

Resuscitation

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Incorporating Innovative Technologies and Addressing Behavioural Factors to Improve Sudden Cardiac Arrest ("SCA") Response



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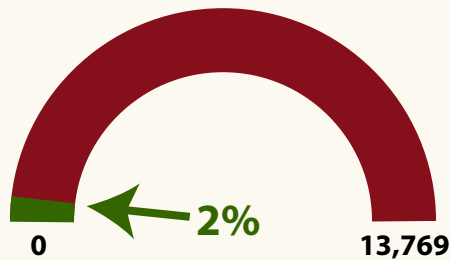
Purpose: Research has clearly documented the benefit of early provision of CPR and application of an AED to the victim of Sudden Cardiac Arrest ("SCA"). More Automated External Defibrillators ("AEDs") are being purchased than ever before. However, recently published SCA consortium studies reveal that the SCA response rate by lay responders remains a dismal 2%. The authors implemented alternative training techniques and innovative technologies to determine whether they could improve the SCA response rate at a nation-wide federal agency.

Results: Training programs were successfully implemented at the targeted populations. AED compliance was recorded on a monthly basis. Eight (8) SCA events occurred over the study period. The average monthly AED compliance rate was 100%. The SCA response rate was 100%.

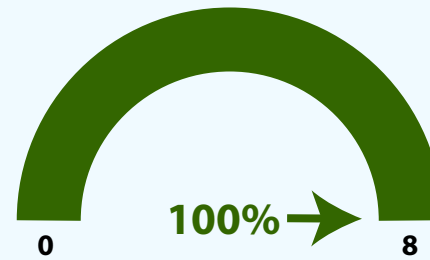
U.S. Published Nationwide SCA Response Rate

Survival After Application of Automatic External Defibrillators Before Arrival of the Emergency Medical System

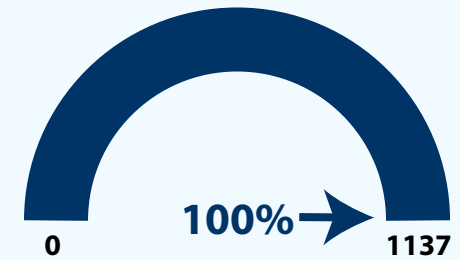
Evaluation in the Resuscitation Outcomes Consortium Population of 21 Million
 Myron L. Weisfeldt, MD,* Colleen M. Sitlani, MS,† Joseph P. Ornato, et. Al.
 J Am Coll Cardiol. Apr 20, 2010; 55(16): 1713–1720.



FAA SCA Response Rate



Operation Ready AEDs



Methods & Materials: The authors implemented new training programs targeting 4 distinct segments of an organization with 45,000 employees located at multiple sites. Each training program was developed based on behavioral science to prepare that segment uniquely for their responsibility to create a successful AED program, as defined by a successful SCA response. SCA response was defined as alerting trained responders and 911, immediate provision of CPR, and attaching the closest functioning AED to the SCA victim prior to the arrival of Emergency Medical Services ("EMS"). New technologies were provided to the appropriate segments to facilitate and ensure AED compliance and an immediate response from trained responders.

Conclusions: Providing basic AED/CPR training and placing AEDs in strategic locations produces an average 2% SCA response by lay responders. The addition of targeted training programs for essential personnel and specific technological tools can significantly improve cardiac arrest response rates, and therefore SCA survival.

SCA Organizational Model



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Missing Link in the Chain of Survival

