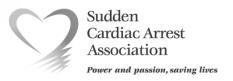


10 Step Community AED Program

SCAA MISSION: ELIMINATE UNNECESSARY DEATHS FROM SUDDEN CARDIAC ARREST (SCA) BY 2020



10 steps to success

- Step 1: Establish AED task force
- Step 2: Review laws, regulations and advisories
- Step 3: Conduct needs assessment
- Step 4: Estimate program costs and seek funding
- Step 5: Establish medical direction and program management
- Step 6: Select device
- Step 7: Develop response plan
- Step 8: Conduct training
- Step 9: Track and evaluate program data
- Step 10: Cultivate public awareness



Step 1: Establish AED task force

Include all key stakeholders to create buy-in

Community level

For example: EMS director, first responder (fire/police) leadership, corporate leaders, elected officials, representatives of training organizations, civic groups, senior citizens organizations, the media

On-site level

For example: EMS director, first responder (fire/ police) leadership, company physician, building owner, building manager, corporate management, security personnel, school administration, volunteer responder leadership



Step 2: Review laws, regulations and advisories

Federal level

- FDA: Requires prescription
 - Philips OnSite HOME defibrillator does NOT require prescription
 - Philips regular OnSite defibrillator does require prescription
 - Pediatric pads for both models require prescription
- 2. CASA: Addresses AED placement in federal buildings and provides immunity
- 3. FAA ruling: Requires AEDs on airlines
- 4. OSHA advisory: Recommends workplaces consider AED placement
- 5. GAO report: Recommends SCA data collection



Step 2: Review laws, regulations and advisories

State level

- All states now have laws addressing AEDs
- Some have requirements for training, EMS integration (i.e. registration or notification requirement), medical direction and record keeping. Others do not.
- Some mandate placement in certain locations.
- See <u>www.suddencardiacarrest.org</u> for link to your state law.



Step 2: Review laws, regulations and advisories

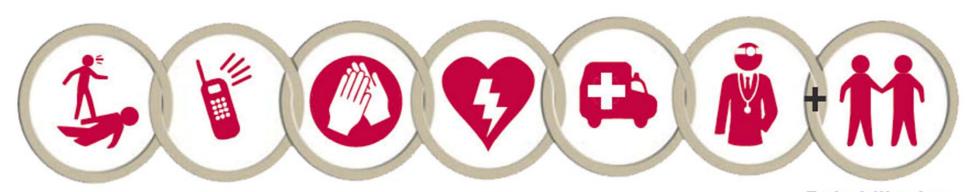
Local level

- Some municipalities have developed local ordinances to encourage bystander intervention
- Some mandate placement in certain locations.



Step 3: Conduct a needs assessment

Where are the weak links in your system?



Rehabilitation & Recovery



Early access

- Does your community have Enhanced 9-1-1?
- Does the public know how to recognize cardiac emergencies?
- Does the public know to call 9-1-1 immediately in the event of an apparent cardiac emergency?
- Have dispatchers received emergency medical dispatch (EMD) training?
- Are call-processing times as efficient as possible?



Early CPR

- □ Are dispatchers trained to coach callers in CPR and AED use?
- Do your community dispatchers know the location of nearby AEDs during an SCA call?
- Is most of the teen and adult population trained in CPR?
- Does the public understand and appreciate the need for immediate intervention by bystanders?



Early defibrillation

- Are responders trained to deliver first shock within 60 seconds of arrival?
- ☐ Is the "call-to-shock" interval <5 minutes in 90% of cases?</p>



Early advanced care

- Does your community have paramedics, nurses, physician assistants or emergency physicians prepared to provide advanced care in the field?
- Do local hospitals provide state-of-the-art post-resuscitation care in ED and ICU?
- Do survivors routinely undergo electrophysiology (EP) evaluations to determine whether implantable cardioverter defibrillation (ICD) therapy is appropriate?



Should you create an on-site program?

