



## GEORGIA STATE SENATE

### SENATE RESEARCH OFFICE

204 Coverdell Legislative Office Building | 404.656.0015  
18 Capitol Square SW  
Atlanta, GA 30334

ANGIE FIESE, DIRECTOR

ALEX AZARIAN, DEPUTY DIRECTOR

ELIZABETH HOLCOMB, PROJECTS MANAGER

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## FINAL REPORT OF THE SENATE EMERGENCY CARDIAC CARE CENTERS STUDY COMMITTEE

### COMMITTEE MEMBERS

**Senator Renee Unterman – Chair**  
**District 45**

**Senator Butch Miller**  
**District 49**

**Commissioner Brenda Fitzgerald, MD**  
**Department of Public Health**

**Jeff Marshall, MD**  
**Northeast Georgia Health System**

**Chad Black**  
**Georgia Association of EMS**

**Lisa Wilson**  
**American Heart Association**

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### **COMMITTEE FOCUS, CREATION, AND DUTIES**

The Senate Emergency Cardiac Care Centers Study Committee (Committee) was created with the adoption of Senate Resolution 1154 during the 2016 Legislative Session. The Committee was charged with undertaking a study of the needs and issues related to cardiac care, including the creation of a state-wide designation for emergency cardiac care to increase the survivability of a cardiac event.

The following individuals were appointed by the President of the Senate to serve as members of this Committee:

- Senator Renee Unterman, Chair
- Senator Butch Miller, Ex-Officio
- Commissioner Brenda Fitzgerald, MD, Department of Public Health
- Dr. Jeff Marshall, Northeast Georgia Health System
- Chad Black, Georgia Association of EMS
- Lisa Wilson, American Heart Association

The following legislative staff members were assigned to this Committee: Ms. Ines Owens of the Senate Press Office; Mr. Jared Evans and Mr. Elton Davis of the Senate Budget and Evaluation Office; Ms. Elizabeth Holcomb and Ms. Koko Lewis of the Senate Research Office; Ms. Betsy Howerton of the Office of Legislative Counsel; and Ms. Avi’el Bland, Senate Health and Human Services Committee Secretary and Legislative Assistant to Senator Unterman.

## BACKGROUND

Chapter 11 of Title 31 of the O.C.G.A. provides for the designation of trauma and stroke centers in Georgia. Georgia does not, however, have a system of designated emergency cardiac care centers. In studying the importance of creating such a system, Georgia's systems for trauma and stroke were referenced often in testimony. The following information provides a brief summary of these systems and what has been done in other states.

### Key terms and Abbreviations

- Automated External Defibrillators (AEDs)
- Cardiopulmonary resuscitation (CPR)
- Emergency Cardiac Care Centers (ECC centers)
- Out-of-hospital cardiac arrest (OHCA)
- ST segment elevation myocardial infarction (STEMI)

### Trauma Care Network Commission and Trust Fund

The Georgia Trauma Care Network Commission and Trust Fund was established through the passage of Senate Bill 60 during the 2007 Legislative Session. Under current law, a "trauma center" means " a facility designated by the Department of Public Health (DPH) as a Level I, II, III, or IV or burn trauma center." The Georgia Trauma Care Network Commission (Commission) is administratively housed under DPH and is responsible for developing, implementing, administering, and maintaining a system to compensate designated trauma centers for a portion of their cost of readiness through a semiannual distribution from the Georgia Trauma Trust Fund in a standardized amount determined by the Commission.

### Certified Stroke Centers and Data Repository

Under Georgia's "Coverdell-Murphy Act," there is a process by which hospitals and remote stroke centers must follow to become a properly certified stroke center:

- *For hospitals:* a hospital identified as a primary stroke center must be certified by a nationally recognized health care accreditation body. This hospital would then need to submit a written application with adequate documentation of such certification to DPH.
- *For remote treatment stroke centers:* these centers must be certified and identified by DPH through an application process. While DPH has the authority to determine the specifics of the application process, Georgia law requires that the process meet minimum requirements.

As stated above, DPH is responsible for designating trauma centers and the certification of stroke centers as well as promulgating rules and regulations.

