

Study Background

- Sudden cardiac arrest (SCA) is a major problem with 350,000 cases/year in the US.
- Every day 20% of the US population is in a school.
- The initial efforts of Project ADAM (PA) were centered on education about SCA, especially in children, and encouraging schools to have AEDs available.
- It became clear that only having AEDs in a building did not insure an appropriate response when a cardiac emergency occurred.
- As such, in 2016 PA initiated a formal Heart Safe School (HSS) program in Wisconsin.
- This paper describes the results of HSS over the initial 4-year period.

Study Aims

Aim 1: Describe the timeline and characteristics of schools applying for HSS Designation in Wisconsin.

Aim 2: Survey schools that completed the HSS process to determine the barriers faced in achieving HSS Designation.

Methods

- PA's HSS initiative officially launched in 2016 with data collected in Salesforce.
- The initial checklist was provided to each school at the first point of contact with PA and was completed by the school.
- The initial checklist served as an initial assessment of the school's cardiac emergency preparedness.
- PA worked with schools, during one-on-consultation, to assist them in achieving completion while utilizing PA templates and learning videos.

Methods cont.			
<ul style="list-style-type: none">Once a school completed the 14-point checklist, both the checklist along with written support of the school administrator were returned to PA.The school was then designated a HSS.Schools that achieved HSS Designation during the 4-year study period were electronically surveyed.They answered seven questions regarding their experience with the HSS Designation process.			
AUTOMATED EXTERNAL DEFIBRILLATORS (AEDs)	YES	NO	NEED HELP
AED equipment location(s) on a school campus makes it possible to retrieve an AED, apply pads and deliver a shock (if needed) to an unresponsive victim in under three minutes.			
AED(s) have clear signage.			
The AED(s) is checked for performance readiness at least monthly, or per manufacturer's directions and documented each time.			
We keep a first responder kit near or attached to the AED which includes: CPR barrier device, scissors, gloves, razor, and towel.			
CARDIAC EMERGENCY RESPONSE TEAM	YES	NO	NEED HELP
A CPR-AED Site Coordinator is identified, who oversees the CPR-AED program activities and training.			
There is a designated Cardiac Emergency Response Team comprised of at least 10% of staff or five to 10 people.			
CARDIAC EMERGENCY RESPONSE PLAN	YES	NO	NEED HELP
We have a written Cardiac Emergency Response Plan that is reviewed annually.			
We have a cardiac emergency communication code to notify responders and others in the area that an incident is occurring. Staff outside always carry a communication device.			
Local emergency medical services have been notified of our CPR-AED program.			
Our school's written Cardiac Emergency Response Plan, including location of school AED(s), has been shared with any outside groups and organizations who utilize our facilities.			
TRAINING/EDUCATION	YES	NO	NEED HELP
CPR-AED training for the Cardiac Emergency Response Team is updated at least every two years and there is a system in place to track retraining. Project ADAM recommends CPR-AED certifications are updated every two years or Hands-Only CPR-AED trainings are updated annually.			
All faculty and staff know where the AED(s) are located and how to access them.			
All faculty and staff have annual education on sudden cardiac arrest (SCA) awareness, signs and how to recognize SCA (sudden collapse and unresponsive; victim may have initial seizure-like or continued respiratory movements). Communication procedures and the school's Cardiac Emergency Response Plan are also shared during this education.			
CARDIAC EMERGENCY RESPONSE DRILLS	YES	NO	NEED HELP
We conduct at least one annual cardiac emergency response drill (AED drill) to test our emergency plan and communication. A drill summary checklist is utilized for planning purposes and post-drill review.			

Study Results

Participating Schools

- From 2017-2020 436 schools applied for HSS Designation.
- There were 177 schools that had a comprehensive HSS program already in place and they were immediately awarded HSS Designation.
- These 177 schools were excluded from this study and the remaining 259 schools were analyzed for their journey through the HSS process.

Checklist Elements

- There was a median of 6 HSS checklist elements completed at the time of initial application with “AED Accessibility” (90%), “AED Signage” (89%), and “AED Checked Monthly” (87%) being the most common.
- The commonest HSS deficiencies at entry into the HSS program were “Annual Staff Training” (12%), “Sharing School Plan” (13%), and “Annual Cardiac Drill” (18%).

Designation

- Over the 4-year study period 139 schools (54%) achieved HSS Designation.
- The median time from entry to completion was 335 days.
- The most challenging aspect of achieving HSS Designation was “Allocating staff time for training” as answered by 67% of districts.
- The most useful PA resources for the schools were customizable templates and the HSS checklist.

Discussion

- Data shows that a SCA occurs in 1/72 schools annually making PA HSS a priority.
- In Wisconsin many schools have an AED in place but not the other key elements to be fully prepared for SCA.
- This study showed that nearly a year is required to achieve HSS Designation.
- Schools require internal support from district administration to provide time for training their staff.
- Schools benefit from external support, via PA, to guide the process with templates and the HSS checklist.

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