

# Mississippi Trauma Advisory Committee

# 2013 Strategic Planning Conference Report



Bureau of Emergency Medical Services/Trauma System Development  
Approved: January 16, 2014

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## **Executive Summary**

The Mississippi Trauma Advisory Committee (MTAC) conducted a Strategic Planning Conference on November 5-6, 2013. During this conference, the committee identified 14 issues for improvement of the Mississippi Trauma Care System, and of these, designated six action items as critical for immediate attention. In accordance with the mandates of the Mississippi Annotated Code Section 41-59-7, as well as the recommendations of the Joint Legislative Committee on Program Evaluation and Expenditure Review (PEER), the committee will conduct strategic planning conferences on a recurring basis.

### **Introduction**

The goal of the Mississippi Trauma Care System is to deliver the ***right*** patient to the ***right*** hospital the ***first*** time. Trauma remains the leading cause of death for Mississippians age 1 to 44, and Mississippi ranks fifth in the nation for unintentional injury deaths.

Mississippi began development of a statewide trauma system in 1991. The Legislature charged the Mississippi State Department of Health (the Department) with the responsibility for creating, implementing, and managing a state-wide trauma system. Since that time the state has adopted a trauma care plan, established seven designated trauma regions, designated qualifying hospitals as trauma centers, maintains a trauma registry, and disburses funding to trauma regions, trauma centers, and physicians.

The Mississippi Legislature passed House Bill 1405 during the 2007 Regular Session to revitalize and more fully fund the Mississippi Trauma Care System. Mississippi moved from a voluntary system with indigent reimbursement, to a mandatory system with block grant funding based on participation; the first trauma system of its type in the United States.

Starting in September 2012 through August 2013, the Joint Legislative Committee on Performance Evaluation and Expenditure Review (PEER) conducted two evaluations of the Mississippi Trauma Care System (refer to Appendix C). The first evaluation, described in Report # 568, primarily addressed the Trauma Care Trust Fund. The second evaluation, described in Report # 573, again addressed expenditures from the Trauma Care Trust Fund, but also looked at system opportunities and limitations. One of the recommendations of this report was that MTAC should analyze trauma center and EMS coverage in the state, and develop strategies to target coverage gaps, and a timeline for improvement.

Based on the PEER recommendation, MTAC conducted a Strategic Planning Conference in Biloxi on November 5-6, 2013 (refer to Appendix A).

## **Statutory Authority**

The Mississippi State Department of Health, through the Bureau of Emergency Medical Services, is responsible for creating, implementing, and managing the state-wide trauma care system. The Mississippi Trauma Advisory Committee (MTAC) is created as a committee of the Emergency Medical Services Advisory Council (EMSAC) in accordance with Miss. Code Ann. § 41-59-7 (refer to Appendix B). MTAC members are appointed to the committee by the chairman of EMSAC. MTAC acts as the advisory body for trauma care system development and provides the Department with:

- Technical support in all areas of trauma care system design,
- trauma standards,
- data collection and evaluation,
- continuous quality improvement,
- trauma care system funding,
- and evaluation of the trauma care system and trauma care programs.

## **Issue Identification**

During the course of the conference, the committee members conducted moderator-led discussions using the SWOT (Strengths, Weaknesses, Opportunities, and Threats) algorithm. The committee identified a total of 14 items; six of which were considered to be critical.

### Critical Items:

Priority	Item	Recommendation
1	Leadership in the Trauma Program	The Trauma Care Program is one of the Health Department's Systems of Care and has outgrown the existing structure where it reports to the Bureau of EMS. There should be a full time employee position in the Department of Health for the coordination of all of the Systems of Care with the authority to effectively manage the Trauma Program, along with other board-approved Systems of Care, including budget, personnel, and resources. This leadership role will need to define the needed resources to most effectively coordinate the Systems of Care for the Department of Health. EMS is only one of the components necessary to make the concept of Systems of Care work to improve the health status of Mississippi

