



# Community Betterment Through HIE

*"Engaging Community Stakeholders  
to Create a Sustainable, Large-Scale HIE"*

**NeHII Update - How It Is Impacting  
Rural Health  
Nebraska Rural Health Association  
September 22, 2011**



## What is an HIE?

- Non-Profit Organization
- Collaboration of Diverse Group of Stakeholders  
Created to Improve Patient Safety and Care  
While Controlling Costs
- Umbrella Connection Between All the EMRs –  
Emphasis on Interoperability!
- Universal Portal and Vendor Agnostic
- HIE Services Similar to Web Services

# What is NeHII?

- One of the ***first*** state-wide HIEs in the country
  - 4 health systems in the pilot, nearly 2.0 million lives
- One of the ***first*** to offer full functionality
  - eRx, Clinical Messaging, Physician Referral
- One of the most ***efficient*** virtual models in the country
- Originally intended for ***treatment and payment purposes*** and ***now adding public health reporting*** to meet Meaningful Use requirements

# NeHII in the News



- Nebraska Medicine – Winter 2011 – Entire publication outlining NeHII
- eHealth Initiative – 2011 eHealth Physician Advocate of the Year Award – Dr. Harris Frankel – Award Celebrates Leadership and Excellence in eHealth
- Journal of AHIMA – June 2010 – Virtual Record - Nebraska HIE Offers Light Solution for Robust Data Exchange
- Journal of AHIMA – May 2011 – Opting for Opt Out – How One HIE Manages Patient Consent
- HIMSS HIELights – February 2011 - A Revenue-Sharing Model with a Promise

# NeHII in the News



- HIMSS HIELights – May 2011 - Two Pharmacies Join NeHII
- HIMSS News – May 2011 - Viewpoint: Technical Strategy
- Paper Kills 2.0 How Health IT Can Help Save Your Life and Your Money – A Center for Health Transformation Book – Chapter 12 Finally: A Look into One of the Nation’s First Statewide Health Information Exchanges
- HIMSS – The Health Information Exchange Formation Guide: The Authoritative guide for Planning & Forming an HIE in Your State, Region, or Community
- Contributions to many articles and toolkits offered by the eHealth Initiative