### DPH's Data Repository – Online Analytical Statistical Information System (OASIS)

OASIS is a suite of interactive tools used to access the Georgia DPH's standardized health data repository. OASIS and the Repository are designed, built, and maintained by the Office of Health Indicators for Planning (OHIP). OASIS plays an integral role in program planning, which includes determining target population areas, formulating financial plans, monitoring program effectiveness, program evaluation and reporting program outcomes.

## **Other States**

Other states, such as Washington and Arizona, have had success in cardiac arrest outcomes by designating cardiac centers for better state use of EMS systems.

### Washington State

Prior to the 2010, Washington's law and trauma system was very similar to Georgia's law in that it provided for an emergency medical services and trauma care system, steering committee, and trust (similar to Georgia's Trauma Network Commission and Trust Fund discussed above). Washington's "Statewide Emergency Medical Services and Trauma Care System Act" was amended in 2010 to incorporate cardiac care centers into its law on emergency medical services. The 2010 law created the Emergency Cardiac and Stroke (ECS) System, which is similar to Washington's Trauma System. The Washington Department of Health describes the ECS System on online and explains that "it's intended to save lives and reduce disability for heart attack, cardiac arrest and stroke patients. Emergency medical services (EMS) take patients directly to hospitals that meet care requirements and choose to participate in the system."

### Arizona

Arizona's statewide effort was accomplished through the Save Hearts Arizona Registry and Education, or SHARE, program, a partnership involving the Arizona Department of Health Services, the UA and more than 30 hospitals and 100 fire departments and emergency medical service agencies. The SHARE program is part of a network of statewide cardiac resuscitation programs dedicated to improving cardiac arrest survival and working together as the HeartRescue Project. Arizona worked closely with the hospitals around the state to implement these guidelines and then formally recognized the hospitals as Cardiac Receiving Centers. They then developed protocols for EMS agencies to transport post-cardiac arrest patients to those centers.

The state began formally recognizing Cardiac Receiving Centers in 2007, and the following year began allowing EMS agencies to transport arrest victims to those centers as long as the increase in transport time to reach the receiving center was less than 15 minutes.

## MEETING TESTIMONY

This section provides a brief summary of each meeting, including the names and affiliations of individuals who were asked to provide testimony to the Committee. Although testimony has been condensed to ensure the report could be timely submitted, copies of all presentations and materials submitted to the Committee are kept on file in the Senate Research Office.

### **Meeting 1 – September 30, 2016**

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The first meeting, held at Northeast Georgia Medical Center in Gainesville, Georgia, consisted of an overview of the issues related to establishing emergency cardiac care centers in Georgia. The following individuals provided testimony to the Committee:

- Mark E. Leimbach, MD, FSCAI, Chairman, Department of Cardiology, Northeast Georgia Health System
- Jason Grady, NRP, Northeast Georgia Regional STEMI Coordinator, Northeast Georgia Health System
- Daniel Warren, NRP, Flight Paramedic
- Keith Wages, Director, Georgia Office of EMS and Trauma, Georgia Department of Public Health

Dr. Mark Leimbach opened the meeting by explaining that there is not a system of designated ECC centers to manage cardiovascular events in Georgia. He stressed to the Committee the importance of establishing a system of ECC centers and the value in reporting and collecting data to use analytics to improve outcomes. Dr. Marshall added that legislation should set forth the requirements for hospitals to report data to a registry, such as OASIS.

Mr. Jason Grady, Northeast Georgia Regional STEMI Coordinator, explained to the Committee that the first rule of treating heart attacks or STEMIs is that “time is muscle.” It is imperative to get the patient to a facility for treatment with balloon angioplasty and stents. An important thing to know about STEMIs, he emphasized, is that these cardiac events are fragmented and consist of poor transitions and a great deal of stopping and starting. The ability to streamline and coordinate care to get the right patient to the right place is key.

Mr. Warren also provided testimony to emphasize that “time is muscle” and explained that early identification, meaningful field interventions and transport to the appropriate facility for STEMI patients is necessary to improve outcomes. He stated that a system of ECC centers would provide many advantages for EMS personnel because it would facilitate transport to the closest and most appropriate facility. Also, providers would better understand the capabilities of each facility and make an informed decision for transport destination. The latter is particularly important in South Georgia and areas of high diversion.

