Building Bridges to Better Healthcare

NCPDP-HL7 Electronic Prescribing Coordination Project
NCVHS Status Report

Ross D. Martin, MD, MHA
Director, Strategic Technology Group
Pfizer Inc
ross.martin@pfizer.com

26 July 2005

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

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

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.
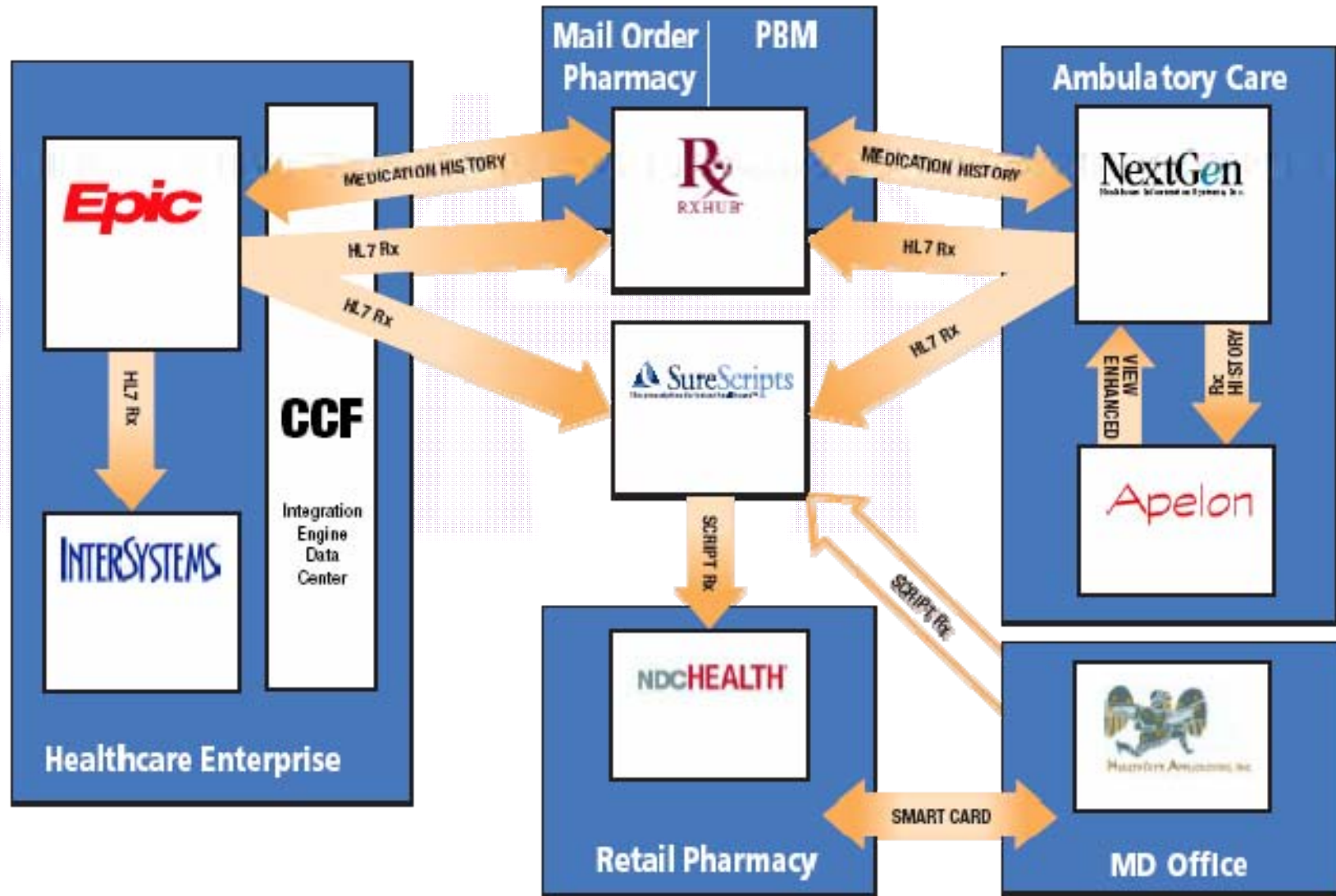- RxHub
- SureScripts

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

HL7 Booth at HIMSS

EXHIBIT PARTICIPANTS

Apelon
NDCHEALTH
Epic
NextGen
Healthcare Information Systems
ORACLE
Healthier Alternatives, Inc.
PERVASIVE
IBM
RxHub
INTERSYSTEMS
intrasphere
Sentillion
McKESSON
SureScripts
Microsoft
XPRESS Technologies

EXHIBIT SPONSORS

Carefx
INTERSYSTEMS
Pfizer
THE CLEVELAND CLINIC
SeeBeyond
Healthcare Informatics
SIEMENS

EXHIBIT PARTNERS

AHIMA
FDA
IHE
NCPDP
SNOMED
NATIONAL CANCER INSTITUTE CENTER FOR BIOINFORMATICS (NCICB)
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
  - ### Contact a project coordinator for details