# NeHII in the Spotlight

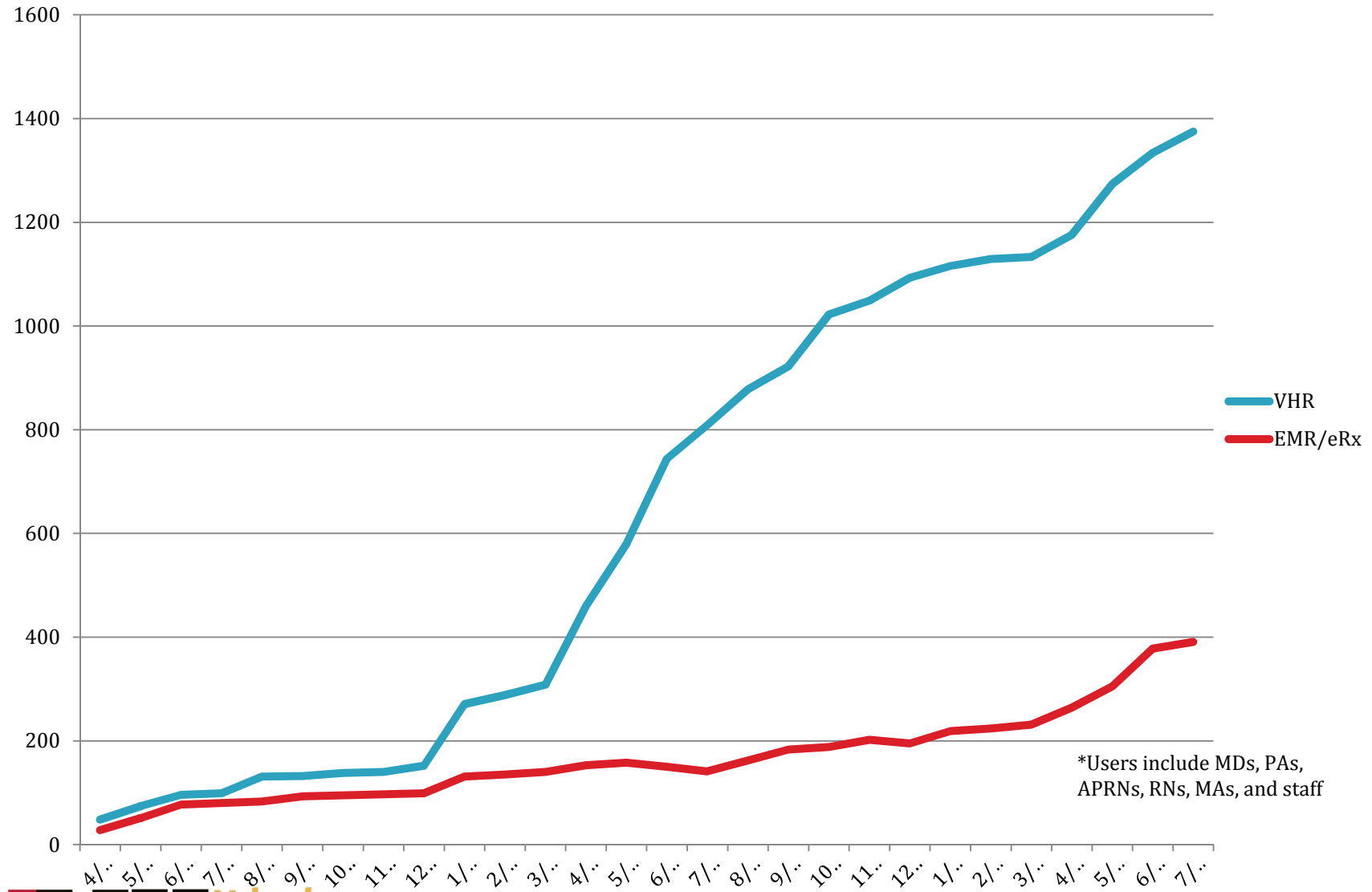
## White Papers

- HIE Sustainability – Adding Value for Your Stakeholders
- Consent Management for Health Information Exchanges: Issues, Challenges, Considerations
- The Privacy and Security Gaps in Health Information Exchanges – By the AHIMA/HIMSS HIE Privacy & Security Joint Work Group