		residents.
2	Unified data system	Although the Trauma Registry is more accurate than ever before, there is still no process to seamlessly link pre-hospital data (MEMSIS) to the hospital registry data. Additionally, data exists in systems maintained by other organizations (i.e., DPS, MDOT) that would be useful in trauma quality improvement/education programs, but there has been no effort to obtain this information.
3	Strategy of Systems of Care	There needs to be integration of Trauma System Development and the emerging systems of care with the Strategic Plan of the Department and the State Health Plan. Additionally, there needs to be an analysis of the impact of multiple systems of care on finite resources, particularly EMS providers and hospital emergency departments.
4	Lack of critical human resources (specialty care physicians and EMS providers)	There is currently a shortage of specialty care physicians (ophthalmology, oral/maxillofacial, microvascular, etc.) within the state, and the projections for the future remain bleak. Additionally, the state's only medical school with a surgical residency is not graduating enough surgeons to replace those that are retiring at the current rate, let alone the anticipated rate in the future ("Baby Boomers"). Projections on the number of EMS providers continue to slump, although over recent years, there has been a slight increase in the number of paramedics in the workplace.
5	Injury Prevention and Education	A Prevention and Education Sub-Committee should be created. This group will be responsible for developing system-wide prevention programs and public education programs. Additionally, an Education Task Force will be assigned to review and recommend training requirements for practitioners, and to recommend changes to the Rules and Regulations Sub-Committee.
6	Financial Accountability and Planning	A Finance Sub-Committee should be created. This group will be responsible for

		oversight of trauma care system funding, including expenditures from the two Trauma accounts, 09S and 060S, as well as the annual budget for the Trauma Care System. Additionally, this group will explore additional sources of revenue for the trauma system.
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Additional Items:

Priority	Item	Discussion
	Anticipated ICD10 roll out and training for medical staff and registrars	ICD10 will be the new system for coding injuries. This will require a major training effort for practitioners, program managers, and trauma registrars.
	MTAC purpose, mission, role, orientation	There needs to be a policy, definition, handbook, etc., to orient new (and existing) MTAC members on the purpose of MTAC and the role members play in meeting the statutory requirements.
	TPM training	Trauma Program Manager training needs to be developed as a formal requirement, in the same manner as other training, i.e., ATLS for physicians and mid-levels, TNCC for nurses, and recurring training for registrars.
	Collaboration with other state departments, i.e., DPS and MDOT	There is no collaboration between the Department and other state agencies that address issues affecting the trauma system, particularly the Department of Public Safety and the Department of Transportation. Both organizations have public education and prevention programs, as well as data systems, but there is no sharing of resources or consolidation of effort.
	Level II trauma services in the Delta TCR	The Delta TCR is the largest region in the system with 19 counties, yet there is no Level II (neurosurgery) capability within the region, notwithstanding the Regional Medical Center in Memphis. The next closest locations for Level II services are in Tupelo (North TCR) and Jackson (Central TCR).
	Long Term Healthcare	The Affordable Care Act will have a major

		impact on the delivery of health care across the spectrum and there has been little to no guidance from national level organizations, i.e., ACS, ACEP, STN, etc.
	Geriatric Trauma	Although efforts have been made to address pediatric trauma, within the next 15 years, there will be more individuals over the age of 65 than under the age of 16, and no effort has been made to address geriatric trauma on a systemic basis.
	EMS representation on MHA Systems of Care workgroup	Although primarily composed of hospital administrators, this group has been instrumental in defining requirements for emerging systems of care. As EMS is critical for the success of any system of care, they should be included in the discussion/planning at the earliest possible time.

## **Appendix A: MTAC SPC Agenda**



### **MISSISSIPPI STATE DEPARTMENT OF HEALTH**

#### **Mississippi Trauma Advisory Committee Strategic Planning Conference AGENDA**

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November 5, 2013 – First Session

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12:00 – 12:15 pm	Welcome/introductions	Dr. Pete Avara
12:15 – 3:00 pm	PEER Evaluations/recommendations	Dr. Norman Miller
3:00 – 3:15 pm	Break	
3:15 – 6:00 pm	SWOT/Gap analysis	Dr. Miller
6:00 – 8:00 pm	Working dinner/open discussion	All

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November 6, 2013 – Second Session

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8:00 – 10:00 am	MTAC & Emergency Systems of Care Council	Dr. Rick Carlton & Dr. Clyde Deschamp
10:00 – 10:15 am	Break	
10:15 am – 12:00 pm	Open discussion/Plan of Action	All
12:00 pm	Adjourn	Dr. Avara

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Next MTAC meeting: January 16, 2014 @ 10:00 am

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## **Appendix B: Miss. Code Ann. § 41-59-7**

### **§ 41-59-7. Advisory council**

(1) There is created an emergency medical services advisory council to consist of the following members who shall be appointed by the Governor:

