



Texas Trauma System:
Presentation to the House Appropriations Committee
Article II

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Need for a Trauma System: Injuries in Texas

- 2014 Data from Centers for Disease Control and Prevention (CDC)
 - 40 daily deaths from injury, 27 of which are from unintentional injury
 - 14,652 injury-related deaths each year
 - The leading cause of death for 5 – 34 year old Texans is motor vehicle crash
- 2013 Data from Texas EMS/Trauma Registry
 - Top two injuries causes were:
 - Falls
 - Motor Vehicle/Traffic
 - For every Texan who dies from trauma, at least six were seriously injured
 - 128,929 trauma hospitalizations

The History of the Trauma System in Texas

- Prior to 1989, Texas had no trauma system.
 - No coordination of state resources existed to ensure effective care for the injured.
 - At that time, approximately 1,000 EMS providers and 300 hospitals existed in Texas.
- The Legislature passed House Bill 18, the Omnibus Rural Health Care Rescue Act, in 1989.
 - The goal of this legislation was for emergency health care resources to be available to every person who is critically injured.
 - The key was building a system from the state's wide-ranging and unorganized resources.
 - Initial implementation was challenged by a lack of funding.

The History of the Trauma System in Texas

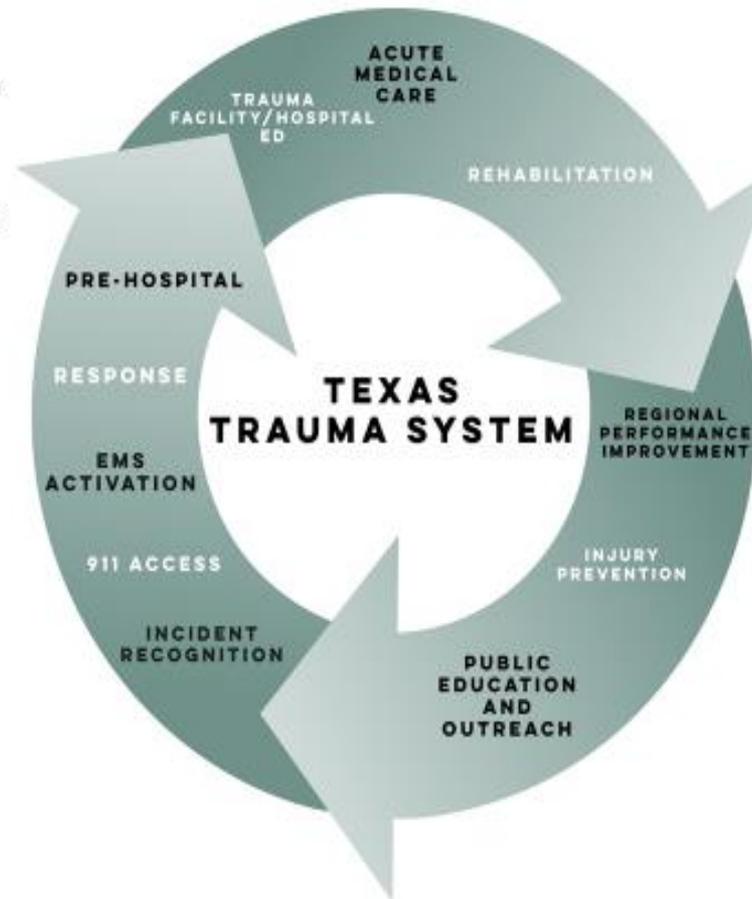
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- The original act required DSHS to:
 - Designate trauma facilities,
 - Develop and implement a statewide emergency medical services (EMS) and trauma care system, and
 - Develop a statewide trauma data registry to monitor the system and provide statewide cost and epidemiological statistics.
- Today, the trauma system in Texas includes:
 - 22 Trauma Service Areas governed by Regional Advisory Councils (RACS)
 - 282 designated trauma hospitals
 - 133 designated stroke hospitals
 - 63,395 EMS personnel and 793 EMS providers
 - 4,700 EMS vehicles

Trauma System Partners and Roles

Upon 911 activation, EMS response is initiated and the injured patient is transported to a trauma facility or acute care center. Patient data is submitted to the **Texas & EMS Trauma Registries** at the DSHS. These data can be used to guide quality and performance improvement processes.