## NeHII Statistics (As of August 12, 2011)

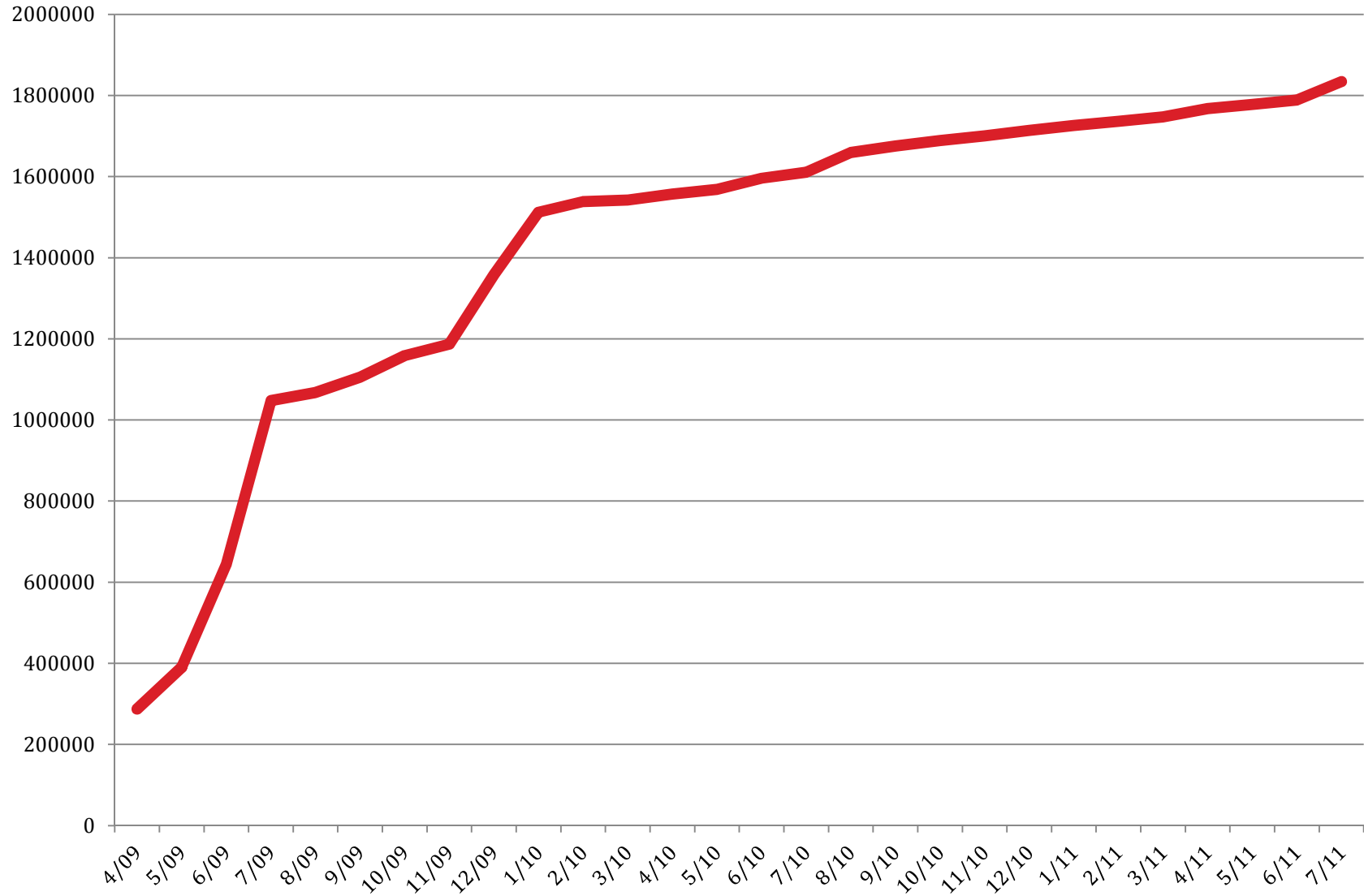
- Patients in the System 1,852,190
- Physicians & Staff
  - Using the Virtual Health Record (VHR) 1,383
  - Using the EMR 395
- Percentage of Requests Completed in Less than 2 Seconds 92.70%
- Number of ePrescriptions 67,898
- Number of Results Sent to the Exchange 23,019,761
  - LAB 16,596,662
  - RAD 3,707,809
  - Transcription 2,715,290