- Does location have at least 10% of personnel willing and able to respond?
- Is EMS response time > 5 minutes for more than 10% of responses?
 - ☐ Response time should be defined as from placement of 9-1-1 call to arrival at victim and not how close the Fire Station is to the facility.
- Does location have "at-risk" population?
- Is location "higher-risk"?



"At-risk" population

- Men age 40 or older
- Post-menopausal women
- High blood pressure
- High cholesterol
- Sedentary lifestyle
- Diabetes
- Personal history of heart disease
- Family history of heart disease



"Higher-risk" locations

- A. Residential (57-75% SCA occurs at home)
- B. Non-residential

Airports, businesses, county jails, dialysis centers, gaming establishments, golf courses, large industrial sites, homeless shelters, nursing homes, physician officers, shopping malls, sports complexes, streets and highways, trains and ferries, urgent care centers



Public Access Defibrillation (PAD) Study formula for identifying "higher-risk" locations

- Take number of individuals at location
- Multiply by percentage age 50 and older
- Multiply by hours spent at location each day
- Multiply by 350 if residential or 250 if non-residential
- 600,000 or higher= "higher-risk"



What if the location is "low-risk"?

Should AED program be started anyway?

Considerations:

- Increase in public awareness and bystander action
- Local resources and priorities
- Community values
- Is location used for mass gatherings?
- Rare but real opportunities to save lives

Sudden Cardiac Arrest Association Power and passion, saving lives

Step 4: Estimate program costs and seek funding

Costs typically include:

- Devices, wall mounting cabinets and ancillary supplies
- Initial and refresher training
- Medical direction
- Program management
- Continuous quality improvement
- Maintenance
- Documentation
- Public relations/ media coverage
- Citizen CPR/ AED training



Sources

- Organizational budget
- Local corporations and corporate foundations
- Local civic organizations
- Hospital foundations
- Public charities
- Government grants



Government grants: Federal

- Rural Access to Emergency Devices Act
- FEMA Assistance to Firefighters Grants
- Homeland Security grants



Government grants: State examples

- PA: Provided funding for AEDs in schools
- TX: tobacco funds for AEDs
- Proposed legislation in many states. Contact state EMS agency for details.
- Many states have confiscation funds (i.e. from illegal narcotic raids) which can be allocated to a public agency to acquire AEDs. Check with your state's Attorney General for more information on how these funds are allocated.



What grant-makers look for:

- Does program fit scope of foundation?
- Is there a need in the community?
- Is the program unique and creative?
- Is there a realistic budget?
- Can concepts be applied elsewhere?
- Is organization committed?
- Is there evidence of collaboration?
- Will organization report on progress?
- Will program make a difference?



General tips:

- Create 501(c) (3)
- Check out <u>www.foundationcenter.org</u>
- Be patient, positive, persistent: the funding is there...you just have to find it.

Step 5: Establish medical oversight and program management

Role of oversight physician

- Provide medical leadership
- Write prescription for device(s)
- Help develop response plan
- Provide guidance in selection of device and deployment
- Provide guidance regarding training
- Review responses to all medical emergencies
- Follow up with patients
- Conduct data analysis and system review
- Assume overall responsibility for program

Cardiac Arrest



Step 5: Establish medical oversight and program management

Role of program coordinator

- Help develop response plan
- Oversee deployment of devices
- Oversee initial and refresher training
- Recruit new trainees as needed
- Spearhead public awareness initiatives
- Manage data collection process
- Help review responses to all medical emergencies
- Responsible for overall program management



Step 6: Select device

Considerations when buying AEDs:

- User level (EKG screen not advised for layperson responders)
- Frequency of expected use
- Environmental needs (temperature, water exposure, durability, etc.)
- Integration with other devices in system (Note: Adapters may be used with different devices)
- User preferences
- Cost: both initial and follow-up expenses
 - Initial: cost of device, installation, training
 - Follow-up: replacement of pads and battery



Step 6: Select device

- Cardiac Science
- Cintas (distributor for Defib Tech)
- Defib Tech
- HeartSine Technologies
- Laerdal (outside U.S.)
- Medtronic Physio-Control
- Philips Medical Systems
- Welch Allyn/ MRL
- ZOLL Medical Corporation

