System Report
July - September 2018

Mississippi Trauma Care System

Designated Trauma Care Providers
Working Together to Prevent and Treat Trauma

Prepared for:

Mississippi State Board of Health

November 7, 2018
Introduction

The goal of the Mississippi Trauma System of Care 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 Mississippians age 1 to 44, and Mississippi ranks 3rd 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. The Mississippi Legislature passed House Bill 966 in 1998, establishing the Trauma System. Since that time the state has adopted a trauma care plan, established seven designated trauma regions, designated qualifying hospitals as trauma centers, maintained a trauma registry, and disbursed funding to trauma regions, trauma centers, physicians and EMS providers. This year the Trauma System celebrates its 20th year.

The Mississippi Legislature passed House Bill 1405 during the 2008 Regular Session to revitalize and more fully fund the Mississippi Trauma Care System. Mississippi moved from a voluntary system with indigent reimbursement to a mandatory system with block grant funding based on funding; the first trauma system of its type in the United States. During the 2016 Regular Session the Legislature passed Senate Bill 2362, also known as the Budget Transparency and Simplification Act. Senate Bill 2362 swept collections from fines previously directed to an account to fund the Trauma System into the state General Fund. With SB 2362 about 35% of the Trauma System disbursement originates from the MSDH State General Funding allocation.

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.
Trauma - Quarterly Activities

- Registry Sub-committee Statewide Meeting
  - Validation process approved for hospital, region and state level
  - Discussion of registry inclusion criteria
  - Discussion of registry flowchart
- Trauma User Group Training
  - No meeting July - September
- Burn Performance Improvement Meeting
  - Discussion and updated to Burn Dashboard
  - Discussion of how to identify burn deaths on scene
  - Request of regions to submit core indicators on burn patients
- Burn Sub-committee Statewide Meeting
  - Reviewed Trauma System of Care plan – updates to Board of Health in January 2019
  - Discussion of Burn Destination guidelines
  - Discussion of required resources for pediatric burn patients
- Trauma Functionality, Rules & Regulations Statewide Meeting
  - Chapter 2 Performance Improvement and Patient Safety approved and advanced to MTAC
  - Discussion of number of rehab services in the state
  - Discussion of validation process and delinquent data submissions
  - Trauma Funding Task Group (MTAC Task Group) – no meeting July - September
- Collaboration with registry vendor to implement updates to Trauma Registry
- Completed Financial Audits for seven (7) regions, centers and EMS agencies
- Collaboration with Mississippi Department of Transportation to work on Strategic Highway Safety Plan
- Trauma Nursing Core Course (TNCC) for six providers
- Participation with Emergency Preparedness responding to Hurricane Florence

Trauma Center Survey/ Education Visits:

- One (1) Designation visit to Level III Center
- One (1) Education visit to Level III Center
- One (1) Education visit to Burn Center

Trauma Center Designations:

The following Level IV Trauma Centers were designated during this period:

- Magee General Hospital
- Tallahatchie General Hospital
- Tyler Holmes Memorial Hospital
- Highland Community Hospital
- Pearl River Community Hospital
- Stone County Hospital
- Walthall County General Hospital
• King’s Daughters Medical Center – Brookhaven

Currently, the system is comprised of:
• Three (3) Level I Trauma Centers
  o University of Mississippi Medical Center, Jackson
  o Regional One Medical Center, Memphis
  o University of South Alabama, Mobile
• One (1) Stand-Alone Tertiary Pediatric Trauma Center
  o Le Bonheur Children’s Hospital, Memphis
• Three (3) Level II Trauma Centers
  o Forrest General Hospital, Hattiesburg
  o Memorial Hospital of Gulfport, Gulfport
  o North Mississippi Medical Center, Tupelo
• Sixteen (17) Level III Trauma Centers
  o Anderson Regional Medical Center, Meridian
  o Baptist Memorial Hospital – DeSoto, Southaven
  o Baptist Memorial Hospital – Golden Triangle, Columbus
  o Baptist Memorial Hospital – North Mississippi, Oxford
  o Delta Regional Medical Center, Greenville
  o Garden Park Medical Center, Gulfport
  o Magnolia Regional Health Center, Corinth
  o Merit Health Biloxi, Biloxi
  o Merit Health Central, Jackson
  o Merit Health River Oaks, Flowood
  o Merit Health Wesley, Hattiesburg
  o Ocean Springs Hospital, Ocean Springs
  o OCH Regional Medical Center, Starkville
  o Rush Foundation Hospital, Meridian
  o Singing River Hospital, Pascagoula
  o South Central Regional Medical Center, Laurel
  o Southwest Mississippi Regional Medical Center, McComb
• Sixty-Two (61) Level IV Trauma Centers
• One (1) Burn Center: J.M. Still at Merit Health Central

