

**American College of Surgeons  
Committee on Trauma**

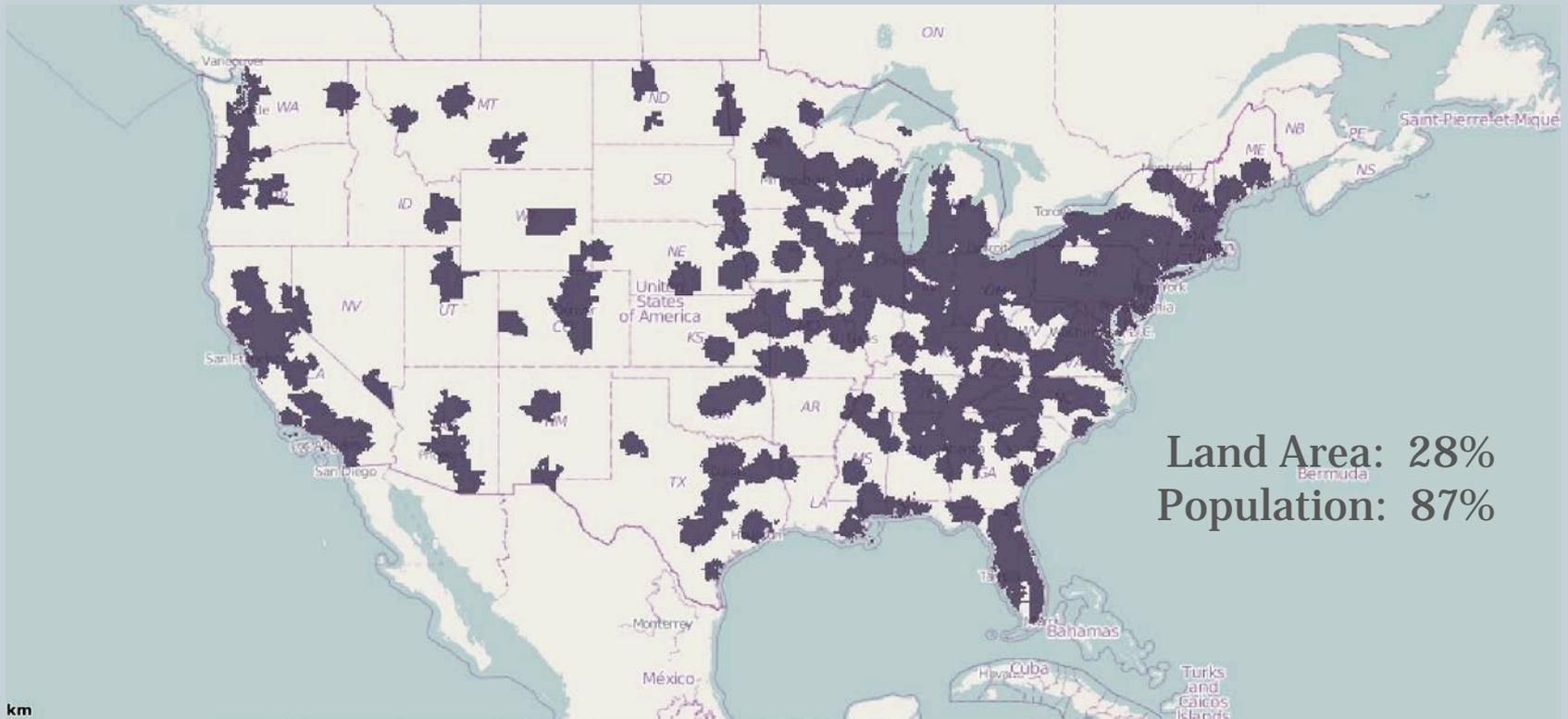


**TRAUMA SYSTEMS  
CONSULTATION (TSC)  
PROGRAM**

**Orange County CA**

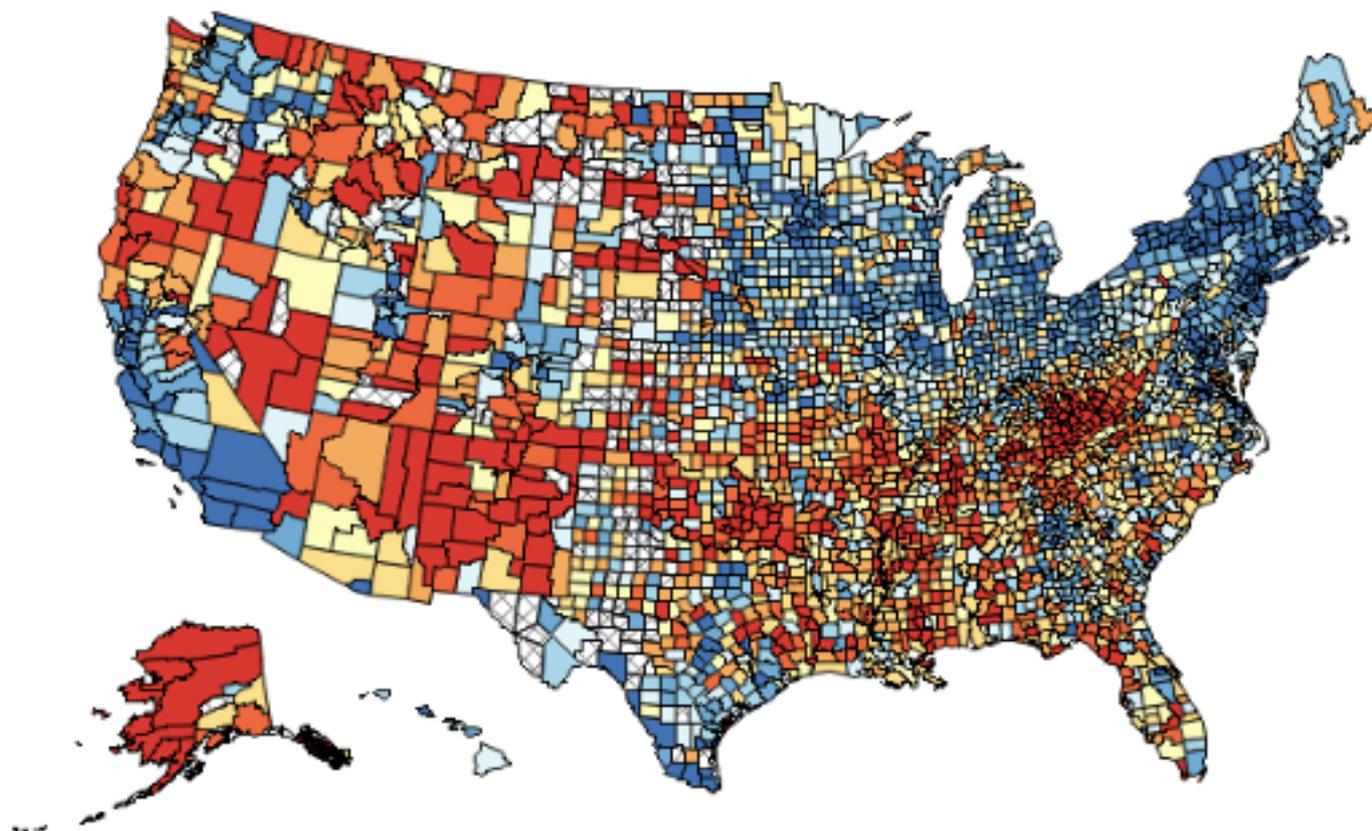
**BARBARA GAINES, MD FACS**

# Trauma Center Coverage



# 