



# NCPDP-HL7 Electronic Prescribing Coordination Project NCVHS Status Report

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# Summary of Prior Update



- The NCPDP-HL7 Electronic Prescribing (eRx) Coordination Project was launched. The need for collaboration has long been recognized.
- Several forces have coalesced to compel stakeholders to take action.
- The Project was launched in July of 2004 with 16 participants from both HL7 and NCPDP.
- Phase I goal: demonstrate the transmission of an electronic prescription from inpatient to outpatient setting
  - Mapping Guidance Document
  - Demonstrations at 2005 HIMSS and NCPDP Conferences
- Subsequent phases to include HL7v3 mapping and development of a change management plan.

# Kickoff Meeting Participation



NCPDP-HL7 ePrescribing Mapping Team

*Building Bridges to Better Healthcare*

Name	Organization	SDO Affiliation	
		NCPDP	HL7
Bob Beckley	SureScripts	•	
Tom Bizzaro	First DataBank	•	
Roy Bussewitz	NACDS	•	
Karen Eckert*	Medi-Span	•	•
Lynne Gilbertson	NCPDP	•	
Chuck Hauris	Cleveland Clinic		•
Ed Larsen	Independent consultant		•
Ross Martin*	Pfizer	•	•
Jim McCain*	VA, EDS	•	•
Livea Reich	Fanning (Pfizer consultant)		
Scott Robertson	Kaiser		•
Phillip Scott	NCPDP	•	
Terrie Shepherd	Walgreens	•	
Marge Simos	ExpressScripts	•	
Mark Singleton	RxAmerica	•	
Lee Ann Stember	NCPDP	•	

\*Designated NCPDP-HL7 liaisons

# Project Participation – 12/2004



NCPDP-HL7 ePrescribing Mapping Team

*Building Bridges to Better Healthcare*

Albert Edwards  
Bob Beckley  
Cathy Graeff  
Charles Smith  
Chuck Hauris  
Donald Gravlin  
Ed Larsen  
Garry Cruickshank  
Jane Fanning  
Jessica Landisman  
Jim McCain\*  
Jodie Skyberg  
Joe Rector  
John Albertsons  
John Elliot

Karen Eckert\*  
Karen VanHentenryck  
Ken Steen  
Kerry Zajicek  
Kevin Deysenroth  
Lisa Carnahan  
Lynne Gilbertson  
Margaret Weiker  
Marge Simos  
Mark McDougall  
Mark Sancrainte  
Mark Singleton  
Matthew Yeager  
Mike Simko  
Nancy Link

Peter Rontey  
Richard Franck  
Rick Sage  
Rob McClure  
Rob Reiss  
Robert Hallowell  
Roderick Nurse  
Ross Bryant  
Ross Martin\*  
Ryan Brown  
Scott Robertson  
Tim McNeil  
Tom Donia  
Vassil Pevtchev

