



The State Senate

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**FINAL REPORT
OF THE
JOINT COMPREHENSIVE STATE TRAUMA SERVICES STUDY COMMITTEE**

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EXECUTIVE SUMMARY

The Joint Comprehensive State Trauma Services Study Committee was created by Senate Resolution 785 during the 2006 Legislative Session. The Committee was charged with undertaking a study of Georgia's trauma system, and making any recommendations, including legislation, which the Committee finds necessary to improve our trauma system.

Georgia does not have a statewide, inclusive trauma system, which constrains our ability to provide optimal care to trauma patients. Data suggests only 30 percent of major traumatic injuries in Georgia are treated in designated trauma centers. Consequently, Georgia's trauma-related death rate is 20 percent above the national average. If we could reach the national average, we could possibly save 700 or more lives a year.

A trauma system is a strategically organized approach to injury prevention, emergency medical services (EMS) pre-hospital response, hospital-based acute care, and post-hospital rehabilitation that is fully integrated within a state's public health system. The resources required for each component of a trauma system are significant, and Georgia's trauma care stakeholders and providers need assistance in order to meet our state's growing needs.

Among the many obstacles facing our trauma care providers, funding is the major issue. It is estimated that our hospitals, EMS providers, and physicians provide \$250 million in uncompensated care each year. Without help from the state's decision makers, their ability to continue to provide trauma-related care will steadily deteriorate.

After many hours of testimony and careful consideration of the information presented, the Committee agreed that our state is in a trauma care crisis. Each area of our trauma care system has significant problems that must be addressed in order for Georgia to have a comprehensive, accessible, trauma care system.

Finally, the recommendations of the Committee, and any ensuing policy or legislative action, must be formulated with the specific goal of providing Georgia's trauma centers, physicians, and EMS personnel with the tools they need to bring our trauma death rate to parity or below the national average.

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I. Introduction

The Joint Comprehensive State Trauma Services Study Committee was created by Senate Resolution 785 during the 2006 Legislative Session of the Georgia General Assembly. Recognizing the importance of a statewide trauma system to the health and safety of all Georgia citizens, the Committee was charged with undertaking a study of our trauma system in all areas of the state, and to make any recommendations, including legislation, that it deems necessary for the improvement of Georgia's trauma system.

Senate Resolution 785 provided for the membership of the Committee to consist of five Senators appointed by the President Pro Tempore of the Senate, and five members of the House of Representatives appointed by the Speaker. The President Pro Tempore of the Senate and the Speaker of the House of Representatives were each directed to designate one member to serve as Co-Chair of the Committee.

The five members appointed by the President Pro Tempore of the Senate included: Senator Cecil Staton, Co-Chair; Senator David Adelman; Senator Greg Goggans; Senator Renee Unterman; and himself, Senator Eric Johnson. The five members appointed by the Speaker of the House of Representatives included: Representative Larry O'Neal, Co-Chair; Representative Mickey Channell; Representative Austin Scott; Representative Gene Maddox; and Representative Johnny Floyd.

The Committee held four public meetings around the state: August 14th at the State Capitol, followed by tours of the emergency departments of Grady Memorial Hospital and Atlanta Medical Center; September 11th at the Medical Center of Central Georgia in Macon; September 25th at Memorial Medical Center in Savannah; and November 28th at John Archbold Medical Center in Thomasville. The Committee held its fifth and final meeting in Atlanta, on January 4th, 2007, to review its final recommendations.

The Committee heard testimony from: Dr. Carl Buchanan, Chief, Emergency Medicine, Gwinnett Medical Center; Dr. Todd Zeigler, Emergency Room Orthopedic Surgeon, Gwinnett Medical Center; Dr. Joe Sam Robinson, Chief of Staff, Medical Center of Central Georgia; Dr. John Harvey, Command Surgeon, Georgia State Defense Force, North Fulton Regional Hospital; Dr. Dennis Ashley, Director of Trauma, Medical Center of Central Georgia; Dr. Louis Goolsby; Dr. Martin Dalton, Dean, Mercer University School of Medicine; Mr. Robert A. Colvin, President and CEO of Memorial Health; Dr. Gage Ochsner, Chief of Trauma Services, Memorial Health; Dr. Vernon Henderson, Director of Trauma Services, Atlanta Medical Center; Mr. Ken Beverly, President, Archbold Medical Center; Mr. Don Snell, President and CEO, MCG Health; Dr. Jeff Nicholas, Emory University; Dr. Leon Haley Jr., Senior Vice President for Medical Affairs, Grady Health System; Dr. Douglas Skelton, Director of Public Health,

Coastal Health District; Dr. Gary Nelson, President, Healthcare Georgia Foundation; Ms. Jacqueline Kosakowski, Trauma Coordinator, Children's Healthcare of Atlanta; Mr. Glenn Pearson, Executive Vice President, Georgia Hospital Association; Ms. Betty Dixon, District 9 Clinical Coordinator; Dr. Pat O'Neal, Director of Preparedness for the Georgia Division of Public Health; Mr. Robert F. Dallas, Director, Governor's Office of Highway Safety; Colonel Don Venn, Deputy Director, Georgia's Office of Homeland Security; Mr. Charlie English, Director, Georgia's Emergency Management Agency; Mr. Courtney Terwilliger, EMT-P, Georgia Association of EMS providers; Ms. Amy McGuire, Southern Strategy Group, on behalf of the Florida Trauma Alliance; Dr. Lewis Flint, Professor of Surgery at the University of South Florida; Ms. Mary Beachley, Chief, Division of Health Facilities and Special Programs, Maryland Institute for Emergency Medical Services Systems; and, Ms. Jorie Klein, Trauma Director, Parkland Hospital, Texas.

