System Report
December 1, 2012 – February 28, 2013

Data Period - Fourth Quarter 2012
(October-November-December)

Mississippi Trauma Care System

Designated Trauma Care Providers
Working Together to Prevent and Treat Trauma

Prepared for:

Mississippi State Board of Health

March 4, 2013
Introduction

The goal of the Mississippi Trauma Care System is to deliver the right patient to the right hospital the first time. Research shows that this approach decreases mortality. Trauma remains the leading cause of death for Mississippian age 1 to 44 and Mississippi ranks third in the nation for unintentional injury deaths.

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

The Mississippi Legislature passed House Bill 1405 during the 2007 Regular Session to revitalized and more fully fund the Mississippi Trauma Care System. Mississippi moved from a voluntary system with indigent reimbursement, to a mandatory system with block grant funding based on participation; the first trauma system of its type in the United States. As suggested by the Mississippi Trauma Care Task Force, this report on the Mississippi Trauma Care System will be submitted quarterly to the Mississippi State Board of Health.
Quarterly Activities

Trauma Registry:

No User Group meeting or Software Training during this period.

Trauma Center Consultation Visits:

No consultation/educational visits during this period.

Trauma Center Inspections:

Central Mississippi Medical Center, Jackson
Level III Trauma Center
January 7, 2013

Southwest Mississippi Regional Medical Center, McComb
Level III Trauma Center
January 8, 2013

South Central Regional Medical Center, Laurel
Level III Trauma Center Focused Survey
January 9, 2013

Singing River Hospital, Pascagoula
Level II Trauma Center
January 21, 2013

Ocean Springs Hospital, Ocean Springs
Level III Trauma Center
January 22, 2013

Garden Park Medical Center, Gulfport
Level III Trauma Center Focused Survey
January 23, 2013

Trauma Center Designations:

The following hospitals have received designation as a Level IV adult Trauma Center and Primary Pediatric Trauma Center:

- Magee General Hospital, Magee
- Pioneer Community Hospital of Newton, Newton

Currently, the system is comprised of:

- Three Level I Trauma Centers (UMMC, Jackson; Regional Medical Center, Memphis; University of South Alabama, Mobile);
- One stand-alone Tertiary Pediatric Trauma Center (Le Bonheur Children’s Hospital, Memphis);
• One designated Burn Center (J.M. Still Burn Center at Crossgates River Oaks Hospital, Brandon);
• Four Level II Trauma Centers (North Mississippi Medical Center, Tupelo; Forrest General Hospital, Hattiesburg; Memorial Hospital of Gulfport, Gulfport; Singing River Hospital, Pascagoula);
• Fifteen Level III Trauma Centers; and
• Fifty nine Level IV Trauma Centers.

**Mississippi Trauma Advisory Committee (MTAC) Activities:**

MTAC held its quarterly meeting on January 16, 2013 in the Underwood Auditorium:

- The Rules and Regulations sub-committee presented proposed changes to the Trauma Regulations including:
  - Updated definition of the State Trauma Plan;
  - Initial and recurring training for trauma registrars;
  - Editorial correction to the response time of neurosurgeons at Tertiary Pediatric Trauma Centers.
- The next meeting of MTAC is scheduled for April 18, 2013 in the Cobb Auditorium.
Trauma Data:

**Injury Severity Score (ISS) Summary for Level I-III Trauma Centers**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Site ID</th>
<th>Total Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Regional Medical Center-North</td>
<td>237</td>
<td>103</td>
</tr>
<tr>
<td>Baptist Memorial Hospital-Desoto</td>
<td>318</td>
<td>361</td>
</tr>
<tr>
<td>Baptist Memorial Hospital-GoldenTriangle</td>
<td>253</td>
<td>268</td>
</tr>
<tr>
<td>Baptist Memorial Hospital-North Miss.</td>
<td>228</td>
<td>79</td>
</tr>
<tr>
<td>Biloxi Regional Medical Center</td>
<td>299</td>
<td>60</td>
</tr>
<tr>
<td>Delta Regional Medical Center</td>
<td>189</td>
<td>85</td>
</tr>
<tr>
<td>Forrest General Hospital</td>
<td>141</td>
<td>635</td>
</tr>
<tr>
<td>Garden Park Medical Center</td>
<td>272</td>
<td>15</td>
</tr>
<tr>
<td>Magnolia Hospital</td>
<td>248</td>
<td>89</td>
</tr>
<tr>
<td>Memorial Hospital at Gulfport</td>
<td>28</td>
<td>213</td>
</tr>
<tr>
<td>North MS Medical Center-Tupelo</td>
<td>63</td>
<td>344</td>
</tr>
<tr>
<td>Ocean Springs Hospital</td>
<td>390</td>
<td>42</td>
</tr>
<tr>
<td>Oktibbeha County Hospital</td>
<td>269</td>
<td>52</td>
</tr>
<tr>
<td>Regional Medical Center at Memphis</td>
<td>900</td>
<td>57</td>
</tr>
<tr>
<td>River Oaks Hospital, Inc.</td>
<td>297</td>
<td>54</td>
</tr>
<tr>
<td>Rush Foundation Hospital</td>
<td>59</td>
<td>98</td>
</tr>
<tr>
<td>Singing River Hospital</td>
<td>39</td>
<td>48</td>
</tr>
<tr>
<td>South Central Regional Medical Center</td>
<td>153</td>
<td>207</td>
</tr>
<tr>
<td>Southwest Mississippi Regional Medical C</td>
<td>251</td>
<td>144</td>
</tr>
<tr>
<td>Univ of South Alabama Medical Center</td>
<td>914</td>
<td>79</td>
</tr>
<tr>
<td>University Medical Center</td>
<td>199</td>
<td>1021</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3351</strong></td>
<td><strong>4054</strong></td>
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</tbody>
</table>

