Florida
Trauma System Consultation

Leading Causes of Death – 2007 United States

	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 5,785	Unintentional Injury 1,588	Unintentional Injury 965	Unintentional Injury 1,229	Unintentional Injury 15,897	Unintentional Injury 14,977	Unintentional Injury 16,931	Malignant Neoplasms 50,167	Malignant Neoplasms 103,171	Heart Disease 496,095	Heart Disease 616,067
2	Short Gestation 4,857	Congenital Anomalies 546	Malignant Neoplasms 480	Malignant Neoplasms 479	Homicide 5,551	Suicide 5,278	Malignant Neoplasms 13,288	Heart Disease 37,434	Heart Disease 65,527	Malignant Neoplasms 389,730	Malignant Neoplasms 562,875
3	SIDS 2,453	Homicide 398	Congenital Anomalies 196	Homicide 213	Suicide 4,140	Homicide 4,758	Heart Disease 11,839	Unintentional Injury 20,315	Chronic Low. Respiratory Disease 12,777	Cerebro-vascular 115,961	Cerebro-vascular 135,952
4	Maternal Pregnancy Comp. 1,769	Malignant Neoplasms 364	Homicide 133	Suicide 180	Malignant Neoplasms 1,653	Malignant Neoplasms 3,463	Suicide 6,722	Liver Disease 8,212	Unintentional Injury 12,193	Chronic Low. Respiratory Disease 109,562	Chronic Low. Respiratory Disease 127,924
5	Unintentional Injury 1,285	Heart Disease 173	Heart Disease 110	Congenital Anomalies 178	Heart Disease 1,084	Heart Disease 3,223	HIV 3,572	Suicide 7,778	Diabetes Mellitus 11,304	Alzheimer's Disease 73,797	Unintentional Injury 123,706
6	Placenta Cord Membranes 1,135	Influenza & Pneumonia 109	Chronic Low. Respiratory Disease 54	Heart Disease 131	Congenital Anomalies 402	HIV 1,091	Homicide 3,052	Cerebro-vascular 6,385	Cerebro-vascular 10,500	Diabetes Mellitus 51,528	Alzheimer's Disease 74,632
7	Bacterial Sepsis 820	Septicemia 78	Influenza & Pneumonia 48	Chronic Low. Respiratory Disease 64	Cerebro-vascular 195	Diabetes Mellitus 610	Liver Disease 2,570	Diabetes Mellitus 5,753	Liver Disease 8,004	Influenza & Pneumonia 45,941	Diabetes Mellitus 71,382
8	Respiratory Distress 789	Perinatal Period 70	Benign Neoplasms 41	Influenza & Pneumonia 55	Diabetes Mellitus 168	Cerebro-vascular 505	Cerebro-vascular 2,133	HIV 4,156	Suicide 5,069	Nephritis 38,484	Influenza & Pneumonia 52,717
9	Circulatory System Disease 624	Benign Neoplasms 59	Cerebro-vascular 38	Cerebro-vascular 45	Influenza & Pneumonia 163	Congenital Anomalies 417	Diabetes Mellitus 1,984	Chronic Low. Respiratory Disease 4,153	Nephritis 4,440	Unintentional Injury 38,292	Nephritis 46,448
10	Neonatal Hemorrhage 597	Chronic Low. Respiratory Disease 57	Septicemia 36	Benign Neoplasms 43	Three Tied 160	Liver Disease 384	Septicemia 910	Viral Hepatitis 2,815	Septicemia 4,231	Septicemia 26,362	Septicemia 34,828