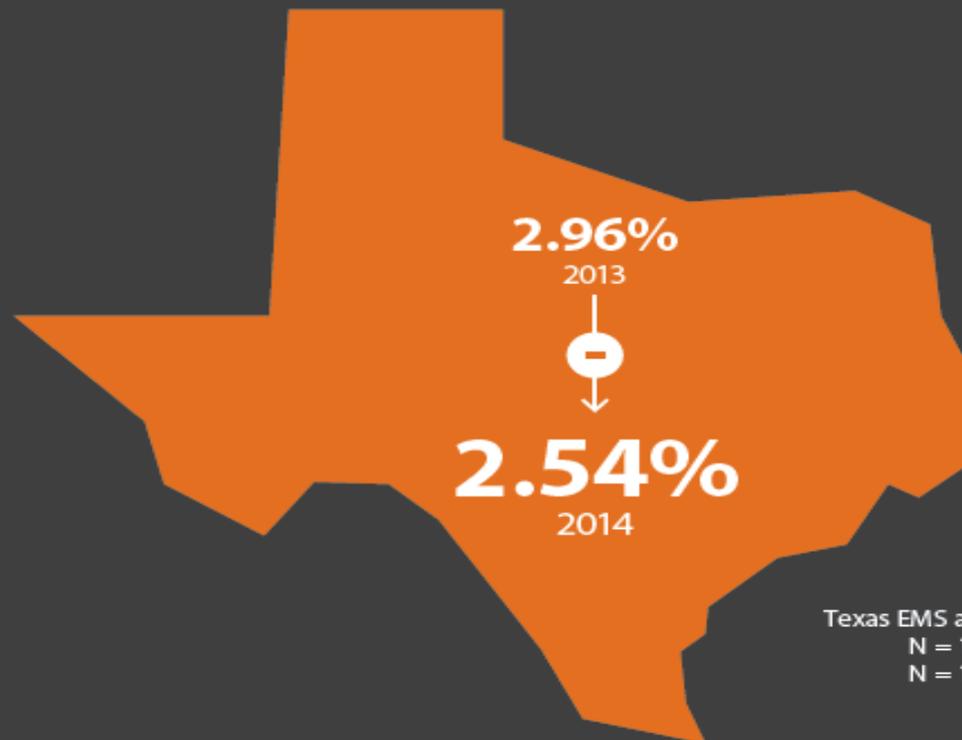
DSHS EMS Compliance ensures national standards for EMS service quality are met. The **DSHS Trauma Designation Program** ensures injured patients receive definitive levels of care at the appropriate trauma facility.



Regional Advisory Council (RACs) activities affect virtually every aspect of the trauma system. RACs are responsible for emergency healthcare system planning, including EMS transport protocol development, trauma diversion plans, regional performance improvement, disaster preparedness, and public education and outreach regarding injury prevention and incident recognition.

The Governor's EMS and Trauma Advisory Council (GETAC) advises the DSHS on trauma and EMS system development and serves to monitor the effectiveness of the Texas Trauma System.

MEASURING TRAUMA SYSTEM EFFECTIVENESS: Trauma Case Fatality Rate



Texas EMS and Trauma Registries
N = 132,796 (2013)
N = 129,733 (2014)

A STANDARD INDICATOR OF TRAUMA SYSTEM EFFECTIVENESS IS THE CASE FATALITY RATE. The trauma case fatality rate is the overall proportion of deaths within a particular population of trauma incidences. The Texas trauma case fatality rate for 2014 was 2.54%, almost half a point lower than the 2013 rate of 2.96%.

Importance of Trauma System Partnerships

- System partnerships ensure critically injured or ill persons get to the right place, in the right amount of time in order to receive optimal care.
- This partnership includes representatives from:
 - EMS
 - Cardiac, Stroke, and Trauma care entities
 - RACs
 - Texas EMS, Trauma, and Acute Care Foundation (TETAF)
 - Additional statewide organizations
 - Department of Public Safety (DPS)
 - Emergency Medical Task Forces (EMTFs)
 - Disaster Districts
- *If any of the components of the system are ineffective, the system as a whole is less effective and as a result the patient care may not be optimal.*

Texas is divided into 22 trauma service areas (TSAs)