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



Suppressed/Unstable/Undefined  
57.91-64.25  
76.44-82.96  
102.71-281.07

0.00-49.92  
64.26-70.22  
82.97-90.95

49.93-57.90  
70.23-76.43  
90.96-102.70

# Status



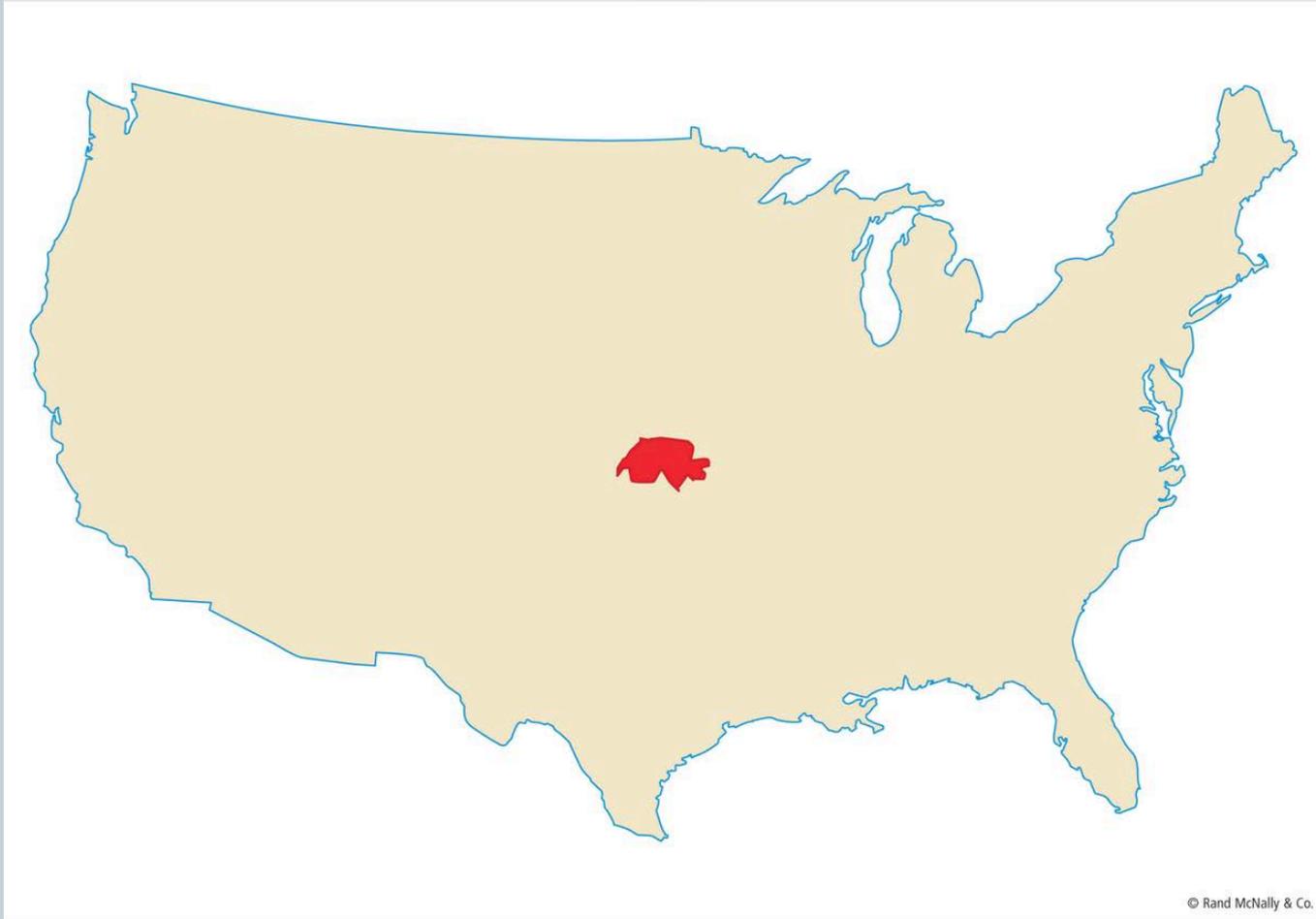
- **Urban and suburban areas are well served**
  - Geographic distribution of centers unplanned
  - Excess capacity is common
  - Incentives for trauma center creation are variable
- **Rural and frontier areas are a challenge**
  - Large geographic area
  - Limited resources
  - Long transport times