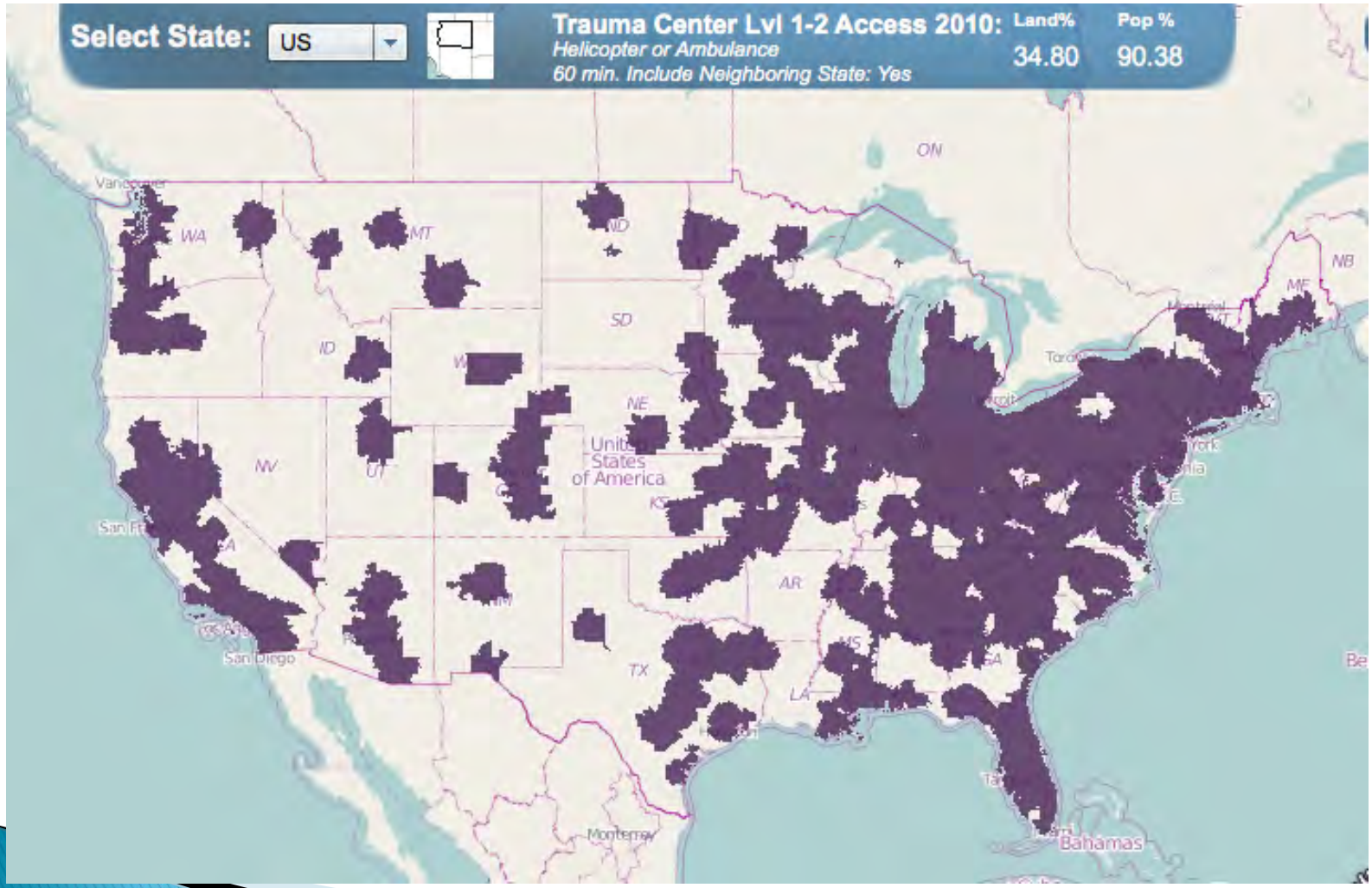
Leading Causes of Death – 2007 Florida

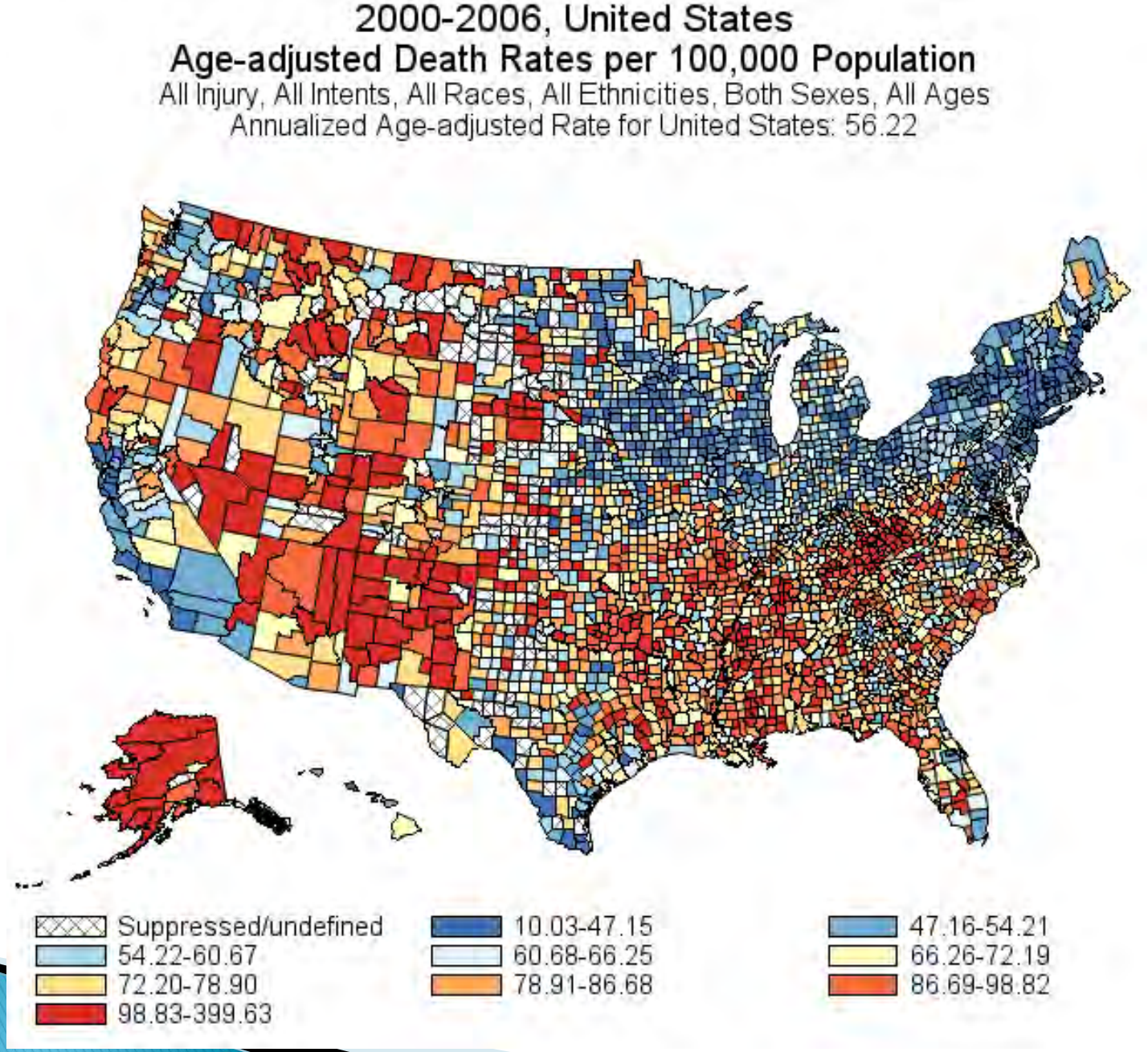
	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 341	Unintentional Injury 148	Unintentional Injury 59	Unintentional Injury 73	Unintentional Injury 1,232	Unintentional Injury 1,183	Unintentional Injury 1,296	Malignant Neoplasms 3,179	Malignant Neoplasms 6,858	Heart Disease 35,154	Heart Disease 42,254
2	Short Gestation 243	Congenital Anomalies 30	Malignant Neoplasms 20	Malignant Neoplasms 26	Homicide 378	Homicide 320	Malignant Neoplasms 788	Heart Disease 2,232	Heart Disease 3,900	Malignant Neoplasms 28,891	Malignant Neoplasms 40,088
3	Maternal Pregnancy Comp. 141	Malignant Neoplasms 24	Congenital Anomalies 9	Congenital Anomalies 14	Suicide 227	Suicide 318	Heart Disease 683	Unintentional Injury 1,519	Chronic Low. Respiratory Disease 890	Chronic Low. Respiratory Disease 8,139	Chronic Low. Respiratory Disease 9,357
4	Unintentional Injury 115	Homicide 22	Homicide 7	Heart Disease 10	Malignant Neoplasms 86	Malignant Neoplasms 212	HIV 464	Suicide 615	Unintentional Injury 858	Cerebro-vascular 7,490	Unintentional Injury 9,113