II. Background Information

A. Trauma

According to the chairman of the American College of Surgeon's Trauma Committee, traumatic injuries are the number one cause of death in the U.S. for persons ages one to 44. Traumatic injuries are reported as the fourth leading cause of death for all age groups, and injuries from trauma are the leading cause of disabilities. Trauma is most often defined as a serious injury or shock to the body, a physical injury or wound, caused by external force. Whether caused by a car wreck, a household accident, or an assault or accident with blunt force or gun shot, every person in our country could be faced with an unexpected life-threatening injury or illness at some point in their life. **Indeed, every person in the U.S. fully expects that in a time of traumatic injury, they will have prompt access to definitive care.** It is doubtful that many people realize that our nation's trauma systems are eroding.

There are approximately 600 regional trauma centers nationwide and together they lose around \$1 billion each year, according to the *National Foundation for Trauma Care*. Each trauma center faces similar obstacles, including: rising healthcare costs; growing numbers in the uninsured and under-insured populations; uncompensated care; and, physicians' growing unwillingness to provide on-call trauma care services.¹

Trauma centers are different from general hospital emergency departments because they typically provide, on a 24-hour, seven-days-a-week basis, *teams* of trauma surgeons and other specialists capable of handling the most severe injuries within the "golden hour," the first hour after a traumatic injury occurs. It is the critical hour after a trauma occurs and skilled intervention begins, and it often means the difference between life and death or life-long disability.

A 2004 report by the *National Foundation for Trauma Care* concludes that, unless preventive measures are taken, the rate of closure among the nation's trauma centers will increase, and 10 to 20 percent will close within three years.² The first line of defense against such funding shortfalls and closures, and possibly the only real hope, lies with each state's policy experts and decision makers.

B. Trauma Systems

A trauma system is a strategically organized approach to injury prevention, emergency medical services (EMS) pre-hospital response, hospital-based acute care, and post-hospital rehabilitation that is fully integrated within a state's public

¹ National Conference of State Legislatures, IN DEPTH State Health Notes, Volume 27, Issue 461, *Preparing for the Worst: States Address Trauma Centers' Troubles*.

² *IBID*.

health system. The presence of a trauma system means that there is complete coordination between injury prevention, EMS (including air and ground medical transportation), and regional referring hospitals. It also means that there is a systematic integration of the care provided to the very seriously injured at all stages of treatment. The resources required for each component of a trauma system are clearly identified, deployed, and studied to ensure that all injured patients gain access to the appropriate level of care in a timely, coordinated, and cost-effective manner.

It has been reported that in areas of the U.S. that have established trauma systems, dramatic reductions in death and disability rates from traumatic injury by as much as 20 to 40 percent have occurred. Trauma systems possess the distinct ability to identify risk factors and related interventions to prevent injuries as well as maximize the integrated delivery of optimal resources for patients who need acute trauma care.

The benefits of a trauma system can reduce the preventable death rate by 10 to 30 percent, possibly up to 50 percent. Studies of trauma systems in the U.S. where the most severely injured patients are directed to specialized trauma centers show that the benefit of an organized system of trauma care can reduce the risk of death significantly.³

III. Georgia’s Trauma Data and Services

A. Trauma Data

Georgia’s trauma death rate is 20 percent above the national average. **If we could reach the national average, it is likely that 700 lives a year would be saved.** Motor vehicle accidents are the number one cause of traumatic injury in our state.

The following table, as reported by the Office of Emergency Medical Services/Trauma (OEMS/T), Division of Public Health, Department of Human Resources (DHR), in their 2003 report: *Trauma in Georgia, Analysis of Trauma System Data*, shows the most common mechanisms of injury in Georgia.

Most Common Mechanisms of Injury

Mechanism	Frequency	Percent	Cumulative Percent
1 Motor Vehicle Crash (MVC)	3654	38.0	38.0
2 Fall	1976	20.6	58.6
3 Gun Shot Wound (GSW)	819	8.5	67.1
4 Motorcycle	580	6.0	73.1
5 Pedestrian	540	5.6	78.7
6 Assault	407	4.2	83.0
7 Accident	387	4.0	87.0
8 Stab Wound	276	2.9	89.9
9 All Terrain Vehicle (ATV)	193	2.0	91.9

³ Office of Emergency Medical Services/Trauma, Georgia Department of Human Resources, Division of Public Health. Operating Report, 2005.

In Georgia, because we currently lack a statewide, inclusive system, our ability to provide the optimal care when injury occurs is constrained. Recent estimates suggest that only 30 percent of major traumatic injuries in Georgia are treated at designated trauma centers.

Depending on where the victim is located in the state, the pre-hospital response (EMS) may require from 3 to 45 minutes. There may be an additional 10 to 60 minutes before the patient reaches a medical facility, which may not be the appropriate facility. It is easy to continue to increase the passage of crucial time, considering that the patient may have needed on-scene extrication or needed to be transferred from one facility to another. Additional hours, even as many as eight or ten, could possibly lapse before reaching the appropriate level of care.

There are still many areas of the state that do not have rapid access to trauma centers. Although many of our 152 hospitals provide quality care to injured patients, the standard of care is not uniform. Uniform care could be provided through participation in an organized, statewide system. In 2005, data collected by the OEMS/T indicates that trauma-related injury is a serious problem in Georgia. In fact, the OEMS/T reports that ignoring our lack of a statewide comprehensive trauma care system will only intensify our healthcare problems. The OEMS/T 2005 Operating Report acknowledges that we have an ethical obligation to provide a comprehensive trauma care system that will prevent trauma when possible and guarantee rapid access and high quality trauma care when injury occurs.