# Challenges

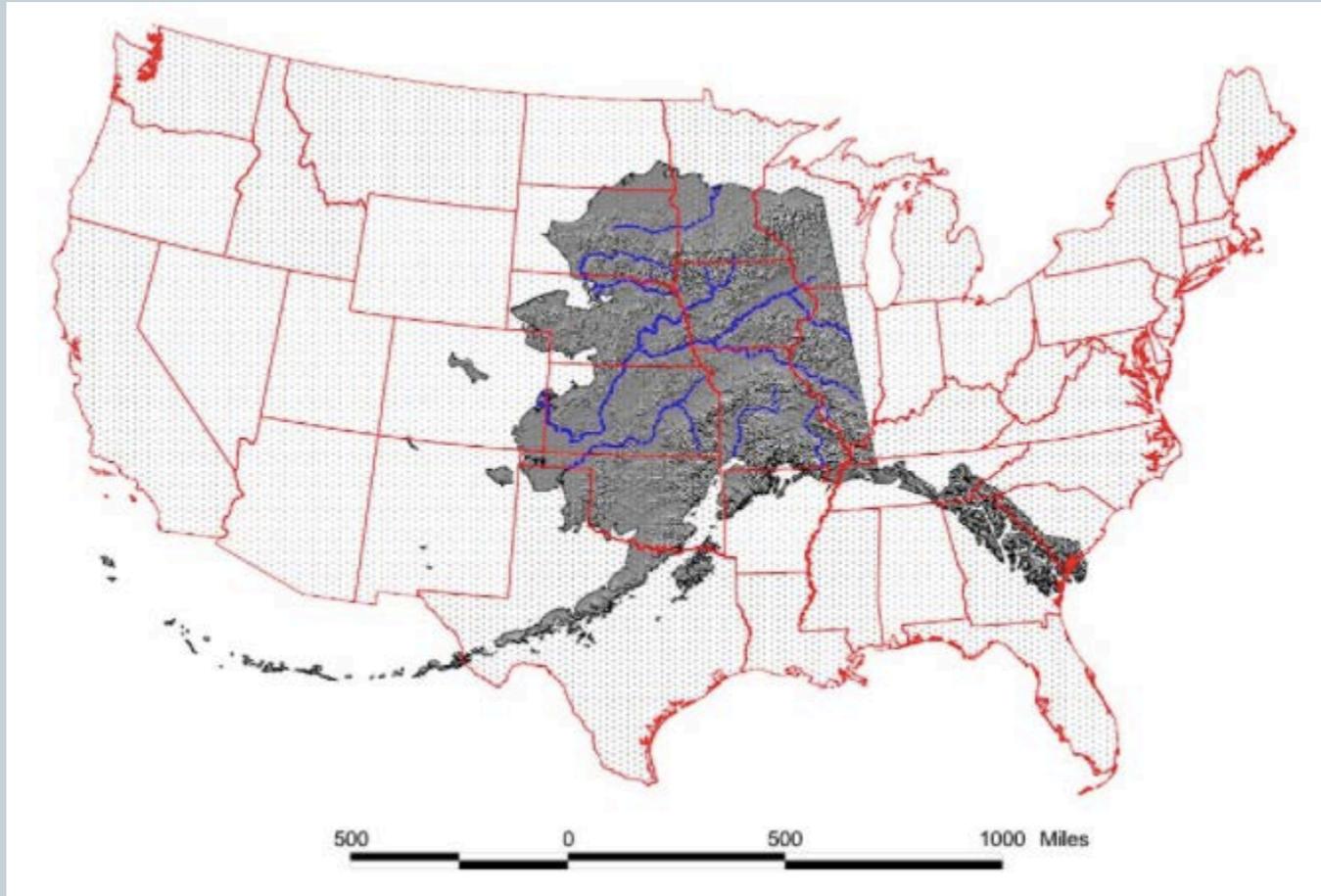


- No two trauma systems the same
- Public awareness and regional policy
- Authority and empowerment of lead agency
- System-based planning and operations
  - Resource allocation
  - Quality assurance
  - Financing
- Competing priorities
  - Designation of trauma centers
  - Control of patient flow

# 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**

Deaths per year  
(millions)