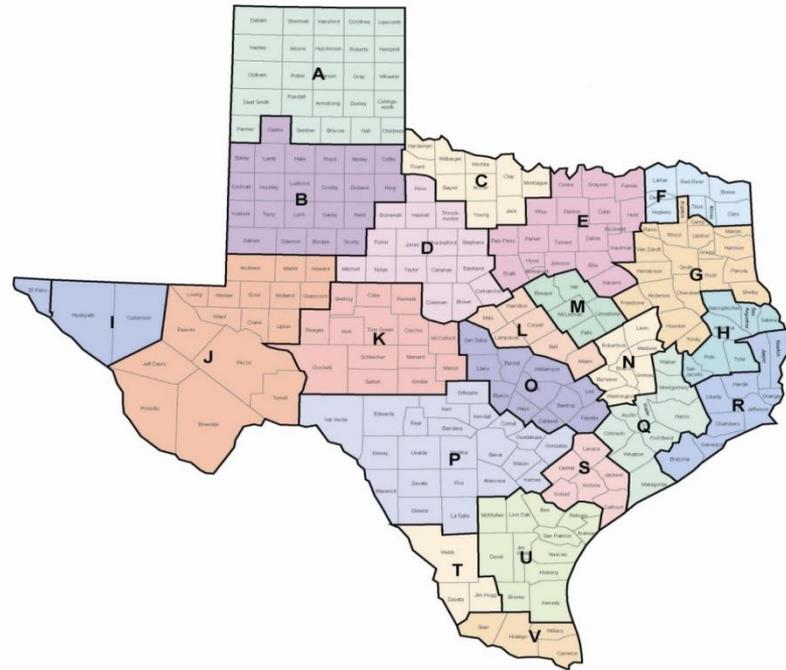
- Geographical trauma regions
- Established around existing patient referral patterns
- Each has a RAC

RACs vary in size, resources, and capacity

- Composition includes health organizations, providers, and interested stakeholders
- Varying staffing levels
- Difference in resources
- Urban versus rural

Texas Trauma Service Areas and Regional Advisory Councils

TSA A: Panhandle RAC
 TSA B: TSA-B RAC
 TSA C: North Texas RAC
 TSA D: Big Country RAC
 TSA E: North Central Texas RAC
 TSA F: Northeast Texas RAC
 TSA G: Piney Woods RAC
 TSA H: Deep East Texas RAC
 TSA I: Border RAC
 TSA J: Texas “J” RAC
 TSA K: Concho Valley RAC
 TSA L: Central Texas RAC
 TSA M: Heart of Texas RAC
 TSA N: Brazos Valley RAC
 TSA O: Capital Area Trauma RAC
 TSA P: Southwest Texas RAC
 TSA Q: Southeast Texas RAC



TSA R: East Texas Gulf Coast RAC
 TSA S: Golden Crescent RAC
 TSA T: Seven Flags RAC
 TSA U: Coastal Bend RAC
 TSA V: Lower Rio Grande Valley RAC

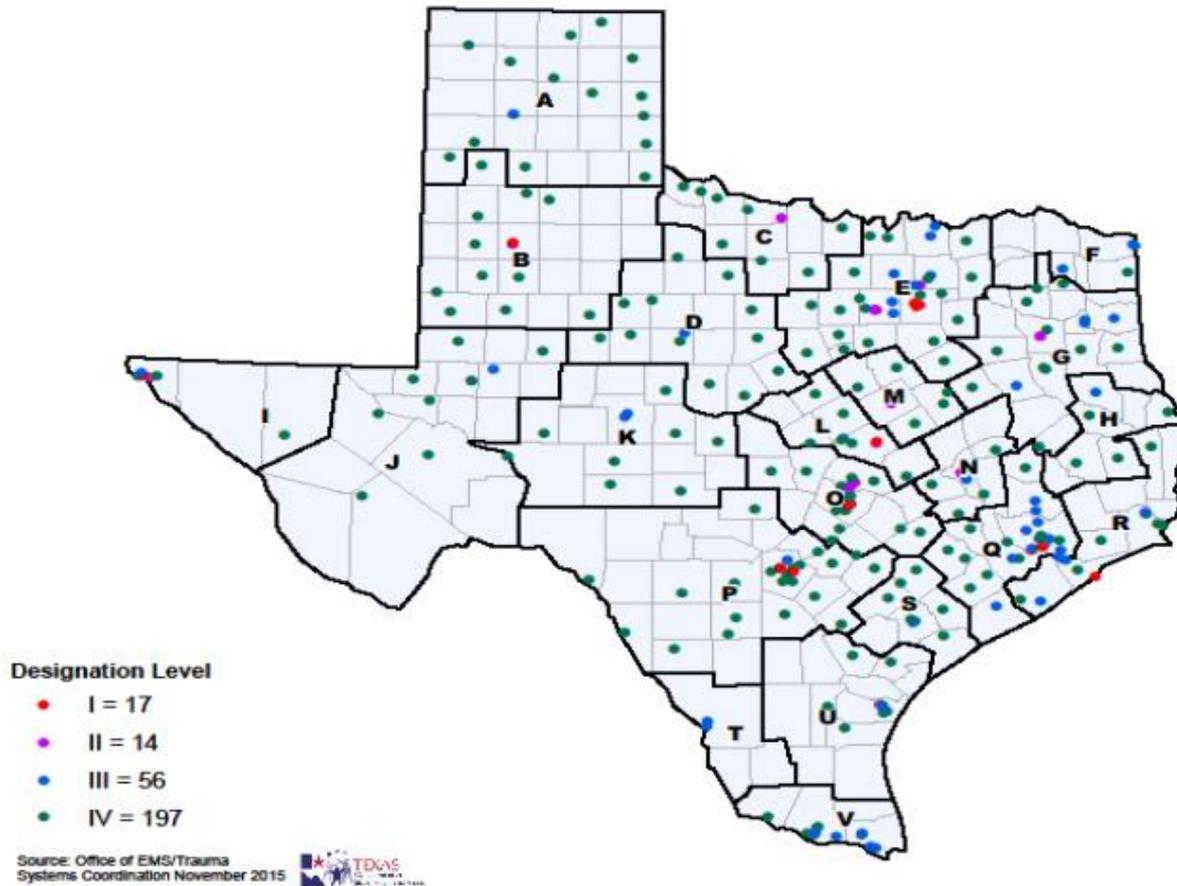
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- Create and maintain trauma and stroke system plans
 - Tailored to regional resources and needs
 - Arrangement of available resources (EMS providers, hospitals)
 - Coordination of effective delivery of emergency health care service
 - Goal is to minimize the time from onset of injury or illness to appropriate definitive quality care
 - Facilitate participation by EMS and designated facilities
 - There is at least one level III (basic) designated trauma facility in each RAC
 - RAC participation is required for designated facilities and EMS entities receiving DSHS funding
 - Maintain all hazards emergency preparedness and response
 - Emergency Medical Task Forces (EMTFs) within RACs handle disaster preparedness coordination
 - Plans and equipment
 - Training and exercises
 - Partners in response