\*Designated NCPDP-HL7 liaisons

# Current Project Participation



## 54 Individual Subscribers to Yahoo! Groups Site

**Adrienne Lane – Clev. Clinic\***

**Albert Edwards – Clev. Clinic\***

**Brian Brown – SureScripts**

**Cathy Graeff – NCPDP**

**Charles Smith – NDCHealth**

**Cindy MacLaren – Clev. Clinic**

**Ed Larson – VA**

**Elena Butler – Clev. Clinic**

**Ivan Posthumus – RxHub**

**James McCain – VA**

**Jane Fanning – Apelon**

**Jennifer Puyenbroek – HL7**

**Jessica Landisman – NDCHealth\***

**Jodie Skyberg – Accenture**

**John Elliot – Siemens\***

**Kerry Zajicek – EPIC**

**Kevin Deysenroth – Accenture**

**Lindsey Kerby – NCPDP**

**Lynne Gilbertson – NCPDP**

**Lynne Gilbertson – NCPDP\***

**Matt Yeager – Accenture**

**Nancy Link – NDCHealth**

**Rob Reiss – SureScripts\***

**Rob McClure – Apelon**

**Ross Bryant – NDCHealth**

**Ross Martin - Pfizer**

**Ryan Brown – SureScripts\***

**Scott Robertson – Kaiser\***

**Teri Byrne – RxHub**

**Mike Simko – Walgreens**

**Tim McNeil – RxHub\***

**Vassil Peytchev – EPIC\***

**\*"Essential Mapper"**

# Demonstration Projects



- Two demonstrations in early 2005 showed successful messaging exchange between hospital CPOE system and community pharmacy
  - HIMSS – February 2005 in Dallas, Texas
    - Part of HL7 demonstration booth