5	SIDS 82	Chronic Low. Respiratory Disease 4	Heart Disease 6	Homicide 9	Heart Disease 63	Heart Disease 167	Suicide 443	Liver Disease 613	Diabetes Mellitus 795	Alzheimer's Disease 4,593	Cerebro-vascular 8,781
6	Placenta Cord Membranes 64	Heart Disease 4	Cerebro-vascular 4	Suicide 6	HIV 24	HIV 163	Homicide 251	HIV 551	Cerebro-vascular 691	Diabetes Mellitus 3,720	Diabetes Mellitus 5,110
7	Bacterial Sepsis 53	Influenza & Pneumonia 4	Chronic Low. Respiratory Disease 3	Benign Neoplasms 4	Congenital Anomalies 22	Diabetes Mellitus 56	Liver Disease 168	Diabetes Mellitus 409	Liver Disease 637	Unintentional Injury 2,629	Alzheimer's Disease 4,644
8	Circulatory System Disease 42	Perinatal Period 4	Benign Neoplasms 2	Septicemia 4	Complicated Pregnancy 14	Congenital Anomalies 33	Cerebro-vascular 138	Cerebro-vascular 403	Suicide 416	Nephritis 2,428	Nephritis 2,923
9	Respiratory Distress 42	Three Tied 2	Diabetes Mellitus 2	Chronic Low. Respiratory Disease 3	Cerebro-vascular 12	Cerebro-vascular 32	Diabetes Mellitus 121	Chronic Low. Respiratory Disease 262	Nephritis 286	Influenza & Pneumonia 1,904	Suicide 2,587
10	Neonatal Hemorrhage 35	Three Tied 2	Three Tied 1	Three Tied 2	Septicemia 12	Two Tied 21	Septicemia 44	Viral Hepatitis 221	HIV 240	Parkinson's Disease 1,546	Liver Disease 2,260