6  
5  
4  
3  
2  
1  
0



**Injury**

**Healthcare / research  
investment inversely  
proportional**



**HIV/AIDS, TB and Malaria**

**Ebola**



Source: WHO Global Health Estimates, 2014

# 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

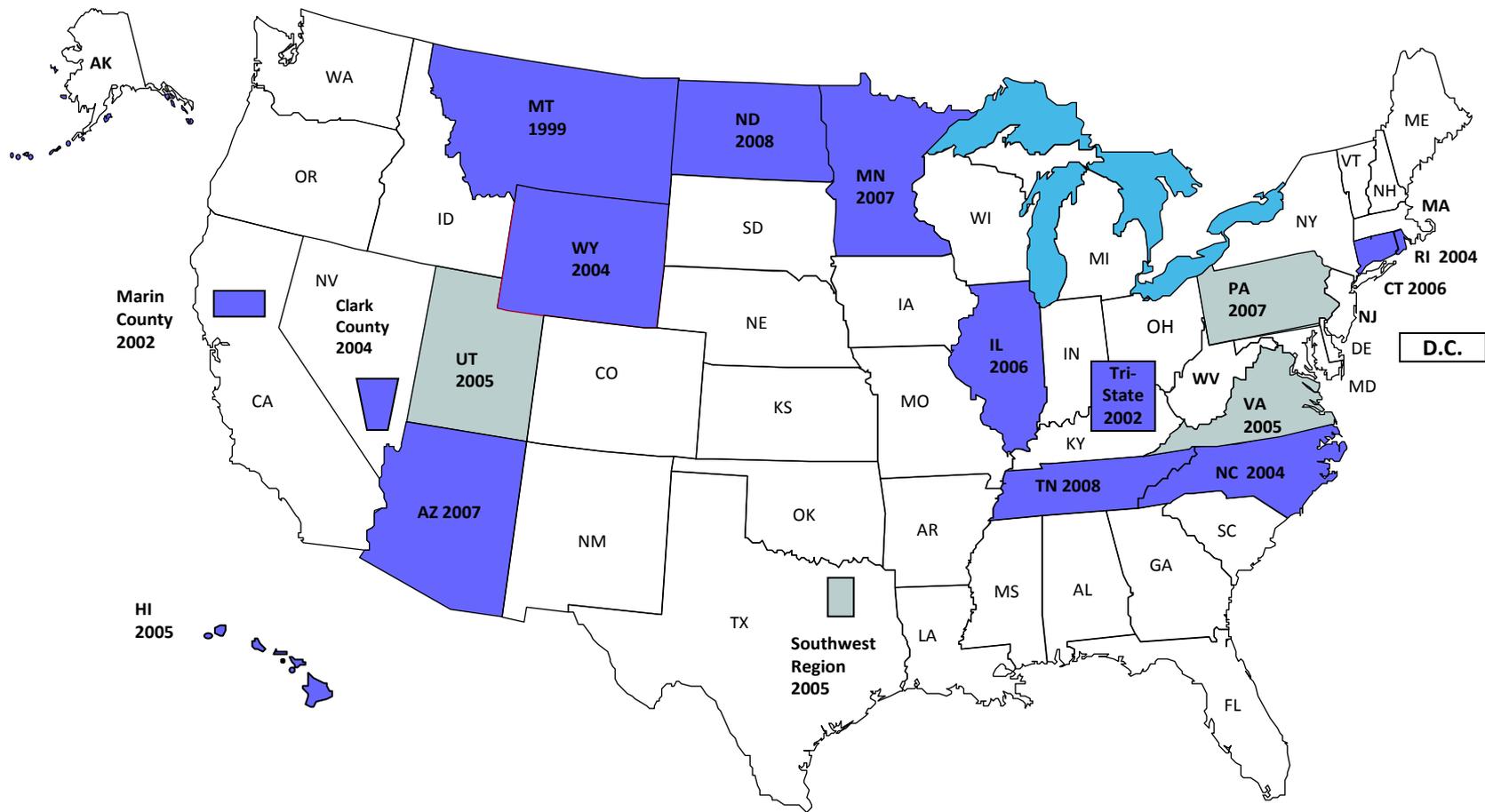
# Current Initiatives

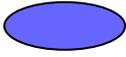


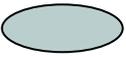
- **Current initiatives of the TSEPC**
  - Consultative Visits
    - Comprehensive Regional (usually State) visits
    - Problem-focused analyses
  - Policy Development
  - Trauma System Benchmarking
  - Trauma System Advocacy
  - Trauma System Research
  - International Collaboration
  - Geospatial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