B. Office of Emergency Medical Services/Trauma (OEMS/T)

At the federal level, Congress passed the Emergency Medical Services Act in 1974. This Act was to create a thrust toward the goal of improving emergency medical care nationwide. U.S. President Gerald Ford issued proclamation 4332, declaring the week of November 5th, 1974, Emergency Medical Services Week. In the Proclamation, he called upon Governors, Mayors, and all other state and local officials to assist hospital administrators, physicians, fire departments, and other safety agencies in improving their emergency medical services.

In the 1990s, funding through federal grants was made available to the states for the purpose of developing trauma plans. Georgia received some of these federal dollars and began working on our first state trauma plan; however, no statewide, organized system was ever developed. In 1999, a Health Resources Services Administration (HRSA) grant was obtained to evaluate the current system through a strengths, weaknesses, opportunities and threats analysis.

In 2000, a Medical Director for the Office of Emergency Medical Services, Trauma (OEMS/T), Division of Public Health, Department of Human Resources was added. Subsequently, the OEMS/T completed a formal re-evaluation of the

then 19 designated trauma centers, with 14 of the centers remaining designated after the re-evaluation process. Today, there are 15 designated trauma centers.

In 2001, the Legislature appropriated \$740,000 for the purpose of facilitating OEMS/T in collecting and storing trauma data from the designated trauma centers. In 2003, OEMS/T released its first trauma data report: *Trauma in Georgia, Analysis of Trauma System Data*. Significantly, it was also the first time Georgia possessed the ability to participate in submitting trauma data to the National Trauma Data Bank (NTDB).

The Department of Human Resources' OEMS/T works with hospitals, various state agencies, the ten EMS regions, and other trauma care stakeholders to facilitate the delivery of trauma care in Georgia. Among its many duties, the OEMS/T:

- Provides support for regional planning, development, expansion, and improvement to each of the ten EMS regions;
- Provides statewide coordination of training programs;
- Provides for the annual assessment of regional planning and development in each EMS region;
- Incorporates the special needs of children in EMS system development;
- Provides an integrated EMS Information System for local, regional, and state planning and evaluation of system development;
- Provides education and certification of emergency medical personnel;
- Organizes and processes the designation, re-designation, and upgrade of Georgia's designated trauma care centers;
- Reviews the state's designated trauma centers through documentation and on-site visits to check for compliance with written contracts and standards for designation according to department rules and with guidelines from the American College of Surgeons Committee on Trauma; and
- Supplies information to hospitals requesting trauma center designation.

C. Emergency Medical Services, EMS

Emergency Medical Services (EMS) in Georgia is centered on providing medical aid and safe transportation to sick and injured people. It requires a collaboration of community organizations, state and local agencies, and private groups to meet the demands and challenges associated with providing pre-hospital care and related health services to citizens. EMS is an umbrella term used to describe the continuum of pre-hospital activities that begin with a rapid response to an initial call for help. Perhaps one of the most disturbing points made during testimony to the Committee was that 20 counties in Georgia do not have a 911 system.

EMS has developed into a medical discipline over the past several decades in Georgia. In the past, funeral homes provided ambulance services, and patient care did not begin until the patient arrived at the hospital. Today, in stark contrast, many of Georgia's EMS personnel are prepared and trained to provide pre-hospital care in emergency situations, which is considered advanced life support.⁴

There are approximately 13,927 EMS personnel in Georgia. Each EMT is trained to either a basic, intermediate, or advanced level. Although states can formulate their own requirements for each designation, the curricula for the EMT-BASIC, EMT-Intermediate, and Paramedic are based on national standards developed by the National Highway Traffic Safety Administration. Approximately 35 percent of Georgia's EMTs have advanced training. Many of Georgia's EMS personnel have additional specialized training such as, patient extrication and rescue, incident command, hazardous materials response, crisis intervention, mass casualty response, and injury prevention.⁵

The OEMS/T estimates that there were roughly 940,000 calls for EMS assistance statewide in 2005. Of those patients needing transportation, 82 percent were transported by ground ambulance. Georgia has an estimated 1,739 ground ambulances and 282 ambulance service providers. Georgia has five air ambulance services, including: Air Med in Augusta; Life Star One in Savannah; Children's Response Air and Emory Flight/Life Net Georgia; and, Rescue Air in Atlanta. Most of Georgia, especially south of Interstate 16, is not covered by Air Ambulance.

Georgia's 159 counties are grouped into ten geographical EMS regions. Georgia ranks 24th among the states in size – 59,441 square miles. The smallest region, Region 3, covers 2,343 square miles; however, it serves nearly 3.5 million people because it covers the counties of Fulton, Cobb, Douglas, Clayton, DeKalb, Gwinnett, Rockdale, and Newton. The largest region in size, Region 9, which covers 12,533 square miles, serves nearly one million people in 24 counties. A sobering look at Region 8 reveals a 27-county area in rural Southwest Georgia. Although there is a Level 2 Trauma Center within this region, Archbold Memorial Hospital in Thomasville, it covers 10,670 square miles and there is no air ambulance service.

D. Trauma Centers, Hospitals – Economic Pressures

Of Georgia's 152 acute care hospitals, only 15 are designated as trauma centers. The financial constraints on our hospitals continue to be the main reason there is such limited participation in Georgia's trauma system. It has been reported that two-thirds of Georgia's hospitals are currently operating in the "red." The ever-

⁴ *IBID.*

⁵ *IBID.*

increasing number of Georgia's uninsured and under-insured populations, combined with decreasing Medicaid/Medicare reimbursement rates, is causing the closure of some hospitals, while others are reducing their services.

