

People in 'crowdsourcing' challenge find defibrillators in Philadelphia

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Penn Medicine's MyHeartMap Challenge, a crowdsourcing contest that sent hundreds of Philadelphians to locate and catalog the locations of AEDs throughout the nation's fifth largest city led to the identification of more than 1,400 automated external defibrillators in public places. Credit: Penn Medicine

Participants in a "crowdsourcing" challenge in Philadelphia used a smart phone application to locate, photograph and map more than 1,400 automated external defibrillators in public places, according to research presented at the American Heart Association's Scientific Sessions 2012.

Crowdsourcing is when the public conducts tasks traditionally done by a company, individual or a group with special skills.

Although [automated external defibrillators](#) (AEDs) have become increasingly available in public places, including gyms, schools, office buildings and retail shops, there is no centralized database of their

locations, and their use in emergencies remains low, said Raina Merchant, M.D., lead researcher of the study and assistant professor of medicine at the University of Pennsylvania in Philadelphia.

As part of the [MyHeartMap](#) Challenge, researchers recruited volunteers to use a smart phone app to locate, photograph and map the location of public AEDs. More than 313 teams and individuals found AEDs in more than 500 buildings throughout Philadelphia. The buildings included gyms (19 percent), schools (16 percent) and offices (11 percent).

Individuals or teams who located the most AEDs received monetary prizes.

"Rapid defibrillation is an essential link in the 'Chain of Survival' that's necessary to save cardiac arrest victims. AEDs provide this, but we first need to know where they are," Merchant said. "An estimated one million AEDs have been sold throughout the country, but because they are not subject to the same [FDA regulations](#) as implantable medical devices, we need to map their location."

Researchers created the contest to investigate whether crowdsourcing is a viable [public health surveillance](#) project.

The data collected will be used to create a new mobile app to help [bystanders](#) locate the nearest AED during emergencies and for 9-1-1 operators to direct bystanders to AEDs while paramedics are en route to the scene.

"Each AED located during the MyHeartMap Challenge represents an opportunity to save lives," Merchant said. "We found that crowdsourcing is a feasible approach for identifying AED locations throughout a major city and GPS technology can validate health data provided by the public. Engaging the public as 'citizen scientists' can help identify emergency

health resources and needs, while simultaneously improving awareness about them."

Most participants were students or medical professionals, and older people responded more often than younger people.

"When we started, we thought most participants would be younger students, but many of them were over age 40 and one prize winner was over 60," Merchant said. "So much for the digital divide."

Provided by American Heart Association

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