

MISSISSIPPI TRAUMA CARE TASK FORCE FINAL REPORT

*A Report of the Mississippi Trauma Care Task Force
pursuant to SB 2863, 2007 Regular Legislative Session*

*Prepared by the Center for Mississippi Health Policy,
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*Data and assistance provided by the Mississippi State
Department of Health*

November 2007



NORTH MISSISSIPPI
MEDICAL CENTER

November 29, 2007

Governor Haley Barbour
Post Office Box 139
Jackson, Mississippi 39205

Governor Barbour:

The attached document is a compilation of the work completed by the Governor's Trauma Care Task Force. Per your request, this document represents the careful deliberations and recommendations from legislative and health care professionals throughout the State of Mississippi, relative to our impending funding crisis and provision of trauma care for our citizens.

It is the feeling of the Task Force that with legislative support of adequate funding and legislation that discourages unsafe behavior, Mississippi has the potential to become a national leader in the development of a trauma care model for the country. This model would be fully integrated with our State's Disaster Preparedness Plan.

The Task Force is asking for your support of these recommendations in order to avoid further erosion of our trauma system and to establish a system of accountability that will ensure our lawmakers and citizens, that funds will be spent in a responsible fashion.

I will be glad to meet with you regarding any questions you may have about the report.

On behalf of the Task Force, I thank you in advance for your support.

Sincerely,

Charles D. Stokes, FACHE
Chairman
Governor's Trauma Care Task Force

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cc: Members of Trauma Task Force



NORTH MISSISSIPPI
MEDICAL CENTER

November 29, 2007

The Honorable Amy Tuck
Lieutenant Governor
Mississippi Senate
Room 315 State Capitol
Jackson, MS 39202

The Honorable Billy McCoy
Speaker
Mississippi House of Representatives
Room 306 State Capitol
Jackson, MS 39202

Lieutenant Governor Tuck and Speaker McCoy:

The attached document is a compilation of the work completed by the Trauma Care Task Force that was created by the Legislature through Senate Bill 2863 during the last regular session. In response to the charge presented to the Task Force in this legislation, this document represents the careful deliberations of legislative and health care professionals throughout the State of Mississippi and presents specific recommendations for legislative action and operational changes.

It is the feeling of the Task Force that with legislative support of adequate funding and legislation that discourages unsafe behavior, Mississippi has the potential to become a national leader in the development of a trauma care model for the country. This model would be fully integrated with our State's Disaster Preparedness Plan.

The Task Force appreciates your support for trauma care in this State as evidenced by the legislation creating this body and by the strong legislative representation and participation in the deliberations of the Task Force. We hope the 2008 Legislature will support the recommendations contained in this report in order to avoid further erosion of our trauma system and to establish a system of accountability that will ensure that funds will be spent in a responsible fashion.

Sincerely,

Charles D. Stokes, FACHE
Chairman,
Governor's Trauma Care Task Force

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Attachment

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■ Executive Summary

The goal of a formalized system of trauma care is to deliver the right patient to the right hospital at the right time. This has been shown to decrease mortality. The State of Mississippi has been building a formal statewide trauma system for over fifteen years. The trauma system is currently being held together by a handful of dedicated physicians whose commitment is wearing thin due to the lack of financial support and a systematic approach that equalizes the trauma burden throughout the state. The system is grossly underfunded and in need of a stable source of significant, ongoing funding. In the absence of a timely solution, the existing trauma system will continue to erode to the point of jeopardizing Mississippians' safety.

In recognition of the need to revitalize this critical health service, during its 2007 regular session the Legislature created the Trauma Care Task Force to undertake a study of Mississippi's trauma system in order to make recommendations to restore and improve the system. In compliance with the charge given by the Legislature, the Trauma Care Task Force has studied the status of the state's trauma system, and this report contains its findings and recommendations.

The beginnings of formal trauma care in Mississippi can be dated back to 1991, when the Mississippi Legislature charged the State Department of Health with the responsibility for oversight of trauma system development. A trauma registry was established the following year. In 1997, the Legislature created the Trauma Care Task Force, an ad hoc seventeen-member group, to plan the development of a formal trauma system. The Task Force presented its recommendations to the Governor and the Legislature at the end of the same year.

In 1998, legislation was enacted to implement many recommendations of the Trauma Care Task Force. The new statute defined key components of the system, charged the Bureau of Emergency Medical Services at the Mississippi State Department of Health with leading the development of a statewide trauma care system, authorized the creation of the Mississippi Trauma Advisory Committee (MTAC) as a permanent advisory body to recommend changes in the state's trauma plan, and established the Trauma Care System Fund. The legislation also authorized an assessment of \$5 on all moving traffic violations to generate revenue for the Fund. In 1999, the Legislature began appropriating \$6 million annually from the Health Care Expendable Fund to the Trauma Care System Fund, and in 2005, increased the assessment on moving traffic violations to \$10.

In 2002, the Mississippi Trauma Advisory Committee's recommended revisions to the state's trauma plan were approved by the State Board of Health leading to the development of seven trauma regions. The regulations adopted by the Board designated hospitals as Level I, II, III, or IV trauma centers and required hospitals seeking to become formal trauma centers to pass inspection, with Level I being the most comprehensive trauma care and Level IV being the lowest designation. All trauma regions were mandated to collect trauma registry data from these hospitals and report data to the Mississippi State Department of Health.

Monies in the Trauma Care System Fund are used for administration of the system, including the collection and reporting of data as well as the administrative structure of trauma regions, and for uncompensated trauma care. Seventy percent (70%) of the uncompensated care fund is allocated to eligible hospitals and thirty percent (30%) to certain physician specialists not otherwise compensated for their trauma services. In 2006, approximately 284 trauma system physicians received an average reimbursement of \$8,450.70 each for all uncompensated trauma care provided that year. Twelve trauma hospitals submitted \$90 million worth of gross charges for 4,601 uncompensated care patients and were awarded \$5.6 million. It is clear that this amount of funding is not sufficient to support the trauma system.

In 2005, the Mississippi Firefighters Burn Center in Greenville, the only special center for treating burn victims in the state, closed due to inability to recruit burn specialist surgeons and inadequate funding. The Burn Center had been supported by several legislative mechanisms for over twenty years. Funds remaining in the Mississippi Firefighters Memorial Burn Center Fund (approximately \$2 - \$3 million) were transferred to the newly created Mississippi Burn Care Fund. This fund is to be used by the Mississippi State Department of Health for reimbursing out of state burn centers that provide services to Mississippi burn victims unable to pay. The closure of the state's only burn center highlighted the major problems plaguing all trauma care in the state: recruitment and retention of specialized medical personnel and a high proportion of uncompensated care. Currently, only one out of state burn center, Arkansas Children's Hospital, has a formal agreement in place to receive Mississippi's burn patients. This hospital applied and received a reimbursement of \$12,563.43 from the \$3.1 million available in the Mississippi Burn Care Fund.

Growth of Mississippi's trauma system has stalled in recent years. Structures built over the past fifteen years are demonstrating signs of deterioration. Mississippi has developed only four of the nine characteristics of a "mature" trauma system (see page 15) and needs renewed effort to move forward. During the 2007 legislative session, Senate Bill 2863 was enacted for the purpose of creating a new Trauma Care Task Force to analyze the status of trauma and burn care in Mississippi and make recommendations for stabilizing trauma care statewide. A summary of the Trauma Care Task Force's findings and recommendations are outlined below.

MAJOR FINDINGS

- Current state funding for uncompensated trauma care at \$8 million annually covers only a fraction of the cost, resulting in a declining number of hospitals and physicians who are willing to provide trauma services, and at least \$40 million annually is needed to maintain trauma care in Mississippi at 2007 levels.
- Underfunding jeopardizes the entire trauma system and if consistent, ongoing funding is not obtained, the current system is subject to collapse.
- Three of the state's seven trauma regions do not include a Level I or Level II trauma center, and two do not have at least a Level III center, leaving some rural areas lacking proximity to proper trauma care.
- If additional funding is not forthcoming, at least two more regions are likely to lose Level II trauma centers within the next year.
- The performance of the seven trauma regions varies significantly, although all receive the same level of funding.
- The Mississippi Trauma Advisory Committee (MTAC), which is charged by law with serving as the advisory body for trauma care system development in the state, has not met for over two years.

- Key specialized burn centers in surrounding states have no formal agreement to care for Mississippians.

OTHER SIGNIFICANT FINDINGS

- Mississippi has the lowest number of board certified emergency physicians per annual emergency room visit among all states, and a severe shortage of trauma specialists exists in most areas across the state.
- Not all capable hospitals participate in the trauma system nor submit data to the trauma registry, although they may treat trauma patients.
- Trauma registry data are not currently used systematically for planning, quality improvement, or evaluation.
- Trauma registry data are not coordinated with Emergency Medical Services data.
- Mississippi lacks formal, standardized, inter-hospital transfer agreements; data are insufficient to evaluate the performance of inter-hospital transfers; and anecdotal information indicates that systemic problems exist.
- Little coordination exists between the trauma system and disaster preparedness funding or training.

RECOMMENDATIONS

Legislative: Funding

- Revise appropriate statutes to increase fees and assessments as recommended by the Funding Subcommittee of the Task Force to generate the additional revenue needed for the Trauma Care System Fund and Mississippi Burn Care Fund.
- Target those fees and assessments that have the additional affect of discouraging risky behaviors resulting in the need for trauma care.
- Provide interim funding to finance the system until new revenue can be generated and sustained.

Legislative: Mississippi Trauma Care Advisory Council

- Revise the statute to reconstitute the Mississippi Trauma Care Advisory Council (MTAC) as a permanent, stand alone advisory body, instead of a subcommittee of the Emergency Medical Services Advisory Council, and retain the same charge to the Council as in current law.
- Require the MTAC to meet at least quarterly, to report to the State Board of Health at its regular quarterly meetings on the performance of the trauma system, measuring against external and internal benchmarks whenever available, and to make an annual report to the Senate and House Public Health Committees and to the Governor.
- Specify in the statute that MTAC members whose terms have expired will continue to serve until new appointments are made.
- Revise the statute governing the Emergency Medical Services Advisory Council to reflect these modifications to the MTAC and replace representation from the trauma regions with two representatives from the MTAC.

- Define the membership of the MTAC in the following manner:
 - One licensed physician to be appointed from a list of nominees presented by the Mississippi Trauma Committee of the American College of Surgeons,
 - One licensed physician to be appointed from a list of nominees presented by the Mississippi State Medical Association,
 - One licensed physician to be appointed from a list of nominees presented by the American College of Emergency Physicians,
 - One representative from each Level I & Level II trauma center in the state's trauma system, to be appointed from a list of nominees submitted by each trauma center,
 - One member appointed from the Emergency Medical Services Advisory Council,
 - One member to be appointed from a list of nominees submitted by the Mississippi Firefighter's Association,
 - One trauma registrar to be appointed from the Trauma Registry Committee of the State Department of Health,
 - One resident of Mississippi who shall be a person who has been a recipient of trauma care or who has an immediate family member who has been a recipient of trauma care, and
- Authorize MTAC members to elect a chair annually, and authorize the chair to call meetings of the MTAC.
- Specify in the statute that staff of the State Department of Health will provide administrative support to the Council.

Legislative: Trauma Registry Data

- Mandate all hospital emergency rooms caring for trauma patients to submit trauma registry data to the State Department of Health.
- Mandate all hospitals participate in the computerized resource tracking system once implemented.

