Fire Department Tests QR Codes for Citizen Medical Data

Sarah Rich | September 26, 2012

Every second counts during medical emergencies, and quick access to medical information can be the difference between life and death.

Marin County, Calif., located just across the Golden Gate Bridge from San Francisco, is working to ensure first responders have access to this crucial information. In early June, the county’s fire department began piloting a yearlong project that offers residents tech-enhanced stickers that link to an online health profile.

Partnering with Lifesquare, a start-up company located in Menlo Park, Calif., Marin County is distributing free quick response (QR) code stickers, which when scanned by a camera-equipped mobile device, direct emergency responders to the resident’s online medical profile. As of August, the county had 1,100 enrollees in the program.

“We’ve utilized the Lifesquare technology, and it has worked well,” said Mike Giannini, Marin County’s emergency medical services battalion chief. “We’ve been able to get patient information and use it to our advantage.”

QR codes — which resemble a bar code — gained attention in city government in 2009, when Manor, Texas, CIO Dustin Haisler led efforts to have them placed throughout the city so residents and visitors could learn more about a location that held a QR code.

And these codes aren’t typically associated with capturing medical information, but more for disseminating information about historic landmarks and commercial products, such as in Manor. This is changing, however.

Marin County residents can participate in the program by creating a free online account on Lifesquare’s website. From there, they create a profile that includes essential health information such as allergies, medications and emergency contacts — whatever medical details they want to divulge. Information entered into the profiles is stored securely in Health Insurance Portability and Accountability Act compliant servers, according to Lifesquare.
Once a medical profile is created, Lifesquare mails the participant a package of stickers that feature their unique QR code. The idea is to place the stickers in convenient locations, such as wallets, bike helmets, refrigerators and car keys. If an individual is unconscious or incapacitated, paramedics can easily locate the sticker and scan it to bring up his or her medical information, said Ryan Chamberlain, spokesman for Lifesquare.

To access the medical information using the stickers, the county’s firefighters and emergency responders scan the QR code with a mobile device — and Lifesquare gave the county 50 iPhone units for use in the trial.

Currently, medical information can only be accessed by medical personnel participating in the pilot who have the Lifesquare EMS application on their mobile device.

Chamberlain said that unlike static medical information alerting methods like bracelets, the company’s QR code proprietary technology is cloud-based so users can update their online profiles at any time.

“[The QR code sticker] can go anywhere with you and it’s secure,” Chamberlain said. “If you’re sitting in a coffee shop, nobody can look over and read what your medical history is. It’s just a code, and only the professionals can get to that.”

**Vial of LIFE**

Before experimenting with QR code technology, the county implemented a similar program — called Vial of LIFE (lifesaving information for emergencies) — to make medical information easily accessible to emergency responders, Giannini said.

According to the county fire department website, Vial of LIFE provides residents with kits that contain materials —like a refrigerator magnet, sticker for a front door and medical information form — that would help emergency responders find their medical data in the event of a crisis.

Giannini said because the fire department’s Vial of LIFE program is similar to the idea behind the stickers printed with QR codes, the department was a big proponent of working with Lifesquare to use the technology. In the near future, Giannini said he’d like to see information gathered from Lifesquare integrated into reports that responders must complete.

“We’re looking for them to create a bridge that will take all of that information from Lifesquare and populate the pertinent fields in our electronic patient care report,” Giannini said. “So that will provide us with not only more accurate information, but it will save us a significant amount of time during the course of patient care and over the long term.”

**The Tech Next Door**

So why is Marin the first to pilot Lifesquare’s medical QR code program? Chamberlain said a combination of community interest and need were factors.

The county — a mountainous landscape and home to sites like film director George Lucas’ Skywalker Ranch — is also home to a vibrant senior citizen population and many
cyclists. Chamberlain said these two populations alone made Marin County a good fit for the pilot’s launch.

Marin also is a stone’s throw away from Silicon Valley, a factor that could be seen as advantageous for bringing technology to the community.

Chamberlain said the next step to expanding the Lifesquare technology would be to connect it with an electronic patient care report system as a way to simplify how the medical information is transferred for a patient. If paramedics process the scene of an accident by first scanning a person’s Lifesquare QR code then directly upload that information to an electronic patient care report system, the information is more seamless and error free.

“You don’t have people trying to write out a long form of medications, prescriptions and medicine names, or misspelling a person’s name and things like that,” Chamberlain said. “So not only is it quicker for paramedics, it also removes that element of human error.”

Chamberlain said Marin County has just finalized a contract with an electronic patient care records company. Once a system is implemented, the Lifesquare technology will be synced with it.

So far, the program has only been deployed in Marin County, but Lifesquare ultimately plans to expand the QR code stickers to other counties. Chamberlain said for the technology to have optimal utilization, it will be important for major health-care providers to participate as a way to target critical mass.

“I think the bigger picture is it needs to be adopted in large scale,” Chamberlain said. “Marin County was a great test of how it works, but for it to really work well, we need to have everyone on board.”

http://www.govtech.com/health/Fire-Department-Tests-QR-Codes-for-Citizen-Medical-Data.html