# NeHII Total Users\*

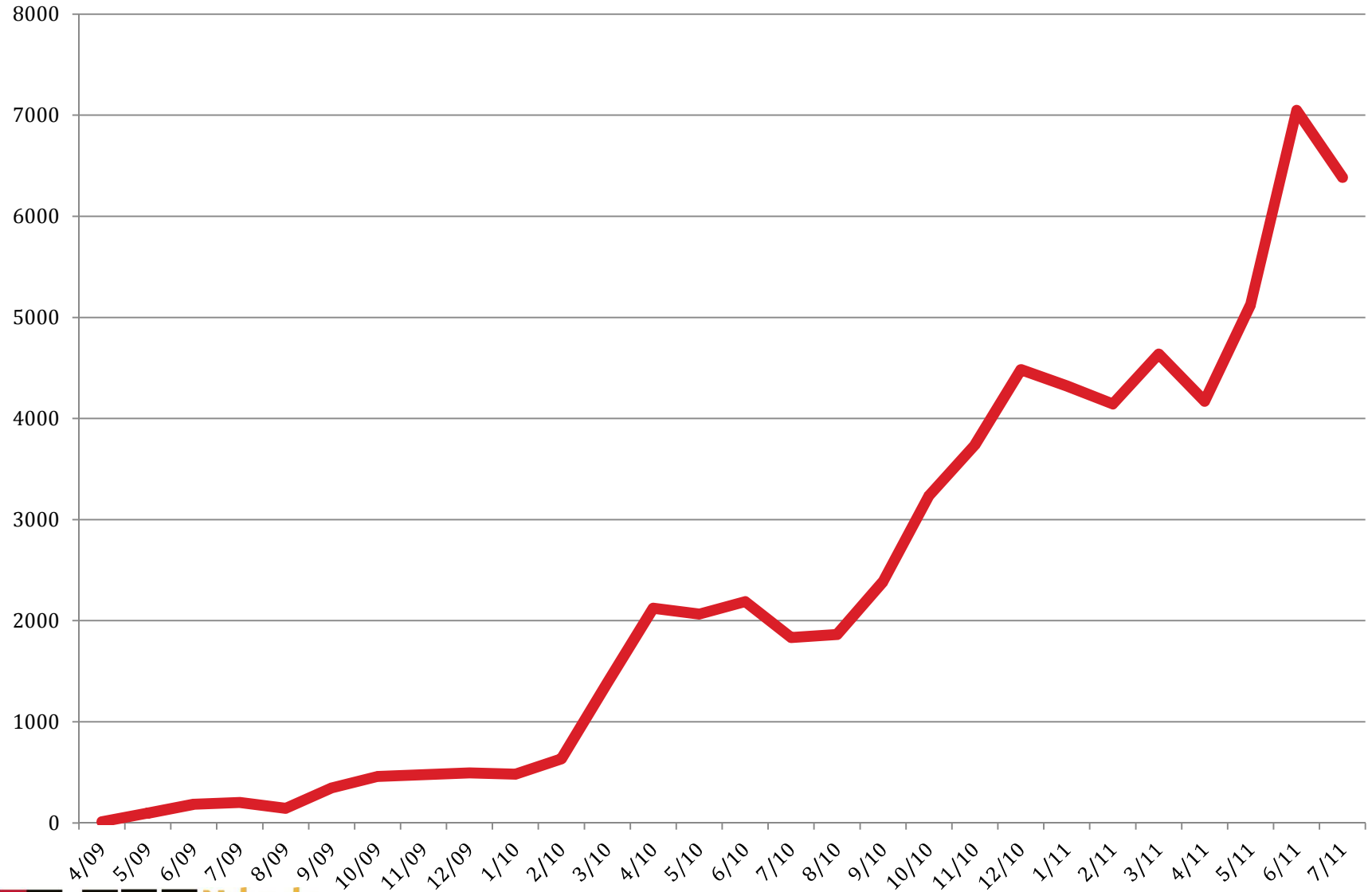


\*Users include MDs, PAs, APRNs, RNs, MAs, and staff

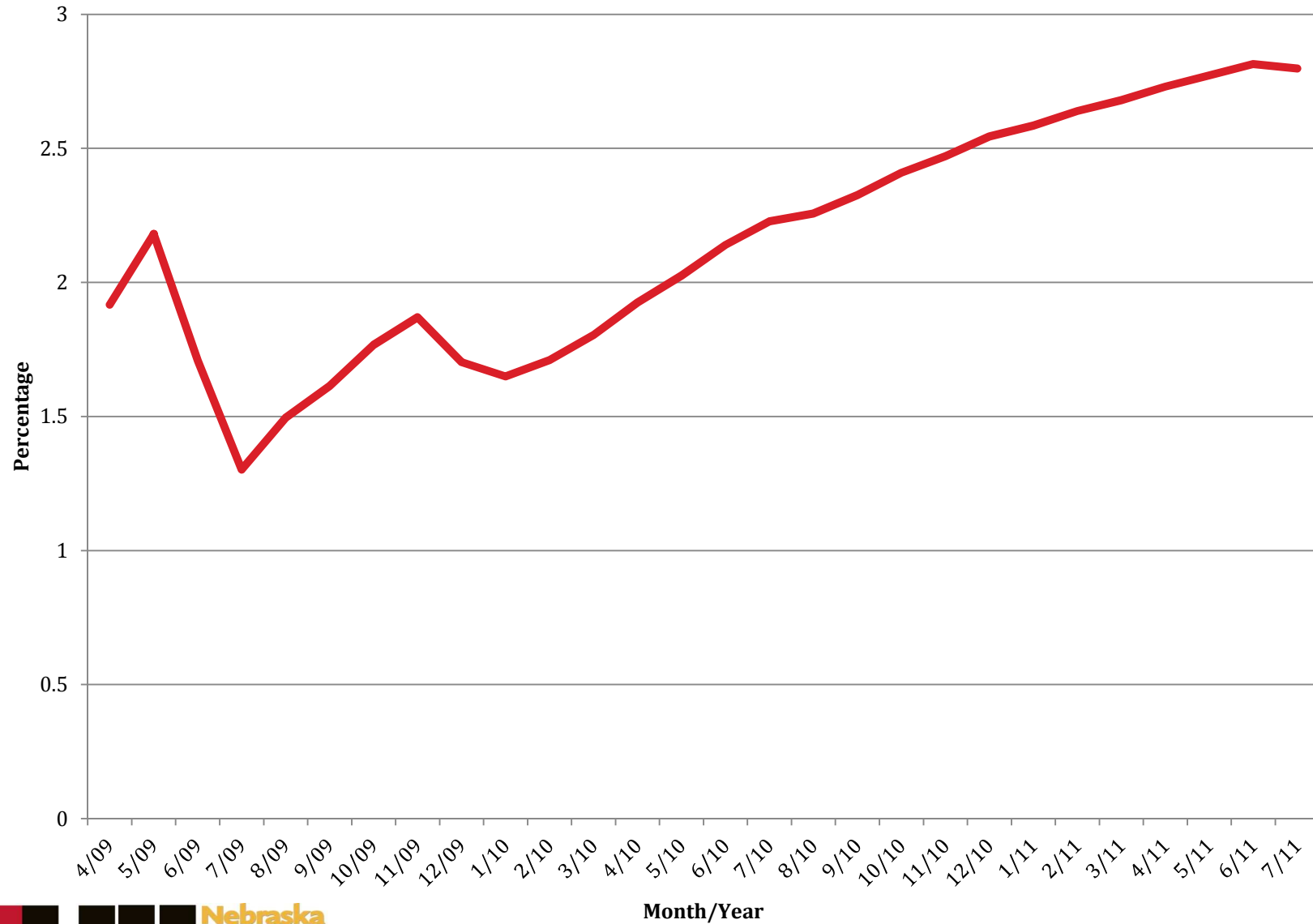
# Consumers with Demographic Data



# Prescriptions



# NeHII Opt-Out Rates



# NeHII Pilot & Milestones

- Pilot Phase
  - Initiated February 16, 2009
  - Completed June 30, 2009
- NeHII Framework for Statewide HIE
  - Based on Hybrid Federated Model
  - HIPAA Compliant
  - CCHIT Certified
  - Website: [www.nehii.org](http://www.nehii.org)
  - Statewide Rollout Began July 2009
  - State Designated Integrator Received September 2009
  - 501(c)3 Status Received November 2009



**INGENIX**



# NeHII, Inc. Business Model

- Non-Profit NE Corporation
- Owned by NeHII Collaborative
- Managed by Board of Directors
- Operations
  - Funded by License Fees Paid by Participants to NeHII, Inc.
  - Sustainable
- Implementation
  - Funded in part via Class B Membership Fees (one-time)
  - Grant from Nebraska Information Technology Commission (NITC)



# Current NeHII Participant Status

- Current Participant List
  - Alegent Health
  - Children's Hospital & Medical Center
  - Methodist Health System
  - The Nebraska Medical Center
  - Mary Lanning Memorial Hospital
  - BlueCross BlueShield of Nebraska
  - Creighton Medical Center
  - Great Plains Regional Medical Center



# NeHII Participation Status

- Updates
  - Regional West, Scottsbluff, NE – Pending
  - Lincoln, NE Health Systems
  - CAH Participation
  - Approaching 1,500 Total Users
  - Future Participant Targets



