

**House Education Committee  
Public Hearing on House Bill 1803  
April 21, 2010**

My name is Kathryn McCarter and I am the Director of Community Health Education at the North Penn Visiting Nurse Association in Lansdale, PA. I am an RN, American Heart Association CPR Instructor, Training Center Coordinator, Regional Faculty and the Chairperson of the Southeastern Pennsylvania/Delaware Regional Emergency Cardiovascular Care Committee. On behalf of the American Heart Association, I would like to submit the enclosed comments regarding House Bill 1803, which is currently pending before the House Education Committee.

House Bill 1803 seeks to require the placement of an AED in every school entity, nonpublic and private school in each occupied building on its premises. The bill also outlines training requirements for the appropriate use of AEDs, provisions to accept donations for CPR and AED programs and establishes a pilot cardiovascular screening program for 6<sup>th</sup> graders from selected schools.

The sponsor of the bill is to be commended for recognizing the importance that AEDs play in the community, especially among our school-age children. Research shows that having an AED on premises can significantly increase survival rates of sudden cardiac arrest (SCA), having the highest success rates if located in close proximity of the victim and the first shock can be delivered in less than 90 seconds after the AED arrives at the victim's side. SCA is the sudden cessation of cardiac activity so that the victim becomes unresponsive, with no normal breathing and no signs of circulation and is responsible for about 250,000 out-of-hospital deaths annually in the United States.

What is important to note is that while AEDs deliver the shock necessary to restore VF, cardiopulmonary resuscitation (CPR) is also critically important both before and after shock delivery to maintain normal blood flow to the heart and brain. Combining both significantly improves survival rates from VF SCA. Although AEDs are an effective tool in restoring normal heart rhythm, tragically, 64% of Americans have never seen an AED.

If implemented appropriately, House Bill 1803 could significantly foster greater awareness and understanding in Pennsylvania about the effectiveness of CPR, combined with the shock delivery of an AED. This is important especially in schools because more and more responsibilities are being placed on school nurses, athletic trainers and teachers to provide emergency care during the school day and for extracurricular activities. This reality warrants greater awareness and understanding of the lifesaving benefits that CPR and AED use brings to a school setting.

Although SCA is relatively uncommon in children and young adults, victims are more likely to survive SCA than pre-hospital traumatic cardiac arrest if they receive prompt support and treatment. When SCA does occur in children and young adults, it may be precipitated by

ventricular fibrillation (VF) or rapid ventricular tachycardia (pulseless VT). These abnormal heart rhythms in children are typically caused by inherited or congenital cardiac conditions or by acute medical problems that cause inflammation of the heart. Many of these conditions will not be detected during routine screening for school physicals or sports activities so SCA may be the first sign of these problems. Vigorous exercise appears to act as a trigger for lethal arrhythmias. SCA may also result from a sudden blow to the chest that causes VT or VF.

The American Heart Association generally supports the provisions of House Bill 1803, but would like to highlight some additional focus areas for consideration:

- **Medical Emergency Response Plan:** As important as it is to require schools to develop a medical emergency response plan, it is equally important to allow each school district the ability to develop a plan that is suitable for its own unique needs. When an AED program is established at a school, the AED should be placed in a central location that is accessible at all times and ideally no more than a 1 to 1 ½ minute walk from any location. The device should be secure and located near a telephone (such as near the school office, library or gymnasium) so that a rescuer can activate the EMS system and get the AED at the same time. The EMS system should be notified of the establishment of the AED program, and the emergency medical dispatcher should know the specific type of AED at the school and where it is located. Several staff members should be trained in both CPR and AED. While the bill doesn't necessarily have to list these minimum components, we do feel that they should be part of final regulations to implement the plans most effectively.
  - **AED Placement in Each School Building:** The American Heart Association is generally supportive of placement of AEDs in each school building. However, when funds are limited, the American Heart Association recommends placing priority in establishing programs to large schools, schools used for community gatherings, schools at greatest distance from EMS response, and schools attended by the largest number of adolescents and adults (such as high schools and trade schools) since the risk is much higher in adults than young children.
  - **Instruction/Certification of AEDs:** As mentioned earlier, it is vitally important to perform CPR both before and after the delivery of shock through an AED. House Bill 1803 currently does not specify CPR instruction be provided in combination with AED use to those persons listed to receive the instruction and maintenance of certification. The American Heart Association recommends that both CPR and AED instruction be provided simultaneously to maximize time and resources, but most importantly to improve survival rates.
- **Cardiovascular Screening Pilot Program:** With respect to the cardiovascular screening program, the American Heart Association is not opposed to the development of a small-scale pilot program to screen for cardiovascular disease. In fact, using non-invasive testing, such as echocardiograms and electrocardiograms, when combined with the review of personal and family history and physical examination, can serve as an effective strategy in identifying certain types of cardiovascular disease. Such smaller-scale, or volunteer-based athlete screening programs using non-invasive testing can be effective, as long as the program is well-designed and prudently implemented by medical professionals.



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The American Heart Association appreciates the opportunity to submit these written comments to the House Education Committee regarding House Bill 1803. The Association will gladly make its resources available to provide any additional information or follow-up needed about this important issue.