CARES
Cardiac Arrest Registry
to Enhance Survival

Hilton Head Island Fire Rescue's Flight Plan for Survival

By Battalion Chief of EMS Tom Bouthillet, Hilton Head Island Fire Rescue

Hilton Head Island Fire Rescue joined the Cardiac Arrest Registry to Enhance Survival (CARES) in 2010. At the time, they had no idea how they were performing with sudden cardiac arrest.

"We felt some anxiety because we didn't know what the data would show," says Battalion Chief of EMS Tom Bouthillet. "But we also knew that we needed the data to move forward." The turning point was the Miracle on the Hudson when Capt. Chesley "Sully" Sullenberger and his crew saved 150 passengers aboard US Airways Flight 1549. "The event captured the imagination of the nation," says Bouthillet. "I felt instinctively that if we could develop a parallel to cardiac arrest survival that it would inspire the decision makers to move forward." Bouthillet, a line firefighter/paramedic at the time, presented a plan to save 150 lives from out-of-hospital cardiac arrest to the senior staff, inspiring the organization to take action.

Over the years, Hilton Head Island Fire Rescue implemented many system improvements for sudden cardiac arrest, starting with a more robust initial assignment including an ambulance, two fire engines, and a battalion chief. Instead of sending 4 or 5 people to a cardiac arrest, they now send 7 to 11. All personnel were trained in Pit Crew CPR and dispatchers received additional training in Telecommunicator CPR. They developed a checklist for on-scene care including post-resuscitation care. They started having meetings with Hilton Head Hospital. Feedback was provided to crews after a resuscitation attempt. It was a complete change of culture and the staff rose to the occasion.

There were some bumps along the way. "We won a national award in 2012, but our performance slumped in 2013 and 2014. It taught us that excellence requires sustained effort over time. It's always a work in progress." After re-training the entire department in Seattle's High Performance CPR they clawed their way back to success. "I wanted to prove that 2012 wasn't a fluke," says Bouthillet. Hilton Head Island Fire Rescue had their best year ever in 2017, when 11 of 16 witnessed VF/VT patients survived to hospital discharge with a CPC score of 1 or 2 – a survival rate of 68% for this group of patients. In an effort to engage with and acknowledge the community, Hilton Head Fire Rescue keeps in contact with their cardiac arrest survivors and the citizens who perform bystander CPR or deploy publicly available AEDs.

Bouthillet credits the CARES registry for arming his organization with knowledge. "It's like Deming said, without data you're just another person with an opinion." This year Hilton Head Island Fire Rescue hung a diagram of a Boeing 737 with 150 seats in the lobby of their main building to help measure their progress. "We're making a public commitment to our citizens and visitors to save 150 lives and we're right on track."