety (2). The Institute of Medicine estimated 1.5 million preventable adverse drug events occur in the U.S. each year (2). Being able to view patient medication history, formulary plans, and FDA alerts at the point of care helps prescribers eliminate medication errors. Through e-prescribing, pharmacies can increase patient safety by reducing data entry errors. Each preventable adverse drug event in a hospital costs approximately $8,750 (2).

E-prescribing can increase efficiency for physicians, office staff, and pharmacists. Physicians and staff spend less time returning phone calls, tracking faxes for prescription

information, and authorizing prescription renewals. Pharmacists and staff spend less time on administrative issues and re-adjudication. Research findings from the Medical Group Management Association found that a 10 physician group practice spent an estimated $19,444 per year on phone calls with pharmacies resolving formulary issues (4). E-prescribing is also more convenient for patients, eliminating wait time at pharmacies.

E-prescribing can reduce medication costs by increasing formulary compliance. A WellPoint initiative, offering free e-prescribing to physicians, resulted in 1% to 2% increase in the use of generic drugs which translated into savings of millions of dollars (5).

Barriers to e-prescribing

Barriers to successful adoption of e-prescribing include costs, regulations regarding the prescription of controlled substances, workflow changes, difficulty in selecting hardware and software, and connectivity.

The cost of purchasing and using e-prescribing and/or EHRs is a major barrier for practices to overcome. The costs of a stand alone e-prescribing system are relatively inexpensive or free under the National E-Prescribing Patient Safety Initiative. However, costs for an office-based EHR system range from $25,000 to $45,000 per physician (6). An estimated $3,000 to $9,000 or 12% to 20% of initial costs per physician per year can be incurred through software licensing fees, technical support, updating and replacing equipment (6). Some market-based initiatives have provided financial incentives to e-prescribers as a way to address the financial barriers to e-prescribing. The Medicare Improvements for Patients and Providers Act passed in July 2008 calls for incentive payments for e-prescribing beginning in fiscal year 2009 (10).

A second barrier to nationally implementing e-prescribing is the Drug Enforcement Administration's prohibition of electronically sending prescriptions for controlled substances. Overall, controlled substances constitute between 10 percent and 11 percent of all written prescriptions in the United States. On June 27, 2008 the DEA published a proposed rule to allow the electronic prescribing of controlled substances (7). This is an important first step in addressing this barrier. Some of the requirements in the proposed rule may necessitate changes to current e-prescribing processes.

Making changes to workflows is another significant barrier for many practices. Workflow changes in the beginning are likely to increase task time, create role changes, and require the retraining of staff members. Other barriers include difficulty in choosing and installing correct hardware and software and connectivity.

Recommendations from Stakeholder and Advisory Groups

Several advisory and stakeholder groups including SureScripts, the National Governors Association State Alliance for eHealth, the eHealth Initiative, and the Center for Improving Medication Management have made recommendations on how to best advance e-prescribing. Common themes in these recommendations include:

- Lifting the Drug Enforcement Administration prohibition of electronically sending prescriptions for controlled substances;
- Continuing to develop standards;
- Providing incentives for e-prescribing;
- Supporting the development of the e-prescribing infrastructure.

In its National Progress Report on e-Prescribing, SureScripts made three recommendations to advance e-prescribing:

- Stakeholders should work with Congress and the DEA to allow e-prescribing of controlled substances;
- Congress should grant authority to Centers of Medicare and Medicaid Services to order e-prescribing in accordance with recommendation made by the American Health Information Community;
- Healthcare leaders should focus on adoption and incentive programs for high prescribers (3).

The National Governors Association (NGA) has recognized the importance of e-prescribing and the State Alliance for e-Health has requested that the NGA provide leadership in advancing e-prescribing. The State Alliance recommends that the NGA encourage states to adopt e-prescribing goals to annually double the rate of prescriptions sent electronically and to increase the number of providers and pharmacies capable of receiving e-prescriptions. The NGA should also work with the federal government and Medicare programs to promote e-prescribing as well as call on the Department of Justice to address e-prescribing of controlled substances.