(a) One (1) licensed physician to be appointed from a list of nominees presented by the Mississippi Trauma Committee, American College of Surgeons;

(b) One (1) licensed physician to be appointed from a list of nominees who are actively engaged in rendering emergency medical services presented by the Mississippi State Medical Association;

(c) One (1) registered nurse whose employer renders emergency medical services, to be appointed from a list of nominees presented by the Mississippi Nurses Association;

(d) Two (2) hospital administrators who are employees of hospitals which provide emergency medical services, to be appointed from a list of nominees presented by the Mississippi Hospital Association;

(e) Two (2) operators of ambulance services;

(f) Three (3) officials of county or municipal government;

(g) One (1) licensed physician to be appointed from a list of nominees presented by the Mississippi Chapter of the American College of Emergency Physicians;

(h) One (1) representative from each designated trauma care region, to be appointed from a list of nominees submitted by each region;

(i) One (1) registered nurse to be appointed from a list of nominees submitted by the Mississippi Emergency Nurses Association;

(j) One (1) EMT-Paramedic whose employer renders emergency medical services in a designated trauma care region;

(k) One (1) representative from the Mississippi Department of Rehabilitation Services;

(l) One (1) member who shall be a person who has been a recipient of trauma care in Mississippi or who has an immediate family member who has been a recipient of trauma care in Mississippi;

(m) One (1) licensed neurosurgeon to be appointed from a list of nominees

presented by the Mississippi State Medical Association;

(n) One (1) licensed physician with certification or experience in trauma care to be appointed from a list of nominees presented by the Mississippi Medical and Surgical Association;

(o) One (1) representative from the Mississippi Firefighters Memorial Burn Association, to be appointed by the association's governing body; and

(p) One (1) representative from the Mississippians for Emergency Medical Services, to be appointed by the association's governing body.

The terms of the advisory council members shall begin on July 1, 1974. Four (4) members shall be appointed for a term of two (2) years, three (3) members shall be appointed for a term of three (3) years, and three (3) members shall be appointed for a term of four (4) years. Thereafter, members shall be appointed for a term of four (4) years. The executive officer or his designated representative shall serve as ex officio chairman of the advisory council. Advisory council members may hold over and shall continue to serve until a replacement is named by the Governor.

The advisory council shall meet at the call of the chairman at least annually. For attendance at such meetings, the members of the advisory council shall be reimbursed for their actual and necessary expenses including food, lodging and mileage as authorized by law, and they shall be paid per diem compensation authorized under Section 25-3-69.

The advisory council shall advise and make recommendations to the board regarding rules and regulations promulgated pursuant to this chapter.

(2) There is created a committee of the Emergency Medical Services Advisory Council to be named the Mississippi Trauma Advisory Committee (hereinafter "MTAC"). This committee shall act as the advisory body for trauma care system development and provide technical support to the department in all areas of trauma care system design, trauma standards, data collection and evaluation, continuous quality improvement, trauma care system funding, and evaluation of the trauma care system and trauma care programs. The membership of the Mississippi Trauma Advisory Committee shall be comprised of Emergency Medical Services Advisory Council members appointed by the chairman.

**HISTORY: SOURCES:** Laws, 1974, ch. 507, § 4; Laws, 1983, ch. 522, § 37; Laws, 1986, ch. 363; Laws, 1998, ch. 429, § 3; Laws, 2008, ch. 325, § 1; Laws, 2008, ch. 549, § 3, eff from and after July 1, 2008; reenacted and amended, Laws, 2011, ch. 545, § 4, eff from and after July 1, 2011.

## **Appendix C: PEER Reports Executive Summaries**

### **Report #568**

#### **Introduction**

In response to a legislative request, the PEER Committee reviewed the revenues, distributions, and expenditures of the Mississippi Trauma Care Systems Fund.

The Legislature created the state's trauma care system to "reduce the death and disability resulting from traumatic injury." Participants in the state's trauma care system are the Department of Health, the department's Trauma Care Advisory Committee, the seven trauma care regions and their boards of directors, hospitals that have qualified as trauma centers, a burn center, and emergency medical services providers. State law requires the Department of Health to develop the Trauma Care System Plan, which guides the system, and to develop regulations for the system. Data for the system is maintained in a statewide trauma registry.