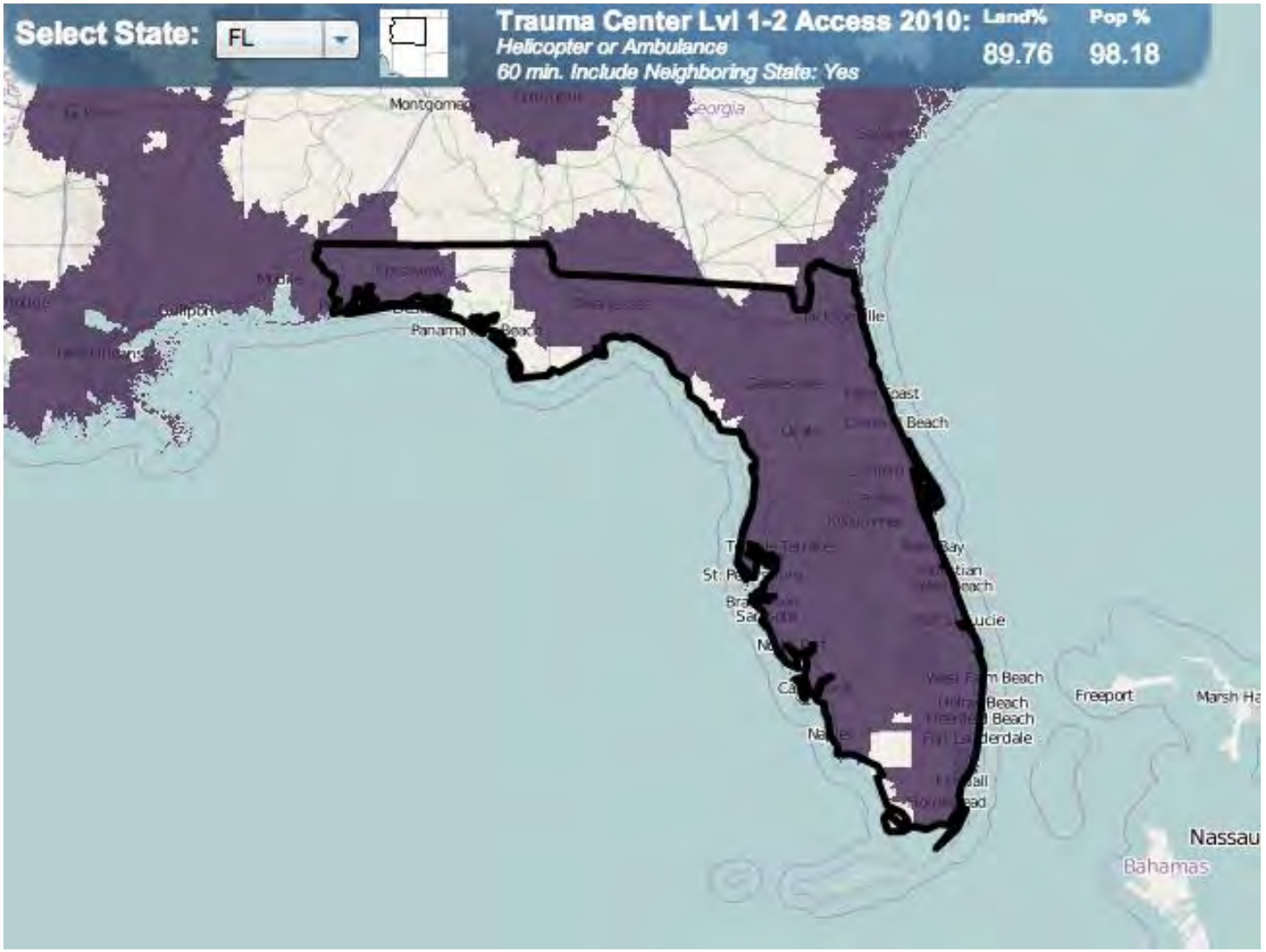
Status of Trauma Systems

- 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

Trauma Center Coverage




2000-2006, United States
Age-adjusted Death Rates per 100,000 Population
All Injury, All Intents, All Races, All Ethnicities, Both Sexes, All Ages
Annualized Age-adjusted Rate for United States: 56.22
Suppressed/undefined
10.03-47.15
47.16-54.21
54.22-60.67
60.68-66.25
66.26-72.19
72.20-78.90
78.91-86.68
86.69-98.82
98.83-399.63