- Texas has two types of designations for health care facilities
 - Four levels of trauma designation, with level I being the most comprehensive
 - Three levels of stroke designation
- Two new designation types
 - Perinatal levels of care, HB 15 (83R); Texas Health and Safety Code (HSC), Chapter 241, Subchapter H
 - Requires a level of care designation for neonatal and maternal services to be eligible to receive reimbursement through the Medicaid program for those services
 - Neonatal Designation provisions of §133.181 adopted as of June 9, 2016; Maternal Designation rules to be adopted by March 1, 2018.
 - Centers of Excellence for fetal diagnosis and therapy, House Bill 2131 (84R); Texas Health and Safety Code (HSC), Chapter 32, Subchapter D
 - Designate one or more health care entities or programs in Texas, including institutions of higher education as defined by Section 61.003, Education Code.
 - Perinatal Advisory Council to make recommendations for designation rules to DSHS.

Levels of Trauma Designation

- **Level I** trauma centers provide multidisciplinary treatment and specialized resources for trauma patients and require trauma research, a surgical residency program and an annual volume of 600 major trauma patients per year.
- **Level II** trauma centers provide similar experienced medical services and resources but do not require the research and residency components. Volume requirements are 350 major trauma patients per year.
- **Level III** trauma centers are smaller community hospitals that have services to care for patients with moderate injuries and the ability to stabilize the severe trauma patient in preparation for transport to a higher level designated facility. Level III trauma centers do not require neurosurgical resources.
- **Level IV** trauma centers are able to provide initial care and stabilization of traumatic injury while arranging for transfer to a higher level designated facility.