Additional issues that add economic pressure to hospitals and surgeons is their malpractice insurance coverage. Further compressing the issue of a surgeon's unwillingness to provide emergency room services, individual practitioners are often given better coverage rates, or discounted rates on their liability coverage, if they limit or eliminate emergency department on-call.⁶

Trauma care produces an estimated \$170 million in uncompensated care each year in Georgia. This uncompensated trauma care is being provided by hospitals that are already struggling to survive financially. A true estimate is around \$250 million annually when uncompensated physician care and uncompensated EMS and other pre-hospital care are included.

In contrast, states with well-designed statewide trauma care systems have shown that the investment on the front end can yield high returns on the back end because lives are saved and productive capabilities are maintained. The argument for a statewide trauma system is further enhanced when consideration is given to the many instances we expect our trauma care providers to be prepared to handle, such as acts of terrorism, natural disasters, and the possibility of a pandemic situation.

The hospitals participating as designated trauma centers in Georgia are listed below:

Level I

- ▶ Grady Health System, Atlanta, is a 900+ bed hospital and is one of the largest public hospitals in the Southeast.
- ▶ Medical Center of Central Georgia, Macon, is a 637 bed facility that has been serving Middle Georgia as a Level I trauma center since 1998.
- ▶ Medical College of Georgia, MCG, Augusta, was designated as Georgia's first Level I trauma center in 1981. MCG also houses a pediatric trauma center located in the Children's Medical Center.
- ▶ Memorial Health University Medical Center, Savannah, was a 300 bed facility in 1955 and today houses 520 beds. Memorial Health now provides tertiary care and Level I trauma services to residents in 35 counties in Southeast Georgia and the southern part of South Carolina.

Level II

- ▶ John D. Archbold Memorial Hospital, Thomasville, is a 264 bed organization accredited by the Joint Commission on Accreditation of Healthcare Organizations. It serves as the anchor of an 800 bed network comprising five

⁶ American College of Surgeons: A Growing Crisis in Patient Access to Emergency Surgical Care.

hospitals, four nursing homes, and primary and specialty clinics. It serves 15 counties in South Georgia and North Florida.

- ▶ Atlanta Medical Center, (AMC), Atlanta, was founded in 1901. AMC serves Metro Atlanta as a 460 bed tertiary care hospital and is part of the Tenet Georgia organization. AMC is accredited by the Joint Commission on the Accreditation of Healthcare Organizations, and provides specialties in advanced surgery, cardiology, neurology, oncology, trauma, and rehabilitation.

- ▶ Children’s Healthcare of Atlanta (CHOA) has two facilities, Egleston and Scottish Rite. CHOA is Georgia’s premier pediatric trauma center, and it serves 40,000 trauma related injuries per year. The facility houses 58 ER beds and 42 Pediatric Intensive Care Unit beds. It has four trauma rooms and four helipads.

- ▶ Floyd Medical Center (FMC), Rome, is a 304 bed facility in Northwest Georgia. Their widely successful injury prevention education program trains over 2,000 students per year.

- ▶ Gwinnett Medical Center, Lawrenceville, is part of a 479 bed healthcare network that provides healthcare to Gwinnett County and the surrounding area.

- ▶ Hamilton Medical Center, Dalton, is a 282 bed hospital that has twice been named one of the Top 100 Hospitals in the United States by HCIA and Mercer Consulting. This Level II trauma center continually received the maximum three-year accreditation by the Joint Commission on Accreditation of Healthcare Organizations.

- ▶ North Fulton Regional Hospital, Roswell, is part of the Tenet Health network in Georgia. This Level II trauma center has been designated as such since the mid 1980s. It has 167 licensed beds, a team of 1000 employees, 450 affiliated physicians, and 250 volunteers.

- ▶ The Medical Center, Columbus, provides dedicated emergency services to residents of 19 counties in Georgia and Alabama.

Level III

- ▶ DeKalb Medical Center (DMC), Decatur, received its Level III designation in 1990. DMC represents a three facility system with a total of 754 beds.

Level IV

- ▶ Morgan Memorial Hospital, Madison, serves as the only Level IV trauma center in Georgia.

The following chart depicts the number of hospitals in Georgia, and their licensed bed capacity:

Georgia Acute Care Hospitals By Size		
Bed Size Range	Hospitals	Licensed Beds
0-49	47	1558
50-99	39	2869
100-199	28	3981
200-299	12	3027
300-399	9	2993
400+	17	8949
Total	152	23377

IV. Testimony from Georgia’s Stakeholders and Providers

A. Hospitals and Surgeons

The Committee heard from several hospital representatives and trauma surgeons regarding the issues they face in delivering trauma care services. Those who testified included: Dr. Carl Buchanan, Chief, Emergency Medicine, Gwinnett Medical Center; Dr. Todd Zeigler, Emergency Room Orthopedic Surgeon, Gwinnett Medical Center; Dr. Joe Sam Robinson, Chief of Staff, Medical Center of Central Georgia; Dr. John Harvey, Command Surgeon, Georgia State Defense Force, North Fulton Regional Hospital; Dr. Dennis Ashley, Director of Trauma, Medical Center of Central Georgia; Dr. Louis Goolsby; Dr. Martin Dalton, Dean, Mercer University School of Medicine; Mr. Robert A. Colvin, President and CEO of Memorial Health; Dr. Gage Ochsner, Chief of Trauma Services, Memorial Health; Dr. Vernon Henderson, Director of Trauma Services, Atlanta Medical Center; Mr. Ken Beverly, President, Archbold Medical Center; Mr. Don Snell, President and CEO, MCG Health; Dr. Jeff Nicholas, Emory University; Dr. Leon Haley Jr., Senior Vice President for Medical Affairs, Grady Health System; Dr. Douglas Skelton, Director of Public Health, Coastal Health District; Dr. Gary Nelson, President, Healthcare Georgia Foundation; Ms. Jacqueline Kosakowski, Trauma Coordinator, Children’s Healthcare of Atlanta; Mr. Glenn Pearson, Executive Vice President, Georgia Hospital Association; Ms. Betty Dixon, District 9 Clinical Coordinator; and Dr. Pat O’Neal, Director of Preparedness, Georgia Division of Public Health.