Legislative: State Board of Health

- Authorize the State Board of Health, with the advice and assistance of the MTAC, to encourage hospitals to participate in the trauma system at levels commensurate with their capacity, through financial incentives or licensing mechanisms.
- Provide statutory authority to the State Board of Health to assess a fee on hospitals that are qualified to participate in the trauma system, but choose not to participate in the system or to participate at a level lower than that for which they are capable.
- Require that this assessment be based on a formula to be determined by the State Board of Health, with the advice of the MTAC, based upon costs avoided by not operating a trauma center at the appropriate level and that funds generated by the assessment will be used solely for the purpose of compensating hospitals that operate as trauma centers.
- Require the State Board of Health to promulgate rules and regulations by January 1, 2009 to implement this assessment but mandate that no assessment be made by the State Board of Health until July 1, 2009.

Operational Changes (to be implemented by the State Department of Health with the advice and assistance of the MTAC):

- Re-evaluate the regional structure based on the performance levels of the trauma regions and changes in participation by hospitals.
- Develop minimum standards for all trauma regions and implement a system for monitoring and evaluating their performance annually with continued financial support contingent on adequate performance based on outcome measures.
- Negotiate formal agreements with out of state burn centers and use a portion of the Mississippi Burn Care Fund for uncompensated burn care at these centers.
- Use funding from the Mississippi Burn Care Fund to assist burn victims' families with out of state travel expenses based on need.
- Arrange rehabilitation services within Mississippi for stabilized burn patients.
- Review and revise the formulas used to distribute Trauma Care System Fund dollars, to include the proportions allocated to state and regional administration, to Level IV trauma centers, and to hospitals, physicians, and EMS providers rendering uncompensated care.
- Establish administrative systems to integrate the trauma system with bioterrorism preparedness planning and funding.
- Improve analytical capabilities of the trauma registry data system and provide reports to trauma regions and participating providers at least annually.
- Provide technical assistance to individual trauma centers to improve their capacity to measure and improve internal accountability, quality, and performance based on data.
- Provide annual reports on the performance of the trauma system, including detail by trauma region, to the State Board of Health, to the Senate and House Public Health Committees, and to the Governor using trauma system data.
- Link pre-hospital EMS data to trauma registry data to develop a comprehensive overview of trauma care.
- Continue to provide trauma educational opportunities for physicians, nurses, and support staff.
- Improve coordination of critical Emergency Medical System pre-hospital compliance and communications regarding trauma patient transfers.
- Implement formal, standardized inter-hospital transfer agreements, develop specific policies regarding patients to transfer, and monitor emergency department compliance.
- Monitor the use of transfer protocols to identify unnecessary transfers from lower level trauma centers.
- Ensure trauma protocols are geared toward patient outcomes and ensure that patients are taken to the closest appropriate facility.
- Integrate trauma system development with disaster preparedness activities.

■ Introduction

The Legislature during its 2007 Regular Session enacted SB 2863 (refer to Appendix D), which created a Trauma Care Task Force. The law outlined the duties of the Task Force as follows:

- (i) Conduct a study of the status of trauma care, including burn care, in Mississippi; and*
- (ii) Review and determine the efficacy of the Mississippi Trauma Care Plan; and*
- (iii) Determine adequate funding requirements and research existing and potential funding mechanisms necessary to provide for trauma care in Mississippi; and*
- (iv) Make appropriate findings and recommendations regarding the matters considered in accordance with the trauma care study in subsection (1) and regarding its review of the Mississippi Trauma Care Plan. Such findings and recommendations shall address, at a minimum, the status of the state's trauma care system and any legislative action that may be needed to further enhance the delivery of trauma care in Mississippi.*

A list of the Trauma Care Task Force members is provided in Appendix C. The Task Force formed four committees to study in depth the problems plaguing the current trauma care system and to identify solutions: Subspecialty Care, Access, Data/Reimbursement, and Funding. This Report summarizes the findings and recommendations of the Task Force in response to its charge as outlined in the law. The Task Force requested the assistance of the Center for Mississippi Health Policy in synthesizing the information reviewed by the Task Force and preparing this Report.

■ History of Trauma and Burn Legislation

A formalized system of trauma care helps injured patients to receive specialized treatment at the closest capable facility. This type of system has been shown to reduce mortality by up to 25% (MacKenzie et al., 2006), which is important since traumatic injuries are the leading cause of death for people under 45 years of age (Mississippi State Department of Health, 2006). As reported in 2007 by the Centers for Disease Control and Prevention, Mississippi ranks third in the nation for unintentional injury deaths at 58.1 per 100,000 persons, most of which are comprised of traffic accidents, a leading cause of trauma (58%) in the state (Mississippi State Department of Health, Emergency Medical Services Annual Report, 2006).

The concept of developing specialized emergency care for the civilian population flourished during the 1970's in the United States. Mississippi was no exception. Enactment in 1974 of the Emergency Medical Services (EMS) Act established an EMS program in the Mississippi State Department of Health and an EMS Advisory Council whose members are appointed by the Governor. The new program director and key health care providers in the state started to see the need for an organized trauma care system in Mississippi. These pioneers began building the foundation for such a system, working with policy makers, health care providers, and colleagues. The seed was planted for a formal trauma system (Spruill, personal communication, September 19, 2006).

Legislative Support: Trauma

In 1997, with passage of SB 2861 during the Regular Session, Mississippi's Legislature designated a seventeen member Trauma Care Task Force to plan the development of a trauma system. The task force presented its recommendations to the Governor and the Legislature during the same year.

In 1998, with passage of HB 966 during the Regular Session, the Legislature charged the Bureau of Emergency Medical Services (BEMS) at the Mississippi State Department of Health with leading the development of a statewide trauma care system: *The department acting as the lead agency, in consultation with and having solicited advice from the EMS Advisory Council, shall develop a uniform non-fragmented inclusive statewide trauma care system that provides excellent patient care. It is the intent of the Legislature that the purpose of this system is to reduce death and disability resulting from traumatic injury, and in order to accomplish this goal it is necessary to assign additional responsibilities to the department. The department is assigned the responsibility for creating, implementing and managing the statewide trauma care system. The department shall be designated as the lead agency for trauma care systems development. The department shall develop and administer trauma regulations that include, but are not limited to, the Mississippi Trauma Care System Plan, trauma system standards, trauma center designations, field triage, interfacility trauma transfer, EMS aero medical transportation, trauma data collection, trauma care system evaluation and management of state trauma systems funding. The department shall take the necessary steps to develop, adopt and implement the Mississippi Trauma Care System Plan and all associated trauma care system regulations necessary to implement the Mississippi trauma care system. The department shall cause the implementation of both professional and lay trauma education programs. These trauma educational programs shall include both clinical trauma education and injury prevention. As it is recognized that rehabilitation services are essential for traumatized individuals to be returned to active, productive lives, the department shall coordinate the development of the inclusive trauma system with the Mississippi Department of Rehabilitation Services and all other appropriate rehabilitation systems (§41-59-5(5) Mississippi Code, 1972 Annotated).*

Legislation defined key components of Mississippi's trauma structure. The "trauma system" is defined by Mississippi code as *a formally organized arrangement of health care resources that has been designated by the department by which major trauma victims are triaged, transported to, and treated at trauma care facilities. As part of an organized system, trauma care facilities must be formally established. Such facilities are defined by State code as a hospital located in the State of Mississippi or a Level I trauma care facility or center located in a state contiguous to the State of Mississippi that has been designated by the department to perform specified trauma care services within a trauma care system pursuant to standards adopted by the department. Participation in this designation by each hospital is voluntary.*

A statewide trauma registry was established by 1992. Mississippi code states: *"Trauma Registry" means a collection of data on patients who receive hospital care for certain types of injuries. Such data are primarily designed to ensure quality trauma care and outcomes in individual institutions and trauma systems, but have the secondary purpose of providing useful data for the surveillance of injury morbidity and mortality (§ 41-59-3 Mississippi Code, 1972 Annotated).*

The legislation also established the Trauma Care Systems Fund: *Five dollars collected from each assessment of ten dollars as provided in Section 41-59-61 and any other funds made available for funding the trauma care system, shall be deposited into the fund. Funds appropriated from the Mississippi Trauma Care Systems Fund to the State Board of Health shall be made available for department administration and implementation of the comprehensive state trauma care plan for distribution by the department to designated trauma care regions for regional administration, for the department's trauma specific public information and education plan, and to provide hospital and physician indigent trauma care block grant funding to trauma centers designated by the department. All designated trauma care hospitals are eligible to contract with the department for these funds (§ 41-59-75, Mississippi Code, 1972 Annotated).*

This legislation further authorized the creation of the Mississippi Trauma Advisory Committee (MTAC) as a subcommittee of the Mississippi Emergency Services Advisory Council. MTAC presents recommendations to the Mississippi State Board of Health which officially promulgates the regulations. The Act outlines the procedures for selecting members: *The membership of the MTAC shall be comprised of Emergency Medical Services Advisory Council members appointed by the chairman.*

Besides the traffic fine of \$5 per moving violation, which generated approximately \$2 million annually, the Mississippi Legislature appropriated \$6 million in additional funding during the 1999 legislative session into the Trauma Care System Fund. These extra monies originated from the Mississippi Tobacco Trust Fund and brought the total Trauma Care System Fund up to \$8 million. The first checks were sent out to newly designated trauma centers in the year 2000. Roughly \$6.5 million from the Trauma Care System Fund was disbursed for uncompensated care that year (Mississippi State Department of Health, 2006). In 2005, the Mississippi Legislature authorized a \$5 increase in the assessment on moving traffic violations for the Trauma Care System Fund, to a total of \$10 per ticket (§41-59-75, Mississippi Code, 1972 Annotated) generating all together \$4,362,213 in 2006 and \$4,828,046 in 2007 (personal communication, Mississippi State Department of Health, November 2007).

Senate Bill 2863 was enacted during 2007. The legislation created a new Trauma Care Task Force charged to study the status of trauma and burn care in Mississippi and report its findings and recommendations to the Governor by year end.

Legislative Support: Burn Care

Part of specialized care for traumatic injury includes treatment for severe burns. The Mississippi Legislature did not create the Delta Regional Medical Center-Mississippi Firefighters Memorial Burn Center by statute, but did help support the Burn Center over a span of twenty years. Legislators appropriated \$750,000 to support its construction in 1979. Also that year, Mississippi Code of 1972, section 21-19-58 was enacted to allow counties and municipalities, *"in their discretion, to make contributions"* to the Burn Center *"from the general fund or federal revenue sharing funds."* Section 27-39-331 was enacted in 1985 to authorize the board of supervisors of any county, *"in its discretion, to set aside, appropriate, and expend monies from the general fund"* in order to support the Greenville Burn Center. In 1989, section 27-39-332 of the Mississippi Code of 1972 gave any county's board of supervisors the *"discretion to levy a tax not to exceed one (1) mill per annum upon all taxable property of the county"* for Burn Center funding (Governor's Burn Care Advisory Group, 2005).

A trust fund in the State Treasury, the Mississippi Firefighter's Memorial Burn Center Fund, was established in 1992 under section 7-9-70 of the Mississippi Code. This fund was authorized to receive any state fees, private gifts, donations, bequests, trusts, grants, endowments, transfer of monies or securities or any other currency from any source. The Legislature designated that one dollar from select license tag fees would be deposited into the Burn Fund (§ 27-19-56 of the Mississippi Code, Annotated, 1972). The Legislature historically appropriated the earnings of this Fund to the Delta Regional Medical Center in support for the Burn Center. Legislation in 2000 (§ 27-7-88 of the Mississippi Code) authorized individual Mississippi tax payers to contribute a part of their tax refund to the Burn Fund. In 2003, section 27-19-44.3 of the Mississippi Code was enacted so that the Burn Center had to file an annual report to the legislature by January 10th of each year detailing the expenditures from the Burn Fund (Governor's Burn Care Advisory Group, 2005).