* Does not include 1352 patients treated at Level IV Trauma Centers.
Age and Gender

Mississippi Trauma Registry Data
Generated 03/03/2013
Incidents by Age and Gender
Fourth Quarter 2012
N=5406

The top 7 mechanisms of injury

Mississippi Trauma Registry Data
Generated 03/03/2013
Top 7 Mechanisms of Injury
Fourth Quarter 2012
N=4796
Total N=5406
Work related injuries

**Mississippi Trauma Registry Data**
Generated 03/03/2013
Work Related Injuries
Fourth Quarter 2012
N=5406

ATV Injuries and Deaths

**Mississippi Trauma Registry Data**
Generated 03/03/2013
ATV Injuries
Fourth Quarter 2012
N=200
ATV Injuries and Deaths with Protective Devices (Pediatric)

Mississippi Trauma Registry Data
Generated 03/03/2013
ATV Injuries - Pediatrics (Age 15 and under) - Protective Devices/Equipment
Fourth Quarter 2012
N= 62

ATV Injuries and Deaths with Protective Devices (Adult)

Mississippi Trauma Registry Data
Generated 03/03/2013
ATV Injuries - Adults (Age GT 15) - Protective Devices/Equipment
Fourth Quarter 2012
N= 138
**MVA with and without restraints**

*Mississippi Trauma Registry Data*

**Generated 03/03/2013**

**MVA - Protection Devices - Restraints**

**Fourth Quarter 2012**

N=2221

*Mississippi Trauma Registry Data*

**Generated 03/03/2013**

**MVA Deaths - Protection Devices - Restraints**

**Fourth Quarter 2012**

N=51
Trauma Performance Improvement (PI) Program:

Trauma PI Sub-committee activities:

- The sub-committee met on February 19, 2013.

- Discussion items relating to system performance:
  - EMS arrival at scene to departure to ED (scene time) should be less than 15 minutes, excluding extrications.
  - A maximum of 24 hours for the hospital to receive an EMS run sheet.
  - Appropriate use of CT at Level IV and III centers prior to transfer.
  - Deaths occurring at receiving hospitals after transfer.
  - Unexpected death where the patient should have survived (TRISS > .5).
  - ED Length of Stay in Level III/IV centers prior to transfer should be less than 130 minutes.
  - Transfer of pediatric Alpha trauma patients to Tertiary Pediatric Trauma Centers.

- The sub-committee has made the following evidence-based general conclusions:
  - The Trauma System is working as designed. The use of the required Activation Criteria and Destination Guidelines has had a positive impact on the system.
  - EMS and Level IV Trauma Centers are doing an exceptional job of rapidly delivering/transferring trauma patients to appropriate levels of care.
  - Deaths are occurring at the appropriate level of trauma center.
  - Diagnostic tests being performed prior to transfer are appropriate.
Financial Data:

Mississippi Trauma Registry Data
Generated 03/03/2013
Top 6 Primary Payor Sources
Fourth Quarter 2012
N=4432
Total N=5406

Trauma Care Trust Fund:

Fund Total – November 30, 2012  $ 8,634,977

<table>
<thead>
<tr>
<th>Month</th>
<th>Moving Violations</th>
<th>Interest</th>
<th>Tag Fee</th>
<th>ATV/Motorcycle Fee</th>
<th>Play or Pay/Other</th>
<th>Total Collected</th>
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<tbody>
<tr>
<td>December</td>
<td>$582,654</td>
<td>$7,893</td>
<td>$869,084</td>
<td>$93,490</td>
<td>$2,996,924</td>
<td>$4,550,045</td>
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<tr>
<td>January</td>
<td>653,896</td>
<td>10,680</td>
<td>838,912</td>
<td>95,305</td>
<td>758,000</td>
<td>2,356,793</td>
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<td>February</td>
<td>415,835</td>
<td>5,631</td>
<td>805,132</td>
<td>147,920</td>
<td></td>
<td>1,374,518</td>
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<tr>
<td>Total</td>
<td>$1,652,385</td>
<td>$24,204</td>
<td>$2,513,128</td>
<td>$336,715</td>
<td>$3,754,924</td>
<td>$8,281,356</td>
</tr>
</tbody>
</table>

Fund Sub-total – February 28, 2013  $16,916,333
January 2013 TCTF Distribution - 10,590,000
Obligated for June 2013 TCTF Distribution  $6,326,333