The testimony provided to the Committee over the course of its hearings by Georgia’s trauma services providers was compelling and sobering. Each was passionate about their remarks, and their dedication to serving Georgia’s citizens was clear and motivating. All repeated the need for a statewide trauma system with a central command, participation by more hospitals in the state’s trauma system, and relief from the growing burden of uncompensated care. Below are some of their most compelling remarks:

- ▶ Trauma is the leading cause of death for most Georgians – our death rate from trauma injuries is 20 percent worse than the national average.
- ▶ Only 30 percent of trauma injuries are treated at designated trauma centers, increasing disabilities and death rates.
- ▶ For every death caused by traumatic injury, there are three people who become severely disabled.
- ▶ Death rates in rural Georgia from accidents are much higher than in the urban areas of Georgia.
- ▶ Rural hospitals are not equipped to handle trauma patients. By the time a trauma patient is transported to a trauma center that can provide the appropriate level of care, crucial hours have passed, increasing the likelihood of severe disability or death.

- ▶ The number of doctors in rural areas has decreased 50 percent over the past several decades.
- ▶ Over the past 20 years, there has been a reduction in the number of hospitals willing to participate in the trauma system for various reasons, mostly financial.
- ▶ Surgeons are becoming increasingly unwilling to participate in trauma/emergency treatment because of the growing cost of uncompensated care, infringement on their lifestyles, and higher malpractice insurance rates for providing trauma/emergency care services.
- ▶ There are fewer general surgeons in Georgia than there were ten years ago.
- ▶ The commitment of a trauma surgeon requires that he or she will be ready to operate within 10 minutes on a high-risk trauma patient about whom the surgeon knows little to nothing.
- ▶ Surgeons who do participate often find themselves in surgery all night which later requires them to cancel their next day's surgery schedule – typically for paying patients who have health insurance.
- ▶ Rural surgeons are less likely to commit because there are fewer of them and their on-call hours will be considerably more.
- ▶ One serious car wreck/trauma patient could require the services of six or more surgeons.
- ▶ Georgia hospitals in key locations around the state do not want to commit to becoming a designated trauma center because of the financial investment required, costs of uncompensated services, and the lack of commitment by their surgeons for various reasons.
- ▶ Hospitals legitimately go on diversion when their emergency rooms are full, and their operating rooms are occupied with complicated trauma patients' surgeries. However, it is suspected that hospitals in key areas of the state go on diversion because they do not have the commitment or the staff who will respond to on-call emergencies in the middle of the night. It compresses the burden on the other hospitals and increases death and disability rates. Until there is a central command center for trauma services that monitors diversion, or the proper incentives are in place, this situation will continue.
- ▶ On an annual basis, Georgia's trauma services providers (hospitals, surgeons, EMS) deliver \$250 million in uncompensated trauma care.
- ▶ The financial and personal burden on the providers is becoming too great.
- ▶ By 2020, Georgia will have a shortage of 84,000 physicians; there has been no growth in the supply of emergency related specialists.
- ▶ Georgia's population is growing - as much as 350 people a day move into Georgia and the increased number of emergency room visits reflects this growth.
- ▶ The average age of Georgia's hospitals is older than many of our surrounding neighbors.
- ▶ Grady Memorial sees more than 100,000 patients in its emergency room annually. Frequently, they have no ICU beds available.
- ▶ In trauma care for children, the "golden hour" is really only 30 minutes. In Georgia, fewer than 2 percent of children with traumatic injuries get to the appropriate care facility within this time frame.

► Pre-hospital care, emergency room care, and equipment for children should be specialized.

B. Governor's Office of Highway Safety, Georgia's Office of Homeland Security and Georgia's Emergency Management Agency

The Committee heard testimony from: Mr. Robert F. Dallas, Director, Governor's Office of Highway Safety; Colonel Don Venn, Deputy Director, Georgia's Office of Homeland Security; and Mr. Charlie English, Director, Georgia's Emergency Management Agency.

Mr. Robert Dallas presented information to the Committee regarding fatal and serious injury car crash statistics in Georgia. The information provided was based on: trauma hospital proximity and crash outcomes; restraint use and crash outcomes; and crash outcome and restraint use by major vehicle type. The following outcomes were reported to the Committee:

- Categories of counties were formed based on their proximity to a trauma center: Category 1 includes 12 counties that are within a 25-mile radius of a trauma center. The categories go to a Level 6, which includes 40 counties that are completely outside a 50-mile radius of a trauma center.
- Fatalities and injuries per every 100 crashes increased consistently as they occurred through Level 6.
- Vehicle occupants who used the proper restraint were much less likely to sustain injury or death.
- The more serious the injury, the less likely the occupant was using a safety restraint.
- Georgia's number of deaths due to murder in 2005 was 526 – there were 1,417 motor vehicle crash deaths.
- Occupants killed in pickup trucks were much less likely to have been using a safety restraint.
- If the restraint usage rate of pickup truck occupants had been the same as those of the occupants in passenger cars (90 percent), 108 pickup truck occupants' lives would have been saved in 2005.

Colonel Don Venn, Deputy Director of Georgia's Office of Homeland Security (OHS), and Mr. Charlie English, Director, Georgia Emergency Management Agency (GEMA), testified to the Committee on their agencies' continuing efforts be prepared in case of a disaster.

