

# Volunteers are often first on the scene to save people with cardiac arrest, finds Swedish study

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Volunteer so-called SMS lifesavers in Sweden, who are alerted to cardiac arrests nearby using a mobile app, perform a large part of life-saving efforts before the ambulance, police or emergency services arrive, regardless of whether they are instructed to collect the nearest defibrillator or not. This is according to a new study from Karolinska Institutet published in *JAMA Cardiology*.

Only 1 in 10 who suffer an out-of-hospital cardiac arrest survive, and quick life-saving efforts are crucial. Previous research has shown that [cardiopulmonary resuscitation](#) (CPR) performed before the arrival of the ambulance is associated with over a two-fold increase in the chance of survival.

To save more lives, researchers at Karolinska Institutet have developed a system called SMS lifesaver where CPR-trained volunteers are alerted to out-of-hospital cardiac arrests nearby via a text message. To date, SMS lifesaver engages close to 130,000 volunteers in 11 regions in Sweden, and more than 20,000 defibrillators are available to the public.

In the current study, the researchers investigated how CPR and the use of public [automated external defibrillators](#) (AED) were affected if SMS lifesavers were instructed to retrieve the nearest AED before heading to the scene, compared to if they were only alerted to perform CPR.

The study shows that SMS lifesavers were often first on the scene and have an important role to play as they provide life-saving efforts before the ambulance, police or [emergency services](#) arrive. They used a defibrillator in a third of cases and provided CPR in almost half of all cases of cardiac arrest, regardless if they were instructed to first collect the nearest defibrillator or go directly to the person suffering a [cardiac arrest](#).

The researchers' interpretation is that many of the SMS lifesavers have a

defibrillator close at hand and decide for themselves which strategy is best suited to the situation.

**More information:** Ellinor Berglund et al, Effect of Smartphone Dispatch of Volunteer Responders on Automated External Defibrillators and Out-of-Hospital Cardiac Arrests, *JAMA Cardiology* (2022). [DOI: 10.1001/jamacardio.2022.4362](https://doi.org/10.1001/jamacardio.2022.4362)

Provided by Karolinska Institutet

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