HeartRescue PROJECT

CASE STUDY

Improving Response Time

Smartphone alert program shows promise in five communities

THE CHALLENGE:

A person's chance of survival following out-of-hospital cardiac arrest decreases as the time from their collapse to CPR administration to defibrillation increases. We need new and innovative ways to respond to people more quickly, especially when they are at home.

THE RESPONSE:

The Verified Responder Program was piloted in 5 U.S. communities in 2018. Almost 600 rescue professionals – "Verified Responders" – volunteered to be equipped with automated external defibrillators (AEDs) and to use PulsePoint, a geospatial smartphone application, that would alert them to nearby incidents of suspected cardiac arrest – in both public and private locations. When 911 dispatchers received calls about suspected cardiac arrest, they crowdsourced the alert to the smartphones of the volunteer responders in the vicinity of the event in hopes that an off-duty responder could respond to begin CPR or provide defibrillation before the EMS response arrived.

- The pilot program involved 593 volunteers from 5 fire-based organizations in Madison, WI; Sioux Falls, SD; Spokane, WA; Spokane Valley, WA; and Tualatin Valley, OR.
- Though the pilot program only reached a small population, Verified Responders were able to decrease time to CPR and defibrillation and help save lives in those cases.
- Two thirds of the alerts were about cardiac arrest in private residences.

In North America, geospatial response strategies have been mostly restricted to public settings.

However, most cardiac arrest happens in homes.

Enabling volunteers to respond into private residences

and deliver lifesaving care prior to EMS arrival offers the promise to improve survival.

- Responders felt empowered and prepared to respond to the alerts and reported no safety concerns or issues when entering private homes.
- 96% of the responders had a positive impression of the program and planned to continue participating in it.
- In a broader survey of public safety groups (law enforcement, fire and EMS providers), 80% say they would participate in a program like this and would respond to an alert about suspected cardiac arrest in a private residence.
- The next phase of the program will expand it to additional areas to enable earlier treatment for more people who experience sudden cardiac arrest.

Learn More about the Verified Responder Program: **https://pubmed.ncbi.nlm.nih.gov/32580006/**.