- They are working to maximize federal homeland security grants and working with other state agencies to prepare Georgia for possible disasters. Additionally, OHS has invited Georgia's business community to participate in disaster planning.
- One of OHS's biggest challenges has been to establish and coordinate committees, such as mass dispensing of supplies, and syndrome surveillance –

monitoring emergency room visits in order to identify medical/health trends that reflect something occurring on a larger scale. Syndrome surveillance requires that monitors across the state communicate with doctors and hospitals so that patient information reflecting trends is communicated to the appropriate people.

- ▶ GEMA is training with local governments because they are always the first responders when disaster occurs.
- ▶ GEMA is working on educating the public to control the public's expectations of what the government can and will be able to do for them in a disaster situation.
- ▶ It is unreasonable for the public to have the expectation that the government will make things like they were before the disaster occurred.
- ▶ Educating the public is crucial. Families must take care of themselves by having a five-day supply of food and water and first aid supplies on hand.
- ▶ Communities must work together in order to help each other.

C. Emergency Medical Services Providers

The Committee heard testimony from Mr. Courtney Terwilliger, EMT-P, Georgia Association of EMS providers, regarding pre-hospital issues that affect our trauma care system. Some of his major points that have significant implications for our state's EMS included:

- ▶ Most regions of the state do not have a Level I or Level II trauma center. This requires long transport times for pre-hospital ambulance transportation.
- ▶ There are only about 282 licensed ambulance services in the state and six air ambulance helicopters. For a state our size - this is not nearly enough.
- ▶ Shortages in EMT personnel have gone unchanged in the last several years.
- ▶ EMT personnel are overworked. Many cannot continue to work the long hours often required.
- ▶ In a recent survey of the Southeastern U.S., based on the number of EMTs per 10,000 in population, Georgia ranked second to last. Mississippi ranked last.
- ▶ The rate of pay for an EMT-intermediate is not sufficient to maintain or recruit.
- ▶ Over the past year, the number of EMT personnel dropped by 800. Previously, there were approximately 13,927 EMT personnel.
- ▶ There is no consistent retirement plan for EMT personnel; however, they cannot work past the age of 65.
- ▶ The State Office for EMS, responsible for regulation, training certification, and licensure, uses federal block grants for training. The state should have a backup plan in case the federal grants end.
- ▶ The state needs more training resources and more EMT personnel.

V. Testimony from Other States

Many states across the U.S. have recognized that their trauma care systems must have a dedicated revenue source in order to meet their state's trauma services needs. Sixteen or more states have begun to channel special funding

streams to their trauma care systems. The following testimony from representatives of Florida, Maryland, and Texas depicts how these three states have enhanced their trauma care systems.

A. Florida

Ms. Amy McGuire with the Florida Trauma Alliance, and Dr. Lewis Flint, Professor of Surgery at the University of South Florida, presented the following information to the Committee on November 28, in Thomasville, Georgia.

Florida's trauma system is more than 20 years old. At its largest, the system had 38 trauma centers. Currently, there are 21: seven centers designated at Level I; thirteen centers designated at Level II; and two of the centers are specifically for children. Each of the Level I centers is required to provide children's trauma services, in-house medical specialist coverage, as well as education and research. All of their Level II centers are required to provide clinical trauma services in keeping with the American College of Surgeons (ACS) guidelines.

Florida's trauma system entered a turbulent era in 2002. Reimbursement for services provided by medical specialists reached a low point and they grew increasingly reluctant to provide emergency and after-hours services that were perceived as being poorly reimbursed. Malpractice costs increased and after-hours, emergency, and especially trauma services were perceived as being inordinately risky to provide because of liability risk. Three areas of the state had trauma centers that were threatening closure.

Florida's trauma system, since its inception, has experienced periods of tension and threat largely determined to be mostly due to a lack of "durable funding." Lack of "durable funding" applies pressure to the human resource pool and to institutional flexibility in the marketplace. As a product line, trauma care loses money for hospitals, at least for the first admission after injury because of the large, ongoing, unrecoverable "cost of readiness."

A 2004 study documented, based on an assessment of one-half of Florida's trauma center hospitals, that the unrecoverable cost averaged \$2.7 million per trauma center annually. Lack of durable funding is a national problem for trauma centers. Through studies, Florida has identified that the aggregate "cost of readiness" for each trauma center is \$88,821,000.00 or \$4,700,570.00 for each trauma center. For a Level I center, the cost is around \$8 million.

Florida has supported trauma center hospitals by providing financial assistance through the disproportionate share mechanism available to hospitals via Medicare and Medicaid. Additionally, the legislature has appropriated between \$650,000 and \$1 million per trauma center annually as block grants to each center.

In 2003, when several trauma centers were getting ready to close, the CEOs of the trauma centers decided that a plan to save the state's trauma system had to be established. They formed the Florida Trauma Alliance (Alliance), and began looking at several of the most pro-active states, and designing an educational campaign that would convince the public and the legislature that their trauma centers needed help.

The Alliance began working with the hospitals to determine the quantifiable amount needed in order to stay in the trauma system. The figure finally agreed on was \$92 million annually. Afterwards, it looked at funding streams and found that Florida had the lowest red light penalties. The legislature eventually passed a \$65 increase to red light fines with an additional high enforcement zone penalty.

B. Maryland

Ms. Mary Beachley, Chief, Division of Health Facilities and Special Programs, Maryland Institute for Emergency Medical Services Systems, presented the following information to the Committee on November 28th, in Thomasville.

The Maryland Institute of Emergency Medical Services System (MIEMSS) oversees and coordinates all components of the statewide EMS system, including planning, operations, evaluation, and research. It provides the executive support for the state's EMS board in reviewing and approving the budgets for agencies that receive funds from the Maryland Emergency Medical Services Operating Fund.

