



March 20, 2023

Chairman Al Cutrona
Ohio House of Representatives
Health Provider Services Committee

Chair Cutrona, Vice Chair Gross, Ranking Member Somani, and members of the Health Provider Services Committee:

Hello, I am Dr. Naomi Kertesz. I am a pediatric electrophysiologist at Nationwide Children's Hospital which, for those unfamiliar, means I am an expert in electrical disorders of the heart. For more than 25 years, I have evaluated and treated children who are at risk for life threatening arrhythmias as well as those who have experienced life-threatening arrhythmias. In addition, I am the Medical Director of Project Adam Ohio, an organization dedicated to providing the public with access to cardiac defibrillators or AEDs. Thank you for allowing me to provide written testimony in support of HB 47.

Sudden cardiac arrest is the most common cause of sudden death in the United States. As Damar Hamlin showed us, even those in excellent health are at risk for a sudden cardiac arrest. Unfortunately, what most people don't know is that sudden cardiac arrest is more common in nonathletes. Victims of sudden cardiac arrest are more likely to survive if they receive prompt support and treatment. The single greatest factor in determining survival of an arrest is the time from when the heart stops pumping blood effectively, and the child passes out, to the use of an AED. Experts agree that in the best-case scenario, you have five minutes from the time the child faints until you restore normal rhythm to not only save their life but prevent severe brain damage.

A study by Drezner¹ and his colleagues, looked at sudden cardiac arrest in young athletes, who were <30 years old. Over a two-year study period, they found that 93% of the arrests were witnessed. High school athletes accounted for the majority of cases with middle schoolers being in second place. The overall survival was 48%, if CPR was performed 63% survived, in cases where an AED was on site and used, the survival markedly improved to 89%.

Lindsay's Law was a great first step by requiring education for all those participating in sports to be educated on sudden cardiac arrest and possible warning signs. Fortunately, many schools in Ohio now have AEDs in the building. I and others thought that would be enough. But it isn't. I have now seen multiple cases where a child has arrested at school, where an AED was present, but no one used it. Why? Because individuals didn't know where it was or didn't feel comfortable using it. The only thing you need to know to use an AED is to turn it on. It tells you what to do.

Schools are required to run a fire drill every month though the last time a child died in a school fire was in the 1950s. The last time a student had a sudden cardiac arrest in Columbus, Ohio was 2022. I am asking this committee to consider requiring a sudden cardiac arrest drill yearly. This will ensure that there is a group of adults in the school who can respond to any individual, child, or adult, who suffers a sudden cardiac arrest. They will know where the AED is and feel comfortable using it. Nationwide Children's Hospital as well as other Project Adam affiliates, will be happy to provide training, free of charge, to any school district and provide assistance in running a drill. The average drill takes only about 15 minutes to run and may make the difference between life and death.

I implore the group to mandate the required education needed to enable all schools to successfully use their AEDs, so I don't have to take care of children who suffer irreversible consequences because the AED on the wall wasn't used.

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1. Drezner JA, Peterson DF, Siebert DM, Thomas LC, Lopez-Anderson M, Suchsland MZ, Harmon KG, Kucera KL. Survival After Exercise-Related Sudden Cardiac Arrest in Young Athletes: Can We Do Better? *Sports Health*. 2019 Jan/Feb;11(1):91-98. doi: 10.1177/1941738118799084. Epub 2018 Sep 11. PMID: 30204540; PMCID: PMC6299352.