

C. Project Description Narrative

I. Problem Statement

Premise: We can save more cardiac arrest victims.

According to the American Heart Association, about 1,000 people go into cardiac arrest each year in our 11-county region, which includes Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama and Trinity. When cardiac arrest occurs, timing is everything. Patients treated in the first six minutes have the best chance at survival. Disorganized electric impulses will remain in the heart of most victims for 10 to 20 minutes after arrest. A shock from a defibrillator, widely accepted as the most effective treatment for cardiac arrest, may help the patient during that period.

The state Emergency Medical Services Authority reports that in 1998, of 944 witnessed cardiac arrest patients who received defibrillator shock, 145 (or 15 percent) were discharged from the hospital alive. In short, about one in five are saved. **Northern California's rate of saves during the years 1994 to 1998 was lower than the state average.** Of the 130 witnessed cardiac arrests in the 11-county region monitored by Nor-Cal EMS, 13 (or 10 percent) were discharged from the hospital alive, 5 percent below the state average.

We can do better. There are several inherent factors that slow response times in the North State's rural communities that we must address:

- 1) Within our region are vast areas where the nearest crew equipped to treat a cardiac arrest patient is 10 minutes or more away.
- 2) Many fire departments have no defibrillator, and cardiac arrest victims in those response areas have no chance at survival.

“Volunteer fire fighters often arrive within minutes,” said Ron Grider, Training Director for Nor-Cal Emergency Medical Services. “Ambulance response times average about three times that of fire departments. There are fewer of them, and they are often farther away from the scene. It stands to reason that if we prepare volunteer fire fighters to provide immediate response to cardiac arrest, we can save more lives.”

A survey the Emergency Services Foundation conducted in mid 1999 resulted in requests for AEDs from more than 60 organizations.

“There are six documented instances in the recent past where we would have used the defibrillator if we had one,” said Wayne Cochell, of the Standish Volunteer Fire Department, near Susanville. “All six people died at the hospital. Who knows what would have happened if we could have administered shock when we got to the scene.”

Standish received an AED in early 2000. But there are dozens of other organizations in our 11 counties that are missing opportunities to save lives because they do not have the right equipment.

II. Overall Objectives (Scope of Work)

Request: *The Emergency Services Foundation requests \$50,000 to purchase at least 15 automated external defibrillators and 15 AED training devices for fire departments and nonprofit ambulance services in nine of our 11 Northern California counties.*

Goals

The goals of the Heart Savers Program are to:

1. Save the lives of cardiac arrest patients.
2. Equip fire departments and other emergency providers with state-of-the-art, low-cost automated external defibrillators so they may best respond to cardiac arrest emergencies.
3. Distribute AED training devices to key organizations so that departments can borrow them on a “check-out” basis for training purposes.
4. Establish partnerships among communities, corporations, individuals, private foundations and government in solving emergency response issues.

Objectives

If this grant is funded, the Emergency Services Foundation will guarantee the completion of three measurable objectives by December 31 of 2001. The Foundation will:

1. Coordinate the placement of at least 15 automated external defibrillators at emergency response organizations in nine counties (Colusa, Glenn, Lassen, Modoc, Plumas, Sierra, Siskiyou, Tehama and Trinity).
2. Distribute at least 15 AED training devices to key organizations that will agree to make them available to response organizations for training purposes.
3. Collect AED response statistics from all AED recipients and develop reports to program funders.

III Implementation Schedule

The Foundation will accomplish the objectives stated above according to the following timeline:

<u>Activity/objective</u>	<u>Conducted by</u>	<u>Time frame</u>
Purchase and distribute 15 AEDs and 15 training devices	Foundation Director,	June 2001 to Dec. 2001
<i>Tasks:</i> Issue, collect and evaluate department proposals if needed. (June to Oct. 2001)		
Collect department matching funds and data collection agreements. (June to Dec. of 2001)		
Purchase and distribute AEDs. (June to Dec. 2001)		
Collect data	Foundation personnel, AED recipients	Ongoing
<i>Tasks:</i> Data on cardiac arrest response calls will be collected on a quarterly basis by Nor-Cal EMS and the Emergency Services Foundation.		

IV. Project Feasibility

The Emergency Services Foundation has an outstanding record bringing defibrillation services to rural communities. We are confident that the objectives of this proposal can be accomplished without problems or difficulties. We have distributed 104 AEDs to fire departments and law enforcement organizations in our 11 rural counties. A training program we operated in 2000 certified more than 100 instructors to teach AED courses.

Automated external defibrillators make the attainment of quick response more affordable and attainable than ever before. The most basic units cost \$3,000 to \$3,500, can be as small as a book and weigh as little as four pounds. A computerized voice prompts the user with commands such as “Press to analyze”, “Analyzing heart rhythm”

and “Press to shock.” Most have just three buttons: “On/Off”, “Analyze” and “Shock.” They are nearly foolproof to operate.

The AED is now widely accepted and supported by experts – including those at the American Heart Association – as a breakthrough in heart attack response. The Emergency Services Foundation Director interviewed ten emergency response experts in early 1998, and all supported AED purchases as a high priority. Eight of the ten recommended the units as the Foundation’s No. 1 priority for equipment purchases.

AED availability has been a key factor in areas with high survival rates. A program in Rochester, Minn., that put defibrillators in police cars has resulted in what may be the world’s highest cardiac arrest survival rate – 45 percent.