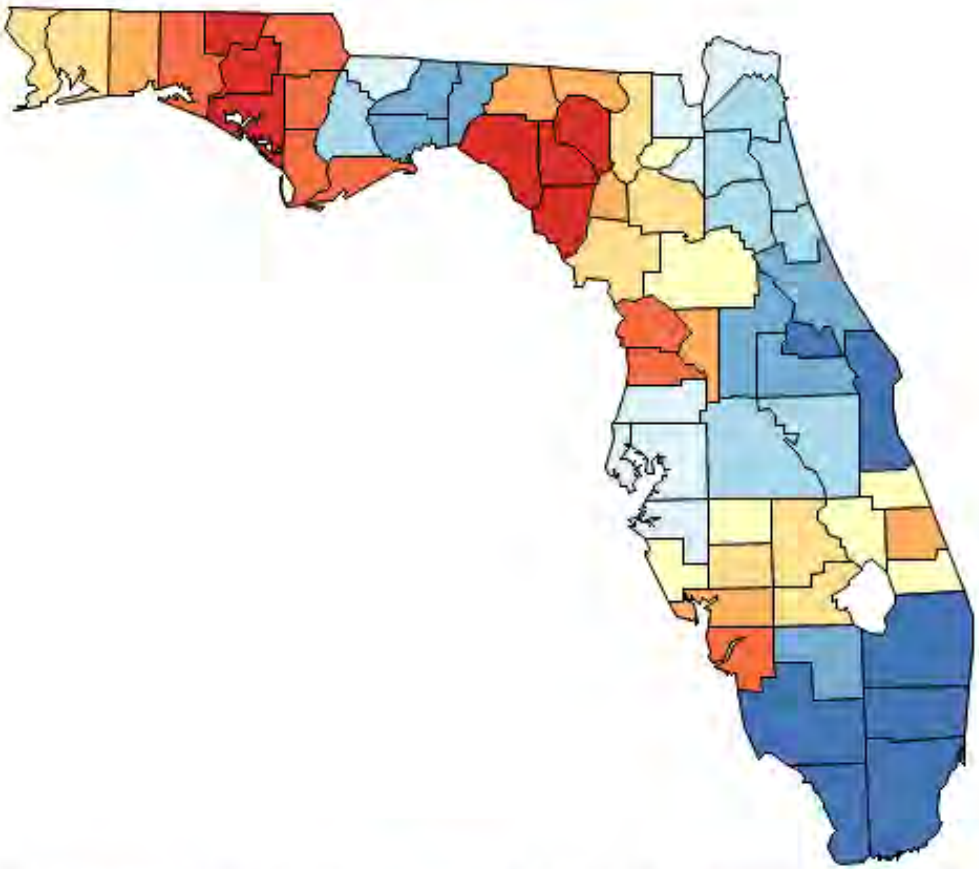

Select State:
FL
Trauma Center Lvl 1-2 Access 2010:
Helicopter or Ambulance
60 min. Include Neighboring State: Yes
Land%
89.76
Pop %
98.18
Montgomery
Georgia
Panama City Beach
Freeport
Nassau
Bahamas