The Maryland Emergency Medical Services Operation Fund (MEMSOF) was created in 1992. It is funded by an \$11 surcharge on annual motor vehicle registrations for certain classes of vehicles. The most recent two years of approved expenditures from the fund are shown in the chart below:

Agency	FY 2006	FY 2007
MIEMSS	\$10.4 million	\$10.8 million
MSP	\$17.2 million	\$19.5 million
MFRI	\$6. million	\$6.3 million
AMOS Fund	\$10 million	\$10 million
RA STC	\$3.1 + \$2. million	\$3.2 + 3.5 million
Volunteer Co. Assistance Fund	\$1.4 million	\$1.4 million
Totals	\$50,100,000 million	\$54,700,000 million

MIEMSS is the state agency that oversees and coordinates all components of the statewide EMS system.

The Maryland State Police, Aviation Division, (MSP), receives funding from the MEMSOF for support in their Medevac functions and to support law enforcement, and search and rescue functions. The Maryland Fire and Rescue Institute (MFRI) is the state's fire and emergency training agency responsible for the majority of basic level pre-hospital training and education system services providers.

Local grants are administered under the Senator William H. Amoss Fire, Rescue, and Ambulance Fund (AMOS FUND), to local jurisdictions for the purchase of fire and rescue equipment and capital building improvements. Distributions are based on a county's percentage of total property tax assessments and each county receives a minimum of 2 percent of the total.

R. Adams Cowley Shock Trauma Center (RA STC), operated by the University of Maryland Medical System, is the core element of the state's EMS system and serves as the primary resource for adult treatment of trauma.

The low interest revolving loan account (Volunteer Companies Assistance Fund) was established for volunteer fire, rescue, and ambulance companies to assist them with up to 75 percent of the cost of purchasing fire and rescue equipment.

In 2003, the Maryland Physician Trauma Fund was created to address the rising rate of unreimbursed care, rising malpractice costs, and to offset the growing perception of increased risks resulting in doctors' lack of interest in providing trauma services. It is funded by a \$5 add-on surcharge to the motor vehicle registration in addition to the existing \$11 surcharge.

The fund covers uncompensated physician care and increases Medicaid payments to providers up to 100 percent of Medicare. Additionally, it covers a small percentage of on-call costs for certain trauma physicians paid to the trauma center hospitals.

The vision of Maryland's Institute for Emergency Medical Services System is that the "golden hour" for trauma injury patients should be 15 to 20 minutes. Maryland has 11 designated trauma centers.

Ms. Beachley testified that the campaign to the public regarding the vehicle surcharge was well received. Their citizens accepted the surcharge because they believed in the MIEMSS's mission of providing the best possible EMS system.

C. Texas

Ms. Jorie Klein, Trauma Director, Parkland Hospital, Texas, presented the following information to the Committee on November 28th, in Thomasville.

Texas delivers EMS through 22 regional advisory councils (RACs). They have a highly sophisticated system that began in 1989. The RACs are not-for-profit 501(c) (3) corporations with uniform performance standards, and overseen by the Texas Department of State Health Services (DSHS).

Each RAC develops the trauma plan for its region which must include: access to the system; communications; medical oversight; pre-hospital triage; diversion; inter-facility transfer guidelines; and injury prevention. The EMS field triage protocol, used by each of the RACs, allows for field/pre-hospital triage. Major trauma victims are sent to the closest trauma facility.

Texas has 248 designated trauma centers: 13 designated Level I; 10 designated Level II; 42 designated Level III; and 183 designated Level IV. Hospitals must participate in the trauma care system in order to receive disproportionate funding.

In addition to the \$4 million appropriated to its trauma system biennially, Texas has passed two initiatives to help fund its trauma services. The first initiative, the “safe driver bill,” created a point system requiring a person who reaches six points in one year to pay into the Texas Mobility Fund. Ninety-six percent of the funds go to designated trauma centers for uncompensated care. It has raised approximately \$50 million; eventually, it is projected to raise \$200 million.

The second initiative targets DUI offenders and generates approximately \$36 million each year. Fifty percent of the funds go to EMS allotments, 20 percent goes to RAC allotments, 27 percent goes to uncompensated care allotments, and 3 percent covers administrative costs.

VI. Committee Findings

A. Conclusions

The Committee recognizes that our state is in a trauma care crisis. The fact that our death rate from traumatic injuries is 20 percent above the national average shows that people are dying unnecessarily in our state, and it reflects a growing urgency to address the needs of our trauma care system. Each area of our trauma care system has significant problems that must be addressed in order for Georgia to have a comprehensive, accessible, healthcare system that meets the needs of our growing population. The goal of this report and any ensuing policy, legislative action, or rules and regulations are promulgated with the specific goal of providing Georgia’s trauma centers and agents with the tools needed to bring our trauma death rate to parity or below the national average.

Prevention

► Increase awareness through prevention programs about the causes of traumatic injury.

- ▶ Provide educational opportunities/literature to the public about their personal responsibilities during times of disaster and crisis.

EMS/Communications/Pre-Hospital Care

- ▶ Increase our communication systems – close the gap for those 20 counties that do not have 911 service.
- ▶ Provide increased funding for the State Office of EMS and bolster their ability to administer and coordinate Georgia’s trauma system.
- ▶ Provide a centralized command for all trauma care providers.
- ▶ Coordinate responses during events of natural disaster, disease outbreak, and terrorism.
- ▶ Increase our ground and air ambulance coverage and inventory.
- ▶ Increase the EMT workforce - 13,927 EMTs is not enough for the size and population of our state.
- ▶ Encourage our EMTs, through incentive programs, to obtain higher levels of training.

