

Progress Report
On
A Pilot Project
Connecting Public Health Providers
To
Carilion CarePort System

Virginia Department of Health
October 15, 2007

Executive Summary

Pursuant to Item 312 H of the 2005 Appropriations Act, a pilot project to connect public health providers to Carilion Health System's electronic health records system was established. The Virginia Department of Health collaborated with Carilion Health System to design, implement, administer, and evaluate the pilot program. During year one of the pilot, two Virginia Department of Health (VDH) clinics in Southwestern Virginia were provided with online access to Carilion's CarePort System that contains medical information for patients seen within Carilion's hospitals. Four key tasks were accomplished in order to facilitate the sharing of protected health information. These included 1) the establishment of mutually agreeable security and privacy policies, procedures and guidelines; 2) the establishment of patient education and patient authorization materials to demonstrate information privacy and security; 3) the interfacing of VDH's Master Patient Identifier (MPI) with the Carilion's Enterprise Master Person Identifier (EMPI) and the subsequent verification of a mutual clinical relationship; and 4) the user training and user program supports that maintains day-to-day functionality. The pilot demonstrated that two organizations could work cooperatively to establish comprehensive privacy and security policies that are then effectively communicated to patients. This pilot also demonstrated the commitment of both organizations to devote extensive technical resources toward a project that will improve the quality of care delivered in Virginia.

Item 293 Q of the 2006 Appropriations Act sought to continue and expand the existing pilot project throughout the biennium. The expansion objectives were two fold. Additional clinics in Southwestern Virginia were added to the project. In addition, the Immunization Data Exchange Project was initiated in an effort to support the timely administration of pediatric immunizations and reduce the number of duplicative immunizations delivered within the area. Carilion has populated the immunization registry with a three year history of immunization information abstracted from their outpatient electronic health record (EHR) system. This will allow for the mutual sharing of immunization administration histories for children treated within the VDH clinic system and the Carilion Health System. As an "early-adopter", Carilion will be providing health information on immunizations administered by over 300 physicians and primary care providers in the area. This will speed the efforts of VDH in its creation of a complete electronic immunization record for all the citizens of the Commonwealth.

Pilot Project Expansion

I. Participating Site Expansion:

Virginia Department of Health (VDH) and Carilion have previously collaborated on a pilot project that allows VDH authorized staff in the Roanoke City Health Department and the Montgomery County Health Department to access electronic records from consenting Carilion patients via a web-based provider portal. The following sites have been added in the expansion: Fincastle, Vinton, Salem, Covington, Clifton Forge, New Castle, Floyd, Pearisburg, Radford and Pulaski.

VDH Responsibilities

- Assign VDH staff training resources
- Authenticate appropriate users
- Review role-based access by clinic sites
- Conduct necessary patient education and retain patient authorizations

Carilion Responsibilities

- Assign staff training responsibilities
- Issue I.Ds and passwords
- Monitor usage and follow-up with VDH clinics
- Provide ongoing support for CarePort utilization

Over the past year, the Carilion Health System has converted itself from a traditional Integrated Delivery System to the Carilion Clinic; a physician led clinic. As part of this conversion, the Carilion Clinic has completely changed its management structure and has begun deployment of new information systems. These changes resulted in expansion delays from the original project plan. However, VDH and Carilion Clinic have worked through these challenges and progress is now good.

Carilion's System Access Protocol:

All registered patients seen at the pilot clinic sites were matched with the Carilion patients to determine who could be considered shared patients. When "shared patient" status was determined, VDH was granted CarePort access for those patients. For shared patients only, they were asked to review and sign both the VDH Authorization Form as well as the Carilion Authorization Form.

An indicator of the need for immediate historical treatment information on a patient is the "break the glass" feature. The Carilion system will allow a VDH employee to view a new patient's information if it is needed for immediate treatment purposes.

Carilion's Electronic Health Record Access by VDH Through Two Clinic Sites:

For the period 6/01/2006 – 8/31/2006 VDH accessed Carilion's system 38 times for an average of 3 per business day.

For the period 9/01/2006 – 10/25/2006 VDH accessed Carilion's system 173 times for an average of 5 per business day.

For the period 6/01/2007 – 8/31/2007 VDH accessed Carilion's system 38 times for an average of 3 per business day.