See <u>www.suddencardiacarrest.org</u> for details and demos See *Health Devices* report for device review



Step 7: Develop response plan

- Register program with state agency
- Integrate response system with EMS
- Identify and train response team (plan for initial and refresher training and turnover)
- Determine specific roles of team members
- Determine AED placement



Step 7: Develop response plan

- Consider on-site and external (9-1-1) notification systems
- Ensure system functions during business hours and ideally, after hours (on-site)
- Conduct periodic AED drills (on-site)
- Conduct post-event review and feedback



Step 7: Develop response plan

- Establish operational policies and procedures that address
 - Battery checks
 - Ancillary supplies
 - Electrode expiration date check
 - Data cards
 - Equipment maintenance



Step 8: Conduct training

- Training: 2-4 hours classroom instruction/ practice
- National AED training organizations include:
 - American Heart Association
 - American Red Cross
 - American Safety & Health Institute
 - MEDIC FIRST AID International
 - National Safety Council
- Considerations: out-sourcing instruction or developing on-site instructors
- Periodic refresher training
- Explore on-line training options
- See <u>www.suddencardiacarrest.org</u> and AED Instructor Foundation for a trainer near you



Step 9: Track and evaluate program data

- Track training and device deployment data
- Conduct post-event follow-up
 - Establish plan for notification of program manager and medical director when event occurs
 - Identify mechanism for downloading data from AED
 - Record case data
 - Review case with rescuers to evaluate care provided and need for critical incident stress debriefing (CISD)
 - Provide CISD as needed
 - Report data to appropriate authorities
- Conduct system evaluation to ensure continuous quality improvement



Step 10: Cultivate public awareness

Why?

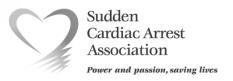
- Generate funding to create and sustain program
- Educate public about critical need for bystanders to intervene quickly
- Empower public with knowledge that they can help save a life



Step 10: Cultivate public awareness

How?

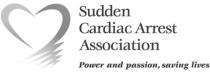
- Frame the issues
- Develop a statement of need
- Lobby local political leaders
- Identify and address potential obstacles
- Promote media coverage



Sustaining your AED program

What happens after the champion moves on? Need for systems approach that addresses

- Ongoing refresher training
- Recruitment of new AED responders
- Periodic AED drills
- Continuing public awareness initiatives
- Data collection and analysis for CQI
- Periodic response plan review



Community Criteria for Resuscitation Readiness

- 1. Is there broad-based collaboration and buy-in?
- Has a community needs assessment been conducted?
- 3. Is there sound medical oversight?
- 4. Is a specific person responsible for program management?
- 5. Are training efforts producing responders who are competent, confident and likely to help in emergencies?
- 6. Is there a response plan with written policies and procedures?
- 7. Is the response plan integrated with EMS?
- 8. Is there a continuous, concerted effort to increase public awareness?
- 9. Have methods been established to track operations data?
- 10. Have methods been established to evaluate SCA incidence, treatments and outcomes?



Why follow 10-step approach? Because so many more can survive!





- Non-profit organization headquartered in Washington, DC
- www.suddencardiacarrest.org
- Singularly focused on sudden cardiac arrest for survivors, those at risk, health care providers and activists
- Founded in March 2005, it is an outgrowth of the National Center for Early Defibrillation (NCED) at the University of Pittsburgh
- 50+ chapters
- Chair of SCA Coalition, a 40 member group developed to foster greater public awareness, research, and access to life-saving therapies. (www.stopcardiacarrest.org)
- Very active and strong online support community inspire



SCAA Goals

- Develop & grow a grassroots membership that will effectively eliminate unnecessary deaths from SCA
- Increase awareness and understanding of Sudden Cardiac Arrest
- Build and maintain effective SCAA Chapter involvement and leadership among physicians, EMTs, public policy makers and general public
- Collaborate with others to increase access to CPR, early defibrillation, ICDs and other therapies
- Provide patient and survivor support and information