Hospital - Trauma Care

- ▶ Ease the annual financial burden of \$170 million created by uncompensated trauma care that our hospitals and surgeons bear.
- ▶ Increase incentives so that surgeons/physicians will commit to trauma care.
- ▶ Increase incentives so that more acute care hospitals will commit to the trauma care system. Stakeholders have suggested that Georgia needs 30 trauma care centers to effectively accomplish statewide trauma system healthcare goals.

B. Recommendations

The Committee recognizes a need to provide some level of funding to alleviate the financial burden of uncompensated care our trauma care providers are suffering. Additionally, such funding would hopefully encourage other providers to join our trauma care system.

The following recommendations are intended to: improve public awareness of trauma and Georgia’s trauma system crisis; increase trauma center readiness and assist with the cost of such readiness; support Georgia’s trauma physicians; increase the size of participants in our trauma system; address transportation problems within the system, both air and ground transport ambulances; and establish an effective system of management and accountability.

Recommendation for the Creation of the Georgia Trauma Care Network Commission

Chapter 11 of Title 31 of the Official Code of Georgia, relating to emergency medical services, should be amended to establish the Georgia Trauma Care Network Commission. The Commission will consist of nine members: five members appointed by the Governor; two members of the Senate appointed by

the Lieutenant Governor; and, two members of the House of Representatives appointed by the Speaker. The Governor's appointments must include a trauma physician, a representative/operative from a designated trauma hospital, and a representative from the EMS community.

For administrative purposes only, the Commission will be assigned to the Department of Human Resources, Office of Emergency Medical Services/Trauma. The responsibilities of the Commission will include the oversight of the Georgia Trauma Care Fund.

Recommendation for the Creation of the Georgia Trauma Care Fund

Chapter 11 of Title 31 of the Official Code of Georgia, relating to emergency medical services, should be amended to establish the Georgia Trauma Care Fund. Use of the funds in the Georgia Trauma Care Fund will be reserved for the operation of Georgia's trauma system, and oversight of such use will be the responsibility of the Commission. Georgia's Office of Emergency Medical Services/Trauma will administer the funds accordingly.

Funding options for Georgia's trauma system include:

- ▶ A certain percentage of the Georgia Insurance Premium Tax that would be diverted into the Georgia Trauma Care Fund.
- ▶ An additional \$5.00 surcharge on motor vehicle registrations.
- ▶ An increase of \$1.16 in the monthly cell phone surcharge.
- ▶ An additional surcharge on rental and leased cars.
- ▶ An additional add-on charge to fines for certain motor vehicle moving violations, such as the offense of DUI.
- ▶ A check box on the individual Georgia Income Tax form that would allow Georgia citizens to contribute 5 percent of their tax refund or \$5.00 to the Georgia Trauma Care Fund.

Use of Funds

Under the direction of the Commission, a system should be developed to compensate designated trauma centers for a portion of their cost of readiness. Each designated trauma center should receive a bi-annual appropriation from the Georgia Trauma Care Fund in a standardized amount to be decided by the Commission. The standardized amounts will be determined according to designation level, and will be capped at that specific amount. It is recommended that the amounts be determined according to the following criteria, and may be changed on a bi-annual basis, by a majority vote of the members of the Commission: three-year average of annual trauma cases; annual amount of uncompensated trauma care administered; expenditures compensating specialists and physicians for taking call; and, a three-year annual average cost of readiness.

Additional hospital compensation should be established and decided by an application and review-based process. These funds will be used to cover trauma

center costs not associated with readiness. These appropriations will be capped and limited to bi-annual appropriations. Applicants should be required to submit a proposal for the use of the funds, and once the funds are received, submit quarterly reports verifying the use of the funds.

It is recommended that a system be established to compensate physicians who provide uncompensated call and trauma services. These appropriations should be distributed on a bi-annual basis and paid on a formula to be set by the Commission. The call hours must be documented and verified by the trauma director at the appropriate trauma hospital.

Additional moneys should be reserved to increase the participants of the Georgia Trauma System. These funds should be disbursed through an application process that would help cover partial startup costs for non-designated acute care facilities to enter the system as Level II, III, or IV trauma centers. Through the Commission and the Fund, the Georgia State Office of EMS/Trauma should receive funds to properly recruit additional trauma centers into the network.

The Commission should also establish a system to compensate members of the EMS community in a method proportional to the difference in the state Medicaid and federal Medicare schedules. Each EMS service will receive a certificate from the Commission that certifies that a certain majority of their services are emergency and trauma related. Once this certificate is received, they will be allowed to participate in this grant-based process. Such EMS providers should also be able to apply for additional funds to cover expansion, service improvements, and reimbursement for a percentage of their licensing fees. The Commission should also establish a system of incentives for EMS personnel who further their licenses and qualifications and continue to serve in Georgia's trauma care system.

The Commission should also appropriate, out of the Trauma Fund, annual moneys for investment in a statewide helicopter system specifically for trauma system transportation. The Commission should set the rules and regulations for such program, and will pursue contracts with existing state transportation structures, or creating a contractual arrangement with existing transportation organizations. The Commission should also be responsible for creating, maintaining, and overseeing a Foundation to raise funds specifically for investment in this helicopter system and overall trauma funding.

The Commission should serve as the accountability mechanism for the entire Georgia trauma system, primarily controlling the flow of funds from the Georgia Trauma Care Fund into the system. The State Office of EMS/Trauma should receive an annual appropriation from the Commission to fund their administration of an adequate system for monitoring state-wide trauma and for research as needed to continue to operate and improve the system.

Finally, it should be codified that designated trauma centers may add additional beds for their emergency rooms and operating rooms without going through the certificate of need (CON) application process.