## Participation & Usage Rapidly Increasing

Measures - NeHII	July - Sep 2010 Actual	Oct - Dec 2010 Actual	Jan - Mar 2011 Actual	Apr - June 2011 Actual
<b>Number of Clients</b>				
<ul style="list-style-type: none"> <li>Number of clients in the Master Patient Index</li> </ul>	1,679,004	1,713,831	1,746,898	1,788,516
<ul style="list-style-type: none"> <li>Number of Nebraska clients in the Master Patient Index</li> </ul>	1,242,462	1,270,379	1,327,642	1,359,272
<ul style="list-style-type: none"> <li>Total patients that have opted out</li> </ul>	39,686	43,600	46,815	50,328
<ul style="list-style-type: none"> <li>Total patients opting back in</li> </ul>	2,670	2,919	3,141	3,325

## Participation & Usage Rapidly Increasing

Measures—NeHII	July-Sep 2010 Actual	Oct-Dec 2010 Actual	Jan- Mar 2011 Actual	Apr-June 2011 Actual
<b>Provider Information</b>				
<ul style="list-style-type: none"> <li>Number of successful matches within a facility/across the community</li> </ul>	213,130	234,750	255,237	266,553
<ul style="list-style-type: none"> <li>Number of physicians and staff using the Virtual Health Record (VHR)</li> </ul>	922	1,093	1,133	1,334
<ul style="list-style-type: none"> <li>Number of physicians and staff using the EMR</li> </ul>	183	195	181	378
<ul style="list-style-type: none"> <li>Total number of physicians using VHR or the EMR</li> </ul>	508	528	547	583

## Participation & Usage Rapidly Increasing

Measures—NeHII	July - Sep 2010 Actual	Oct - Dec 2010 Actual	Jan - Mar 2011 Actual	Apr - June 2011 Actual
<b>Hospital Information</b>				
• Number of hospitals participating	15	15	15	16
• % of hospitals participating	13	13	13	16
• Percent of hospital beds covered	39	39	39	44
<b>Public Health Information</b>				
• State systems connected	0	0	0	0
• Local health departments connected	0	0	0	0
• Percent of public health departments connected	0	0	0	0

## Participation & Usage Rapidly Increasing

Measures—NeHII	July - Sep 2010 Actual	Oct - Dec 2010 Actual	Jan - Mar 2011 Actual	Apr - June 2011 Actual
<b>Payer Information</b>				
• Number of payers participating	1	1	1	1
<b>Laboratory and Imaging Facility Information</b>				
• Number of labs and imaging facilities connected	9	9	9	10
• Percent of lab and imaging facilities connected	.5	.5	.5	.6
<b>Specialty Exchange Connections</b>				
• Number of specialty exchanges connected	0	0	0	0

## Participation & Usage Rapidly Increasing

Measures—NeHII	July – Sep. 2010 Actual	Oct. – Dec. 2010 Actual	Jan. – Mar. 2011 Actual	Apr. – June 2011 Actual
<b>Number of Requests in the System:</b>				
• Total Requests completed since May 1, 2009	840,531	1,109,132	1,413,272	1,857,117
• Total Requests completed in less than 2 seconds	684,628	1,039,159	1,325,096	1,720,003
• Requests completed this quarter	215,956	268,601	298,908	418,166
<b>Total Number of Prescriptions Sent Electronically, Faxed or Printed</b>				
• Electronic	17,376	27,929	39,620	50,434
• Printed	301	474	586	887
• RxHUB Mail Order	174	425	682	939
Number of prescriptions sent this quarter	6,082	11,452	12,060	16,342

## Participation & Usage Rapidly Increasing

Measures—NeHII	July - Sep 2010 Actual	Oct - Dec 2010 Actual	Jan - Mar 2011 Actual	Apr - June 2011 Actual
<b>Total Number of Results Sent to Exchange</b>				
• LAB	10,219,936	12,004,682	13,682,932	15,713,714
• RAD	2,785,194	3,111,723	3,187,827	3,550,897
• Transcription	1,697,609	1,999,489	2,168,171	2,545,678
<b>Number of Results Sent to Exchange this Quarter</b>				
• LAB	1,762,827	1,784,926	1,663,914	2,030,782
• RAD	603,432	326,529	287,204	363,070
• Transcription	439,201	301,880	328,315	377,507
<b>Meaningful Use Measures Offered</b>				
• Number of Meaningful Use measures offered	3	3	3	3