The Foundation will accomplish the three objectives according to the following methods:

1. Purchase and distribute AEDs – the Foundation will use information from surveys conducted each summer of the last two years to determine which organizations are offered AEDs. At least one organization in each of the nine counties will receive an AED. If necessary, the Foundation will solicit applications from potential fire department recipients and will develop a priority list based on need, geographic distribution and ability to maintain a quality AED program.

The Foundation will collect \$500 of the purchase price of each unit from AED recipients. Mass purchasing with AED manufacturers will optimize price and arrival of units. Several companies have offered a price discount based on mass purchases. The Foundation usually schedules press conferences to distribute the units. Media coverage informs communities about the new services, and promotes the efforts of OSHPD, the Emergency Services Foundation and other organizations involved in EMS.

2. Distribute 15 AED training devices – Our belief is that each county should have several training units available so that organizations can obtain them for training sessions. We will work with fire chief’s associations, ambulance companies, hospitals and other

providers to determine the best organizations in each county to coordinate the use of the training devices.

The use of the training devices is an optimum method to conduct training, as they use low-cost “C-type” batteries, rather than the expensive 5-year lithium batteries used in the fully functional AED. Use of the training devices also allows the department to keep the AED in service during off-site training sessions.

3. *Collect statistics* – Nor-Cal EMS and the Foundation collect data regarding cardiac arrest calls in our 11-county region. Information gathered includes how often the units have been used, how many people were revived, how many were discharge alive from the hospital and how many people are trained to use the units. All responders are required to provide run reports on cardiac arrest calls. Follow-up phone calls are often necessary to obtain responses from all participating organizations and to obtain some information. The Foundation Director, with assistance from clerical staff, will conduct these activities.

V. Evaluation (Final Report Plan)

Success of the project will be measured by completion of the three specific objectives of this grant and by adherence to all financial and programmatic requirements of this proposal. The project will be formally evaluated by the groups below and documented in reports, including a final report to OSHPD.

Office of Statewide Health Planning and Development – The Emergency Services Foundation will develop reports according to the requirements of the OSHPD. The reports or final report will contain information on the distribution of the 15 AEDs and the 15 training devices. Reports will detail progress made toward the three proposal objectives, financial information and any other required information. Site visits and other evaluation methods are welcomed by the Emergency Services Foundation.

ESF – Day-too-day review and coordination will be conducted by Foundation Director John Cannan and Director of Business Administration Donna Stone. The Foundation Director reports to the ESF Board of Directors every two months on progress

regarding the Heart Savers Program. The Foundation Board of Directors will review project fundraising and defibrillator placement at Board Meetings February, March, May, July, September and November of 2001. A comprehensive project review will be provided to the Board during at least one meeting in 2001. A final review in January of 2002 will provide a full accounting of the project.

Manpower Training and Pre-hospital Liaison Nurse committees – These committees consist of hospital, ambulance and fire department personnel from throughout the region. The committees will receive materials for review at the two meetings in 2001. The committees will make recommendations to the Emergency Services Foundation Board of Directors. These recommendations and actions resulting from them will be included in reports to the OSHPD.

IV Supplementary Information

The Emergency Services Foundation has the vision, the leadership, the track record, the reputation and the resource to successfully implement this project. To date the organization has distributed more than \$400,000 worth of equipment and training to area response organizations. This includes 104 AEDs and a training program to certify AED instructors at more than 50 fire departments through our Communities Saving Hearts Program. Funders for the program include the Medtronic Foundation, OSHPD, the Ben Cheney Foundation and area corporations. We have also distributed backboards and fire suppression gear. We are scheduled to distribute about \$90,000 worth of auto extrication equipment in 2001.

Six people have left the hospital alive after being revived by shocks from the AEDs we distributed in the past one year. Several other patients were revived and were able to spend time with family members before dying.

The North State's 21 hospitals, 200-plus fire departments and 34 ambulance services were instrumental in creating the Emergency Services Foundation and the momentum for this effort to distribute AEDs. The three largest hospitals each pledged \$45,000 for the Foundation's first three years of operations.

"It's pretty tough for small fire departments. They do all they can to raise the funds for just the basic equipment and training needs," said John Di Perry, Chief Operating

Officer at Mercy Medical Center and a Foundation Board Member. “The Foundation has the potential of bringing important life-saving resources to remote, rural areas. It’s about saving lives.”

Momentum continues to build through the teamwork and support of community representatives, local hospitals, emergency response experts, the state Emergency Medical Services Authority and volunteers. EMSA and response providers throughout the state look to the effort as a model program that may be replicated in other areas. The organization is exceptionally managed. Legal, operational, fundraising and publicity coordination were fully documented and published in a packet titled “How to Create a Foundation.”

The Foundation will continue this success by helping communities access funding through state, private and corporate grant opportunities. The Foundation will raise, invest and distribute funds through grantwriting, private donations, direct mail, specially targeted campaigns, events and planned giving, including bequests and trusts. In the long term, the Foundation provides communities an opportunity to invest in an endowment to create a continuing funding source for emergency care.

The Foundation has a great depth of skills and experience represented on the Board of Directors. The Chief Operations Officers of the three largest North State hospitals (Mercy Medical Center, Redding Medical Center and Enloe Medical Center) are board members as is the Director of Operations of the largest ambulance company operating in the region (American Medical Response).

Other Board Members include a county supervisor, a leading trauma surgeon, the Siskiyou County Public Health Officer, the Director of Nor-Cal EMS, a leading financial adviser, the Director of the Redding Medical Center Foundation and a former county supervisor and board member of Mercy Medical Center.