  - NCPDP – March 2005 in Phoenix, Arizona
    - Sponsored by Pfizer

# Demo Participants



- The Cleveland Clinic
- Epic Systems Corporation
- HealthSoft Applications, Inc.
- InterSystems Corporation
- NDCHealth
- NextGen Healthcare Information Systems, Inc.
- RxHub
- SureScripts

# Demo Scenario



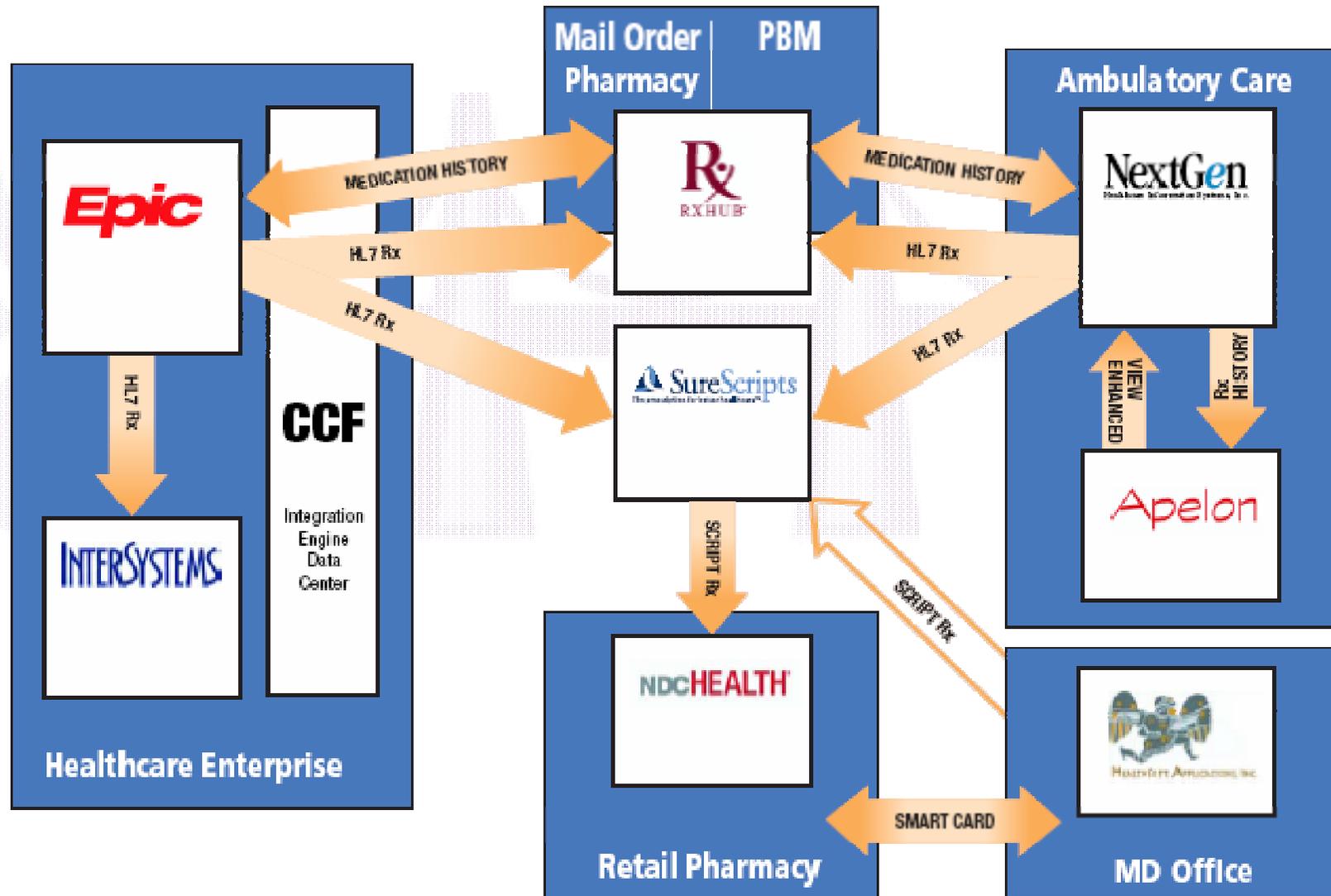
- Using the mapping guidelines created by an NCPDP-HL7 stakeholder workgroup, the participants will demonstrate the following transactions:
  - Medication orders are generated electronically for discharged inpatients and institutionally based outpatients and sent out as HL7 orders and transformed into NCPDP SCRIPT messages for delivery to community and mail order pharmacies.
  - Medication histories are received from a pharmacy benefit management claims history database via an as soon-to-be balloted version of NCPDP SCRIPT and translated into an HL7 message. The Medication History Report is then processed using NDF-RT and RxNORM for presentation to hospital clinicians.
  - A patient presents a smart card with medication history to a physician using a PDA. The physician uses the PDA to write a new prescription to the smart card, which can either be uploaded to the physician prescribing system for transmission as a SCRIPT or HL7 message to a pharmacy or taken by the patient to the pharmacy for uploading.