2000-2006, Florida

Smoothed Age-adjusted Death Rates per 100,000 Population

All Injury, Unintentional, All Races, All Ethnicities, Both Sexes, All Ages

Annualized Age-adjusted Rate for Florida: 43.05



34.66-40.70 | 40.71-43.63 | 43.64-44.97 | 44.98-47.65 | 47.66-48.78

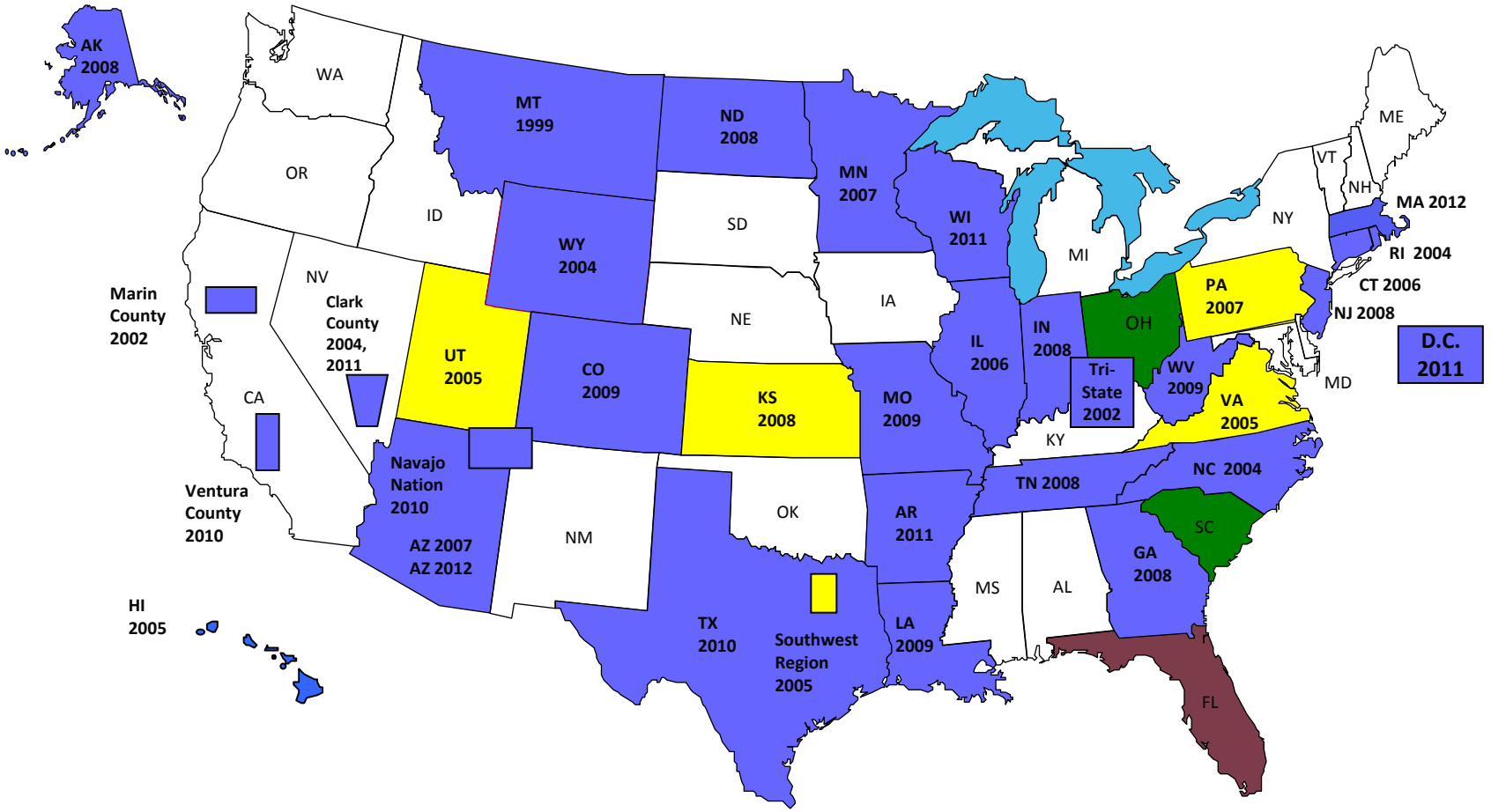
48.79-51.88 | 51.89-54.76 | 54.77-60.77 | 60.78-71.61

Evolution

- Trauma Systems Consultation Program – 1992
  - Initial principles extended from center verification
  - Development of standards problematic
  - Consultation instead of verification
  - Strategic and tactical aid in system development
- Current Initiatives
  - Consultative visits
    - Comprehensive regional (usually state) visits
    - Problem-focused analyses
  - Trauma system benchmarking
  - Development of advocacy materials
  - International collaboration

February 2012

Trauma Systems Evaluation and Planning Committee Consultations and Facilitations



Completed Trauma System Consultation

In Discussion

Scheduled Trauma System Consultation

Benchmarks, Indicators, and Scoring Facilitation Completed

System Consultation

- Consultation, not verification
- Multi-disciplinary team, tailored to needs
- Data collected through:
  - Review of Florida questionnaire
  - Review of other available data
  - Interactive session with stakeholders

System Consultation

- Consensus-based process
- Recommendations derived independently
- Standard is an inclusive trauma system based on public health model (http://www.facs.org/trauma/hrsa-mtspe.pdf)
  - Goal is to decrease overall burden of injury
  - Integrate continuum of care
  - Broad-based regional approach
  - Data driven system evaluation and modification

Observations

- There are broad general principles
- Solutions are unique and local
- System development tools must be adaptable
  - Meet each situation at its own level
  - Allow for particular local solutions

ACS Review Team

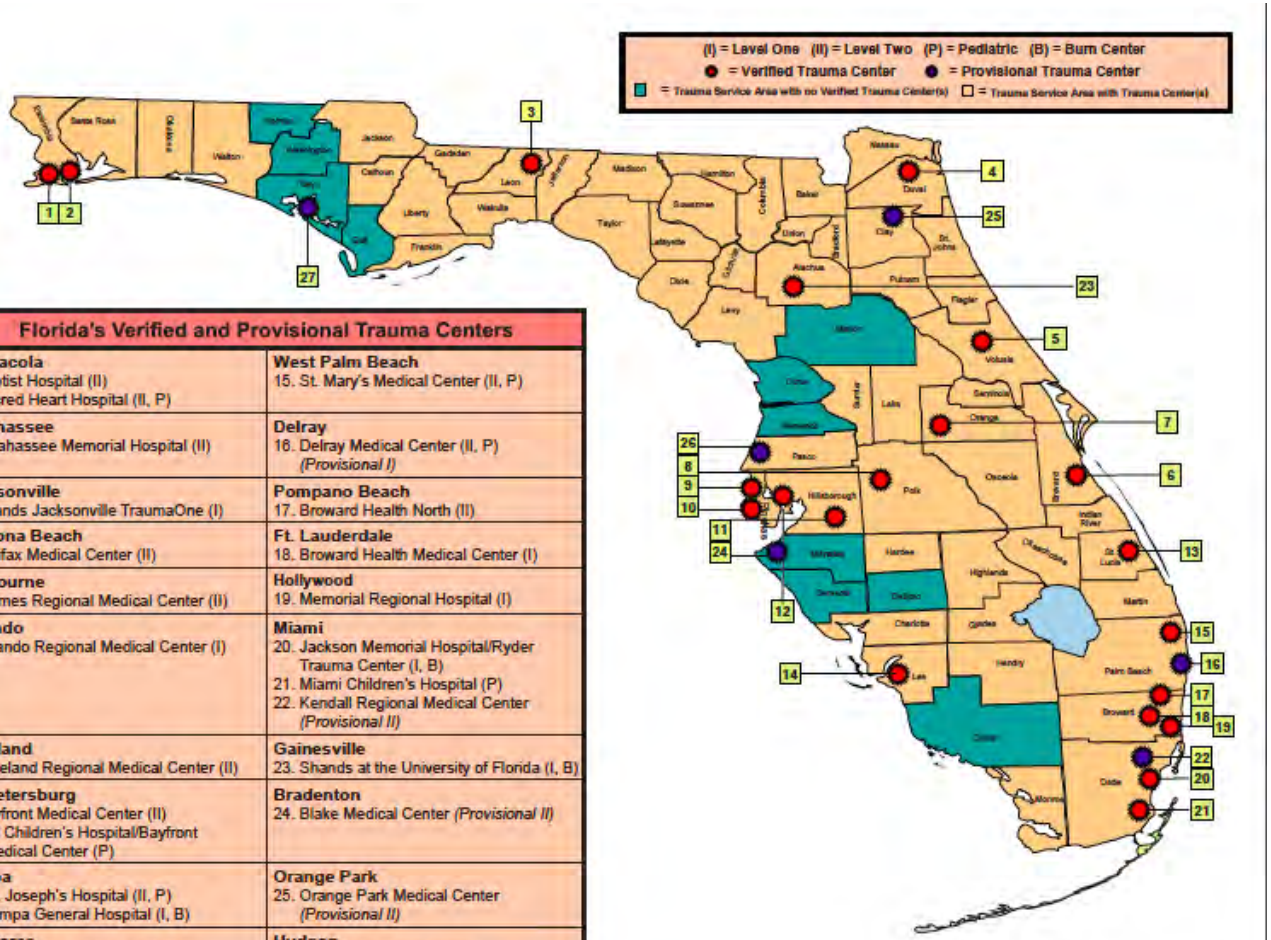
Robert J. Winchell, MD, FACS	Team Leader
Jane Ball, RN, DrPH	ACS Consultant
Samir M. Fakhry, MD, FACS	Trauma Surgeon
Molly Lozada	ACS Staff
Ronald F. Maio, DO, FACEP	Emergency Physician
Holly Michaels	ACS Staff
Drexdal Pratt	State EMS Director
Nels D. Sanddal, PhD, REMT-B	ACS Staff
Jolene R. Whitney, MPA	Trauma Program Manager

