Reviving Mississippi's Trauma System:
Trauma Care Task Force Report
December 2007

Purpose

Senate Bill 2863, enacted during the 2007 legislative session, mandated the creation of a Trauma Care Task Force to study the status of trauma and burn care in Mississippi and report their findings by December 2007. This document summarizes the findings and recommendations from the Trauma Care Task Force's report, a complete copy of which may be retrieved from the Center for Mississippi Health Policy's web site at http://www.mshealthpolicy.com .

Significance

The goal of a formalized system of trauma care is to deliver the right patient to the right hospital at the right time. This type of system has been shown to save lives. Trauma care is clearly important in Mississippi as traumatic injuries are the leading cause of death for Mississippians under 45 years of age, and Mississippi ranks third in the nation for unintentional injury deaths.

Status

Mississippi began developing a formal trauma system in 1991. The state adopted a trauma plan, established seven trauma regions, designated qualifying hospitals as trauma centers, created a trauma registry, and enacted a funding mechanism to begin generating revenue to support the system. Due to these factors, Mississippi's trauma system served as an example to many other states across the nation. Further growth of the system, however, has stalled, and structures built over the past fifteen years are demonstrating signs of deterioration.

High volumes of uncompensated care and difficulties in recruiting and retaining specialized physicians have resulted in many hospitals' choosing not to participate in the trauma system or to participate at a lower level. These factors were the primary drivers behind the closure of the Burn Center at Delta Regional Medical Center in 2005. Hospitals' dropping their participation causes a shift in the burden of trauma care to those hospitals that continue to participate in the system at the appropriate levels. The maps in Figure 1 show the change in hospital participation at levels I, II, and III in 2002 and in 2007. There are now large areas of the state where a citizen experiencing a traumatic event would not have access to proper trauma care during the first critical "golden hour."

Figure 1. Mississippi Level I, II, & III Trauma Centers: 2002 vs. 2007

2002   2007

Level I (highest)
Level II
Level III
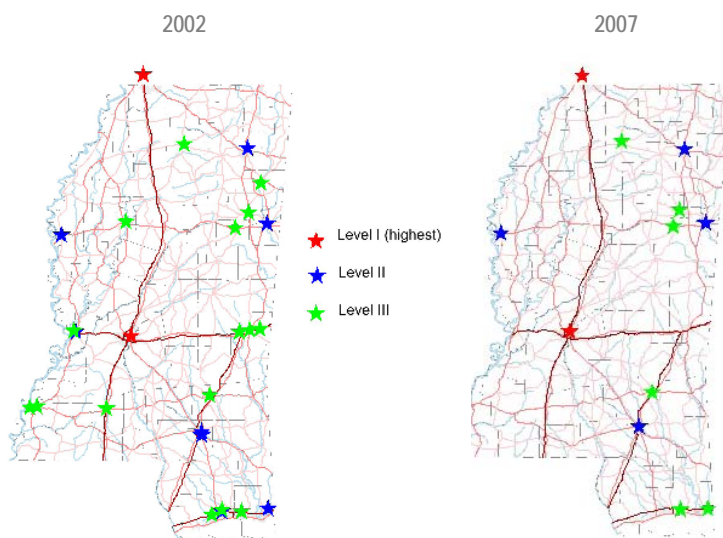
Source: Mississippi State Department of Health, Annual Trauma Reports.

Task Force Findings

Some of the major findings of the Trauma Care Task Force follow. Other findings may be found in the complete Report.

- 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; at least $40 million annually (in 2007 dollars) is needed to maintain trauma care in Mississippi.
- 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.
- 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 trauma data are submitted to the trauma registry, and trauma registry data are not currently used systematically for planning, quality improvement, or evaluation.
- 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.

Task Force Proposals

Some of the major recommendations of the Trauma Care Task Force follow. Other recommendations may be found in the complete Report.

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 effect 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.

Mississippi Trauma Care Advisory Council

- Revise the statute to reconstitute the Mississippi Trauma Care Advisory Council (MTAC) as a permanent, stand alone advisory body, retaining 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

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available, and to make an annual report to the Senate and House Public Health Committees and to the Governor.

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 to participate in the computerized resource tracking system once implemented.

Hospital "Pay or Play" Provision

- 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.

Burn Care

- 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.

Operational Issues

- 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.
- 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.
- 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.
- Link pre-hospital EMS data to trauma registry data to develop a comprehensive overview of trauma care.
- Integrate trauma system development with disaster preparedness activities.

Sources

Centers for Disease Control and Prevention. (2007). State specific unintentional injury deaths, United States, 1999-2004. Morbidity and Mortality Weekly Report., 56 (43), 1137-1141.

Governor's Burn Care Advisory Group. (2005). The status of critical care for burn victims in Mississippi: A report to the Honorable Haley Barbour, Governor, State of Mississippi. 2-14.

Health Services and Resources Administration. (2002). A 2002 national assessment of state trauma system development, emergency medical services resources, and disaster readiness for mass casualty events. Retrieved July 20, 2006, from http://www.hrsa.gov/trauma/survey/default.htm

Mississippi State Department of Health. (2004). EMS annual report. Bureau of Emergency Medical Services.

Mississippi State Department of Health. (2002). Mississippi trauma care system annual report. Retrieved December 6, 2007 from http://www.ems.doh.ms.gov/trauma/trauma_sys_reports.html

Mississippi State Department of Health. (2003). Mississippi trauma care system annual report. Retrieved December 6, 2007 from http://www.ems.doh.ms.gov/trauma/trauma_sys_reports.html

Mississippi State Department of Health. (2004). Mississippi trauma care system annual report. Retrieved December 6, 2007 from http://www.ems.doh.ms.gov/trauma/trauma_sys_reports.html

Mississippi State Department of Health. (2005). Mississippi trauma care system annual report. Retrieved December 6, 2007 from http://www.ems.doh.ms.gov/trauma/trauma_sys_reports.html

Mississippi State Department of Health. (2006). Mississippi trauma care system annual report draft.

Mississippi State Department of Health. (2006). Mississippi trauma care systems fund: statistical analysis. Bureau of Emergency Medical Services.

Mississippi State Department of Health. (2005). Mississippi trauma care system plan. Retrieved August 20, 2006, from http://www.ems.doh.ms.gov/trauma/trauma_sys_reports.html

Mississippi State Department of Health. (2005). The Mississippi trauma care system regulations. Bureau of Emergency Medical Services. pp. VI-1.

Mississippi Department of Health. (2006). Vital statistics. pp. 24. Retrieved November 6, 2007, from http://www.msdh.state.ms.us/msdhsite/_static/resources/2400.pdf