

Small Fish, Big Data Pond

Information Management Online, September 1, 2009

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With only half a dozen I.T. staff, Mt. Ascutney Hospital is hard-pressed to take on labor-intensive data projects. That's why, five years ago, the 55-bed Windsor, Vt.-based rural hospital began to look for ways to consolidate data from its array of legacy systems in a cost-effective manner. After a successful one-year pilot with a low-cost integration engine, the hospital secured a three-year, \$685,000 grant from the federal Agency for Healthcare Research and Quality to take on the project - which encompassed multiple data feeds, a clinical data repository and a master patient index.

Today, the hospital is able to funnel data-based on Health Level Seven messaging standards - into a common Web-based portal for physicians and other clinicians. The fact that it does not have to rely on vendor-built, customized interfaces has enabled the hospital to continue to expand the content of its repository. And it's prepared to participate in local data exchanges. "Health I.T. will be the cornerstone to turning around the industry," says Glenn Thornton, computer programmer. "Sharing data is the focus from Washington, D.C."

The hospital's data integration effort occurred in a phased approach during the three-year grant period, says Tom Sims, who served as principal investigator under the grant (Sims recently left Mt. Ascutney). To set the stage for the grant, the hospital tested data integration technology from Santa Monica, Calif.-based Orion Health. The software cost \$35,000, Thornton says. "The original deal included 10 communication points, or interfaces," Sims says. "But we negotiated for unlimited points. There was no way to put a solid count on how many points we would need." Mt. Ascutney currently has 101 bi-directional interfaces in its set-up - with more to come, Thornton adds.

The Orion package included an interface engine, master patient index and clinical data repository. These were the building blocks that enabled the hospital to expand its offerings through its clinician portal. In phase one, Mt. Ascutney linked its legacy hospital information system, from Mobile, Ala.-based Computer Programs and Systems Inc., to its ambulatory EHR, from Amicore Inc. (now part of Chicago-based Allscripts). Using the portal, staff could get a common view into data from both systems. In phase two, beginning in 2006, the hospital added data from its radiology information system and picture archiving and communication databank into the mix. It also took a step toward sharing data with outside organizations, building a feed of data on diabetic patients into the state health department's chronic care information system. As a result, the hospital was selected by the state to serve as a pilot site for a statewide data exchange using the same technology.

Last year, Mt. Ascutney completed its initial grant period, adding a link to a reference lab run by Mayo Health System. With lab orders originating from its legacy HIS, Mt. Ascutney can receive results directly from Mayo. "Prior to Orion, we used a modem and manual effort to record lab results," Thornton says. "It was not discrete data. Orion enabled us to convert lab results into HL7 messages." In addition to the lab interface, the hospital added a link that enables it to send large cardiology data files to specialists at Lebanon, N.H.-based Dartmouth Hitchcock Medical Center.

\$1.3 Million - Approximate total cost of three-year data integration project, including software, hardware and administrative expenses.

\$685,191 - Total of Mt. Ascutney's AHRQ matching grant for the project.

This article can also be found on HealthDataManagement.com.

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