

To: House Education Committee Re: Support for HB 2529 March 24[,] 2025

Schools are entrusted by communities to provide a safe learning environment for students, staff, and visitors. To meet this objective, schools develop emergency operations plans for unexpected events such as natural disasters and should also prepare to respond to medical emergencies, including sudden cardiac arrest (SCA). Preparation is key to the survival from a SCA due to the time-sensitive nature of treatment. With each minute delay in treatment the chance of survival decreases by 10%. However, we can increase survival by more than two-fold through the rapid initiation of CPR and use of an automated external defibrillator (AED).

Sudden cardiac arrest (SCA) in youth is most often the result of an abnormal heart rhythm, called an arrhythmia. Arrhythmia can occur from abnormalities of the heart structure, changes to the muscle of the heart, or a disruption of the heart's electrical conduction system. When the heart is in an arrhythmia, the heart muscle does not get good blood flow and the individual may go into cardiac arrest. In youth, the most common causes of sudden cardiac arrest are inherited abnormalities of the heart muscle (e.g. hypertrophic cardiomyopathy, or HCM; arrhythmogenic cardiomyopathy), anomalies of the coronary arteries, and primary electrical conduction system abnormalities (e.g. Long QT syndrome, Catecholaminergic Polymorphic Ventricular Tachycardia, or CPVT). These conditions are congenital, meaning that the individual was born either with the abnormality or they have the ability to develop the abnormality. Acquired conditions that can cause SCA in an otherwise normal heart myocarditis and commotion cordis (a blow to the chest that causes abnormal heart rhythm). Sudden cardiac arrest due to these causes, and others, can occur at any time or location. However, vigorous exercise, including during sports participation, appears to act as a trigger for such arrhythmia events. Sports-related SCA accounted for nearly 39% of SCA events in those younger than 18 years of age and the likelihood of SCA in competitive athletes is estimated to be 2.5-3.6 times higher than the general population. An emphasis remains on identifying those at risk for SCA before athletic participation, but also for those who may be at risk and who are non-athletes. Damar Hamlin's cardiac arrest during a January 2023 Buffalo Bills game provides a positive striking example of what is possible when a team is prepared to respond. A Cardiac



Emergency Response Plan (CERP) is necessary to ensure that schools are prepared to respond to this time-sensitive emergency. Survival from an SCA is higher at schools that have developed CERPs compared to schools who have not. CERPs may also address disparities related to bystander involvement in SCA events and survival based on race or socioeconomic status. People suffering a SCA are less likely to receive lay-rescuer CPR if they are Black or Hispanic, or in low-income Black neighborhoods or predominately Hispanic neighborhoods, compared with high-income White neighborhoods.

On any given day in the United States, 49.4 million students and nearly 300,000 staff are in school settings. More than 350,000 cardiac arrests occur outside of the hospital each year with approximately 7,000-23,000 of these events occurring in children (≤18 years of age). It is estimated that nearly 39% of these events in youth are sports related. According to the Cardiac Arrest Registry to Enhance Survival (CARES) 2020 data, 6.5% of children younger than 1 year, 14.4% of children 1-12 years, and 21.2% of those 13-18 years of age who experience cardiac arrest survived to hospital discharge. This Cardiac Emergency Response Planning for Schools number is lower when adults are included and therefore the overall survival from SCA in the United States is estimated to be 10%. Survival from SCA increases significantly with early CPR and defibrillation with an automated external defibrillator (AED). Unfortunately, CPR is initiated, and AEDs used in only about 41% and

6%, respectively, in out-of-hospital cardiac arrest. State laws that have enacted CPR training in high schools have shown higher rates of bystander CPR and AED use, but not all states have such laws. In March 2023, the National Football League (NFL) launched The Smart Heart Sports Coalition, a nationwide campaign in partnership with other major pro sports leagues and leading public health, nonprofit and patient advocacy organizations to encourage every state to adopt policies to prevent fatal outcomes from sudden cardiac arrest among high school students. Policies that provide evidence-based guidelines and standards to schools to implement plans in response to cardiac emergencies have the potential to benefit any student, staff, or visitor to a school. The training of school staff and students allows that knowledge to be applied anywhere the need arises. A carefully orchestrated response to cardiac emergencies will reduce deaths in school settings and ensure that chaos does not lead to an improper or no response. Preparation is the essential key to saving lives.

HB 2529 will ensure all Oregon schools and school staff are prepared to act. Oregon can join a growing list of states that have taken this action. We urge your support of this lifesaving measure.