MISS. CODE ANN. Section 41-59-5 (1972) requires every Mississippi licensed acute care facility to participate in the statewide trauma care system. Facilities are designated as Level I-IV trauma centers based on specific criteria, including the services each facility offers.<sup>1</sup> As of September 24, 2012, seventy-eight in-state hospitals, one in-state burn center, and two out-of-state hospitals were participating in the Mississippi trauma care system.<sup>2</sup>

All facilities in the trauma care system, except Level I trauma centers, are required by regulation and the Trauma Care System Plan to have transfer agreements in place with higher-level facilities to expedite and facilitate the transfer of patients in need of a higher level of care. Transfer agreements are also in place for specialty care patients such as burn and pediatric patients.

Any hospital that chooses not to participate in the trauma care system or that participates at a level lower than the level at which it is capable of participating, as determined by the Department of Health, must pay a non-participation fee as required by the *Mississippi Trauma Care System Regulations*.

## Sources of Revenues for the Trauma Care Systems Fund

The Legislature established the Mississippi Trauma Care Systems Fund for use by the Department of Health in the administration and implementation of a comprehensive state trauma care plan. The fund receives revenues from assessments and fees related to vehicles, penalties assessed against hospitals that choose not to participate in the state's trauma care system, and interest on the investment of the fund.

From FY 2009 through FY 2012, the Trauma Care Systems Fund received approximately \$101 million in revenues, including:

- approximately \$76.4 million from assessments (i. e., on moving traffic violations; speeding, reckless, and careless driving;) and fees (i. e., vehicle license tags; certain distinctive license plates; point- of- sale fees on all- terrain vehicles, and motorcycles);
- approximately \$17 million from non- participation fees from hospitals; and,
- approximately \$7.5 million in other revenues, including interest income, returns of funds disbursed in prior years, and a transfer of funds from a State Treasury fund closed by the Legislature.

## Distribution of Money from the Trauma Care Systems Fund

From 1998 to 2008, the Department of Health used the Trauma Care Systems Fund to cover administrative expenses of the state trauma system, with the remaining balance distributed to participating trauma centers based on their provision of uncompensated care to patients. Beginning in FY 2010, the department continued to use the fund to cover administrative expenses of the system, but distributed the remaining balance in a formulated manner based on each hospital's specific designation as a trauma center.

Initially, the Department of Health distributed funds to hospitals that voluntarily participated in the state's trauma care system on the basis of their provision of uncompensated care to trauma patients. In its 2007 session, the Legislature created a Trauma Care Task Force to determine adequate funding requirements for the system. In 2008, the task force recommended a different method for distributing monies from the Trauma Care Systems Fund to trauma care regions, trauma centers, and emergency medical services providers.

Since FY 2010, the Department of Health has distributed monies in the Trauma Care Systems Fund to hospitals in a formulated manner based on each hospital's designated trauma center level and the populations served by the emergency medical services providers in each trauma care region. (See pages 19 through 24 of the report for a description of the fund distribution method.)

During FY 2010 through FY 2012, the department distributed approximately \$74 million from the fund to emergency medical services providers, trauma centers, and the Joseph M. Still Memorial Burn Center at Crossgates River Oaks Hospital in Brandon.

## Allowable Expenditures from Trauma Care Systems Fund Distributions

Board of Health regulations specify the types of expenditures that emergency medical services providers and trauma centers may make from their Trauma Care Systems Fund distributions.

Departmental regulations allow emergency medical services providers to expend their distributions primarily on employee compensation, training, and equipment related to trauma care. The regulations require Level I-III trauma centers and the burn center to expend 30% of their distributions on physicians' compensation, while the remaining 70% may be expended on other staff compensation, training, commodities, and equipment. All expenditures for Level I-III trauma centers must be related to the care of trauma patients.

Each Level IV trauma center receives an annual stipend and educational grant for its participation in the state's trauma care system. Such funds are intended to assist the Level IV trauma centers in covering administrative costs associated with entering data in the trauma registry and other trauma-related activities.

In FY 2010 through FY 2012<sup>3</sup>, emergency medical services providers and trauma centers expended approximately \$50.6 million from the Trauma Care Systems Fund. The Department of Health has not yet audited these expenditures and has not required the burn center to provide expenditure information regarding its FY 2012 distribution.

## Monitoring of Trauma Care System Performance

After establishing performance measures for the trauma care system, the Department of Health utilizes state, regional, and hospital-based committees to monitor and evaluate the performance of the state's trauma care system.