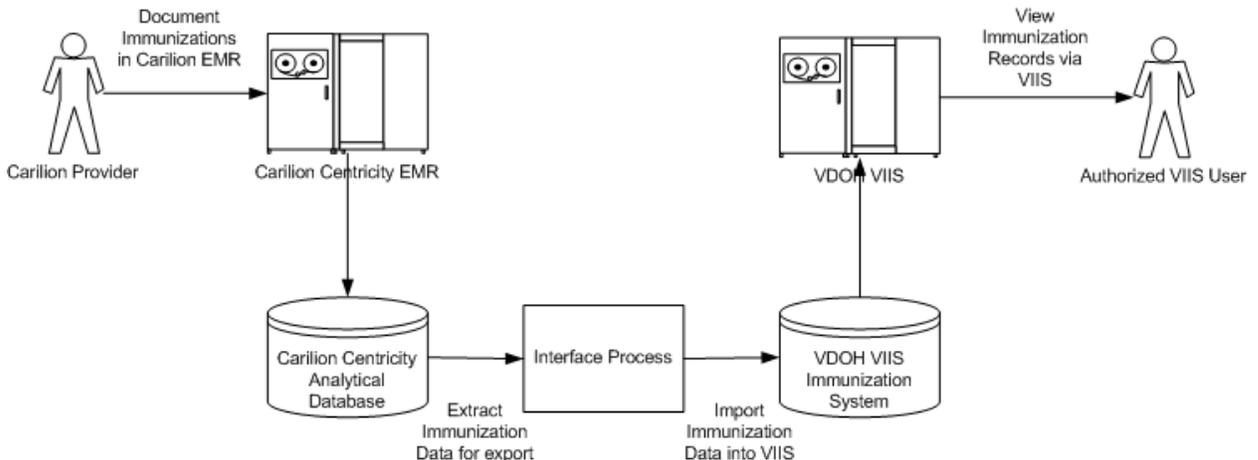
Note: The utilization information above is for two clinic sites. The additional ten clinic sites did not gain access until late August 2007.

Participating clinics indicate that access to the system has been most beneficial for the case management of STD/HIV patients and also for the postpartum care of mothers and babies. However, one of the barriers to utilization was identified to be the lack of Internet access in the clinic area. Carilion has also agreed to provide continuing training opportunities and to provide a dedicated staff person to support ongoing utilization.

II. Immunization Data Exchange Project

The Immunization Data Exchange Project has been initiated in an effort to support the timely administration of pediatric immunizations and reduce the number of duplicative immunizations delivered within the area. Carilion is developing an electronic interface to the newly developing VDH Virginia Immunization Information System (VIIS). This will allow for the mutual sharing of immunization administration histories for children treated within the VDH clinic system and the Carilion Health System.

The diagram below is a conceptual depiction of the data flow of immunization records between the Carilion Electronic Medical Record (EMR) system and the VDH VIIS system.



A high-level project plan for 2007-2008 is as follows:

Project Phase	Estimated Duration	Start	Finish
Project Planning & Test Data Transfer	2 Months	August 1	September 30
Detailed Design	2 Months	October 1	November 31
Coding and Testing	3 Months	December 1	February 28
Implementation	1 Month	March 1	March 31
Post-Project Review	2 Weeks	April 1	April 15

VDH Responsibilities

- Assign VDH Division of Immunization resources
- Provide technical specification for VIIS interface formats
- Review detailed project plan and coordinate activities directly with system vendor
- Participate in testing of transmission of immunization data to VDH VIIS
- Perform day-to-day maintenance of interface (VIIS only)

Carilion Responsibilities

- Assign Carilion resources
- Develop detailed project plan
- Coordinate project resources
- Develop transaction formats
- Extract immunization data from Carilion EMR
- Test transmission of immunization data to VDH VIIS
- Perform day-to-day maintenance of interface (Carilion aspects)

Summary

The initial success of this pilot project and its subsequent expansion is due in large part to the high level of commitment throughout each organization to healthcare improvements for the citizens of the Commonwealth. The expansion will greatly increase the electronic sharing of health information. VDH looks forward to the two-way exchange of health information through the implementation of EHRs in the health department. VDH and Carilion will continue to increase the visibility of the project as a model for other communities, both within and outside of the Commonwealth.