In closing, the Committee agreed it would be beneficial to learn more about how out-of-hospital cardiac arrests (OHCA) are reported and what resources are available in terms of databases and registries. Testimony on these topics was heard at Meeting 2, below.

## Meeting 2 – October 17, 2016

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The second meeting was held at the Capitol, where the Committee heard additional testimony on how cases of cardiac arrest are recorded and the importance of logging this data to enhance survival. Testimony was provided by the following individuals:

- CARES (Cardiac Arrest Registry to Enhance Survival) Program: Bryan McNally, MD, MPH, Executive Director of CARES, Associate Professor of Emergency Medicine, Emory University School of Medicine
- GEMSIS (Georgia Emergency Medical Services Information System): Ernie Doss, Deputy of EMS and Trauma, Division of Health Protection, Georgia Department of Public Health
- Piedmont Heart Institute: Dr. Bill Blincoe
- South Georgia Medical Center: Dr. Trey Powell
- LifeSource Health, Inc.: Greg Garson

First, the Committee heard testimony from Dr. McNally on the Cardiac Arrest Registry to Enhance Survival (CARES) program, which was created in 2004 in collaboration with the Centers for Disease Control (CDC) and Emory University. He explained that the CARES program is an electronic platform that streamlines the data collection process for out-of-hospital cardiac arrest (OHCA) events by linking three sources of information that define the continuum of emergency cardiac care for OHCA events: 9-1-1 dispatch centers, emergency medical services (EMS) providers, and receiving hospitals. In other words, CARES automates the linkage between EMS and hospitals to create a single record for an OHCA event.

In response to questions regarding the use of CARES on a national and state level, Dr. McNally stated that CARES is the largest OHCA registry in the U.S., with a population base of over 100 million people, or 31 percent of the U.S. participating in 2016. He added that there are 18 states around the country that utilize CARES statewide and the District of Columbia. In Georgia, CARES is utilized in the Metro Atlanta Region (EMS Region III), which represents 40 percent of the state population. When asked about expanding CARES statewide across Georgia, he indicated that this would allow for benchmarking to occur locally, regionally, statewide, and nationally. Dr. McNally emphasized the need for a dedicated statewide CARES coordinator position to onboard both EMS and hospital providers into the CARES system. Budgeting for a statewide expansion of CARES includes an annual \$15,000 licensing fee and approximately \$65,000 for a statewide coordinator position.

Mr. Doss of DPH provided testimony on GEMSIS, Georgia's statewide EMS data system. GEMSIS is a web-based, central data repository that provides a statewide data standard that is applicable to all service licensees. If needed, GEMSIS allows service providers to create data using its analytical and reporting features. According to GEMSIS data from 2015, 241 cardiac patients were transported by EMS each day (or 10 per hour). The Committee agreed that this figure reinforces the need to develop a statewide system of ECC centers.

Dr. Blincoe, Chief of Piedmont Heart Institute, also provided testimony to the Committee on establishing three levels of ECC centers in Georgia. He cited Arizona and Washington State as examples of states that have dramatically improved patient survival post OHCA and recommended that the Committee consider these models in developing a law for Georgia. Specific criteria for Level I, II, and III ECC centers were presented to the Committee, mirroring the recommendations outlined in the Executive Summary provided by North Georgia Heart Foundation at Meeting 1.

Dr. Powell, a cardiologist at South Georgia Medical Center in Valdosta, joined Dr. Blincoe in supporting Georgia using Arizona and Washington State as models. In response to questions regarding the feasibility of establishing the system across Georgia in rural and non-rural areas, Dr. Blincoe shared his opinion that this would not cause an undue burden on rural hospitals.

Finally, Mr. Garson of LifeSource Health, Inc. presented information on AtTheScene, a mobile application that “provides first responders and EMS personnel with access to critical patient information when they need it most.” The application is being piloted in a number of states, including New York. The cost to utilize the application is calculated using a “per patient, per call usage fee.”

