



NHIN Architecture Prototype Project

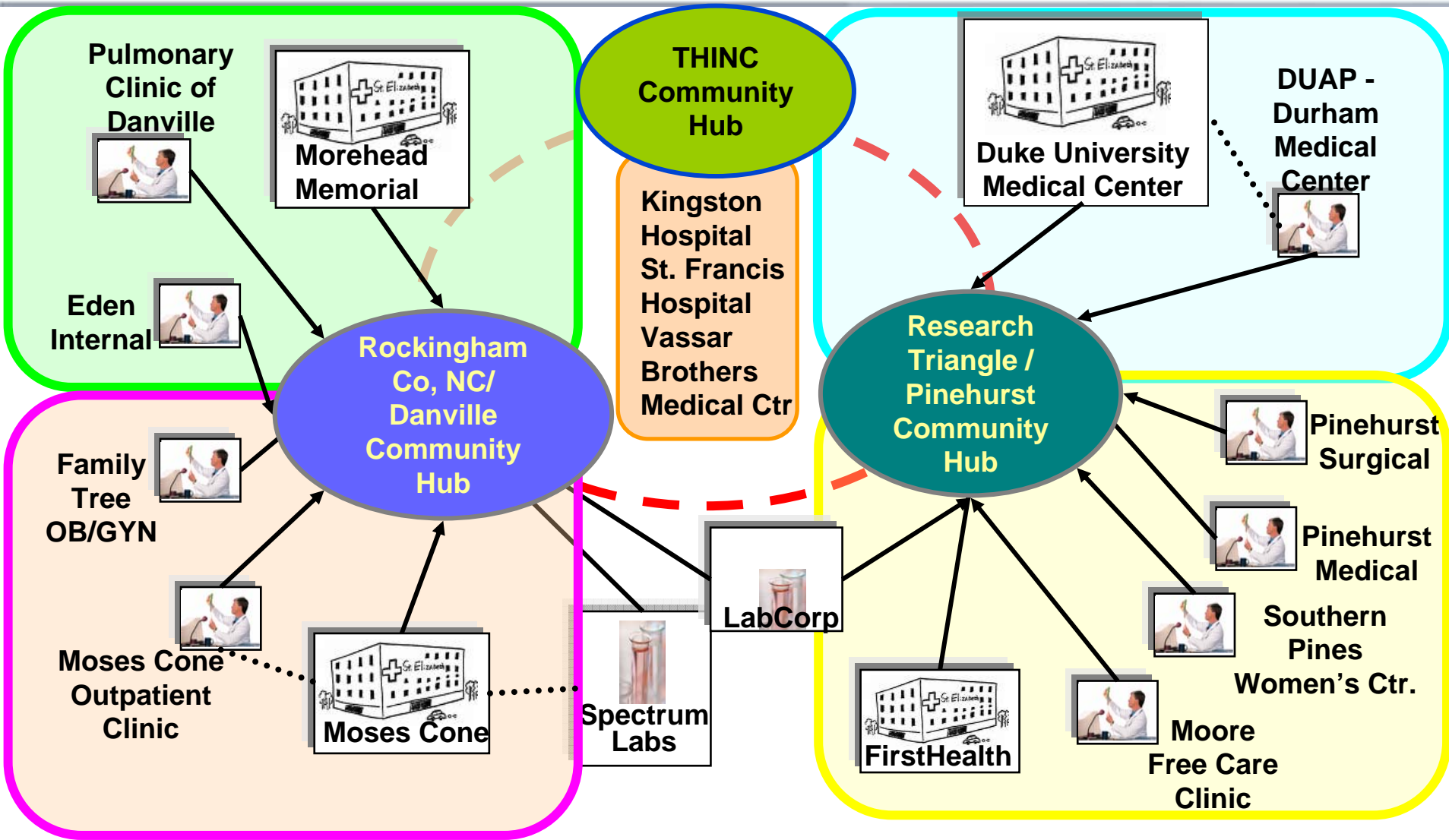
Third NHIN Stakeholder Forum

January 25, 2007



NHIN Architecture Prototype Project Overview

IBM Healthcare Marketplace Partners



A nationwide standards-based network that will allow connectivity of existing and future systems for providers and affiliated stakeholders

HHS ONC Objectives

- ▶ **Develop and evaluate prototypes for a NHIN architecture**
 - Maximize existing resources to achieve widespread interoperability among health care SW applications, particularly Electronic Health Records (EHRs)
- ▶ **Spur technical innovation for nationwide sharing of health information in patient care and public health settings**
- ▶ **Achieve interoperability**
 - Between SW applications and networks to communicate and exchange information in an accurate, effective, useful, manner
- ▶ **Collaborate between HHS health IT contractors and projects**
 - Develop and evaluate a compliance certification process and standards harmonization process
 - Develop privacy and security solutions for interoperable health information exchange, and the FHA program

IBM Vision

- ▶ **Maximize existing resources & systems**
 - Hardware & software vendor agnostic
 - Leverage IHE interoperability framework
 - Cross-domain patient identification cross-referencing
 - Cross-domain data search & retrieval
- ▶ **Community-Centric**
 - IHE XDS data repositories aggregate and normalize clinical data within designated communities
 - Each connected community has a registry and an inter-community NHIN interface
- ▶ **Security & privacy compliance (w/o sacrificing usability or research value)**
 - De-identify and appropriately re-identify data
 - Other data aggregates: (registries, quality of care, outcomes analysis, biosurveillance, etc.)