# Trauma Systems Evaluation and Planning Committee Consultations and Facilitations

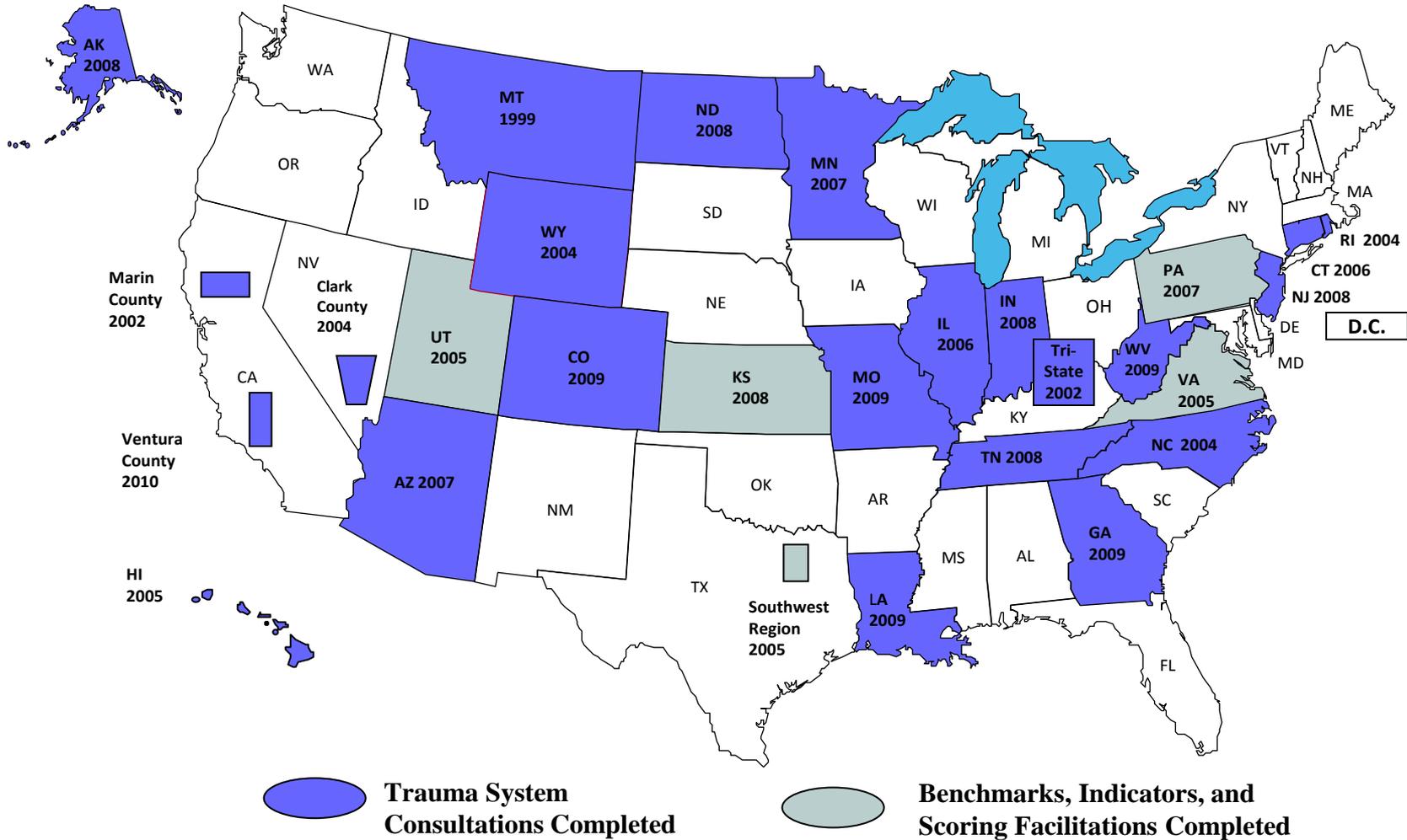