The Committee also discussed the role of bystanders and how they can increase a person’s chance of surviving a cardiac arrest. “PulsePoint” is a smartphone application used by 911 dispatchers to alert people trained and certified in CPR that someone nearby is going into cardiac arrest. When a person answers a PulsePoint alert, a map appears on the person’s phone showing where the victim is, along with the location of the nearest AED.

### **Meeting 3 – December 13, 2016**

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The Committee convened for a third time at the State Capitol to discuss its findings and recommendations for establishing a statewide system of emergency cardiac care centers in Georgia. Prior to this meeting, each member received a copy of Georgia’s current law on the system of designated stroke centers to compare with Washington State’s law on certified stroke centers and cardiac care centers. Commissioner Fitzgerald also met with her state counterpart at the Washington State Department of Health to discuss the effectiveness of the program and law, which took effect in 2010.

Dr. Marshall provided the Committee and Legislative Counsel with an updated version of his Executive Summary. After careful review and discussion, the Committee agreed to include this document in its recommendations. Since the Department of Public Health would be the state agency responsible for implementing legislation modeled after the Executive Summary, the Committee called on Commissioner Fitzgerald to develop any additional recommendations.

During this meeting, Ms. Lisa Wilson was asked to share her efforts to expand CPR training and AED access across the state. Ms. Wilson has used her son’s story to help illustrate how access to an AED during a cardiac event is crucial. Cory Joseph Wilson passed away suddenly at age 21 after going into cardiac arrest and an AED was not readily accessible. The Committee also learned about the efforts underway in post-secondary schools to educate students in grades 9 through 12 on CPR training and the use of AEDs, which required under O.C.G.A. 20-2-149.1. Some schools do provide students with CPR certification, such as Gwinnett County Public Schools. Chuck Truett, Director of Health & Physical Education, described the program to the Chair of this Committee as follows:

Gwinnett County Public Schools provides hands-on CPR/AED training during 7th grade middle school health classes through the American Heart Association. Middle schools have a choice to teach to hands-only CPR or the Heartsaver course. All teachers who opt to teach the Heartsaver course must be AHA instructor certified. The 6th and 8th grade health classes provide instruction on First Aid topics.

The high schools provide Adult or Adult and Child CPR/AED instruction using the American Heart Association Heartsaver course in the graduation mandated high school health class. Students at the high school level have the ability to be certified during the class if they pass the Heartsaver course requirements, including the written test and skills check. Gwinnett

County high schools that offer the Principals of Athletic Training and Sports Medicine course provide certification in Adult, Child, and Infant CPR/AED and First Aid to students. All high school health teachers are CPR/AED and First Aid Heartsaver instructors through the American Heart Association.

The Gwinnett County Public Schools Health and Physical Education Department personnel are instructor trainers for the American Heart Association and provide yearly updates to all instructors. All courses are hands-on and provide 3 to 7 hours of instruction. Every student that graduates from Gwinnett County Public Schools will have had the opportunity to learn CPR/AED skills and will have had the ability to be certified. During the 2015-2016 school year, more than 13,000 students received CPR/AED training and more than 1100 students chose to be certified.

The Committee agreed that funding opportunities should be explored to enhance CPR education programs in Georgia public schools that do not currently have access to mannequins and other props.

## **COMMITTEE FINDINGS AND RECOMMENDATIONS**

The findings and recommendations for the Senate Study Committee on Emergency Cardiac Care Centers are in large part provided in an Executive Summary prepared by Dr. Jeff Marshall and the North Georgia Heart Foundation in Exhibit A of the Appendix. The Committee agrees that the Executive Summary should be used as a model in drafting legislation to create a statewide system of ECC centers in 2017 and recommends that this effort be dedicated to Cory Joseph Wilson.

Additional recommendations regarding the implementation of a statewide system of ECC centers were developed by the Department of Public Health and adopted by the Committee. These recommendations appear in Exhibit B of the Appendix.



Respectfully Submitted,

**FINAL REPORT OF THE SENATE EMERGENCY CARDIAC CARE CENTERS STUDY  
COMMITTEE**

*Renee S. Unterman*

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Honorable Renee Unterman, Chair  
Senator, District 45