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

- MTAC meeting 7-12-2018
  o Financial update provided by Mr. Craig
  o BACS update by Mr. Hall to include update regarding trauma registry, legislative event (March) and Trauma System of Care entering its 20th year.
  o Data regarding transfers and trends in transfers provided by Ms. Windham
  o Request for MS Hospital Association to update the report from 2015 to reflect changes in trauma funding
  o Approval of Chapter 2 of MS Trauma Rules and Regulations
  o Discussion to continue the Stop the Bleed program for law enforcement up to the $500,000 allotted
- MTAC meeting 9-26-2018
  o BACS update to include update on Trauma System of Care Rules and Regulations Chapter 2
Clinical Effectiveness Committee (CEC)/ Trauma Medical Directors:
- Clinical Effectiveness Committee met September 12, 2018
- Points of discussion:
  o Activation Criteria
    ▪ Review of registry data regarding changes to activation criteria
    ▪ Bravo criteria
  o EMS Destination Guidelines

Trauma Performance Improvement (PI) Program:
- Performance Improvement Committee met July 10, 2018
- Points of discussion:
  o Transfers of pediatric patients
  o Alpha activations at Level IV centers
  o Standard report for region reporting
  o Approval statewide Performance Improvement/Patient Safety (PIPS) Plan
  o Over triage and report to state PI Committee from regions/centers
  o Mortality related to trauma patients
    ▪ Specifically unexpected survivors and unexpected deaths
Trauma Data: (April 2018, May 2018, June 2018)

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

MS Trauma Registry
Generated 11/05/2018
Arrival Dates 04/01/2018 – 06/30/2018
Trauma Records Only
Query: LEVEL_I_III_HOSPS

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<th>ISS 1-9</th>
<th>ISS 10-15</th>
<th>ISS 16-24</th>
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**MVA Injuries**

*Mississippi Trauma Registry Data*
*Generated 11/05/2018*
*MVA - Protective Devices - Restraints*
*April - June 2018*
*N=1974*

- No Restraints in Vehicle: 43%
- Unrestrained: 16%
- Seatbelt - Lap/Shoulder: 0%
- Seatbelt - Lap Only: 1%
- Seatbelt - NFS: 8%
- Child/Infant Seat: 1%
- Child/Booster Seat: 0%

**Legislative Bill signed on May 9, 2017 requiring all passengers in vehicle to wear seatbelts.**

**Age and Gender**

*Mississippi Trauma Registry Data*
*Generated 11/07/2018*
*Incidents by Age and Gender*
*Arrival Dates April - June 2018*
*N=5960*

- Age groups: <1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, >=85

**Incidents**

- Male Pts:
  - <1: 3227
  - 1-4: 85
  - 5-9: 106
  - 10-14: 148
  - 15-19: 185
  - 20-24: 287
  - 25-34: 293
  - 35-44: 573
  - 45-54: 462
  - 55-64: 422
  - 65-74: 391
  - 75-84: 316
  - >=85: 342

- Female Pts:
  - <1: 121
  - 1-4: 86
  - 5-9: 136
  - 10-14: 157
  - 15-19: 182
  - 20-24: 193
  - 25-34: 279
  - 35-44: 299
  - 45-54: 214
  - 55-64: 113
  - 65-74: 233
  - >=85: 233
**MVA Deaths**

![MVA Deaths Chart]

**ATV Injuries (Protective Devices)**

**Pediatric**

![ATV Injuries (Pediatric) Chart]
ATV Injuries (Protective Devices)

Mississippi Trauma Registry Data
Generated 11/08/2018
ATV Injuries - Adults (Age GT 15) - Protective Devices/Equipment
April - June 2018
N= 171

Financial Data:
## Trauma Care Trust Fund:

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<th>July</th>
<th>August</th>
<th>September</th>
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$3,481,843.88