



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
Lehigh Valley Health Network

Organization URL:
www.lvhn.org

Project Name:
Incorporating Behavioral Health and HIV Patients into a Shared Medical Chart

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

Lehigh Valley Health Network (LVHN) continues to implement electronic medical records (EMR) across the organization in an effort to enhance collaboration between providers while improving patient safety. With additional regulations surrounding Behavioral Health and HIV patients' privacy, the network was faced with the possibility that they may be excluded from our efforts to improve patient care. Prior to May 2011, the Behavioral Health providers utilized a mix of paper and EMRs separate from the "Shared Record" model used by our other providers. This ensured access was limited to providers and staff within those Behavioral Health practices; however, this model made it challenging for other clinicians to collaborate and effectively care for these patients. LVHN, using a multi-disciplinary approach, was able to develop technological and procedural solutions to incorporate this particular patient population into the Shared Record while maintaining maximum privacy. To date, the system has been able to incorporate more than 30,000 Behavioral Health/HIV patients.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

In comparison to paper records, an electronic medical record offers the capability to limit access to specific information and provides robust auditing capabilities. Patient health information related

to Behavioral Health and HIV management is subject to additional federal and state regulations. While the network's systems met those requirements, the group was concerned that patient care may be compromised in the absence of additional measures in the confidentiality protections. Early in the application development, the implementation team defined what information needed to be shared (e.g., allergies, medications, problems) or secured (e.g., narrative documentation). The security capabilities for document access were reviewed and a matrix for setting privileges was developed. Additionally, a "Break the Glass" process was developed to extend access to non-Behavioral Health providers collaborating in a patient's care, which required identifying the reason for such access, e.g., continuity of care, emergency, etc. Extra auditing processes were developed to monitor such access. In conjunction to the EMR changes, LVHN needed to ensure the application access request and receipt process was improved. They utilized an internally developed Web Information Services Access Request (WISAR) for generating user IDs, passwords, single sign-on buttons and approvals. A "layered roles" model was created to facilitate user training and provide immediate application access. Staff and providers requiring additional privileges have approval requests automatically sent to the appropriate managers. This automation supports appropriate and timely access to clinical information.

Please list the specific humanitarian benefits the project has yielded so far.

Through the innovative use of technology, the care for patients with Behavioral Health conditions or HIV continues to improve across the continuum. By developing access processes and procedures LVHN was able to incorporate these patient records into one system while heightening patient privacy. The providers have improved their ability to alert clinicians of potentially harmful interactions (e.g., drug to drug) when these patients visit their primary care or specialty providers. The ability to review an up-to-date, accurate record is especially important to HIV patients with very complex medication regimens. Patient and staff education was also crucial in the EMR development. In alliance with a network-wide Confidentiality Committee, Behavioral Health developed educational materials for patients explaining the shared medical record. All providers and staff received training and talking points to support patient education. Moreover, the Consent for Treatment form was modified to highlight this new model of providing care. Finally, surveys are ongoing, to gauge patient understanding of and reaction to the shared record.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Implementing a shared electronic medical record across medical, surgical and specialty practices is improving collaboration between providers and benefiting patients. Innovative technology solutions have allowed the incorporation of Behavioral Health and HIV patients into the same record to realize similar benefits. "This is the first time in 15 years of clinical practice that I have been able to see all of the prescribed medications and diagnoses, even from behavioral health and HIV physicians and practitioners, while respecting the privacy of the important narrative parts of their work. What a tremendous success on all fronts: quality, safety, and patient privacy!" - Dr. Mark Wendling, Family Medicine. The greatest outcome is the benefit afforded to our patients through enhanced clinician collaboration, improved patient care and safety.