When it was announced that the Mississippi Firefighters Memorial Burn Center at Delta Regional Medical Center was to close in mid-year of 2005, the Legislature passed Senate Bill 2067 to cease public funding directed to the center for burn care on July 17, 2005. Section 7-9-70 was amended to rename the Mississippi Firefighters Memorial Burn Center Fund as the Mississippi Burn Care Fund and transfer the balance into the new fund. This amendment also established the Mississippi State Department of Health as the administrator of the Mississippi Burn Care Fund. Principal and interest of the Fund were to be appropriated by the Legislature to the Department of Health for the purpose of carrying out its responsibilities under the EMS laws. Sections 21-19-58, 27-39-331, as well as section 27-39-332 were also amended to authorize any county board of supervisors to appropriate funds to the Mississippi Burn Care Fund.

An amendment to section 27-19-44.3 requires the Department of Health to be the agency in charge of filing an annual report to the Legislature by January 10th of each year regarding Burn Fund expenditures. The department is also required in section 41-59-5 of the Mississippi Code to develop procedures within the trauma system for organizing the transfer of burn patients to hospitals that can care for these special cases and to reimburse such institutions for this care via funds appropriated from the Mississippi Burn Care Fund (§ 7-9-70 ff Mississippi Code of 1972, Annotated).

To carry out these functions, the State Board of Health promulgated regulations effective July 1, 2005 stating that qualified Burn Centers may participate in reimbursement of caring for Mississippi burn victims by cooperative agreement with the Department. Reimbursement to all participating hospitals was to be determined based on weight of charges due to uncompensated care of Mississippi burn patients (Governor's Burn Care Advisory Group, 2005).

House Bill 567 passed via the 2007 Legislature as *an act to provide that the University of Mississippi Medical Center shall establish a separate unit at the medical center for the treatment of burn victims*. The bill is contingent upon the Board of Trustees of the State Institutions of Higher Learning making a written determination that the cost of support is available from public and or private funds. Nevertheless, special appropriations were not made at this time to carry out such endeavors.

■ Status of Trauma System

Trauma System Development

Mississippi has laid a strong foundation on which to build a functional trauma system. First, the system has a formal organization supported by the Mississippi State Department of Health's statutory authority to designate trauma centers (Health Resources and Services Administration, 2002). Data collection at trauma care centers has been implemented, and the state has established a Trauma Registry. The state began submitting statewide trauma data to the American College of Surgeon's National Trauma Databank, a collection of trauma center hospital data from across the nation. Approval by the State Board of Health was given to develop a new trauma registry program and full implementation is nearly complete (Mississippi State Department of Health, 2006). Furthermore, regulations exist to direct trauma care center operations.

The State Trauma Care System Plan approved in 2002 by the Mississippi State Board of Health and implemented in 2003 established seven trauma regions across Mississippi: Delta (1), North (2), Central (3), East Central (4), Southwest (5), Southeast (6), and Coastal (7). Refer to Appendix A for a map of Mississippi's trauma regions. Each hospital that volunteers to participate in the State's trauma care system must pass inspection for their designation as a Level I, Level II, Level III, or Level IV trauma center. Level I is the highest level of trauma center designation. Designations of Level I, II, III, and IV trauma hospitals by the State Department of Health (Mississippi Trauma Care System Plan, 2005) are based on guidelines from the American College of Surgeons as well as the American College of Emergency Physicians (see Figure 1).

Figure 1. Trauma Center Designation Levels

<u>Level I</u>	<u>Level II</u>	<u>Level III</u>	<u>Level IV</u>
Emergency Department	Emergency Department	Emergency Department	Emergency Department
Full-Service Surgical Suite	Full-Service Surgical Suite	Continuous General Surgical Coverage	Initial Evaluation & Assessment of Injured Patients
Intensive Care Unit	Intensive Care Unit	Continuous Orthopedic Coverage	Most Patients Require Transfer to a Higher Level Trauma Facility
Diagnostic Imaging	Diagnostic Imaging	Transfer Agreements with Level I & II Trauma Centers for Patients Requiring a Higher Level of Care	Must Have Transfer Agreements in Place with Level I, II, & III Trauma Centers
Residency Program	Act as a Referral Facility for Level III & IV Trauma Centers	Referral Center for Level IV Trauma Centers	
Ongoing Trauma Research	Transfer Agreement with Level I Trauma Center for Specialty Care		
Twenty-Four Hour Trauma Service			
Act as a Referral Facility for Level II, III, & IV Trauma Centers			

Source: Mississippi Department of Health, Bureau of Emergency Medical Services Annual Report, 2005

The following lists all hospitals in Mississippi that currently participate as a Level I, Level II, or Level III Trauma Center (Mississippi State Department of Health, 2006).

Hospitals Participating in the Trauma Care System at Levels I, II, or III:

Level I

Regional Medical Center at Memphis- Memphis, Tennessee, Trauma Region 1
University of Mississippi Medical Center- Jackson, Mississippi, Trauma Region 3

Level II

Baptist Memorial Hospital Golden Triangle- Columbus, Mississippi, Trauma Region 2
Delta Regional Medical Center- Greenville, Mississippi, Trauma Region 1
Forrest General Hospital- Hattiesburg, Mississippi, Trauma Region 6
North Mississippi Medical Center- Tupelo, Mississippi, Trauma Region 2

Level III

Baptist Memorial Hospital- Oxford, Mississippi, Trauma Region 2
North Mississippi Medical Center Clay County- West Point, Mississippi, Trauma Region 2
Ocean Springs Hospital- Ocean Springs, Mississippi, Trauma Region 7
Oktibbeha County Hospital- Starkville, Mississippi, Trauma Region 2
Singing River Hospital- Pascagoula, Mississippi, Trauma Region 7
South Central Regional Medical Center- Laurel, Mississippi, Trauma Region 6

Appendix B contains a listing of all participating hospitals in Mississippi and their trauma level designation, (Mississippi State Department of Health, 2006). The Mississippi Trauma Advisory Committee recommended and the State Board of Health adopted significant revisions to the Trauma Rules and Regulations during 2004. The primary change made was to give Level IV hospitals a flat reimbursement rate of \$10,000 (personal interviews with MTAC Committee members including the Chairman, on August 25, 2006). Before the revisions, Mississippi State Department of Health reimbursed Level IV hospitals in the same manner as the higher level centers: per uncompensated trauma case (Mississippi State Department of Health, 2005).

Most importantly, the Mississippi Legislature established statutory mechanisms for financial support of both the statewide trauma system and burn care. No specific trauma care statutory funding exists in other states except California, Florida, Illinois, Nebraska, New Mexico, Ohio, Oklahoma, and Texas (National Conferences of State Legislatures, 2005 & 2006).

Because of these factors, Mississippi's trauma system has served as an example to many other states across the nation. There are several problems, however, occurring within the system that threaten its continued viability. The frailties undermining Mississippi's trauma system and burn care are explained in the following section.

■ Task Force Findings

Structure and Administration

Mississippi Trauma Advisory Committee (MTAC), which is charged by the Legislature with providing advice and technical support in all areas of the Mississippi Trauma Care System, has not convened for a meeting since June 30, 2005 (Mississippi State Department of Health, Trauma Calendar, 2006). As of July 1, 2006, all appointed members' terms had expired as detailed on the agency's website (Mississippi State Department of Health, Trauma Advisory Committee, 2006). New Emergency Medical Service Advisory Council (EMSAC) appointments have been made according to the Chairman, and a meeting took place in late October, 2007. MTAC is a subcommittee of EMSAC, but MTAC has not reconvened. Nevertheless, it has been over two years since MTAC last met. No planning or discussion of improving the statewide trauma system has occurred due to the inactivity of this advisory body.

The seven regional non-profit organizations that administer trauma care at the regional level function at varying degrees of performance although they are contractually obligated to carry out certain duties as outlined in the *Mississippi Trauma Care System Regulations*. Regional functions include documenting referrals for all participating hospitals as well as reimbursing trauma hospitals and surgeons for uncompensated care. Some regions have Level IV trauma centers only, while others have a much larger burden of regulating and coordinating trauma care for higher level centers. Three of the seven trauma regions lacking access to higher level trauma care are shown in Figure 2 (EMS Annual Report, 2006). Each region, however, receives the same amount of yearly funding (\$85,000 each) from the Trauma Care Systems Fund to carry out their duties according to the *Mississippi Trauma Care System Regulations* (Mississippi State Department of Health, 2005).

Figure 2. Trauma Regions with No Level I or Level II Trauma Centers

<u>Trauma Region</u>	<u>Number of Level III's</u>	<u>Number of Level IV's</u>
Coastal Trauma Care Region	2	6
East Central Trauma Care Region	0	7
Southwest Trauma Care Region	0	6

Source: EMS Annual Report, Mississippi State Department of Health, 2005

Within regions, levels of participation by hospitals in the formal trauma system vary greatly. Mississippi's trauma system is an inclusive, voluntary model, so the facilities themselves decide the level of trauma care they wish to provide. As noted previously regarding the variation in regional performance, part of this disparity stems from the strain of very few hospitals serving severe trauma patients. Some facilities do not render formalized trauma care at all, even though they may have the ability to do so. Several hospitals, based on 2006 reported physician numbers, emergency room admissions, in-patient surgical procedures, and specialized equipment capabilities, could participate or cooperate at higher levels than their current trauma designation. For instance, based on licensure data, the state has 28 hospitals that have three or more general surgeons and three or more orthopedic surgeons on medical staff, yet 11 hospitals participate as Level I, II, or III trauma centers currently. Only an evaluation of these hospitals based on the *Mississippi Trauma Care System Rules and Regulations* can verify this analysis for certain. Figure 3 illustrates the levels at which non-participant hospitals could potentially function in the trauma system, as well as current hospitals potential for improving their designation level (Mississippi Department of Health analysis to Trauma Care Task Force, October 15, 2007).

