The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
St. David's HealthCare

Organization URL:
http://www.stdavids.com

Project Name:
High Alert in the Emergency Room

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

Across the nation there has been increased use of emergency rooms by patients with mental health issues. A recent study showed that individuals with psychiatric needs and substance abuse disorders are a significant proportion of those using emergency departments. Hospitals must take measures to identify these individuals and obtain accurate health information from them so that appropriate steps can be taken to provide the best possible care and a safe environment for all patients and staff members. The leadership at St. David's Medical Center in Austin, Texas, realized the potential gaps that existed in providing care to this group of underserved patients. To address this, they implemented the High Alert system, which aids in tracking patients by providing identification and medical history for those who are unable to communicate accurate information about their identity due to mental illness, social and/or behavioral problems. The program notifies nurses and doctors that a patient has mental illness or other behavioral conditions that prevent accurate medical history from being obtained so additional care can be taken to validate information. It also alerts care providers about patients who are drug-seeking or who may be a danger to themselves or others. The success of this project is measured by the number of patients tracked in the system and the quality of patient detail collected. Success is also measured by the number of patients identified as drug-seeking and are subsequently referred to appropriate counseling. Appendix 1 photo shows the home page of the system. A user would type in the patient name, and a list of possible matches comes up in the system. Appendix 2 photo shows an actual patient information result that has been entered

into the system. Note that personally identifiable information has been removed according to HIPAA regulations.

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.

The development technologies used in this application were Microsoft .NET, SQL Server 10 and application servers from Dell. These tools allowed rapid application development of the Emergency Department system. After application requirements were gathered, a prototype was developed and in place within a few weeks. The full application was developed and in production in six weeks from the beginning of the project.

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

The High Alert system has improved the care given to the underserved in the Austin community. Patient safety is improved by allowing medication history, disease history, allergies and other important medical information to be coordinated in a patient population that is often underserved due to mental, social or behavioral problems. This system has allowed the physicians and nurses involved in their care a more accurate method of determining diagnosis, highlighting recurring problems and identifying potential risks for the patients served. It also helps protect other patients, families and clinical staff in the emergency room by alerting medical staff of patients who are potentially violent.

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.

"The High Alert system has protected the nurses and physicians from harm in several cases. The system notified us on admission that the patient was previously identified as violent. This provided time to call security personnel and prevented potential harm from occurring to the patient and clinical staff." George Gumbert, Director of Emergency Department, St. David's Medical Center. "The first benefit that comes to mind from the establishment of the High Alert system is a young man who contacted the local chemical dependency treatment facility after he discovered that he was no longer going to be receiving narcotics from this facility or the other hospital system in town. Once a care plan was established for him and he was made aware of it, he essentially said, "I guess I have a problem and will have to deal with it." He has not returned to a St. David's system ER since admitting his addiction to narcotic pain medications. Once we have concerns about our patients possibly being addicted to narcotics, we strongly encourage them to seek the treatment that they need in order to beat their addiction. This program has also allowed us to avoid unnecessary procedures on patients, such as CTs and blood work. Having a monitored summation of potentially problematic issues for the patients has allowed us to better assist them in managing their health. It has also aided in the planning for the chronically mentally ill who frequently come to the ER seeking help. We are more consistent in discharge planning, are more able to engage with the appropriate community resources, and better at managing their fears and anxieties while they are patients in the ER." Daisha Davis, LCSW, St. David's Medical Center, Emergency Department Social Worker.