State law charges the Department of Health with developing and administering trauma regulations that include, in part, "trauma care system evaluation and management." In order to monitor the effectiveness of the system, the department has established a performance improvement program. The goals of the department's performance improvement program are to:

- alleviate unnecessary death and disability from trauma by reducing inappropriate variations in care and improving patient care practices; and,
- promote optimal trauma care by performing ongoing cycles of evaluation of trauma care delivery and system components and implementing improvement initiatives based on optimal care practices when indicated.

The Department of Health utilizes performance improvement committees at the state, regional, and hospital levels to monitor the performance of the state's trauma care system.

Since 2000, the number of Mississippi's trauma-related deaths has remained fairly constant (a 14% increase), even though trauma-related injuries have risen significantly (a 196% increase). While factors such as motorcycle and bicycle helmet laws, seatbelt laws, and improved medical knowledge and technology have arguably played a role in controlling the number of trauma deaths, the percentage increase in trauma-related deaths from 2000 to 2010 in relation to the percentage increase in trauma-related injuries seems to indicate that the system has been effective in providing trauma care and reducing the number of deaths from trauma-related injuries.

## Recommendations

1. The Department of Health should immediately begin auditing Trauma Care Systems Fund distributions that have been made to trauma regions, trauma centers, and EMS providers since FY 2010. In addition to auditing the data entered into the state's trauma

registry, the department should review regions' and trauma centers' financial records to verify the accuracy of expenditure information submitted on the semi-annual applications.

2. The Department of Health should require the Joseph M. Still Memorial Burn Center at Crossgates River Oaks Hospital to submit the same type of expenditure information required of Level I- Level III trauma centers.

## Report # 573

### Introduction

In January of this year, the PEER Committee released the report *A Descriptive Review of the Mississippi Trauma Care Systems Fund* (PEER Report #568). In that report, PEER described how the Trauma Care Systems Fund receives and distributes its funding.

Subsequent to that report's release, the Committee conducted additional field work regarding the statewide trauma care system to determine what opportunities exist for improvement, as well as the limiting factors. This report is intended to be a companion piece to Report #568.

### Background

A *traumatic* injury requires surgical and other medical specialists to consult, observe, or perform surgery in order to optimize recovery. A *trauma system* is an organized, coordinated effort within a defined geographic area that is designed to provide a continuum of intensive medical services beginning with a traumatic injury and continuing through hospital discharge.

As discussed in PEER Report #568, MISS. CODE ANN. Section 41-59-5 (1972) requires every Mississippi licensed acute care facility to participate in the statewide trauma care system. Facilities are designated as Level I, Level II, Level III, or Level IV trauma centers based on specific criteria, including the services each facility offers, defined in *Mississippi Trauma Care System Regulations*.

As of February 5, 2013, seventy-nine in-state hospitals, one in-state burn center, and three out-of-state hospitals were participating in the Mississippi

trauma care system.<sup>1</sup> A trauma system also involves, at varying degrees, the coordination of trauma care delivery among trauma centers and pre-hospital providers with state and local governments and other healthcare resources. Other participants in the Mississippi trauma care system include:

- the state's Department of Health;
- the Mississippi Trauma Advisory Committee;
- the State Trauma Performance Improvement Subcommittee; and,
- seven designated trauma care regions and their respective boards of directors.

## Conclusions

**Has the Mississippi Trauma Care System accomplished what it was created to accomplish?**

The Legislature created the state's trauma care system to "reduce death and disability resulting from traumatic injury." Between 2000 and 2010, the ratio of trauma deaths versus traumatic injuries in Mississippi improved from 5.1% to 2.0%. While many factors have arguably played a role in controlling the number of trauma deaths, the Mississippi Trauma Care System has played a role by slowing the decline in the number of trauma centers and by improving the pre-hospital methods for routing a trauma patient to the most appropriate trauma center.

**Who developed the previous and current methods for distributing the Trauma Care Systems Fund and why?**

The Mississippi Trauma Advisory Committee (MTAC), with support from Department of Health staff, developed both the previous and current methods for distributing the Trauma Care Systems Fund. Instead of reimbursing hospitals and physicians for uncompensated trauma care costs based on claims submitted, as was the case under the previous distribution method, the current method distributes funds based on the trauma center's designation and the number and severity of trauma patients treated. The current method also includes EMS providers in the funds distribution and has expanded the pool of physicians eligible to receive funds.