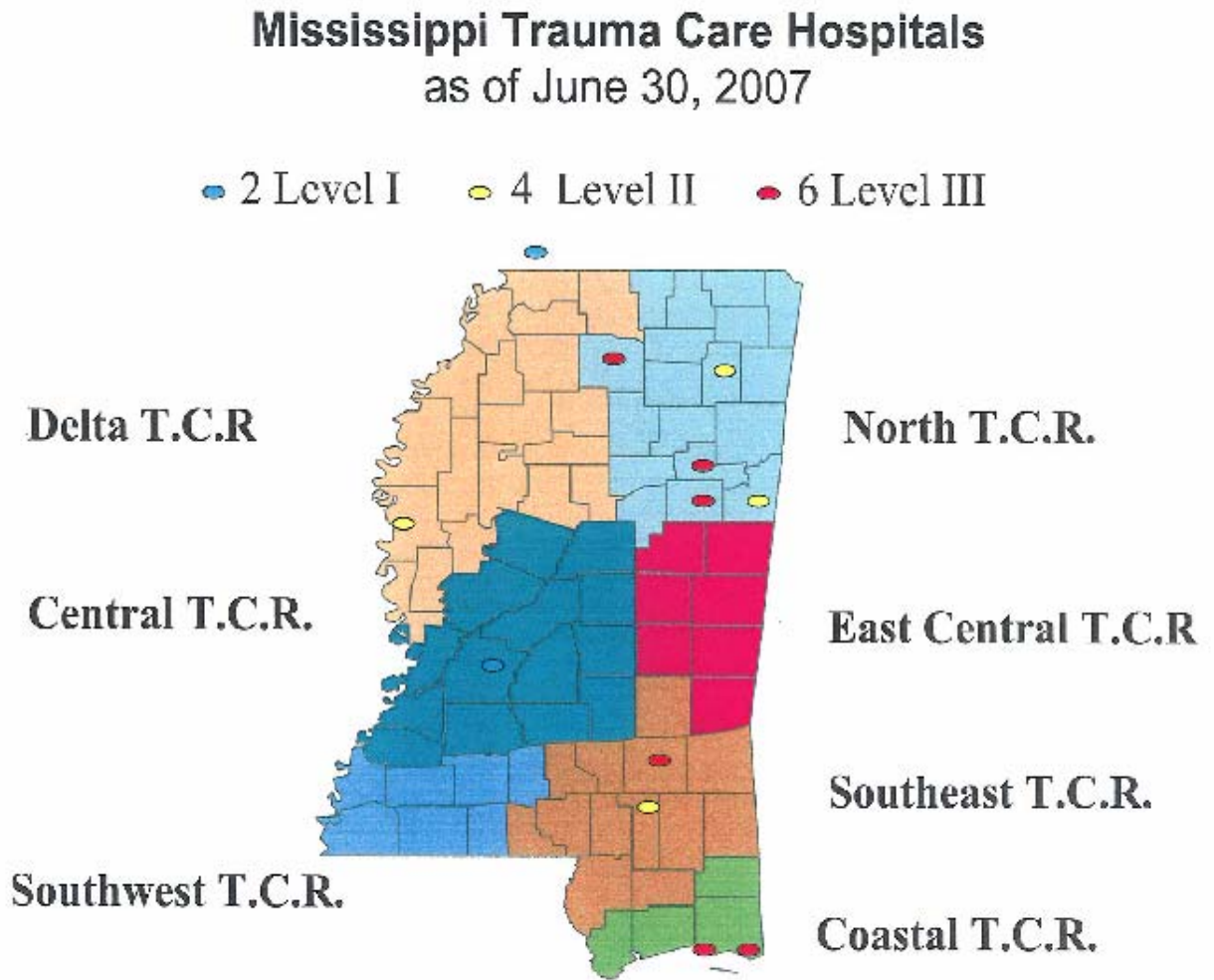
Figure 3. Mississippi Hospital Potential Trauma System Participation Levels

Current Level of Participation in Formal Trauma System	Number of Trauma Facilities	Potential Participation by Non-Participants	Increased Participation by Current Trauma Facilities	Total Number of Potential Trauma Facilities
Level I	2	0	0	2
Level II	4	2	1 Level III; 2 Level IV's	9
Level III	6	5	14 Level IV's	24
Level IV	62	13	0	59
Total	74	20		94

Source: Mississippi State Department of Health, Report to Trauma Care Task Force, October 15, 2007

The decision by some hospitals not to participate in the trauma system or to participate at a lower level causes a shift in the burden of trauma care to those hospitals that continue to participate in the system at their appropriate levels. It can also leave geographic areas of the state lacking in trauma coverage as depicted on the map in Figure 4. If this trend progresses, at some point the few Level I or Level II trauma centers remaining will no longer be able to continue participation in the system.

Figure 4. Location of Level I, II, & III Trauma Centers in Mississippi



Source: Mississippi State Department of Health, Report to Trauma Care Task Force, October 15, 2007

A study was conducted in 2005 (Man, Mackenzie, Teitelbaum, Wright, Anderson) of all fifty states to characterize the current structure of trauma care and identify strengths, weakness, opportunities, and threats facing trauma care delivery in each state. Researchers determined that fourteen states have the least developed trauma systems based on the fact that they do not have the authority or a process in place to designate trauma centers. Twenty-seven states were identified at the mid-level of trauma system development, including Mississippi, and eight states were designated as having the most developed systems: California, Illinois, Maryland, New Jersey, New Mexico, New York, Oregon, and Washington. The most mature trauma systems distinguish themselves by incorporating disaster preparedness into existing trauma protocols so patients will be transported in a timely manner to hospitals with appropriate resources to treat specific needs. Mississippi has not yet coordinated disaster planning efforts with trauma system development.

Man, Mackenzie, Teitelbaum, Wright, and Anderson’s study compared each state’s trauma system to characteristics that most mature trauma systems have in place. Mississippi meets only four of the nine characteristics as displayed in Figure 5. Highly developed trauma care systems have more operational and system protocols in place than Mississippi. While Mississippi’s trauma system does have standardized protocols and training programs for pre-hospital participants such as ambulance services and paramedics, compliance of pre-hospital participants with these protocols is not assessed. There is no standardized approach to medical control for trauma patients in the state. No standard transfer protocols, standard policies stating which specific patients to transfer, nor emergency department compliance assessments are in place regarding inter-hospital transfer arrangements (2005).

Figure 5. Trauma System Characteristics for Mature Systems & Mississippi

Trauma System Characteristics	States with Mature Trauma Systems	Mississippi
<u>Pre-Hospital Categorization & Triage</u>		
Standard Triage Protocol	Yes	Yes
Standard Training Program	Yes	Yes
Compliance Monitored	Yes	No
<u>Inter-Hospital Transfer Arrangements</u>		
Standard Transfer Protocol	Yes	No
Policy Specifies Patients to Transfer	Yes	No
Emergency Department Compliance Monitored	Yes	No
<u>Trauma Registry Data Submitted by</u>		
Trauma Centers	Yes	Yes
Non-Trauma Centers	Yes	No
Trauma Advisory Committee Present	Yes	Yes- but has not met in over 2 years

Source: Man, Mackenzie, Teitelbaum, Wright, and Anderson, 2005.

Data and Evaluation

Mississippi has a trauma registry, but only hospitals functioning as trauma centers submit data as detailed in Figure 5. Fifteen states collect data on trauma patients from all facilities, whether they function as trauma centers or not, so that rates and comparisons can be reviewed regardless of the status of the facility (Man, Mackenzie, Teitelbaum, Wright, and Anderson, 2005). Although they may treat trauma cases, not all hospitals participate in the trauma system. Non-designated trauma facilities are not required to report any of their trauma data. Therefore, true trauma mortality and morbidity rates for Mississippi are not available.

Although the Mississippi State Department of Health maintains a statewide trauma registry containing data compiled from all participating trauma centers, there is little evidence that these data have been used in recent years for quality improvement or evaluation at the state level. No evidence exists that these data are utilized in state planning and injury prevention campaigns. Some statewide aggregate data are presented each year in the *Mississippi Emergency Medical Services Annual Report*. Even though regions collected trauma registry data until recently, there is little evidence that regions conduct performance improvement activities based on hospital trauma care outcome information. Data are also not being linked to the statewide Emergency Medical Services database for evaluation of pre-hospital response to trauma calls.

Funding

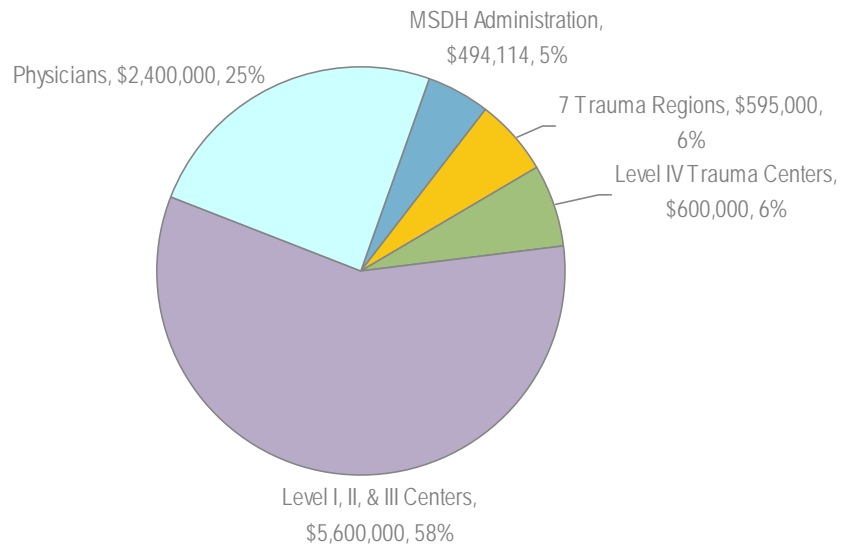
One-hundred percent of states with mid-level and mature trauma systems identified funding as the number one threat to their viability (Man, Mackenzie, Teitelbaum, Wright, and Anderson, 2005). Mississippi has achieved an important step via legislation establishing a permanent trauma care fund. The Trauma Care Systems Fund in Mississippi is composed of two sources of dollars.

One source is the Health Care Expendable Fund yearly appropriation. In 2007, \$5,326,901 was appropriated from the Health Care Expendable Fund by House Bill 1696. The same amount was appropriated by House Bill 1564 in 2006, House Bill 69 in 2005, and House Bill 1735 in 2004. This appropriation for each of the past four years, however, represents a decrease from earlier appropriations from the Health Care Expendable Fund of \$6,000,000 each year during 1999-2003 legislative sessions (House Bills 1616, 1625, 1616, 1787, & 1544, respectively).

The second source of funding is through assessments on fines for moving traffic violations. During 1998-2004, an allocation of \$5 per ticket from moving traffic violations went to the Trauma Care Systems Fund. The 2005 Legislature increased the assessment to \$10 per ticket to be effective July 1, 2005. The assessment on moving traffic violations added another \$3,111,087.58 to the Trauma Care Systems Fund in 2005, for a total of \$8,437,988.58 in funding that year (EMS Annual Report, 2005). In 2006, traffic fine assessments added \$4,362,213 to the Health Care Expendable Fund appropriation to a summation of \$9,689,114 in state monies for trauma care. During fiscal year 2007, traffic fine assessments brought in \$4,828,046 for a total of \$10,154,947 in combined state funding (personal communication, Mississippi State Department of Health, November 2007).

As shown in Figure 6, all trauma regions and centers that participate in the statewide trauma care system receive financial aid accordingly. The Trauma Care Systems Fund pays for the Mississippi Department of Health's contracts with the seven non-profit trauma regions (\$85,000 per region) at a total of \$595,000 per year. Level IV trauma centers obtain \$10,000 each per year to stabilize patients for transfer and report data on trauma victims to the trauma registry. In 2006, there were 60 Level IV trauma centers, so the annual amount was \$600,000. Thus, compensation for these two parts of the statewide system was \$1,195,000 out of the \$9.6 million from the Trauma Care Systems Fund (Mississippi Trauma Care System Regulations, 2005). After administrative costs are deducted, the remainder of the Fund is available for uncompensated care. Level I, II, and III trauma centers and eligible providers were compensated for documented and qualifying uncompensated care with the remaining available Trauma Care Systems Fund balance of \$8.0 million (personal communication, Mississippi State Department of Health, November 2007).