Florida

- Area – 58,560 sq mi (22nd)
- Population – 19 million (4th)
  - Density 353/sq mi (8th)
- Trivia
  - 27th State – 1845
  - The Sunshine State
  - "In God We Trust"
  - Orange Blossom
  - Sabal Palm
  - State Drink ??

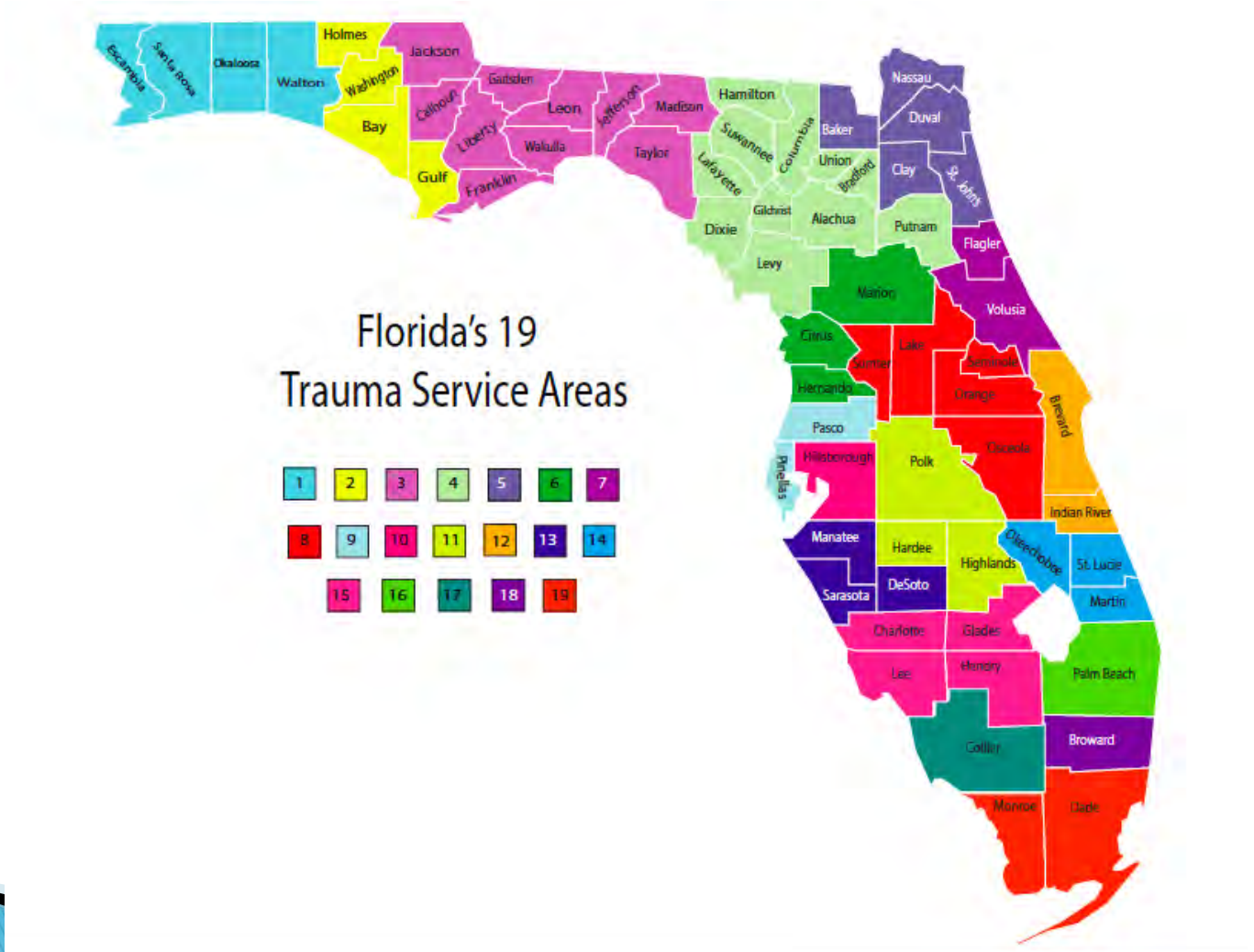
Current Status

Trauma Centers

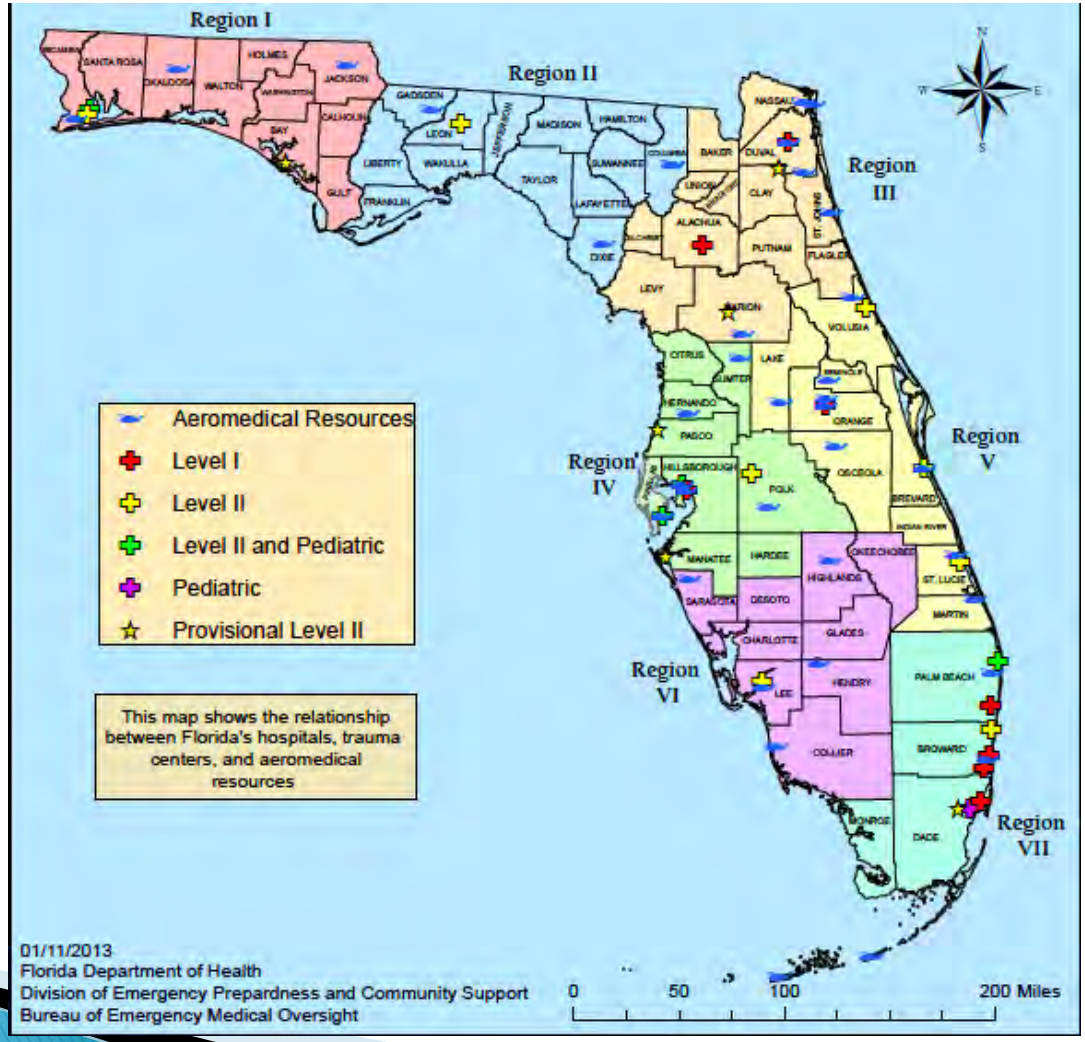


Florida's Verified and Provisional Trauma Centers	
Pensacola 1. Baptist Hospital (II) 2. Sacred Heart Hospital (II, P)	**West Palm Beach** 15. St. Mary's Medical Center (II, P)
Tallahassee 3. Tallahassee Memorial Hospital (II)	**Delray** 16. Delray Medical Center (II, P) *(Provisional I)*
Jacksonville 4. Shands Jacksonville TraumaOne (I)	**Pompano Beach** 17. Broward Health North (II)
Daytona Beach 5. Halifax Medical Center (II)	**Ft. Lauderdale** 18. Broward Health Medical Center (I)
Melbourne 6. Holmes Regional Medical Center (II)	**Hollywood** 19. Memorial Regional Hospital (I)
Orlando 7. Orlando Regional Medical Center (I)	**Miami** 20. Jackson Memorial Hospital/Ryder Trauma Center (I, B) 21. Miami Children's Hospital (P) 22. Kendall Regional Medical Center *(Provisional II)*
Lakeland 8. Lakeland Regional Medical Center (II)	**Gainesville** 23. Shands at the University of Florida (I, B)
St. Petersburg 9. Bayfront Medical Center (II) 10. All Children's Hospital/Bayfront Medical Center (P)	**Bradenton** 24. Blake Medical Center *(Provisional II)*
Tampa 11. St. Joseph's Hospital (II, P) 12. Tampa General Hospital (I, B)	**Orange Park** 25. Orange Park Medical Center *(Provisional II)*
Ft. Pierce 13. Lawnwood Regional Medical Center & Heart Institute (II)	**Hudson** 26. Regional Medical Center Bayonet Point *(Provisional II)*
Ft. Myers 14. Lee Memorial Hospital (II)	**Panama City** 27. Bay Medical Center *(Provisional II)*

Trauma Service Areas



Regional Domestic Task Force Regions



Current Status

- Long history of trauma system development
- Strong historical high-level centers
  - Located in urban areas
  - Align with majority of population
- Commitment to data-driven decisions
- Substantial funding
- Recent increase in trauma center designation
- New challenges with center distribution
- System structure has not been updated