**How does the Department of Health spend its portion of the Trauma Care Systems Fund to support the operations of the Mississippi Trauma Care System?**

Because the state's trauma care system is designed to "reduce the death and disability resulting from traumatic injury," it is important that the state's trauma centers and emergency medical services providers receive the majority of available funds. Therefore, the Department of Health's portion of the Trauma Care Systems Fund for administrative expenses must be kept to a reasonable limit while ensuring adequate support of the trauma care system. The department spent approximately \$2.9 million from the fund for administration during FY 2010 through FY 2012, including approximately \$1.1 million in salaries and fringe benefits for departmental employees and contract workers assigned in whole or in part to the trauma care system.

**What are the opportunities and limitations of Mississippi's trauma care system and the current method of distributing the Trauma Care Systems Fund?**

While the Mississippi Trauma Care System has opportunities for improvement in its design, external environmental factors pose significant fiscal and logistical challenges and system design limits options for developing or upgrading trauma centers, including:

- access to and growth of Level I-III trauma centers is not equal throughout the state;
- because of high rates of uninsured patients and Medicare or Medicaid patients, as well as overworked emergency rooms, the trauma system faces significant fiscal challenges; and,
- a hospital's choice regarding its level of participation in the trauma care system is made independently of the Department of Health and the system is not designed to develop new trauma centers or upgrade trauma centers.

Further, while the current level of funding provides flexibility to the trauma centers to target trauma needs, the current level is not sufficient to cover trauma centers' uncompensated trauma care costs or to improve trauma center designation and does not specifically provide for the "golden hour"<sup>2</sup> of trauma care.

## **Recommendations**

1. The Mississippi Trauma Advisory Committee (MTAC) and the Department of Health should analyze trauma center coverage and emergency medical services coverage in the state. Based on this analysis, MTAC and the Department of Health should develop strategies to target coverage gaps in the trauma care system and a timeline for improving such coverage.
2. The Department of Health should periodically determine Mississippi's total cost of trauma care, specifically that portion that is considered to be uncompensated trauma care. The department should also develop and submit to the Legislature alternatives for funding to address more sufficiently the state's uncompensated trauma care costs.
3. MTAC and the Department of Health should continue their current efforts of analyzing the current Trauma Care Systems Fund distribution formula, with a goal of providing additional funding to Level IV trauma centers.

## **Appendix D: MSDH 2013 Strategic Plan-Emergency Medical Services**

**Need:** In case of accident or sudden serious illness, individuals often need appropriate medical care to provide life-saving measures during transport to a hospital. A comprehensive pre-hospital system must include an adequate number of transportation providers with emergency vehicles that meet prescribed standards, along with properly trained and certified emergency personnel. In addition, Mississippi's rural nature emphasizes the need for an organized, inclusive statewide trauma system to ensure that emergency patients are transported in the least amount of time to a hospital with the necessary capabilities to care for that patient's injuries. Mississippi law charges the MSDH with ensuring an effective system of emergency medical care through licensure and inspection of emergency medical vehicles and certification of emergency medical personnel. In addition, the MSDH is lead agency to develop and manage a statewide Trauma Care System for Mississippi.

**Program Description:** The Bureau of Emergency Medical Services (EMS) licenses all ambulance services in Mississippi; inspects and permits ambulances; certifies EMS drivers; tests and certifies medical first responders and emergency medical technicians, including testing EMTs on the basic and paramedic levels; authorizes advanced life support and other training programs; manages a statewide EMS information system; and administers the EMS Operating Fund.

The Bureau of EMS administers the Mississippi Trauma Care System, including design of the system, inspection of trauma care centers, programmatic audits, collection and management of data for a statewide Trauma Registry, and monitoring of system performance such as hospital transfer times. The Trauma System is designed to ensure that each trauma patient in Mississippi arrives at the most appropriate hospital for his injury as quickly as possible.

Licensed acute care hospitals must apply for designation as a Trauma Center at one of four levels, with Level 1 being the most capable. Every adult Trauma Center is also designated as a Pediatric Trauma Center, with Tertiary Pediatric Centers being the most capable. Hospitals that do not care to participate in the Trauma System, or elect to participate at a level less than their assessed capability, are required to pay a nonparticipation fee ("Play or Pay"). Designation levels set specific standards that guide hospital and emergency personnel in determining the level of care a trauma victim needs, and whether that hospital can care for the patient or transfer to a Trauma Center that can administer more definitive care.