Figure 6. Mississippi Trauma Care Fund Expenditures, 2006



Source: Mississippi State Department of Health, Trauma Care Trust Fund Statistical Analysis, 2006

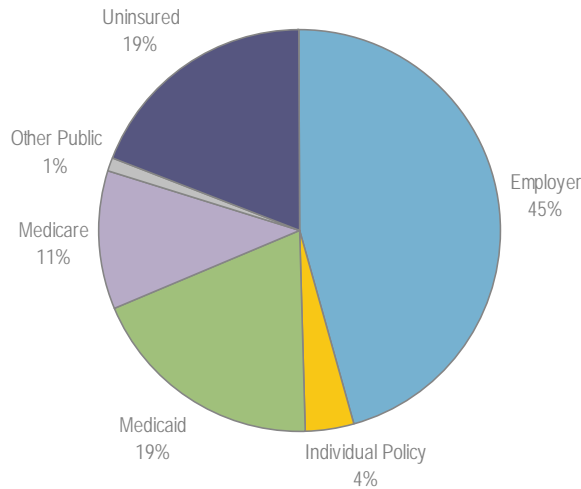
Uncompensated care dollars are allocated to Level I, II, and III designated trauma centers based on guidelines set forth in the *Mississippi Trauma Care Systems Regulations* developed and published by the Mississippi State Board of Health. The 2005 version states that uncompensated care funds are distributed to trauma centers according to the following rules: Uncompensated services include *care for which the provider has been unable to collect payment because of the patient's ability to pay. A claim is considered to be uncompensated if, after the provider's due diligence to collect monies due, total payment from all sources (including third-party payors) of five percent (5%) or less has been made on the total trauma-related gross charges. Any payment received from Medicaid shall preclude reimbursement from the TCTF [Trauma Care Trust Fund], whether the five percent (5%) payment threshold has been met or not.* Only patients that meet trauma registry inclusion criteria are eligible for uncompensated care reimbursement.

Mississippi Trauma Care System Regulations also divide funding for uncompensated trauma care into two distinct categories: 70% of the fund is made available to hospitals providing such services while the other 30% reimburses eligible physicians. There is no written documentation available on the rationale for this distribution formula. Hospital funds are obtainable based on the facility's Diagnosis Related Groups (DRG) Relative Weights for those qualifying cases submitted. Participating physicians' compensation is based on the Resource-Based Relative Value System (RBRVS). These refunds are reviewed and sent out annually to the hospitals and physicians via their respective Trauma Care Region (2005).

Only certain physician specialties are eligible to apply for the 30% of uncompensated care trust fund dollars: orthopedic surgeons, general surgeons, neurosurgeons, and anesthesiologists. There are other physician specialties not currently eligible for Trauma Care Trust Fund reimbursements that are critically involved in trauma care including plastic surgeons; ear, nose, and throat specialists; and oral/maxillary surgeons. In 2006, qualifying surgeons with gross charges of \$9.8 million received \$2,016,909, while eligible anesthesiologists collected \$383,091 out of gross charges of \$2.2 million. Total trauma system physicians numbered 284 with an average reimbursement being \$8,450.70 each. Twelve hospitals were eligible for the 70% available to cover hospital uncompensated care. Those facilities submitted \$90 million worth of gross charges for 4,601 uncompensated care patients and were awarded \$5.6 million during 2006 according to the Mississippi Trauma Care Systems Fund Statistical Analysis. This amount does not include losses due to underpayment by some third party payers, such as Medicaid. The impact of the change in Medicaid's payment structure from a cost-based system to a prospective payment based system is yet unknown. Trauma centers do receive financial incentives from the Trauma Care Systems Fund for participating in the system, but at a fraction of the cost. Many internal and external factors underscore this limited financial aid.

Adequate trauma patient care throughout the state is impeded by a variety of internal factors such as a high and increasing numbers of uninsured people. It is estimated that around 19% of Mississippians are uninsured, while 16% of all Americans are uninsured. Figure 7 details the various health care payer types in Mississippi. Uninsured and persons covered by Medicare, Medicaid, and other public insurance categories constitute 50% of the state population, roughly 1.4 million people, versus 42% nationally. Less than half of Mississippians have employer-based health insurance while 54% are insured this way nationwide (Henry J. Kaiser Family Foundation, 2006). Health care providers cover deficits from below-cost payments via the uninsured, Medicaid, and Medicare with amounts received from private insurance carriers (Dobson, DaVanzo, & Sen, 2006). Mississippi, thus, has fewer cost recovery resources.

Figure 7. Mississippi Health Insurance Coverage, Total Population, 2005-2006



Source: Henry J. Kaiser Family Foundation: StateHealthFacts.org, 2006

Mississippi also ranks highest above other states for chronic illnesses such as heart disease. Mississippians have the highest percent of the population lacking access to primary care at 30.1% (Morgan & Morgan, 2006). The state also has a high percentage of citizens below the Federal poverty level at 19.3% versus the national percentage of 12.7% (U.S. Census Bureau, 2004). When chronic illnesses are not being properly managed due to poverty and lack of access to preventive care, people over-utilize the health system at more advanced states of disease. Emergency rooms have become the point of care for many people suffering from non-urgent conditions. Mississippians that should be cared for in a doctor's office are seeking treatment inappropriately at emergency rooms, possibly due to poorly managed chronic illnesses. Therefore, trauma victims may not have access to timely care for their critical injuries due to emergency room overcrowding and shortages of staff.

An external factor affecting trauma care stems from the Emergency Medical Treatment & Labor Act (EMTALA) enacted by Congress in 1986. The act mandates access to emergency services regardless of a patient's ability to pay. All hospitals are required to provide stabilizing treatment for patients with emergency conditions including trauma. This law also decrees that if a hospital is unable to stabilize a patient within its capacity or if a patient asks, then a transfer to another facility must be arranged (Centers for Medicare & Medicaid Services, 2006). With so many people lacking either access to community physicians or the financial resources for non-urgent health care, emergency departments are being overwhelmed. Some patients prefer emergency room hours while others are referred there by a physician. As a result, the Institute of Medicine reported that 33% of emergency room visits are not for dire reasons (Chapter 2, 2006).

Combining these factors with inadequate compensation to cover the high cost of running emergency rooms, the trauma system is weakened in its ability to properly treat life-threatening injuries. In fact, the American College of Emergency Physicians graded each state on the status of emergency medicine in 2006. Mississippi's was given a C- overall, which ranked the state below the national median grade for support of an emergency care system to meet the needs of its residents.

Provider Recruitment & Retention

Mississippi's trauma system is also suffering from a shortage of specialty health care professionals. The state ranked 50th nationwide in board certified emergency physicians per annual emergency room visits (American College of Surgeons, 2006). For 2006-2007, Mississippi has an estimated 1,032 anesthesiologists, general surgeons, neurosurgeons, and orthopedic surgeons who are actively practicing either full or part-time. Mississippians have a maximum of 35 possible trauma specialists per 100,000 population if each of them were available 24 hours per day (Mississippi Health Policy Research Center, Mississippi State University, 2006). Only 284 physicians (27.5%) out of these potentially eligible trauma specialists applied for trauma reimbursement during 2006 (Mississippi Trauma Care Systems Fund Statistical Analysis).

Trauma center physicians, especially surgeons and neurosurgeons, are difficult to recruit for a variety of reasons. All levels of developed trauma systems identified recruiting and retaining physicians and nurses as a leading barrier to providing trauma care (Man, Mackenzie, Teitelbaum, Wright, Anderson, 2005). Trauma physicians may decide to no longer practice in a trauma center because they must be available to take call at any time. A recent survey performed by Sullivan, Cotter, and Associates, Inc. found that 72% of respondents, half being trauma centers, experienced difficulty finding physicians to provide on-call coverage. More than one-fourth of trauma centers had to shut down service due to lack of physicians serving on-call (2007).

Trauma injuries frequently occur during nights, weekends, and holidays. This after-hours demand is brutal on physicians' personal lives and impacts their ability to manage elective treatments or private practice. It cannot be predicted when a trauma emergency may occur; therefore, it is hard to maintain a regular schedule for these other endeavors. Level I trauma centers must have a surgeon specialized in trauma care delivery available twenty-four hours a day. Trauma surgeons must complete seven years of specialty training after medical school graduation. Unfortunately, fewer general surgeons are electing to specialize in trauma surgery. Further shortages are inevitable as baby boomer trauma surgeons retire. High amounts of uncompensated care and high levels of medical malpractice risk make the profession even less attractive as a career compared to other specialties (Institute of Medicine, 2006).

In order to recruit and retain needed specialists, many trauma centers have begun to pay physicians for being on call to cover trauma care. Total on call pay can amount to one to four million dollars annually per hospital, based on National Foundation for Trauma Care nationwide rates. This additional cost is not generally billable to Medicare, Medicaid, or other third party payers and further increases the burden on hospitals choosing to participate in the trauma system.

Burn Care

Mississippi no longer has a dedicated, specialized center for burn care. All states surrounding Mississippi do have specialized burn facilities, including Alabama, Arkansas, Georgia, Louisiana, and Tennessee. Combined, these states have a total of ten Burn Centers. Each of these centers has trained burn surgeons and staff. Since Mississippi's Burn Center stopped taking patients in 2005, the Mississippi State Department of Health has been charged by the Legislature with using Mississippi Burn Care Fund money to compensate providers of care for burn victims who must be transferred out of state (Governor's Burn Care Advisory Group, 2005). Mississippi trauma registry data from 2006 shows 285 burn victims accounted for 1.6% of all trauma cases (17,815) reported. According to the Mississippi Department of Health, Arkansas Children's Hospital is the only facility that has filed for burn care reimbursement to date. The requested refund amount totaled \$12,563.43. The Mississippi Burn Care Fund had a balance of \$3,181,682.46 as of September 30, 2007. There are no formal transfer agreements with other burn centers, but other burn centers have been accepting Mississippi patients for care and rehabilitation.

The lack of a Burn Center in Mississippi creates a hardship on family members who are no longer nearby to visit burn patients, specifically if the patient is receiving long-term rehabilitation. Mississippi does not currently have enough funding or specialized providers to sustain a stand alone burn center. The Department of Health reported, however, that no complaints from citizens or hospitals in Mississippi have been received regarding problems with transfer of burn victims to out of state centers (Governor's Burn Care Advisory Group, 2005).

■ Policy Options

Funding

High levels of uncompensated care associated with trauma as discussed previously cause some hospitals not to participate in the trauma system at their most competent level or not participate at all because of the risk for financial losses or physician exodus. Therefore, trauma care is becoming destabilized almost to the point it was before an organized trauma care system was developed.

A "Pay or Play" concept has been proposed whereby hospitals that choose to participate in the formal trauma system at less than optimal levels or not "play" at all pay fees into the Trauma Care Trust Fund. Since these hospitals avoid the costs of maintaining a trauma center, they pay an assessment into the Trauma Fund, and these funds are used to partially compensate those hospitals that do operate trauma centers for their additional costs, such as on-call pay for physicians.

In order to adequately fund uncompensated trauma care, many states generate revenue through fees on criminal cases, license plate tags, driver's license renewals, and similar services as shown in Appendix F (National Foundation for Trauma Care, 2007). States have also raised revenue by increasing tobacco, property, and other taxes (Yamaguchi, 2006). The Funding Subcommittee of the Trauma Care Task Force reviewed several options of potential assessments whereby the State can generate extra revenue to properly fund the trauma system. Utilizing Medicare standard reimbursement rates, if trauma centers were paid accordingly, these facilities would have received approximately \$40 million per year for the nearly \$100 million lost in uncompensated care costs, as opposed to the \$8 million actually received (Trauma Care Task Force estimate based on information provided by the Mississippi State Department of Health from calculations performed by Horne-LLP). Therefore, the Committee attempted to identify sources of revenue that would generate this amount. Due to the fragility of the trauma system at this point, interim sources of funding are needed to shore up the system until revenue from new fees and assessments can be realized.

