

AVAILABILITY OF AUTOMATIC EXTERNAL DEFIBRILLATORS IN HIGH SCHOOLS

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Utilization of an automatic external defibrillator (AED) decreases mortality following out-of-hospital cardiac arrest. Many states, including Nebraska, do not mandate presence of an AED in high schools or at high school athletic events. Currently, availability of AEDs in Nebraska high schools is unknown. The purpose of this study was to quantify AEDs in Nebraska high schools and describe any differences by school size, hypothesizing that schools with smaller total enrollment are less likely to have an AED on campus. A 16-question survey was distributed to all high schools in the state of Nebraska. Complete survey responses were received from 191 (62%) of 309 Nebraska high schools. Of these, 188 schools (98%) had median 2 (range 1 to "5 or more") AEDs on-site. Number of AEDs did not correlate with total school enrollment, rural/urban location, or public/private designation. Most AEDs were located in public areas (gymnasium, cafeteria, stadium, and main corridors), while 20% were kept in administrative offices or athletic training rooms. In an emergency, 85% of schools had at least one AED available for anyone to access and use on-campus, while 81% had an AED immediately present at all school events. In 59% of schools, over half of staff completed basic life support or cardiopulmonary resuscitation (CPR) courses. Smaller schools were more likely to have an AED accessible to the public ($p=0.047$), more likely to have an AED at all events ($p=0.0002$), and more likely to have over 50% of staff trained to use an AED ($p=0.00019$). In the prior 24 months, 8 schools (4%) reported an AED used in a code event, with a shock delivered in 88% of these out-of-hospital arrests. Events requiring an AED did not vary by school size ($p=0.047$). All 3 schools without AEDs had enrollments less than 50 students and reported interest in obtaining AEDs. Most Nebraska high schools have at least one AED; however, schools with smaller enrollment are more likely to have 1) AEDs accessible to the public, 2) AEDs present at events, and 3) a majority of staff trained to use an AED. Incidence of cardiac arrest at a high school, requiring AED, did not vary with school size. Physicians have a broad opportunity to advocate for accessibility and AED training among high school staff across communities, despite the size of the school.