# Data Sources

Sources of Data	ADT	Laboratory Results	Radiology Reports	Transcription Reports	Medication History
Hospitals					
Bellevue Medical Hospital	7/1/10	7/1/10	7/1/10	7/1/10	
Bergan Mercy Hospital	3/30/09	3/30/09	3/30/09	3/30/09	
Creighton University Medical Center	5/6/2011	5/6/2011	5/6/2011	5/6/2011	
Great Plains Regional Medical Center	6/7/10	6/9/10	6/9/10	6/9/10	
Immanuel Hospital	3/30/09	3/30/09	3/30/09	3/30/09	
Lakeside Hospital	3/30/09	3/30/09	3/30/09	3/30/09	
Mary Lanning Memorial Hospital	1/25/10	1/28/10	1/28/10	1/28/10	
Mercy Hospital	3/30/09	3/30/09	3/30/09	3/30/09	
Methodist Health	5/4/09	5/4/09	5/4/09	5/4/09	
Methodist Women's Health	6/15/10	6/15/10	6/15/10	6/15/10	
Midlands Hospital	3/30/09	3/30/09	3/30/09	3/30/09	
The Nebraska Medical Center	3/30/09	3/30/09	3/30/09	3/30/09	
Other Sources					
Surescripts					3/30/09
Rx Hub					3/30/09

Over 21.8M total results available through NeHII  
835K new results available each month

# NeHII Past & Present Challenges

- Governance Model
- Data Sharing, Participant Agreements
- Privacy/Security Policies
- Operational Manual
- Liability Insurance Coverage
- On-going Recruitment



# NeHII Success Factors

- Visionary Physician Leader
- Flexible Committee Structure
- Patient Centered
- Entrepreneurial Approach
- Pilot Study
- Accountability For Milestones
- Site Visits
- Public/Private Collaboration
- Managed Services Model



# NeHII Licensing Model

- Licenses
  - Type
    - Physician/Staff
    - Data Provider
      - Hospital
      - Office EMR
      - Health Plan
      - Lab/Radiology
    - HIE/RHIO
      - Subscription
      - Transaction
  - Based On Size of Facility



# NeHII Fee Structure

Hospital Size (# of beds)	Cost per month	Annual fee
1-25 beds	\$1,500	\$18,000
26-50 beds	\$2,000	\$24,000
51-150 beds	\$2,500	\$30,000
151-300 beds	\$4,000	\$48,000
301-500 Beds	\$8,000	\$96,000
> 500 beds	\$12,000	\$144,000

License Costs - Per Month	Physician
Physician Connection	\$10
VHR License	\$10
eRx Only	\$10
EMR	\$20
EMR w/ eRx	\$31.66

# NeHII Revenue Generation Strategies

- HIE Advisory Consulting Services
- Clearinghouse Functionalities – Revenue Sharing
- HIOSS Managed Services – Shared Infrastructure
- Cyber Security Consultations
- Entrepreneurial Business Ventures

# What does it all mean for rural healthcare delivery?

- **Faster, Better, Less Costly Access to Health IT**
  - Delivers healthcare technology/applications with minimal capital cost
  - Removes financial/technical barriers to adoption; minimizes risk
  - Access to health IT applications as a service over the Web
  - Affordable service fees based on usage (per provider; per study)
  - Levels the playing field for providers regardless of size or location
  - Automates workflows for improved quality of care; reduces errors
  - Reliable service and support 24/7
  - Product and service innovation
  - HIE Sustainability



# NeHII Adoption



## NeHII Contact Information

- Dr. Harris Frankel (President, NeHII Board of Directors)
- Deb Bass (Executive Director, NeHII)
- Chris Henkenius (Program Director, NeHII)



[www.nehii.org](http://www.nehii.org)  
7914 Dodge Street, #356  
Omaha, NE 68114

[www.bass-inc.com](http://www.bass-inc.com)  
Deb's Cell: 402.981.7664  
dbass@bass-inc.com