# eRx Demo Scenario



NCPDP-HL7 ePrescribing Mapping Team

*Building Bridges to Better Healthcare*



# HL7 Booth at HIMSS



NCPDP-HL7 ePrescribing Mapping Team

*Building Bridges to Better Healthcare*

## EXHIBIT PARTICIPANTS

Apelon

NDCHEALTH

Epic

NextGen  
Customer Tailored ePrescription



Houston Associates Inc.

ORACLE

PERVASIVE

IBM

Rx  
EXHUB

INTERSYSTEMS

intrasphere  
by Cerner

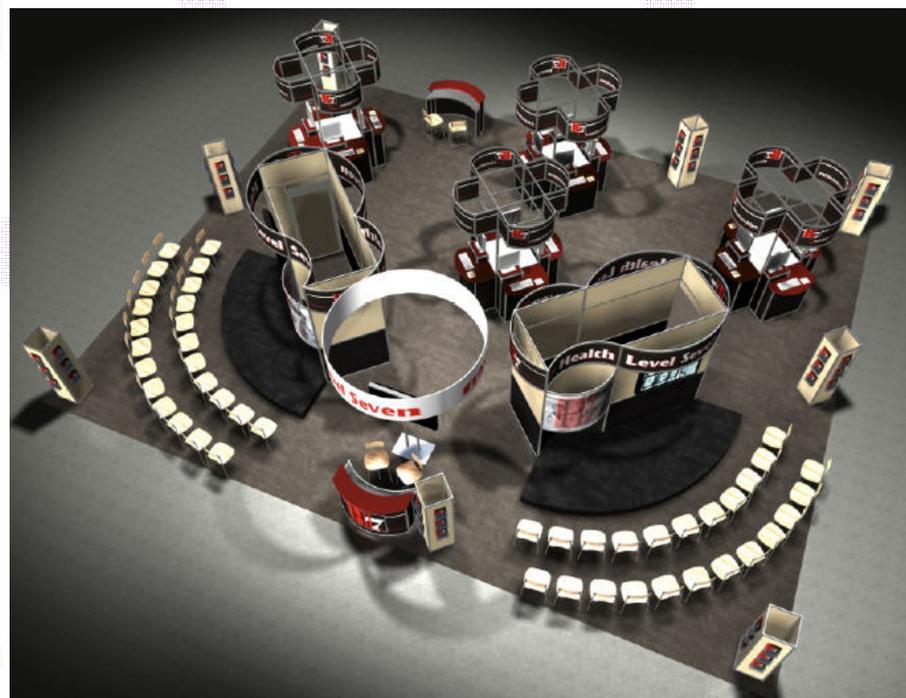
Sentillion

MEKESON

SureScripts  
The prescription for better healthcare

Microsoft

XPRESS  
TECHNOLOGIES  
ePrescription Technology



## EXHIBIT SPONSORS



INTERSYSTEMS



THE CLEVELAND CLINIC

SEEBEYOND

Healthcare  
Informatics

SIEMENS

## EXHIBIT PARTNERS



NATIONAL CANCER INSTITUTE: CENTER  
FOR BIOINFORMATICS (NCIB)

SOCIAL SECURITY  
ADMINISTRATION (SSA)

# NCPDP Annual Conference Phoenix, AZ, March 2005



# 2005 Timetable



Date	Deliverable	Owner(s)
31 January 2005	Completion of software testing for demonstration project	Demonstration project participants
13 February 2005	HIMSS Demonstration	Demonstration project participants
7 March 2005	NCPDP Demonstration	Demonstration project participants
15 July 2005	Complete Mapping Document v1.0	Mapping Team
August 2005	Review Mapping Document	eRx stakeholders
25 August 2005	Review comments from stakeholders	Mapping Team
26 August 2005	Develop maintenance and extension plan	Project Team Members
1 September 2005	Release v1.0	NCPDP & HL7
1 January 2006	Beginning of MMA eRx Pilots	???

# Counting the Cost



- Mapping required a significant effort
  - Three hours of web conferencing per week for nearly a year involving dozens of people
  - Thousands of hours contributed by subject matter experts – including prior work products
  - Demonstrations required five-figure investments by vendors
  - Conservative estimate of “billable” hours – \$300,000

# Lessons Learned



- Ongoing support for project coordination is essential
- Use cases – driven by market readiness – are important components in bringing resources to the table
- Pilots are critical for confirming real-world utility of the mapping documentation

# Lessons Learned



- The mapping documents only provide guidance for doing the work; the path to success for each implementation will be different
- Vocabulary issues remain a challenge
  - The mapping team largely decided to dodge these issues in this version
  - Who will own and maintain the code sets required for semantic interoperability?
- Lack of an unambiguous patient identifier requires that pharmacies retain and return prescriber's identifier information for maintaining accurate communications
  - Similar challenges for provider identification

# Considerations for Future Efforts



- Common processes for:
  - Reporting
  - Shared workspaces
  - Project management
- Meeting support
  - The project could have moved more quickly had there been support for live meetings
- Examine the role of the future recipient of the Standards Harmonization RFP grant
- Consider the role of and the resources required for enabling a shared health information model in future harmonization efforts

# Recommendations for Pilots



- Test various settings
  - Large hospitals
  - Small practices with EHRs
- Demonstrate the value of the electronic message versus eRx without electronic messaging (fax/print)
- Measure impact on:
  - Timeliness of information
  - Cost/effort analysis – who benefits versus who pays
    - Decreased callbacks
    - Reduced staff/prescriber time
  - Fill/refill rates
  - “Semantic Loss Ratio” (SLR) – are any data changed or truncated along the way?

# Considerations for Future Efforts



- Quarterly maintenance of current version
- Mapping to HL7 v3

# Get Involved



- Join the Yahoo! Groups web forum
  - [NCPDP-HL7-subscribe@yahoogroups.com](mailto:NCPDP-HL7-subscribe@yahoogroups.com)
  - Contact a project coordinator for details