American College of Surgeons Committee on Trauma

TRAUMA SYSTEMS CONSULTATION (TSC) PROGRAM

Orange County CA

BARBARA GAINES, MD FACS
2004-2010, United States
Death Rates per 100,000 Population
All Injury, All Intents, All Races, All Ethnicities, Both Sexes, All Ages
Annualized Crude Rate for United States: 58.92
Status

- Urban and suburban areas are well served
  - Geographic distribution of centers unplanned
  - Excess capacity is common
  - Incentives for trauma center creation are variable

- Rural and frontier areas are a challenge
  - Large geographic area
  - Limited resources
  - Long transport times
Challenges

- No two trauma systems the same
- Public awareness and regional policy
- Authority and empowerment of lead agency
- System-based planning and operations
  - Resource allocation
  - Quality assurance
  - Financing
- Competing priorities
  - Designation of trauma centers
  - Control of patient flow
Comparison of Scale:
Smallest Trauma System
Comparison of Scale: Largest Trauma System
The Realities

- Trauma system development is complex
- The process is inherently political
- There is no one “right” answer
  - There are a set of global concepts
  - All solutions are local
- Large differences in scale
- Injury care is not an instinctive priority
Ebola

Healthcare / research investment inversely proportional

Source: WHO Global Health Estimates, 2014

Deaths per year (millions)

Injury

HIV/AIDS, TB and Malaria

Ebola
Observations

- System development is a huge undertaking
- It takes a long time – can outlive the solvers
- Progress frequently stagnates
  - Stakeholder frustration
  - Loss of volunteer leadership
  - Loss of shared vision
- Progress may be lost over time
- Some periodic re-kindling of energy is needed
Trauma Systems Consultation (TSC) Program

OVERVIEW
HISTORY, STRATEGY AND PROCESS
Background

- **Trauma Systems Evaluation and Planning Committee (TSEPC)**
  - Established in 1992
  - Six Past Chairs
  - Almost 45 Consultations

- **Trauma Systems Consultation (TSC) Program**
  - Initially modeled from Trauma Center Verification
  - Development of TS standards has been problematic
  - Focus shifted to consultations, rather than verification
  - Strategic and tactical aid in system development
Current Initiatives of the TSEPC

- Consultative Visits
  - Comprehensive Regional (usually State) visits
  - Problem-focused analyses
- Policy Development
- Trauma System Benchmarking
- Trauma System Advocacy
- Trauma System Research
- International Collaboration
- Geospatial evaluation of impact of changes in trauma system
April 2006

Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

- Benchmarks, Indicators, and Scoring Facilitations Completed
- Trauma System Consultations Completed

Locations:
- MT 1999
- WY 2004
- UT 2005
- NC 2004
- Tri-State 2002
- Southwest Region 2005

States:
- AK, HI, WA, OR, CA, AZ, NV, CO, NM, TX, OK, KS, MO, IA, MN, WI, IL, IN, KY, TN, MS, AL, GA, SC, NC, VA, WV, MD, DE, NJ, CT, RI, CT, VT, NH, ME, MA, NY, PA, WV

Counties:
- Marin County 2002
- Clark County 2004
- Tri-State 2002
- Southwest Region 2005
Tranma Systems Evaluation and Planning Committee Consultations and Facilitations

April 2008

- Trauma System Consultations Completed
- Benchmarks, Indicators, and Scoring Facilitations Completed
Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

April 2009

- Benchmarks, Indicators, and Scoring Facilitations Completed
- Trauma System Consultations Completed

Map highlighting states and regions with completed consultations and facilitations. Each state is color-coded to represent the year it completed its consultations or facilitations.
September 2012

Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

- **Marin County, 2002**
- **Clark County, 2004, 2011**
- **Navajo Nation, 2010**
- **Southwest Region, 2005**
- **Tri-State, 2002**

**States**
- **AK, 2008**
- **CA, 2007**
- **NV, 2005**
- **OR, 2007**
- **WA, 2005**

**Consultations Completed**
- **MT, 1999**
- **ND, 2008**
- **WI, 2011**
- **IL, 2006**
- **IN, 2008**
- **OH, 2007**
- **PA, 2005**
- **NC, 2004**
- **SC, 2008**
- **TX, 2010**
- **LA, 2009**
- **GA, 2008**
- **WV, 2009**
- **VA, 2005**
- **MD, 2011**
- **CT, 2006**
- **MA, 2012**
- **NH, 2008**
- **VT, 2006**
- **NY, 2008**
- **D.C., 2011**

