

## Using CARES Data for Performance Improvement in Texas

*By Micah Panczyk, Texas CARES State Coordinator*

Texas became a CARES state participant in mid-2019 with support from McGovern Medical School at UTHealth. Texas-CARES leadership looked not only to expand registry participation, but also to increase rates of bystander CPR and to improve in-hospital care after out-of-hospital cardiac arrest (OHCA). Quality improvement efforts aim to strengthen the links in the “chain of survival”: access to care, early CPR, early defibrillation, EMS High-Performance CPR, and standardized post-arrest care. Community-based interventions such as bystander CPR and public access defibrillation, if initiated before first responders arrive, can significantly improve OHCA survival. “The CARES registry is a vital source of information for improving patient outcomes by identifying weak links in the chain of survival,” said Jeff Jarvis, Medical Director for Williamson County EMS and Marble Falls Area EMS in Texas. “Our 2018 CARES data showed that the bystander CPR rate in Texas was 45.5%, which is higher than the national average, but we didn’t want to stop there.”

Texas-CARES has partnered with National Two Step CPR to track and increase rates of bystander CPR. Two Step, an alliance of medical students, along with national non-profits HealthCorps and First Impact, trained roughly a thousand community members in compression-only CPR at 25 sites across Texas during its annual “Save a Life Campaign” in February. “Nearly 1,000 people daily in the US will suffer an out-of-hospital cardiac arrest,” said Ashley Cohen, a Two Step board member and M.D. candidate at Chicago Medical School at Rosalind Franklin University of Medicine and Science. “Survival for these individuals has been shown to improve dramatically with prompt CPR. With community-focused training events we hope to empower our neighbors and community members to bridge the gap from witnessed cardiac arrest to EMS arrival. Together we can improve the survival statistics.” During 5-minute training sessions, participants learned the importance of acting quickly in incidents of suspected OHCA by following two simple steps: calling 911, and pushing hard and fast in the center of the chest until professional rescuers assume care. Texas-CARES will complement Two Steps’ efforts by measuring rates and types of bystander CPR and linking these with patient outcomes over time. Texas-CARES hopes to help grow Two Step community training by engaging the participation of EMS agencies and fire departments statewide.

Texas-CARES has also partnered with Penn Medicine’s TTM Academy to present a workshop titled “Optimizing Cardiac Arrest Survival with State-of-the-Art Post-Arrest Care” at the MD Anderson Simulation Center in Houston. During the one-day workshop, experts trained new hospital staff in Targeted Temperature Management (TTM), a critical cooling intervention believed to improve outcomes from cardiac arrest and among patients with neuro-critical injury. About 70 nurses, paramedics, and physicians learned cutting-edge strategies from TTM Academy staff and local critical care resuscitation experts through a series of lectures, breakout sessions, and panel discussions. Dr. Ben Bobrow, Chair of the McGovern Medical School Department of Emergency Medicine at UTHealth, explains, “The CARES registry will continue to provide valuable insight into the effectiveness of such trainings by measuring trends in the use of TTM and associated outcomes that can inform future strategies to achieve optimal use of this therapy in Texas.”

Through the help of program sponsors, partners, and participants, Texas-CARES is working diligently to improve cardiac arrest survival in Texas.



*Two Step volunteer teaches a young student compression-only CPR during a recent community-based training event in Texas.*