5.2

Link 2: Early Recognition and Activation of 9-1-1
SCAA POSITION STATEMENT
Subject: Automated External Defibrillators in School Facilities

The Sudden Cardiac Arrest Association (SCAA) fully supports legislative efforts to require the placement of Automated External Defibrillators (AEDs) in school facilities. A growing list of states has already enacted such legislation. For example, in November 2007, the state of Ohio completed the task of AED funding, placement and training in 4,400 Ohio public, private, charter, parochial, vocational and community schools.

Public access to AEDs is an appropriate response to the public health crisis of sudden cardiac arrest which kills more than 325,000 Americans each year. Most deaths from sudden cardiac arrest (SCA) can be prevented with rapid response and treatment. By placing AEDs on school grounds, not only are safer, so are teachers, staff, administrators, parents and visitors to school facilities. Equally important, an entire generation of students and their parents are being educated about sudden cardiac arrest and the need for all of us to be prepared to respond to an event through CPR and the use of an AED. The public benefits of such an effort are enormous and as a result, lives will be saved.

There is ample proof that AEDs save lives and the public placement of AEDs is a visible and constant reminder that sudden cardiac arrest does not have to result in a tragic outcome. When people know that there is an AED on the premises, they are not only more inclined to act, but they are also better informed on what to do in such an emergency. Because SCA can occur anywhere and at anytime, the Sudden Cardiac Arrest Association believes that AEDs should be placed in all kinds of public facilities where people congregate to strengthen the chain of survival, expand access to defibrillation, and decrease the number of deaths from SCA.

Thousands of Americans are alive today because public buildings, police cars, commercial airliners and other locations are now equipped with AEDs, but that number could be higher with broader AED implementation. Schools are a vital component of our local communities and a natural gathering place. By enacting legislation to require AEDs at school facilities, legislators will be taking an important step in protecting students, staff, parents and visitors and educating them about their role in preventing sudden cardiac arrest.

The Sudden Cardiac Arrest Association’s mission is to prevent loss of life from sudden cardiac arrest. We seek to increase awareness, encourage training for immediate bystander action, increase public access to defibrillation and promote the use of available medical devices and therapies, principally, implantable cardioverter defibrillators (ICD). SCAA members are the beneficiaries of improved science and medical technology, coupled with the wisdom and caring of thousands of physicians. For more information, please visit us at www.suddencardiacarrest.org
SURVEY FOR AED NEED

Sudden cardiac arrest (SCA) is a leading cause of death in the U.S., killing more than 325,000 people each year. That's more than the total death rate for breast cancer, lung cancer, and HIV/AIDS combined. SCA is different than a heart attack and is caused by an electrical failure of the heart to beat. Many heart attacks are associated with symptoms such as chest pain, cold sweats and/or nausea. Sudden cardiac arrest, however, is just that - sudden - and the victim could be exercising or talking one moment, and unconscious the next. The growth of automated external defibrillators (AEDs) in schools, airports and other public facilities has improved response and awareness of SCA, but it is still a misunderstood condition, and many patients who may be at risk are not being helped with understanding the need for widely-available AEDs.

Name of Person completing survey: ________________________________
Organization or Location: ______________________________________

Phone: ______________________________  Email: ____________________________
City: ______________________________  Zipcode: _________________________
County: __________________________

1. Do you know what an AED is?  □ Yes  □ No

2. Do you have on-site access to an AED?  □ Yes  □ No
   If yes: How many?: ________
   Manufacturer: ____________________________
   ____________________________

   If not, why not? (check all that apply)  □ Cost  □ Don’t know what they are
   □ Liability Concerns  □ Other

3. How many additional AEDs are needed to fully equip your organization or location? _________

4. Who completes routine AED maintenance checks?  □ Training Officer  □ Paid maintenance service
   □ Volunteer  □ Other

5. What is your proximity to the following?
   □ Police Station    □ Fire Station    □ Hospital ER    □ Nearest AED
   _________  _________  _________  _________

6. Does a physician, nurse or trained EMT oversee your AED:  □ Training  □ Protocols

7. How many persons in your location have had the following training:
   American Heart Association Health Care Providers/CPR Course: __________________________
   American Heart Association AED Course: __________________________
   Other: __________________________
8. How many additional persons in your location need AED training? _____________________

9. Please provide an address if you want more information on AEDs training programs available for AEDs:

______________________________________________________________________________

______________________________________________________________________________

Phone: __________________________
**SURVEY FOR AED NEED**

Following is a partial listing of sites in many communities that may have AEDs or could be potential sites for AEDs. Please IDENTIFY those that are in your area and community:

<table>
<thead>
<tr>
<th>SITE</th>
<th>LOCATION (City or Zip Code)</th>
<th>AEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Responder Unit (not ambulances)</td>
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<td>☐ ☐ ☐ ☐</td>
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<tr>
<td>County Sheriff Vehicles</td>
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<tr>
<td>Fire Department Vehicles</td>
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<tr>
<td>Police Vehicles</td>
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<td>Schools</td>
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<tr>
<td>Faith-based Organizations</td>
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<tr>
<td>Local Businesses/Shopping Malls</td>
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<tr>
<td>Public/Government Facilities</td>
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<tr>
<td>Health Clinics /Physician/Dentist offices</td>
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<td>Hospitals</td>
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<tr>
<td>Nursing Homes</td>
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<tr>
<td>Assisted Living Facilities</td>
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<tr>
<td>Community Centers/YMCA/YWCA</td>
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<tr>
<td>Movie Theaters</td>
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<tr>
<td>Private Fitness Centers</td>
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<tr>
<td>Motels/Hotels/Resorts</td>
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<tr>
<td>Marinas</td>
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<tr>
<td>Golf Courses</td>
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<tr>
<td>Restaurants / Bars</td>
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<td>☐ ☐ ☐ ☐</td>
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<tr>
<td>Grocery Stores</td>
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<td>☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>Community Gathering Places (Parks, pools, ski areas, other)</td>
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<td>☐ ☐ ☐ ☐</td>
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<tr>
<td>Other:</td>
<td></td>
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</tbody>
</table>
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

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
1. 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 [www.suddencardiaccarrrest.org](http://www.suddencardiaccarrrest.org) 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

Step 3: Conduct a needs assessment (community)

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?
Step 3: Conduct a needs assessment (community)

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?

Step 3: Conduct a needs assessment (community)

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?

Step 3: Conduct a needs assessment (community)

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 defibrillator (ICD) therapy is appropriate?

Step 3: Conduct a needs assessment (on-site)

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”?
Step 3: Conduct a needs assessment (on-site)

"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

Step 3: Conduct a needs assessment (on-site)

"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 offices, 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"

Step 3: Conduct a needs assessment (on-site)

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
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

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

Sources
- Organizational budget
- Local corporations and corporate foundations
- Local civic organizations
- Hospital foundations
- Public charities
- Government 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.
Step 4: Estimate program costs and seek funding

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 www.foundationcenter.org
- 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

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

See www.suddencardiacarrest.org 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

- 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 www.suddencardiaccare.org 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

Community Criteria for Resuscitation Readiness

1. Is there broad-based collaboration and buy-in?
2. 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?

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

Why follow 10-step approach?
Because so many more can survive!
Sudden Cardiac Arrest Association

- Non-profit organization headquartered in Washington, DC
- [www.suddencardiacarrest.org](http://www.suddencardiacarrest.org)
- Singly 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](http://www.stopcardiacarrest.org))
- Very active and strong online support community [Inspire](http://www.suddencardiacarrest.org)

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