



# Using Mobile Technology to Increase Cardiac Arrest Survival

## POSITION STATEMENT

The International Association of Fire Chiefs (IAFC) endorses the use of technology for a citizen response in conjunction with community bystander cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) programs. When deployed in combination, survival from sudden cardiac arrest in both rural and metropolitan communities can be significantly improved.

Applications such as **PulsePoint** offer a unique way to involve the citizens in a local jurisdiction to not only become aware of when others need life or death assistance, but also provide them an avenue to render aid. This not only reflects well on the fire department but provides the community with a sense of ownership in the program.

The IAFC recognizes that implementing and sustaining **PulsePoint** cannot be reliant on political or philanthropic support alone; it needs a cultural change. The fire department must convince the community that sudden cardiac arrest is not just a job for emergency responders but rather a community-based issue that requires a community-based response.

When implementing a program to use technology to improve citizen response, the IAFC recommends that fire departments consider the following issues:

- **Activating Citizen Responders**

A citizen responder can include CPR-trained civilians or medical professionals who voluntarily participate in the program by installing **PulsePoint** on their smart phone. When citizen responders receive an alert through the app, they immediately can choose to initiate lifesaving treatment prior to the arrival of emergency responders. By using mobile technology, such as the **PulsePoint** app, the likelihood that a sudden cardiac arrest victim will receive CPR from a citizen responder greatly increases. However, it is important to recognize that, despite the fact that many cardiac arrests occur in private residences, the public-facing app is restricted to alerting only for events in public locations.

- **Verified Responder Program**

Many off-duty firefighters, emergency medical service providers and medical professionals are willing and able to respond to nearby cardiac arrests and other time-sensitive emergencies. These professionals have experience responding to private locations and can be vetted and granted "Verified Responder" status in **PulsePoint**. These "Verified Responders" can be alerted

- **Verified Responder Program (Continued)**

for all cardiac arrests whether they occur in public or private locations. In addition, the IAFC recommends that verified responders be alerted to other types of time-sensitive emergencies.

The value of having off-duty fire department personnel included in the system is paramount to the success of the program, because it expands the reach of early CPR response in a community. A “Verified Responder” program also aids in formalizing the “always in service” dedication of fire department personnel. The IAFC recommends that fire departments considering implementation of a “Verified Responder” program consult with labor and management prior to implementation. Fire chiefs should consider modeling other successful implementations which have addressed these concerns using best practices.

- **AED Integration:**

To further enhance the public’s capability of deploying an AED on appropriate emergencies, communities should utilize an electronic database to track the location of all AEDs in their respective service areas. Mobile applications could be used to engage the public in reporting the location of AEDs to ensure the registry is current and comprehensive. By using the AED registry, a mobile app can alert a citizen or off-duty responder to the location of the closest AED, increasing the likelihood of getting the AED to the patient’s side. Likewise, an electronic AED registry should be linked to the jurisdiction’s communications center to direct 911 callers to the closest AED for providing lifesaving aid.

- **Connecting with the Community**

Mobile technology provides an opportunity for citizens to view listings of fire, rescue and medical calls being dispatched and answered in real time. The **PulsePoint** app allows localities to offer radio feeds that users can enable for a real-time audio feed of dispatch and responding units. Citizen use of the app to monitor calls in progress increases familiarity with the app and its operation and provides a tremendous public relations and awareness tool. A significant percentage of **PulsePoint** users are emergency responders and medical personnel. These users enjoy an added benefit of integration with the 911 system in real-time tracking of incidents, dispatches and units assigned. When integrated into the 911 system to provide automatic notifications of incidents, occasional delays that might occur in call-taking and dispatch can be offset by earlier notifications through technology, such as the **PulsePoint** app, even when such notifications are only seconds apart.

Submitted by the International Association of Fire Chiefs  
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