It should be noted that many of the fees or assessments often used to generate revenue for trauma care are associated with sources of trauma injuries. For instance, assessments tacked on to drivers' license or car tag fees, or fines for moving traffic or seat belt violations, reflect that many trauma injuries occur from motor vehicle accidents. There is an added benefit if the assessments are of sufficient amounts as to dissuade individuals from practicing risky behaviors, such as not wearing seat belts. In such cases, the assessments have the added benefit of reducing the need for trauma care.

Provider Recruitment and Retention

While money is a limiting factor, ensuring that the appropriate doctors and nurses are available is critical to ensuring proper trauma care. Hospitals are experimenting with various methods for recruiting and retaining appropriate medical specialists. One way some hospitals are responding is by paying for on-call time, especially for the physician workforce. Several of the past Mississippi Trauma Advisory Committee members reported during August 2006 interviews that lack of payment for on-call services was an issue often raised by physicians at Mississippi Trauma Advisory Committee meetings. Hospital administrators on the Trauma Care Task Force relayed the same woes with their trauma specialists at the 2007 meetings. Extra funding can aid trauma centers by boosting the amount available to pay specialty physicians not only for uncompensated care, but for on-call time as well.

The American College of Emergency Physicians published an information paper regarding paying physicians for on-call services. Mandating on-call participation for doctors to gain hospital staff privileges and credentialing could help hospitals maintain Medicare eligibility. This may aid quality of care improvement issues regarding emergency department coverage at all times as well. Yet, shortages can persist if physicians move to hospitals not requiring on-call services and then subsequent call burden increases for remaining physicians. Another possible approach to on-call physician pay involves calculating trauma patient volume, hospital trauma income, and physician trauma income into a formula to devise fair compensation. Calculations must be based on precise data from hospitals and trauma registries (2005). This could be done in Mississippi if all trauma cases were captured by the Trauma Registry.

Structure and Administration

Proper functioning of the Mississippi Trauma Advisory Committee (MTAC) or similar entity is critical to the further development of the state's trauma system and is one criterion of a mature trauma system. Giving the MTAC independence from the EMS Advisory Council could strengthen its mission and visibility. This body would retain the statutory authority to advise the Mississippi State Department of Health and provide technical support in the development of the trauma system. The absence of this Committee has left a void in leadership, strategic planning, and cooperation among the system's stakeholders. The problem created by delay in appointments could be addressed by allowing members to continue service until new appointments are made. The MTAC needs to meet regularly and work systematically with stakeholders on continued development of the state's trauma system. One method to improve accountability is for the State Board of Health to require from the MTAC regular reports including revised recommendations to the State Trauma Plan and Regulations.

Another hallmark of a mature trauma system is coordinated inter-hospital transfer capabilities. The University of Mississippi Medical Center (UMMC) recently received a grant for a state-of-the-art emergency communication system called MED-COM to provide emergency communication to streamline transfers of burn and trauma cases in Region III. The system has the ability to provide this service statewide. UMMC reports that this grant pays for equipment only, not personnel or software. UMMC estimates a need for \$798,098.88 to bring this system fully operational across the state (University of Mississippi Medical Center, personal communication, November 7, 2007). Appendix E outlines an overview of the system.

Data and Evaluation

Reporting of trauma data regardless of status as a formal trauma center is yet another hallmark of a mature trauma system. Several other states accomplish this through legislative mandates requiring any facility handling trauma cases to report data. A study surveying all 50 states revealed that out of the thirty-two states with trauma registries, fourteen have mandates that all trauma data be reported. These data are commonly utilized for advocacy, injury surveillance, education and training, research, and cost reimbursement analysis (Guice, Cassidy, & Mann, 2007).

Burn Care

A cost effective alternative to funding a burn center within the state is to compensate out-of-state centers for care provided to uninsured state residents. Formal agreements should be negotiated with out of state burn centers so that care for uninsured burn patients will not be delayed due to the lack of such an agreement. In addition, because of the hardship imposed on families who must travel out-of-state to visit burn victims, monies from the state's Burn Fund can be used to assist with the cost of this travel for families in need. Establishment of an in-state rehabilitation program for burn victims could further reduce the burden on victims' families.

Task Force Recommendations

The Task Force offers the following recommendations to consider for reviving the Mississippi trauma care system:

Legislative: Funding

- Revise appropriate statutes to increase fees and assessments as recommended by the Funding Subcommittee of the Task Force (Figure 7) to generate the additional revenue needed for the Trauma Care System Fund and Mississippi Burn Care Fund.

Figure 7: Trauma Care Task Force, Funding Subcommittee Preliminary Funding Report

	Number	Current	Proposed	Increase	Amount Generated	Percent Change
Regular Drivers License (Renewal)	400,000	\$20.00	\$25.00	\$5.00	\$2,000,000	25%
Commercial Drivers License (Renewal)	20,000	\$25.00	\$30.00	\$5.00	\$100,000	20%
Gun Permits (Renewal)	2,500	\$50.00	\$60.00	\$10.00	\$25,000	20%
Inspection Stickers	1,800,000	\$2.00	\$3.00	\$1.00	\$1,800,000	50%
Vehicle Tags	2,600,000	\$15.00	\$17.00	\$2.00	\$5,200,000	13%
Boat Registration (Avg. Renewal)	41,000	\$25.00	\$30.00	\$5.00	\$205,000	20%
Trauma Ticket Assessment	300,000	\$10.00	\$15.00	\$5.00	\$1,500,000	50%
"Pay or Play" (fees to be determined)					\$10,400,000	
Insurance Activation Fee					\$17,866,200	
					<u>\$39,096,200</u>	

Additional Assessment Information:

Beer Excise Tax (gal)	72,600,000	\$0.4268
Distilled Spirits Excise Tax (gal)	3,400,000	\$2.50
Wine Excise Tax (gal)	1,900,000	\$0.35
Sparkling Wine Excise Tax (gal)	166,000	\$1.00
DUI Assessment		\$200.00
Other Misdemeanors		\$88.00
Other Felonies		\$167.00
Traffic Violations		\$70.00
Game and Fish Violations		\$74.00
one cent gasoline tax generates		\$16,357,644.00
one cent Diesel tax generates		\$7,980,472.00
total one cent fuel tax increase		<u>\$24,338,116.00</u>
For each one cent increase in tobacco tax = \$2.26 million generated		
Increase in cigarette tax from current \$.18 to \$1.00 = \$186 million		

- Target those fees and assessments that have the additional affect of discouraging risky behaviors resulting in the need for trauma care.
- Provide interim funding to finance the system until new revenue can be generated and sustained.

Legislative: Mississippi Trauma Care Advisory Council

- Revise the statute to reconstitute the Mississippi Trauma Care Advisory Council (MTAC) as a permanent, stand alone advisory body, instead of a sub-committee of the Emergency Medical Services Advisory Council, and retain the same charge to the Council as in current law.

- Require the MTAC to meet at least quarterly, to report to the State Board of Health at its regular quarterly meetings on the performance of the trauma system, measuring against external and internal benchmarks whenever available, and to make an annual report to the Senate and House Public Health Committees and to the Governor.
- Specify in the statute that MTAC members whose terms have expired will continue to serve until new appointments are made.
- Revise the statute governing the Emergency Medical Services Advisory Council to reflect these modifications to the MTAC and replace representation from the trauma regions with two representatives from the MTAC.
- Define the membership of the MTAC in the following manner:
 - One licensed physician to be appointed from a list of nominees presented by the Mississippi Trauma Committee of the American College of Surgeons,
 - One licensed physician to be appointed from a list of nominees presented by the Mississippi State Medical Association,
 - One licensed physician to be appointed from a list of nominees presented by the American College of Emergency Physicians,
 - One representative from each Level I & Level II trauma center in the state's trauma system, to be appointed from a list of nominees submitted by each trauma center,
 - One member appointed from the Emergency Medical Services Advisory Council,
 - One member to be appointed from a list of nominees submitted by the Mississippi Firefighter's Association,
 - One trauma registrar to be appointed from the Trauma Registry Committee of the State Department of Health,
 - One resident of Mississippi who shall be a person who has been a recipient of trauma care or who has an immediate family member who has been a recipient of trauma care, and
- Authorize MTAC members to elect a chair annually, and authorize the chair to call meetings of the MTAC.
- Specify in the statute that staff of the State Department of Health will provide administrative support to the Council.

Legislative: Trauma Data

- Mandate all hospital emergency rooms caring for trauma patients to submit trauma registry data to the State Department of Health.
- Mandate all hospitals participate in the computerized resource tracking system once implemented.

Legislative: State Board of Health

- Authorize the State Board of Health, with the advice and assistance of the MTAC, to encourage hospitals to participate in the trauma system at levels commensurate with their capacity, through financial incentives or licensing mechanisms.
- Provide statutory authority to the State Board of Health to assess a fee on hospitals that are qualified to participate in the trauma system, but choose not to participate in the system or to participate at a level lower than that for which they are capable.

- Require that this assessment be based on a formula to be determined by the State Board of Health, with the advice of the MTAC, based upon costs avoided by not operating a trauma center at the appropriate level and that funds generated by the assessment will be used solely for the purpose of compensating hospitals that operate as trauma centers.
- Require the State Board of Health to promulgate rules and regulations by January 1, 2009 to implement this assessment but mandate that no assessment be made by the State Board of Health until July 1, 2009.

Operational Changes (to be implemented by the State Department of Health with the advice and assistance of the MTAC):

- Re-evaluate the regional structure based on the performance levels of the trauma regions and changes in participation by hospitals.
- Develop minimum standards for all trauma regions and implement a system for monitoring and evaluating their performance annually with continued financial support contingent on adequate performance based on outcome measures.
- Negotiate formal agreements with out of state burn centers and use a portion of the Mississippi Burn Care Fund for uncompensated burn care at these centers.
- Use funding from the Mississippi Burn Care Fund to assist burn victims' families with out of state travel expenses based on need.
- Arrange rehabilitation services within Mississippi for stabilized burn patients.
- Review and revise the formulas used to distribute Trauma Care System Fund dollars, to include the proportions allocated to state and regional administration, to Level IV trauma centers, and to hospitals, physicians, and EMS providers rendering uncompensated care.
- Establish administrative systems to integrate the trauma system with bioterrorism preparedness planning and funding.
- Improve analytical capabilities of the trauma registry data system and provide reports to trauma regions and participating providers at least annually.
- Provide technical assistance to individual trauma centers to improve their capacity to measure and improve internal accountability, quality, and performance based on data.
- Provide annual reports on the performance of the trauma system, including detail by trauma region, to the State Board of Health, to the Senate and House Public Health Committees, and to the Governor using trauma system data.
- Link pre-hospital EMS data to trauma registry data to develop a comprehensive overview of trauma care.
- Continue to provide trauma educational opportunities for physicians, nurses, and support staff.
- Improve coordination of critical Emergency Medical System pre-hospital compliance and communications regarding trauma patient transfers.
- Implement formal, standardized inter-hospital transfer agreements, develop specific policies regarding patients to transfer, and monitor emergency department compliance.
- Monitor the use of transfer protocols to identify unnecessary transfers from lower level trauma centers.
- Ensure trauma protocols are geared toward patient outcomes and ensure that patients are taken to the closest appropriate facility.
- Integrate trauma system development with disaster preparedness activities.