In a collaborative report, the eHealth Initiative and the Center for Improving Medication Management recommended:

- The federal government should address the DEA prohibition on e-prescribing controlled substances.
- Payers, employers, health plans and systems, and the federal and state governments should consider replicating and expanding successful incentive programs.
- All health care providers should adopt and effectively use e-prescribing.
- A public-private multi-stakeholder advisory body should monitor, assess, and make recommendations to further the effective use of e-prescribing.
- All stakeholders should advance the e-prescribing infrastructure.
- The federal government and the private sector should accelerate the development of standards for e-prescribing. (8)

Statewide Initiatives

States are promoting e-prescribing through market-based initiatives and legislation or executive orders focused on e-prescribing and health reform. Partners in market-based initiatives often include payers, state governments, employers, medical groups, physician practices, health plans, and health systems.

Successful market-based initiatives often include:

- Stakeholder commitment and leadership
- Incentive programs
- Education and support for users
- Standard-based infrastructure to allow connectivity

Executive orders and legislation have focused on infrastructure development, incentives for e-prescribing, and demonstration projects. States enacting legislation or issuing executive orders include Pennsylvania, Arizona, Minnesota, and Tennessee:

- Pennsylvania Governor Ed Rendell issued an executive order in 2008 that created the Pennsylvania Health Information Exchange (PHIX). The order cites the connection between providing the architecture to support the statewide use of e-prescribing and reducing preventable medical errors (8).

- In May 2008, Arizona Governor Janet Napolitano issued an executive order to increase and improve patient safety through the use of e-prescribing. The order creates initiatives designed to educate stakeholders on the benefits of e-prescribing (8).

- Minnesota Governor Tim Pawlenty has implemented e-prescribing for 115,000 state employees and their dependents. The program is expected to save $5 million per year. Minnesota is also requiring all hospitals and providers to implement interoperable EHRs by January 2015 (8).

- The Tennessee E-Prescribing Acceleration Project Team has announced recommendations to the Tennessee eHealth Advisory Council for the acceleration of e-prescribing. Recommendations included creating a steering committee to provide guidance and direction, set a budget, recommend funding sources, determine metrics, and assign project manager (8).

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NEBRASKA

State Statistics

Total Residents:	1,742,500
Children (0-18):	461,810
Adults (19-64):	1,062,580
Elderly (65+):	218,110

Health Insurance Coverage

Medicaid:	11.7%
Medicare:	12.0%
Commercial:	65.9%
Uninsured:	10.5%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

Total Residents	Number of Patient Records Accessible through RxHub*	Percentage
1,742,500	966,229	55%

** Patient records are only accessed by authorized clinicians who obtain patient consent.*

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

Number of Patient Record Requests Received by RxHub in 2007	Number of Patient Records Found through RxHub in 2007	Percentage
12,026	4,907	41%

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
ERX NETWORKS
HEALTH CARE SYSTEMS
ISCRIBE
MEDPLUS
NEXTGEN
RXNT

eHealth Council Charge and Action Plans
2008-2009

Charge to the eHealth Council

The eHealth Council is charged with:

- Reviewing the current status of healthcare information technology adoption by the healthcare delivery system in Nebraska;
- Addressing potential security, privacy and other issues related to the adoption of interoperable healthcare information technology in Nebraska;
- Evaluating the cost of using interoperable healthcare information technology by the healthcare delivery system in Nebraska;
- Identifying private resources and public/private partnerships to fund efforts to adopt interoperable healthcare information technology;
- Supporting and promoting the use of telehealth as a vehicle to improve healthcare access to Nebraskans; and
- Recommending best practices or policies for state government and private entities to promote the adoption of interoperable healthcare information technology by the healthcare delivery system in Nebraska.

Action Plan 2008-2009

Current Action Items

1. Work with Lt. Governor Sheehy and other policymakers to develop a process to assess, evaluate and prioritize health IT activities (including statewide initiatives, proposed eHealth projects of the eHealth Council or other state entities, and eHealth components such as e-prescribing) in order to make funding recommendations. Criteria used to evaluate eHealth activities, will include return on investment (ROI) as well as additional evaluation criteria determined by the eHealth Council with input from policy makers.

