The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
Indianapolis EMS

Organization URL:
http://indianapolisems.org

Project Name:
EMS ePCR / INPC

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

The Indianapolis EMS agency collaborated with the local HIE (Regenstrief) to allow an EMS provider in the field to look up a patients in hospital medical record. This is the first system of its kind. By doing this it enables the EMS provider to have a better insight into what the patient may be experiencing. The abstract received back from the hospital network allows the crew access to their last visit, medications, allergies, history, minimal lab data and now the last EKG performed. A survey was sent out to the EMS providers to determine the usefulness of the software and how it might change their care.

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.

Each ambulance carries a laptop computer which runs our ePCR software. That is linked to our servers via the cellular network. A request is input into the ePCR system using the patient's last name, first name, date of birth and sex. These four qualifiers are then sent to the Regenstrief institute to produce the abstract. We encountered the challenge of marrying up a pre-hospital request with an in-hospital record to retrieve the necessary data. Several iterations of the abstract were built before determining the final product. This also was a challenge to span the provider

across several silos of information to allow them to authenticate to any of the hospital systems providing data.

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

This project enables our paramedics to have a more complete picture of what may be happening with our patients. This is especially useful to our population that may not know their complete medical history or are unconscious. With the EKG piece now being implemented, we are able to view a heart attack victim's last EKG and compare it to their current EKG, which will save time in getting them to a cath lab for an active heart attack, thereby reducing muscle damage and increasing their chance of survival. In addition, we can offer advice on certain types of care. An example would be, during influenza season, we can see if a patient has had a necessary vaccination and, if not, make recommendation to the ED upon arrival, or if they do not transport to the hospital with us (approximately 30% of our patients), we could offer it to them there, in their house.

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.

An example of this was a gentleman who was hit by a car on his bicycle but couldn't tell us anything more than his name. We were able to look his information up and determine that he had a psych history which better matched his story than being hit, and we were then able to transport him to the appropriate facility for care. We have also had crews use to ensure that a patient does not receive a medication they are allergic to or might have an interaction with another medication. One of our crews was able to reduce time to cath lab by already having the patient's previous and current EKG pulled up prior to our arrival at the ED.