 Trauma System Consultations Completed

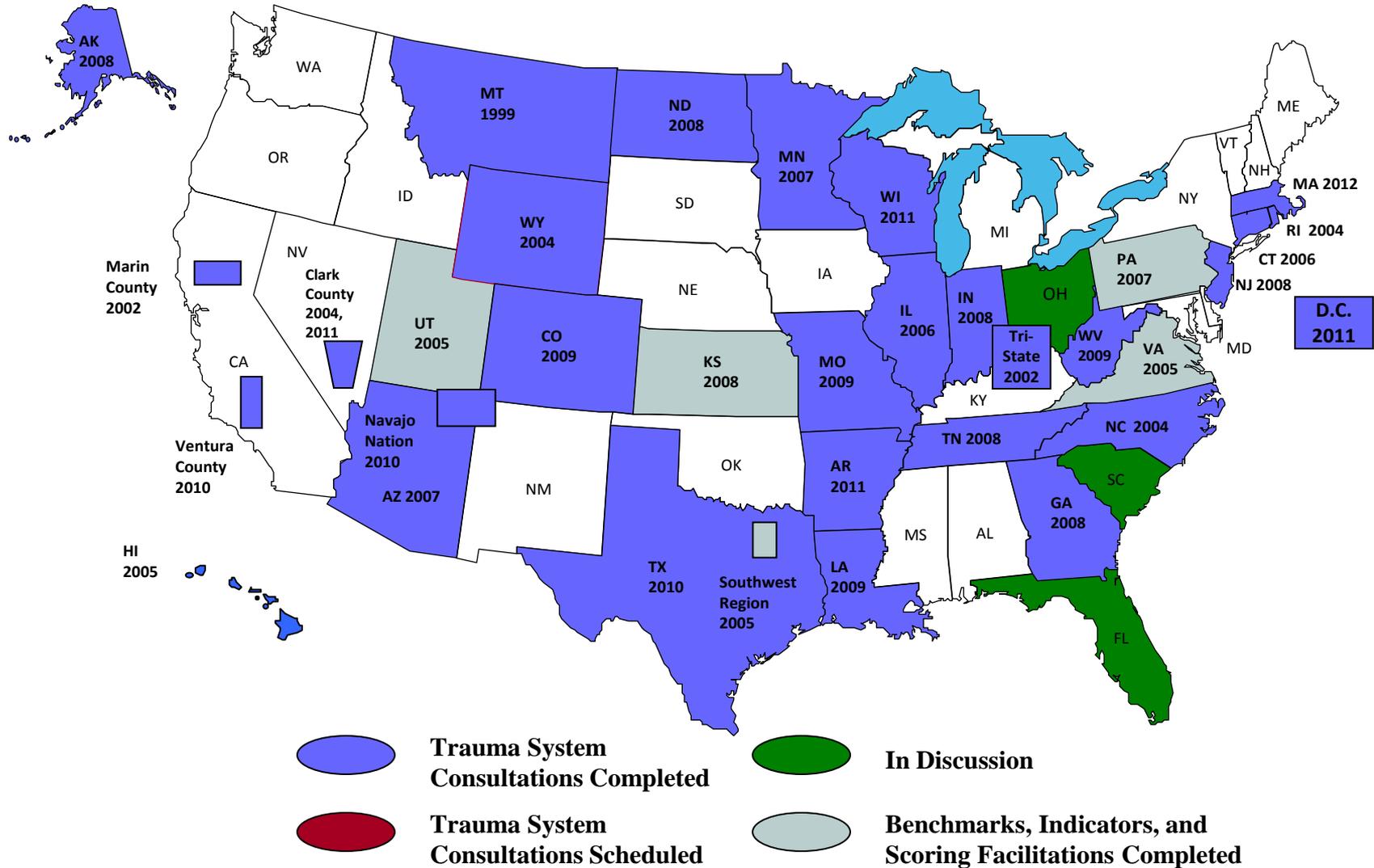
 Benchmarks, Indicators, and Scoring Facilitations Completed