Lead: eHealth Council

Participating Entities: eHealth Council, Lt. Governor Sheehy, interested policymakers, state agencies with health IT projects, and health IT initiatives in the state wishing to participate

Timeframe: Ongoing with consideration for the state budget cycle.

Funding: To be determined.

Status: New

2. Develop a sustainable action plan to facilitate progress (present and future) in assuring privacy and security protections in the exchange of health information for and by each of our citizens.

Lead: Health Information Security and Privacy Committee (HISPC)

Participating Entities: eHealth Council, Nebraska HISPC, the DHHS legal department, the Attorney General's Office, the Office of the CIO, other state agencies that would become involved with PHI, and other stakeholders

Timeframe: Recommendations for the issues and model design should be ready by summer, 2008.

Funding: Funding or in-kind contributions may be required for implementation.

Status: New

3. Develop a plan and resources to inform citizens, health care providers, and other stakeholders about issues related to health information security and privacy and involve them in policy discussions.

Lead: HISPC Education Work Group

Participating Entities: HISPC Education Work Group, eHealth Council, Department of Health and Human Services, health professional associations, DHHS health/licensure/certification board managers, and other stakeholders—possibly including University of Nebraska Extension, AARP, the League of Municipalities, the Nebraska Association of County Governments, and service organizations

Timeframe: The eHealth Council should start this dialog immediately and then establish a tight time frame for completion of this work in 2008.

Funding: Funding or in-kind contributions may be required for implementation of the educational plan.

Status: New

4. The eHealth Council should ensure that an in-depth short-term study of existing laws and regulations, with guidance from representatives from the health professions, health educators and health organizations, be done in order to identify health information security and privacy and make recommendations.

Lead: HISPC Legal Work Group.

Participating Entities: eHealth Council, HISPC Legal Work Group, DHHS legal staff, professions and facility managers, health care associations and citizens.
Timeframe: This needs to start immediately and be finished by August, 2008 in order to assist with other deadlines in HIT/grants/legislation/etc.

Funding: It will probably be necessary to contract with a law firm or legal expert to address these issues (Est. $50,000).

Status: New

5. Support efforts of the Nebraska Statewide Telehealth Network Governing Board to advocate for ongoing support for line charges for telehealth. Activities supporting this action item could include writing letters of support to policy makers as well as sharing information on this issue with policymakers.

Lead: eHealth Council

Participating Entities: eHealth Council, Nebraska Statewide Telehealth Network Governing Board, NITC, Lt. Governor Sheehy

Timeframe: 2008

Funding: No new funding is required

Status: New

6. Support efforts of the Nebraska Statewide Telehealth Network Governing Board to advocate for the reduction of barriers to connectivity posed by federal Universal Service Fund rules, regulations, and policies. Activities supporting this action item could include writing letters of support to policy makers as well as sharing information on this issue with policymakers. The eHealth Council will also explore the development of a position paper no longer than four pages in length which clarifies the issue, identifies barriers, specifies what action needs to be taken, and identifies opportunities that can be leveraged.

Lead: eHealth Council

Participating Entities: eHealth Council, Nebraska Statewide Telehealth Network Governing Board, NITC, Lt. Governor Sheehy

Timeframe: 2008

Funding: No new funding is required

Status: New

7. Explore the optimal method for identifying clients in health information exchange.

Lead: eHealth Council, UNMC Center for Biosecurity, Biopreparedness and Emerging Infectious Diseases, College of Public Health

Participating Entities: UNMC Center for Biosecurity, Biopreparedness and Emerging Infectious Diseases, College of Public Health; eHealth Council; Department of Health and Human Services; and other interested stakeholders.

Timeframe: Complete the exploration of a development project by 12/31/2008.

Funding: Exploratory project can be funded using existing resources. Scope of project should include identification of funding sources for the next stage.

Status: New

Completed Action Items (2007)

1. Facilitate discussions to address interoperability between the Nebraska Statewide Telehealth Network with other state networks.

2. Address operational and technical support issues, including defining the level of support that will be provided by Network Nebraska and CAP.

3. Facilitate the continued testing of the Nebraska Statewide Telehealth Network for homeland security and public health alerts and training.