Current Status

- Inclusive system by intent
- Still an exclusive system in operational reality
- No strong central control of trauma system
  - Lack of clinical experience in system management
  - EMS protocols controlled at agency level
  - No system-wide process improvement
- Aggregate metrics suggest majority well served
- Some underserved areas likely exist
- No definitive data to define performance

Current Status

- Ongoing legal challenges to rules
- Trauma center designation based on 1990 plan
  - Regional structure mostly non-functional
  - No consensus around current needs
  - Financial model creates adverse incentives
  - Factions polarized
- Singular focus on trauma center distribution
- Adversarial relationships between some parties
- Planning and development activity suspended
- System development at an impasse

Our priority:
The best interest of the patient

Advantages and Assets

- Long history of dedicated participation
  - Institutions
  - Trauma leadership
  - People
- Long-standing support from state government
- Substantial funding
- Department of Health leadership committed
- Strong historical trauma centers
- Increasing interest in new center development
- Detailed trauma plan

Advantages and Assets

- Overall good coverage of population
- No major geographical challenges
- Commitment to data driven solutions
- Strong system legislation
- Reorganization of DOH to improve integration
- Good injury epidemiology
- Strong disaster and mass casualty programs
- Strong historical SCI/TBI rehab program
- Strong injury prevention programs

Challenges and Vulnerabilities

- Adversarial relationships between stakeholders
  - Deepen divisions
  - Induce stasis
- Win/lose mentality as to outcome
- Too much focus on center distribution
- Outdated vision for system growth
- Outdated advisory board structure
- Regional design never fully implemented
- Lack of inclusive stakeholder involvement

Challenges and Vulnerabilities

- Trauma plan does not address difficult issues
- Incomplete application of inclusive system principles
- Distribution of trauma center funds creates adverse incentives
- Inability to define current system needs
- Inability to designate centers based on needs
- Lack of clear destination protocols
- Immature processes for system monitoring
- Limited utilization of available data

Themes

- Make peace. You are all committed to the same goals and a collaborative solution is needed for the benefit of your patients
- There must be a clear vision and a clear plan for future direction, embraced by all stakeholders
- Department of Health needs to have clear support from stakeholders to lead, backed up by consistent statutory and regulatory authority
- Advisory committee must be reconfigured to provide broader stakeholder participation and establish clear acceptance as balanced policy development group

Themes

- System vision and structure are out of date
  - Trauma centers ≠ Trauma system
  - Inclusive system ≠ Unregulated system
- Trauma center designation should be based on need
  - Consistent and objective data should be used
- An updated regional structure is needed
- Good enough isn't good enough
- There is still a great deal of work to be done
- Change is painful, but stagnation is worse

Key Recommendations

Statutory Authority

- Convene a small multi-disciplinary work group to analyze all existing statutes and regulations pertaining to the trauma system, including, methodology for needs assessment, process for trauma center designation based on system needs, and control of patient flow (field triage criteria/destination protocols).

System Leadership

- Appoint a new Florida Trauma System Advisory Council (FTSAC) to provide input to policy development for the trauma system.
  - Broad multidisciplinary representation
  - Include both trauma centers and non-center hospitals

Lead Agency &Human Resources

- Establish and fund a statewide performance improvement coordinator position to lead the development of a statewide performance improvement process.

- Contract for the state trauma medical director position and provide compensation for his/her time.

Trauma System Plan

- Revise the Florida trauma system plan to address key issues necessary for the further development of the regional and statewide trauma system.
  - Begin immediately, this is a key element in defining a common vision for system development

System Integration

- Use the Domestic Security Task Force Regions as the TSA regions.
  - Develop a strong regional structure based on the 7 RDSTFR that enables the integration of trauma centers with EMS, disaster preparedness, and other regional activities.

Financing

- Revise the distribution method of the trauma center fund.
  - Change the distribution method for the fund to ensure that designated trauma centers receive level-appropriate support for the “cost of readiness”.

EMS

- Collaborate with the Florida Department of Transportation, Highway Safety Office to initiate and conduct a National Highway Traffic Safety EMS Reassessment.

Definitive Care

- Conduct an assessment of the current system, including the parameters outlined in Florida statute 395.402, to inform decisions regarding the location and level of new trauma center designations.

- Establish a transparent, broadly accepted process for future provisional trauma center designation based upon both capacity and system need.

Definitive Care

- Establish a transparent, broadly accepted process for initial full designation and ongoing re-designation based upon system participation, center performance, and participation in quality improvement programs.
- Impose a moratorium on any new provisional or full trauma center designation until these new processes are in place.

Definitive Care

- Require that all acute care facilities participate in the inclusive and integrated trauma system as a condition of licensure.
  - Designate, at an appropriate level, either as a trauma center or a participating facility
  - Require all facilities to submit at least a minimal set of data on every injured patient to the state registry.

System Coordination & Patient Flow

- Evaluate the content, implementation, and method of enforcement of trauma transport protocols (TTPs) to assure uniformity and efficiency of patient flow both within trauma regions as well as statewide.

System Coordination & Patient Flow

- Task the Trauma Program with annual reporting on trauma center and non-trauma center destination and patient outcomes (initial destination and transfer)

Disaster Preparedness

- Develop the healthcare coalitions and align with the seven Domestic Security Task Force Regions.
  - Ensure the disaster medical response plans are integrated through regional planning between members of the healthcare coalition (hospitals, EMS, fire, public health, dispatch, emergency management and law enforcement).

System-Wide Evaluation & QA

- Reactivate the Performance Improvement Committee under the aegis of the FTSAC to develop a statewide performance improvement plan that outlines the PI process at the provider, regional and state levels and includes process, structure and outcome measures.
  - Search other states to identify PI plan templates.
  - Include all aspects of trauma care and system performance.

Trauma MIS

- Complete the implementation of the NGTR and ensure participation by all hospitals.

Observations

- This is a consultative process
  - The recommendations offered are based on broad general principles and experiences in other regions
  - The solutions will be unique and specific to Florida
- Change is always difficult
- Progress will require a renewed commitment to ongoing collaboration by all stakeholders
- The solutions will be created by all of you
- Audentes fortuna iuvat

Closing Comments

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