# Trauma Systems Evaluation and Planning Committee Consultations and Facilitations



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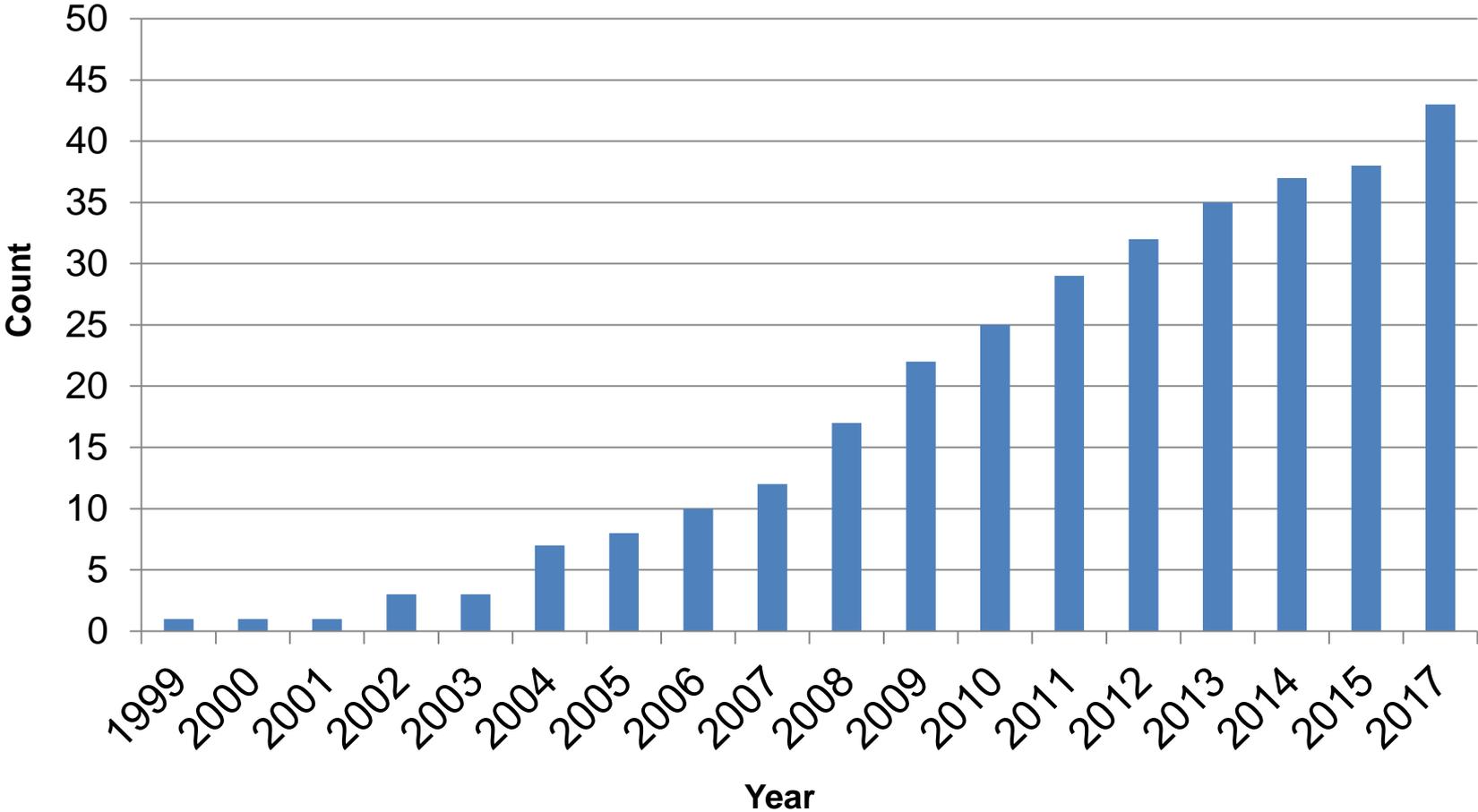








# System Reviews Cumulative Volume



# 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

# ACS TSC Review Team

## Orange County CA TSC 2019



- **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