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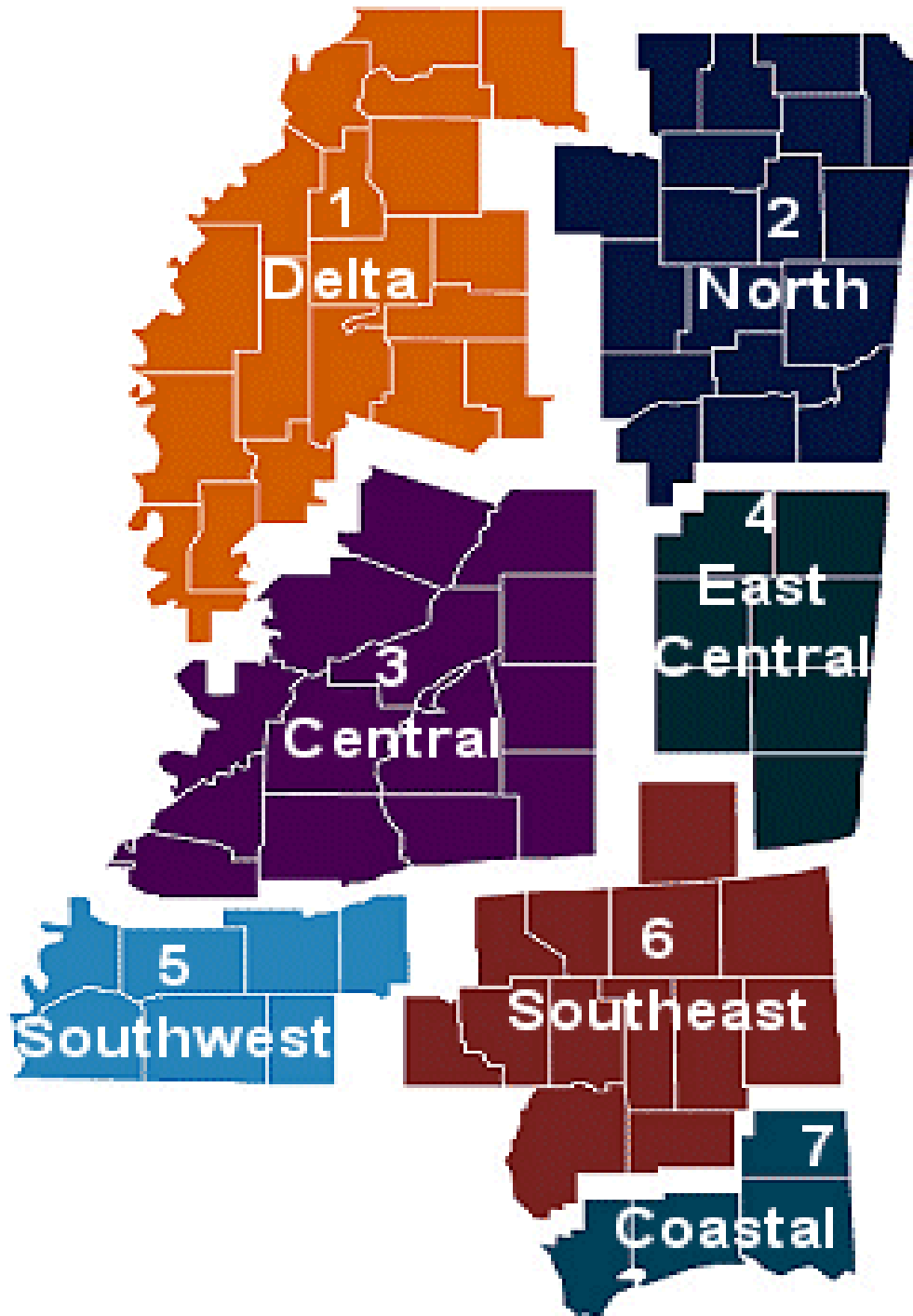
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Appendix A

MS Trauma Region Map



Source: EMS Annual Report, Mississippi State Department of Health, 2005

Appendix B

Hospitals Participating in the Mississippi Trauma Care System

Level I

Regional Medical Center at Memphis- Memphis, Tennessee, Trauma Region 1
University of Mississippi Medical Center- Jackson, Mississippi, Trauma Region 3

Level II

Baptist Memorial Hospital Golden Triangle- Columbus, Mississippi, Trauma Region 2
Delta Regional Medical Center- Greenville, Mississippi, Trauma Region 1
Forrest General Hospital- Hattiesburg, Mississippi, Trauma Region 6
North Mississippi Medical Center- Tupelo, Mississippi, Trauma Region 2

Level III

Baptist Memorial Hospital- Oxford, Mississippi, Trauma Region 2
North Mississippi Medical Center Clay County- West Point, Mississippi, Trauma Region 2
Ocean Springs Hospital- Ocean Springs, Mississippi, Trauma Region 7
Oktibbeha County Hospital- Starkville, Mississippi, Trauma Region 2
Singing River Hospital- Pascagoula, Mississippi, Trauma Region 7
South Central Regional Medical Center- Laurel, Mississippi, Trauma Region 6

Level IV

Alliance Healthcare- Holly Springs, Mississippi, Trauma Region 1
Alliance Laird Hospital- Union, Mississippi, Trauma Region 4
Baptist Memorial Hospital- Booneville, Mississippi, Trauma Region 2
Baptist Memorial Hospital DeSoto- Southaven, Mississippi, Trauma Region 1
Baptist Memorial Hospital Union County- New Albany, Mississippi, Trauma Region 2
Biloxi Regional Medical Center- Biloxi, Mississippi, Trauma Region 7
Bolivar Medical Center- Cleveland, Mississippi, Trauma Region 1
Calhoun Health Services- Calhoun City, Mississippi, Trauma Region 2
Choctaw County Medical Center- Ackerman, Mississippi, Trauma Region 2
Choctaw Health Center- Philadelphia, Mississippi, Trauma Region 4
Claiborne County Hospital- Port Gibson, Mississippi, Trauma Region 3
Covington County Hospital- Collins, Mississippi, Trauma Region 6
Field Memorial Hospital- Centreville, Mississippi, Trauma Region 5
Franklin County Memorial Hospital- Meadville, Mississippi, Trauma Region 5

Garden Park Hospital- Gulfport, Mississippi, Trauma Region 7
George County Hospital- Lucedale, Mississippi, Trauma Region 7
Greenwood Leflore Hospital- Greenwood, Mississippi, Trauma Region 1
Grenada Lake Medical Center- Grenada, Mississippi, Trauma Region 1
Gulf Coast Medical Center- Biloxi, Mississippi, Trauma Region 7
Hancock Medical Center- Bay St. Louis, Mississippi, Trauma Region 7
Hardy Wilson Memorial Hospital- Hazlehurst, Mississippi, Trauma Region 3
H. C. Watkins Memorial Hospital- Quitman, Mississippi, Trauma Region 4
Jefferson Davis Community Hospital- Prentiss, Mississippi, Trauma Region 6
King's Daughters Medical Center- Brookhaven, Mississippi, Trauma Region 5
Lackey Memorial Hospital- Forest, Mississippi, Trauma Region 3
Lawrence County Hospital- Monticello, Mississippi, Trauma Region 5
Leake Memorial Hospital- Carthage, Mississippi, Trauma Region 3
L. O. Crosby Memorial Hospital- Picayune Mississippi, Trauma Region 6
Madison County Hospital- Canton, Mississippi, Trauma Region 3
Magnolia Regional Health Center- Corinth, Mississippi, Trauma Region 2
Marion General Hospital- Columbia, Mississippi, Trauma Region 6
Memorial Hospital- Gulfport, Mississippi, Trauma Region 7
Montfort Jones Memorial Hospital- Kosciusko, Mississippi, Trauma Region 3
Natchez Community Hospital- Natchez, Mississippi, Trauma Region 5
Natchez Regional Medical Center- Natchez, Mississippi, Trauma Region 5
Neshoba County Hospital- Philadelphia, Mississippi, Trauma Region 4
Newton Regional Hospital- Newton, Mississippi, Trauma Region 4
North Mississippi Medical Center- Iuka, Mississippi, Trauma Region 2
North Sunflower County Hospital- Ruleville, Mississippi, Trauma Region 1
Northwest Mississippi Regional Hospital- Clarksdale, Mississippi, Trauma Region 1
Perry County Hospital- Richton, Mississippi, Trauma Region 6
Pioneer Health Services- Aberdeen, Mississippi, Trauma Region 2
Pontotoc Health Services- Pontotoc, Mississippi, Trauma Region 2
Quitman County Hospital- Marks, Mississippi, Trauma Region 1
Rankin Medical Center- Brandon, Mississippi, Trauma Region 3
Riley Hospital- Meridian, Mississippi, Trauma Region 4
River Oaks Hospital- Flowood, Mississippi, Trauma Region 3
River Regional Medical Center- Vicksburg, Mississippi, Trauma Region 3
Scott County Hospital- Morton, Mississippi, Trauma Region 3
South Sunflower County Hospital- Indianola, Mississippi, Trauma Region 1

Stone County Hospital- Wiggins, Mississippi, Trauma Region 6
Tallahatchie General Hospital- Charleston, Mississippi, Trauma Region 1
Tippah County Hospital- Ripley, Mississippi, Trauma Region 2
Tri-Lakes Medical Center- Batesville, Mississippi, Trauma Region 1
Tyler Holmes Memorial Hospital- Winona, Mississippi, Trauma Region 1
University Hospitals and Clinics- Lexington, Mississippi, Trauma Region 3
Walthall County Hospital- Tylertown, Mississippi, Trauma Region 6
Wayne County Hospital- Waynesboro, Mississippi, Trauma Region 6
Winston Medical Center- Louisville, Mississippi- Trauma Region 4

Source: EMS Annual Report, Mississippi State Department of Health, 2006

Appendix C

Trauma Care Task Force Members

Name	Organization
Dr. Hugh Gamble	Gamble Brothers & Archer Clinic
Dr. James Keeton	University of Mississippi Medical Center
Dr. Lawrence Leake	Singing River Hospital
Mr. Bill Oliver	Forrest General Hospital
Mr. Chuck Stokes	North Mississippi Medical Center
Mr. Gerald Knottenkamper	Singing River Hospital
Ms. Carol Prevost	South Central Regional Medical Center
Ms. Gloria Smalley	Forrest General Hospital
Representative George Flaggs	Mississippi House of Representatives
Representative Steve Holland	Mississippi House of Representatives
Senator Alan Nunnelee	Mississippi Senate
Senator Jack Gordon	Mississippi Senate

Appendix D

Task Force Authorizing Legislation

MISSISSIPPI LEGISLATURE
2007 Regular Session
To: Public Health and Welfare; Appropriations
By: Senator(s) Nunnelee, King, Little, Turner

Senate Bill 2863

(As Sent to Governor)

AN ACT TO CREATE THE TRAUMA CARE TASK FORCE TO CONDUCT A STUDY OF THE STATUS OF TRAUMA CARE AND BURN CARE IN MISSISSIPPI AND DEVELOP A REPORT TO THE GOVERNOR AND THE 2008 REGULAR SESSION OF THE LEGISLATURE; AND FOR RELATED PURPOSES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MISSISSIPPI:

SECTION 1. (1) There is created the Trauma Care Task Force, which shall be composed of thirteen (13) members as follows:

(a) One (1) regional trauma registrar designated by the Trauma Care Committee of the Mississippi Hospital Association.