The Department distributes funds from the Trauma Care Trust Fund to designated Trauma Centers and EMS providers based on a published distribution formula. Trauma Centers receive funding in two parts: one part is based on the level of designation and the second is based on the number and acuity of trauma patients the Center has served. EMS providers receive funds

based on the population of the county where they provide service. Designated Burn Centers also receive a distribution from the Trauma Care Trust Fund.

There are seven designated trauma care regions, which monitor the participation and compliance of the Trauma Centers and EMS providers within the region. The regions also assist with performance improvement, Trauma Registry submissions, and Trauma Center applications.

The Bureau of EMS also administers a federal Emergency Medical Services for Children program that focuses on improving emergency care and injury control for children. Program staff conducts safety and injury prevention programs statewide aimed at behavior modification and decreasing morbidity and injury to children. The program serves as a clearinghouse for information to pediatricians, schools, hospitals, parents, and others interested in reducing injury to children.

In addition, the bureau is responsible for a Weapons of Mass Destruction Emergency Preparedness program. The goal of this program is to develop and implement plans and protocols for EMS services during an act of terrorism or other hazard emergency. The bureau has developed a comprehensive training plan to provide staff with the resources to support any disaster event within the state.

**Program Goal:** The goal of the EMS Program is to ensure a quality, effective system of emergency medical care through a comprehensive emergency medical services system. The goal encompasses assuring maximum availability of well-equipped and trained pre-hospital providers to Mississippians who need emergency care.

### FY 2012 Program Outputs

Licensure:	
Ambulance services licensed	151
Ambulances permitted	671
Certifications/re-certifications issued:	
EMT-Paramedic	882
EMT-Basic	1,184
EMS-Driver	1,188
Number of EMS for Children education/safety programs	123

### FY 2012 Outcome Measures

Percentage of ambulances inspected twice per year	97%
Transfer time of Level III/IV trauma centers to appropriate facilities	139.85 min.

### FY 2013 Objectives:

- Conclude thorough and professional investigations on all complaints regarding EMS personnel and providers within 60 days of receipt.

- Address technical assistance requests from trauma regions and trauma care centers for system and program development within three working days of receipt.
- Finalize inspection reports and provide plan of correction to trauma centers within ten working days of inspection.
- Ensure data submission into MEMSIS (Mississippi Emergency Medical Services Information System) by the 15th day of each month for patient encounters of the previous month from all licensed ambulance services to assure effective evaluation of the state EMS system.
- Inspect 100% of permitted ambulances twice each year to ensure minimum specified equipment, staffing, and insurance.
- Decrease transfer times to a system average of 130 minutes from complete designated Level IV trauma centers to complete designated trauma centers most appropriate for the patient's injuries.

**Funding:** Included with Health Protection totals

**FY 2014 Objectives:**

- Conclude thorough and professional investigations on all complaints regarding EMS personnel and providers within 60 days of receipt.
- Address technical assistance requests from trauma regions and trauma care centers for system and program development within three working days of receipt.
- Finalize inspection reports and provide plan of correction to trauma centers within ten working days of inspection.
- Ensure data submission into MEMSIS (Mississippi Emergency Medical Services Information System) by the 15th day of each month for patient encounters of the previous month from all licensed ambulance services to assure effective evaluation of the state EMS system.
- Inspect 100% of permitted ambulances twice each year to ensure minimum specified equipment, staffing, and insurance.
- Achieve a system average transfer time of 130 minutes from designated Level IV trauma centers to designated trauma centers most appropriate for the patient's injuries.

**Funding:** Included with Health Protection totals

**FY 2015 Objectives:**

- Conclude thorough and professional investigations on all complaints regarding EMS personnel and providers within 60 days of receipt.
- Address technical assistance requests from trauma regions and trauma care centers for system and program development within three working days of receipt.

- Finalize inspection reports and provide plan of correction to trauma centers within ten working days of inspection.
- Ensure data submission into MEMSIS (Mississippi Emergency Medical Services Information System) by the 15th day of each month for patient encounters of the previous month from all licensed ambulance services to assure effective evaluation of the state EMS system.
- Inspect 100% of permitted ambulances twice each year to ensure minimum specified equipment, staffing, and insurance.
- Achieve a system average transfer time of 130 minutes from designated Level IV trauma centers to designated trauma centers most appropriate for the patient's injuries.