**Consultations Scheduled**
- **UT, 2005**
- **CO, 2009**
- **KS, 2008**
- **MO, 2009**
- **AR, 2011**
- **LA, 2009**
- **OK, 2009**
- **NE, 2008**
- **SD, 2008**
- **NE, 2008**
- **IA, 2007**
- **MN, 2007**
- **WI, 2011**
- **IL, 2006**
- **IN, 2008**
- **KY, 2012**
- **TN, 2008**
- **NC, 2004**
- **SC, 2008**
- **GA, 2008**
- **WV, 2009**
- **VA, 2005**
- **MD, 2011**
- **CT, 2006**
- **MA, 2012**
- **NH, 2008**
- **VT, 2006**
- **NY, 2008**
- **D.C., 2011**

**In Discussion**
- **Ventura County, 2010**
- **Clark County, 2004, 2011**
- **Navajo Nation, 2010**
- **Southwest Region, 2005**
- **Tri-State, 2002**

**Benchmarks, Indicators, and Scoring Facilitations Completed**
March 2015

Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

22 Regional Consultations Pending

- Alameda County 2004, 2011
- Clark County 2004, 2011
- Solano County 2002
- Ventura County 2010
- HI 2005
- Marin County 2002

CA: Benchmarks, Indicators, and Scoring Facilitations Completed
LA: Trauma System Consultations Completed
TX: Benchmarks, Indicators, and Scoring Facilitations Completed

Alaska: Trauma System Consultations Scheduled
Wisconsin: Trauma System Consultations Completed
Southwest Region 2005: Trauma System Consultations Completed
Tri-State 2002: Trauma System Consultations Scheduled

BIS- tentative

In Discussion

March 2015

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Alameda County 2004, 2011
Clark County 2004, 2011
Solano County 2002
Ventura County 2010
HI 2005
Marin County 2002

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Alaska: Trauma System Consultations Scheduled
Wisconsin: Trauma System Consultations Completed
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BIS- tentative

In Discussion
March 2018

Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

Alameda County 2002
Clark County 2004, 2011
Marin County 2004, 2011
Navajo Nation 2010
Ventura County 2010

Alaska 2018

Benchmarks, Indicators, and Scoring Facilitations Completed

Trauma System Consultations Completed

In Discussion

Trauma System Consultations Scheduled

Benchmarks, Indicators, and Scoring Facilitations Completed
Trauma System Consultation

- Consultation, not verification
  - No external standards or “grades”
  - Seek to facilitate collaborative solutions

- Multi-disciplinary team, tailored to needs
  - Lead Surgeons
  - ED Physician
  - State EMS Director
  - Surgeon Observer
  - Second Surgeon
  - Trauma Manager
  - ACS Consultants
  - ACS Staff
Trauma System Consultation

- Typically a four day visit, sometimes extended to five
- Data collected through:
  - Analysis of the Pre-Review Questionnaire (PRQ)
  - Review of other available data
  - Interactive sessions with State stakeholders
- Recommendations derived by team consensus
- Based on an inclusive public health model
Our Priority

The Best Interest of the Patient
Process

- Days 1 and 2
  - Stakeholder Meetings
  - Question/Answer and discussion
- Day 3
  - Review Team deliberations
  - Development of initial Recommendations
  - TSC Report drafting
- Day 4
  - Exit Presentation, with preliminary findings
Process

• Next 8 weeks after Site Visit
  ○ Further Team deliberations
  ○ Refinement of Recommendations
  ○ Report writing

• Approximately 8 weeks after Site Visit
  ○ Preliminary Report to State for Fact Check

• Approximately 10 weeks after Site Visit
  ○ Final TSC Report to State
Observations

• There are broad general principles

• Solutions are unique and local

• System development steps must be adaptable
  ○ Meet each situation at its own level
  ○ Allow for particular local solutions
• Barbara Gaines          Trauma Surgeon, Team Leader
• Brian Eastridge        Trauma Surgeon
• Peter Fischer          Trauma Surgeon, Specialty Reviewer
• Kathy Rinnert          Emergency Physician
• Fergus Laughridge      State EMS Director
• Jorie Klein            State Trauma Program Manager
• Holly Michaels         ACS Staff, Discussion Facilitator & Report Editor
• Maria Alvi             ACS Staff, Logistics Manager & Report Editor