

# Access to Automatic External Defibrillation

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National Rural Health Association

The enactment of the Rural Access to Emergency Devices Act in 2001 has the potential for saving large numbers of lives throughout rural America. This Federal program authorized up to \$25 million in federal funds to help rural communities purchase the latest in cardiac arrest technology — automatic external defibrillators (AEDs). In Fiscal Year 2002, \$12.5 million was appropriated to the Federal Office of Rural Health Policy for this program. Automatic external defibrillators are portable, laptop-sized devices that analyze heart rhythms and deliver a shock to a heart when necessary. The National Rural Health Association supports prudent access to external defibrillation devices and proper training in the use of these devices.

Approximately 1,000 Americans suffer sudden cardiac arrest each day, and more than 250,000 Americans will die each year as a result. Most cardiac arrests are due to abnormal heart rhythms. The most common arrest is ventricular fibrillation (VF); a condition which causes the heart to beat in a chaotic, irregular fashion causing the heart to stop pumping blood.

Most fatalities occur because people do not receive medical help in time to restart their hearts. Restoring a normal heartbeat is the key to survival: for each minute the heart doesn't beat, the likelihood of death increases 10 percent. Within 4 to 6 minutes, brain cells begin to die. After only 10 minutes, most victims of cardiac arrest are brain dead. In rural areas, timely access to healthcare is an ongoing and serious public health issue.

Defibrillation, providing an electrical shock to restore a heart back to its normal rhythm, is the only known therapy for VF. At this time, few rural communities have programs to make emergency defibrillation accessible to cardiac arrest victims. Of those that do, some have raised average survival rates for out-of-hospital cardiac arrest to as high as 50 percent. It is estimated that widespread availability and use of automatic external defibrillators (AEDs) could save as many as 50,000 lives nationally each year.

To improve rural health, the National Rural Health Association recommends that policy-makers enact health care policies that would accomplish the following:

- Train first responders to administer immediate care, including CPR and automatic external defibrillation, to cardiac arrest victims.
- Provide funding assistance to allow communities to purchase and place automatic external defibrillators in emergency vehicles that do not already carry AEDs as well as in public places where cardiac arrests are likely to occur.
- Encourage private companies in the community to purchase automatic external defibrillators and train employees in CPR and emergency defibrillation.
- Collect and evaluate data on the effectiveness of AED access in increasing the out-of-hospital cardiac arrest survival rate in rural communities.

- Provide for a national clearinghouse to improve public awareness and support defibrillation education within schools.
- Provide tax credits to individuals and organizations that offer public access and training for AED usage.
- Link AED programs to emergency medical services systems at the local level for the provision of medical oversight and data collection.
- Make provisions for the regular testing and maintenance of automatic external defibrillators that are placed for the purpose of public access to assure the continued safe operation and readiness of these devices.

*Questions in regard to this policy brief should be directed  
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