**Funding:** Included with Health Protection totals

**FY 2016 Objectives:**

- Conclude thorough and professional investigations on all complaints regarding EMS personnel and providers within 60 days of receipt.
- Address technical assistance requests from trauma regions and trauma care centers for system and program development within three working days of receipt.
- Finalize inspection reports and provide plan of correction to trauma centers within ten working days of inspection.
- Ensure data submission into MEMSIS (Mississippi Emergency Medical Services Information System) by the 15th day of each month for patient encounters of the previous month from all licensed ambulance services to assure effective evaluation of the state EMS system.
- Inspect 100% of permitted ambulances twice each year to ensure minimum specified equipment, staffing, and insurance.
- Achieve a system average transfer time of 130 minutes from designated Level IV trauma centers to designated trauma centers most appropriate for the patient's injuries.

**Funding:** Included with Health Protection totals

**FY 2017 Objectives:**

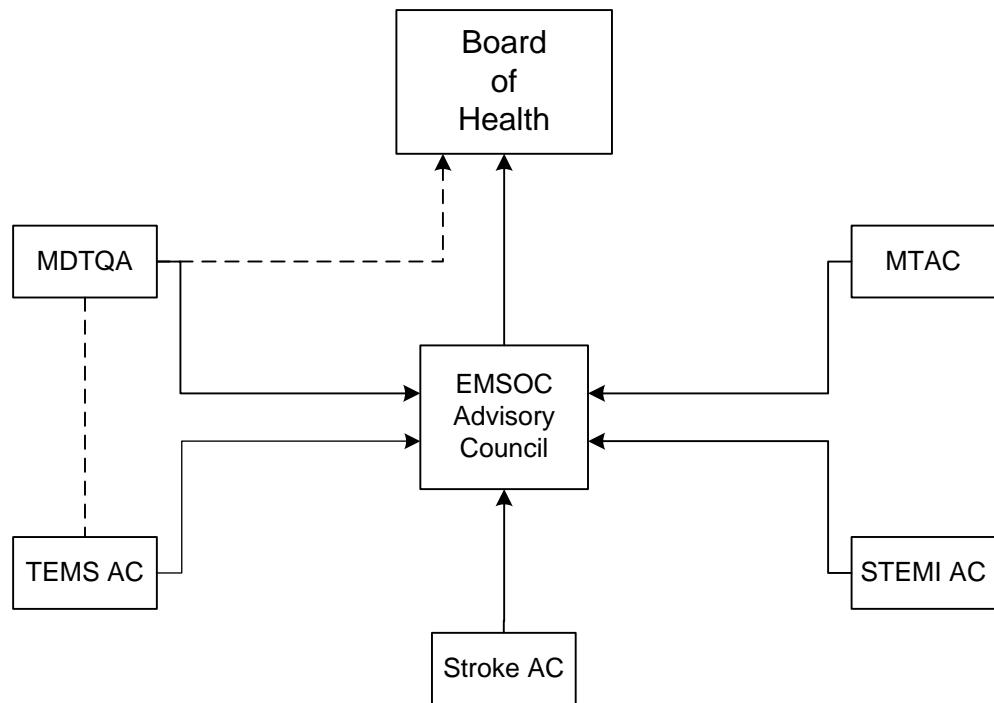
- Conclude thorough and professional investigations on all complaints regarding EMS personnel and providers within 60 days of receipt.
- Address technical assistance requests from trauma regions and trauma care centers for system and program development within three working days of receipt.
- Finalize inspection reports and provide plan of correction to trauma centers within ten working days of inspection.
- Ensure data submission into MEMSIS (Mississippi Emergency Medical Services Information System) by the 15th day of each month for patient

encounters of the previous month from all licensed ambulance services to assure effective evaluation of the state EMS system.

- Inspect 100% of permitted ambulances twice each year to ensure minimum specified equipment, staffing, and insurance.
- Achieve a system average transfer time of 130 minutes from designated Level IV trauma centers to designated trauma centers most appropriate for the patient's injuries.

**Funding:** Included with Health Protection totals

## Appendix E: Proposed System of Care Council



TEMS=  
Traditional Emergency  
Medical Services

EMSOC =  
Emergency Medical  
Systems of Care