(b) One (1) licensed physician appointed by the Governor from a list of nominees from the Mississippi Chapter of the American College of Emergency Physicians;

(c) One (1) licensed physician appointed by the Governor from a list of nominees from the Mississippi Chapter of the American College of Surgeons;

(d) Two (2) hospital administrators designated by the Trauma Care Committee of Mississippi Hospital Association;

(e) Two (2) trauma nurse coordinators named by the Mississippi Association of Trauma Administrators;

(f) Two (2) members of the Mississippi House of Representatives appointed by the Speaker of the House;

(g) Two (2) members of the Senate appointed by the Lieutenant Governor;

(h) One (1) member appointed by the Governor, 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;

(i) One (1) licensed physician or an appropriate administrator involved in the practice and/or delivery of trauma care at University Medical Center appointed by the Governor.

(2) All members of the task force shall be designated or appointed in accordance with Section 1 above and shall be so designated or appointed in sufficient time so as to allow for all members of the task force to be identified prior to the first meeting of the task force.

(3) The first meeting of the task force shall take place no later than June 1, 2007, on the call of the Governor at a place designated by him. At the first meeting of the task force, the two (2) hospital administrators designated in accordance with Section 1 shall act as temporary chairmen of the task force in order to organize and to elect a chairman and vice chairman from its membership. Following the election of the chairman and vice chairman, the task force shall adopt rules for transacting its business and keeping records. Members of the task force other than the legislative members shall receive reimbursement for travel expenses incurred while engaged in official business of the task force in accordance with Section 25-3-41, and the legislative members of the task force shall receive the compensation authorized for committee meetings when the Legislature is not in session. Payment of such expenses set forth herein shall be from funds made available therefore by the Legislature or from any other public or private source.

(4) (a) The duties of the task force shall be to:

(i) Conduct a study of the status of trauma care, including burn care, in Mississippi; and

(ii) Review and determine the efficacy of the Mississippi Trauma Care Plan; and

(iii) Determine adequate funding requirements and research existing and potential funding mechanisms necessary to provide for trauma care in Mississippi; and

(iv) Make appropriate findings and recommendations regarding the matters considered in accordance with the trauma care study in subsection (1) and regarding its review of the Mississippi Trauma Care Plan. Such findings and recommendations shall address, at a minimum, the status of the state's trauma care system and any legislative action that may be needed to further enhance the delivery of trauma care in Mississippi.

(b) Before December 1, 2007, the task force shall make a report presenting such findings and recommendations to the Governor and to all members of the Legislature for consideration during the 2008 Regular Session.

(5) The State Department of Health shall provide appropriate staff support and shall designate an appropriate department employee to act as a point of contact for the provision of staff support to the task force. All other agencies, departments, offices and institutions of the state, including all state universities and community and junior colleges, shall cooperate with the task force and provide such assistance as requested by the task force.

(6) Upon presentation of its report, the task force shall be dissolved.

SECTION 2. This act shall take effect and be in force from and after its passage.

Appendix E

Mississippi MED-COM: Inter-Hospital Transfer Program University of Mississippi Medical Center

MISSISSIPPI MED-COM

Objectives:

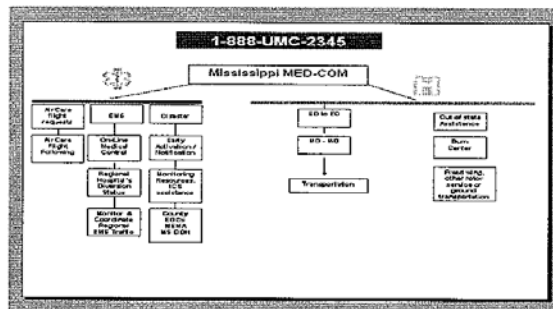
- Create a Centralized Medical Communications Center
 - Burn Center Coordination
 - Trauma System Coordination
 - Hospital and Healthcare Agency Coordination
- Utilizing the state wireless technology, Mississippi MED-COM would provide clinically trained personnel to monitor and assist communications among participants such as but not limited hospitals, EMS agencies, law enforcement communications centers and county EOCs.
- Promote relationship building at the local, regional, and state levels

Communications:

- Dedicated radio system utilizing statewide wireless technology with interoperable capability
- Staffed by clinically trained personnel 24/7
- Provide immediate connection to hospitals & other agencies in coastal counties with coverage expanding as the state system expands
- Provide coverage for lower 6 counties for transfer, supplies, and direction from MEMA
- ESF# 8 Responsibilities
- NIMS Compliant

Redundancy:

- Dedicated ring-down phone in addition to radio, satellite, & wireless communications
- Used for "routine" transfers
- Would become the "norm" during crisis situations
- Ramp-Up Capability



Appendix F

National Foundation for Trauma Care: State Funding Mechanisms

STATE FUNDING

There are a few States with a variety of methods for funding trauma administration and unfunded care which include traffic fines, vehicle and driver's license surcharges, tobacco settlement funds, sales and property taxes.

State	Traffic Fines	Auto & Driver Fee Surcharge	Other	Total Pool	Distribution	Malpractice Legislation	Proposed/Pending State Funding Legislation
ARIZONA			<ol style="list-style-type: none"> 1. 60 cent increase in state tax on cigarettes 2. Voter gaming initiative (Prop 202) 	<ol style="list-style-type: none"> 1. \$62 M 	<ol style="list-style-type: none"> 1. Subsidies to hospital emergency rooms and trauma centers, medical research and healthcare for the poor. 2. Money Allocation is still being determined. 		
CALIFORNIA	\$200 for reckless driving, DUI, speeding		<ol style="list-style-type: none"> 1. General funds 2. LA County "Measure B"-a proposal that raises property taxes by 3 cents per square foot 	<ol style="list-style-type: none"> 1. \$25 M for 2002-3, 25% of \$25M in fines 2. \$168 M 	<ol style="list-style-type: none"> 1. Indigent care fund for Trauma Centers. 2. Emergency rooms and trauma centers. 		

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State	Traffic Fines	Auto & Driver Fee Surcharge	Other	Total Pool	Distribution	Malpractice Legislation	Proposed/Pending State Funding Legislation
FLORIDA	<p>1. \$65 extra fine for running a red light added to regular ticket</p> <p>2. Up to \$500 extra fine for appealing a red light running ticket and losing</p> <p>3. New legislation effective 7/07 – pilot project in 3 counties to add a fine up to \$500 for exceeding speed limit in special enhanced penalty zone in those 3 counties.</p> <p>4. New legislation effective 7/07 adds \$50 to fine for exceeding speed limit in an enhanced penalty zone statewide.</p> <p>5. New legislation effective 7/07 doubles the fine for speeding 30mph+ over the speed limit if second or subsequent conviction within a year.</p>	1. 10 cents per vehicle license plate fee	1. There is also an enhancement of Medicare-Medicaid reimbursement for trauma centers treating those trauma cases	<p>1. \$ 7+M/year from \$65 extra fine</p> <p>2. \$ 50K+/year from \$500 extra fine</p> <p>3. \$ 1.9+M/year from 10 cents license plate fee</p> <p>4. Estimate for items 3-5 new legislation is eventually up to \$300K-1M/year after implementation period</p>	<p>Pool column # 1, 2 & 4 funds go to trauma centers based on formula considering patient volume & severity score. Funding design to help with uncompensated readiness cost</p> <p>Pool column # 3 funds State Office of Trauma & Div. of Emergency Medical Operations</p>	Any medical personnel who renders care or assistance in a designated trauma center, may not be held liable for more than \$150,000 in civil damage.	Several bills being introduced for March 07 legislative session, but details still unclear except they would add fines for other traffic offenses that would help fund trauma centers. Another effort again to require motorcyclist to wear helmets is also expected. (not now required in FL.). Fines likely for failure to wear helmet if legislation passes.
GEORGIA		Proposed \$5 per vehicle registration					Proposed \$1.16 per cell phone
ILLINOIS	\$100 per DUI, \$20 per infraction		\$100 illegal discharge of firearm	\$34 M with Federal match	Indigent care fund for Trauma Centers, trauma system administration.		

State	Traffic Fines	Auto & Driver Fee Surcharge	Other	Total Pool	Distribution	Malpractice Legislation	Proposed/Pending State Funding Legislation
MARYLAND		\$11 per vehicle \$2.50 additional surcharge that goes to the Maryland Trauma Physician Services Fund (Health General Article § 19-130). This fund addresses uncompensated care reimbursements for physicians who treat trauma patients in trauma centers.		\$50 million for EMS fund	\$3M for R Adams Cowley Shock Trauma Center. MD has a 'single payor' system to support all types of unfunded care.		
MISSISSIPPI	\$10 per moving violation		\$6 M in tobacco settlement	\$8 M	Indigent care fund for Trauma Centers & physicians (70% hospital & 30% physician) and funds each trauma region's administration.		
NEVADA						\$50,000 cap for hospitals and trauma surgeons of either a governmental hospital or a nonprofit hospital.	
OKLAHOMA		\$1 per driver's license		\$2.4 M	Indigent care fund for Trauma Centers & licensed ambulances. 10% for EMS/ trauma system administration.		

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State	Traffic Fines	Auto & Driver Fee Surcharge	Other	Total Pool	Distribution	Malpractice Legislation	Proposed/Pending State Funding Legislation
NEW MEXICO			\$4 M from general funds to distribute to existing designated trauma centers		\$1.3M to Level I and \$200k to start up		
OREGON			\$.25 911 surcharge		1. Increasing Medicaid payments 2. EMS-Children initiatives 3. New Trauma Registry (\$48 million)		
PENNSYLVANIA	\$10 per moving violation		\$27 million Trauma Center Stabilization Act; \$12.5 million in state Medicaid funding, matched dollar for dollar by federal Medicaid funds		25% of EMS fund goes to the Catastrophic Medical & Rehabilitation Fund for TBI care after all other funding sources are exhausted (approx. \$3 million).		
TEXAS	\$25-\$2000 fines based upon points obtained from moving violations, and driving without a license or suspended license; \$100 per alcohol related convictions			\$4 M from tobacco settlement; \$2.4 M for alcohol fines	1. \$31 M for trauma centers, EMS and RACS 2. Indigent care fund for Trauma Centers; 60% to urban areas, 40% to rural. \$250,000 for extraordinary emergency reserve.		

State	Traffic Fines	Auto & Driver Fee Surcharge	Other	Total Pool	Distribution	Malpractice Legislation	Proposed/Pending State Funding Legislation
VIRGINIA	\$25 for each DUI after the 1st in a "Trauma Fund". This should generate about \$100,000 a year that would be available to designated trauma centers through a grant process. \$? for reckless driving. This should generate \$4 M for 13 trauma centers. \$40 for reinstatement of driver's license, second offense						Joint Legislative Resolution Committee assigned to determine how the Trauma System can be helped, like with first monies to the hospitals from insurances.
WASHINGTON	\$5 per traffic infraction	\$4 per vehicle		\$32 M per biennium with Federal match	Indigent care fund for Trauma Centers, ambulance services, physicians and physician extenders and designated rehabilitation units.		
WEST VIRGINIA						Any medical personnel who renders care or assistance in a designated trauma center, may not be held liable for more than \$500,000 in civil damage.	

**MISSISSIPPI TRAUMA
CARE TASK FORCE**

FINAL REPORT

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