Standards Based

- ✓ Built in cross enterprise interoperability
- ✓ Adheres to the HITSP standards
- ✓ Supports IHE profiles (100+ vendors have already adopted)

Flexible Architecture

- ✓ Functionality driven by the healthcare community being served
- ✓ Fully federated, Totally centralized, or Hybrid
- ✓ Utilize a registry but do not require data to be stored centrally
- ✓ Hardware and software agnostic
- ✓ No “rip and replace” of existing systems

Scalable and Extensible

- ✓ Few communities can grow to a large network
- ✓ Geographic or non-geographic communities

Secure

- ✓ Patient controlled
- ✓ Role based authorization



PHR Registration, Activation and Care Giver Access



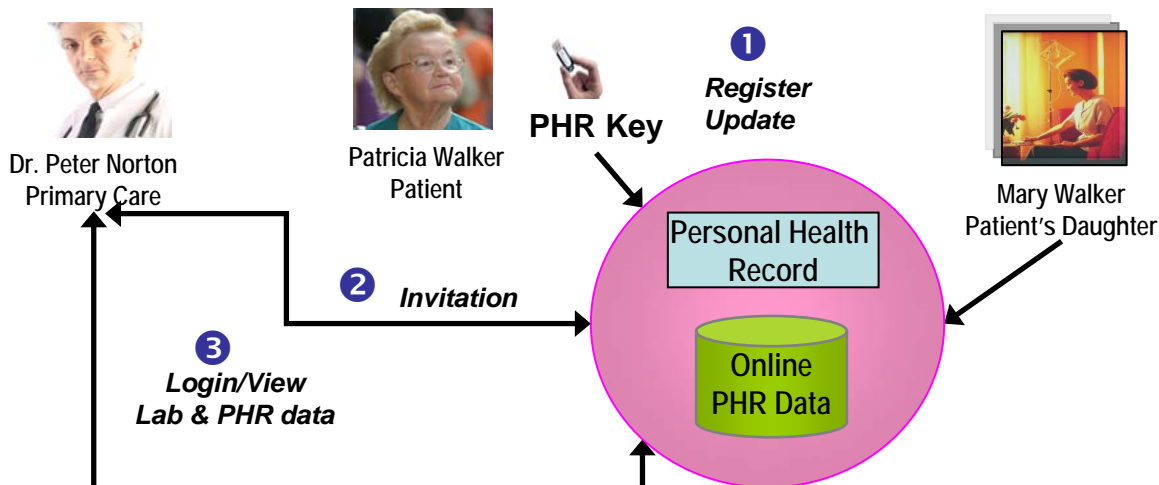
Patient: Patricia Walker, Age 89, Diabetic, Lives in NY and NC Poughkeepsie, NY (Dutchess County)

Family Caregiver: Mary Walker (Daughter), Greensboro, NC

Physician (s): Dr. Peter Norton, Primary Care Physician

Context: Doctor Recommends Registering for PHR with NHIN Access to Track Medications and Blood readings
Consent Management for Access by Patient, Family Caregiver and Patient's Physicians

Demonstrating: Invitation to view Personal Health Record
Physician access to Online PHR

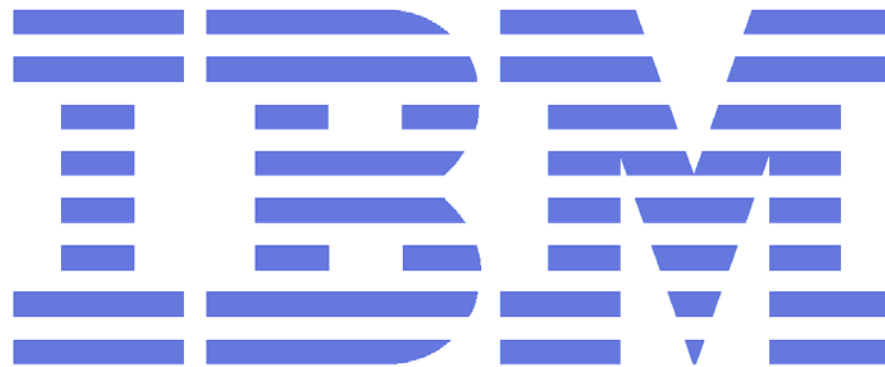


Mr. Robert Granell



HC Marketplace: THINC
Residence: West Hurley, NY (Dutchess County)
Physician (s): Dr. Eugene Heslin (Bridge Street Family
Medicine)
Demonstrating: Invitation to view Personal Health Record
Physician access to Online PHR

"To have the capability to enter, manipulate and share my personal health information in a secure manner with my doctor, emergency room doctors or my pharmacy is long over due. I have been trying to enter and maintain my own health information database so that it's current, somewhat sharable, and under my control using current software applications for some time. Not only for record keeping and tracking but so that my family wouldn't have to try to pass on important information in an emergency situation from memory, should the need arise. It's not hard to see that to provide this capability in a secure manner using today's web based technology could have a tremendous impact in the ever present emergency situations where time and availability are most critical."



THANK YOU