Designated Trauma Facilities: 2015

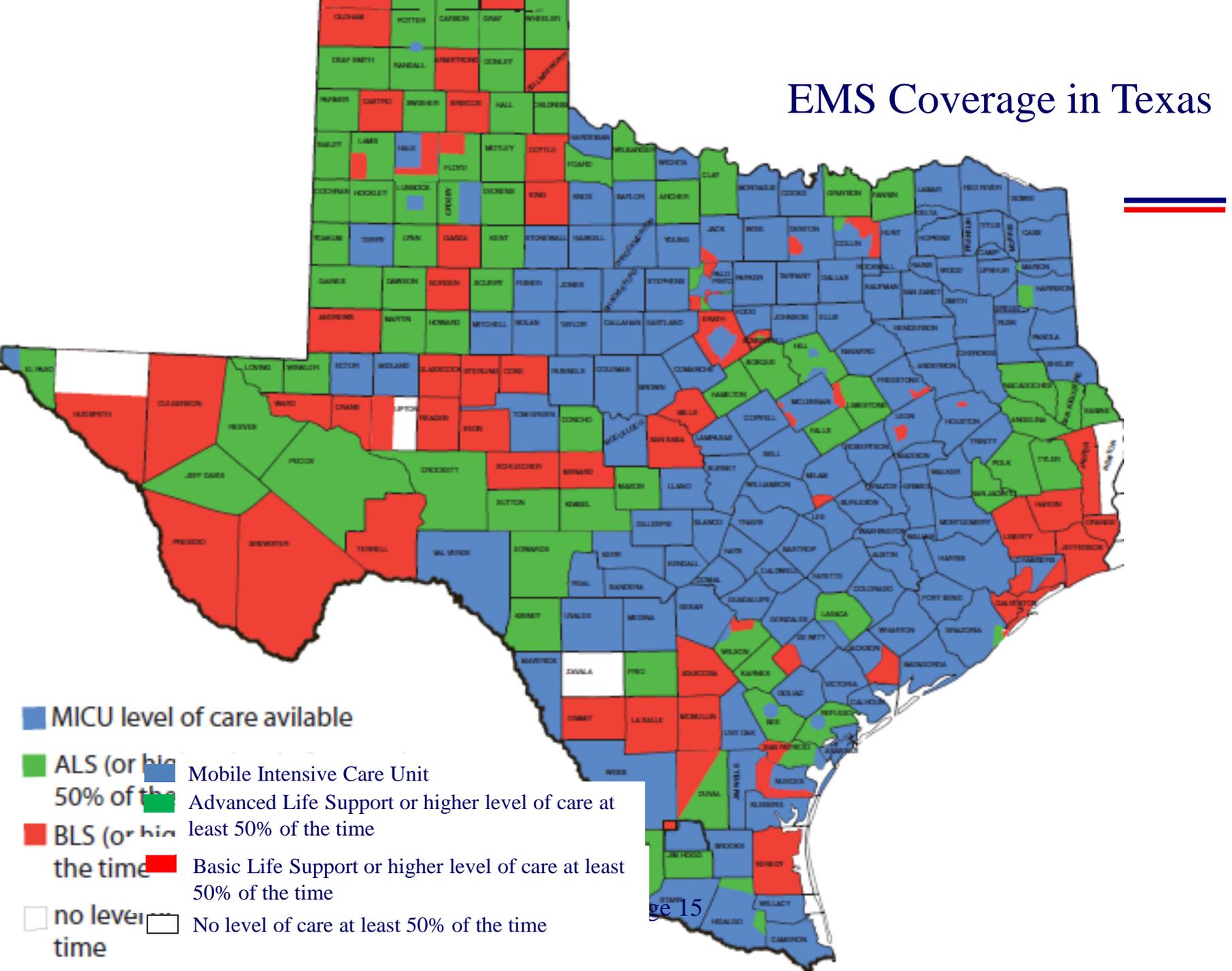


- EMS Providers in 2016
 - Total Number of Providers
 - EMS Agencies: 791
 - First Responder Organizations: 572
 - Ambulances: 4,427
- 63,395 EMS Personnel in 2015
 - 50,889 in 2005
 - 46,500 in 1994

EMS Dispatch Estimation: 2015

- 4,000,000 annual dispatches
- 7.6 dispatches every minute of the day

EMS Coverage in Texas



- **Funding Streams**

- Driver's Responsibility Program (DRP) surcharges
- \$10 from the \$30 state traffic fine
- \$100 DUI/DWI conviction surcharge
- 911 Equalization Surcharge Funds
- EMS and Trauma Care Tobacco Endowment
- Photographic Traffic Signal Enforcement System (Red Light Cameras)

- **Funding Uses**

- Hospital Allocation (\$44M to HHSC for Standard Dollar Amount Trauma add on)
- Extraordinary Emergency Funding
- EMS Allocation
- Regional Advisory Councils Allocation
- DSHS Administrative Costs
- Trauma Education partnership with Texas Higher Education Coordinating Board

Budget Issue: Uncompensated Trauma Care Reimbursement

- Between 2004 and 2015, hospitals applied for \$7.9 billion in DSHS trauma reimbursement to cover their uncompensated trauma care costs
 - Total reimbursement during this time was \$765 million
- House Bill 3588 (78R)
 - Created the Driver's Responsibility Program (Fund 5111)
 - Allowed partial reimbursement for Uncompensated Trauma Care to trauma facilities and hospitals in active pursuit of designation
- GR Accounts 5007 and 5108
 - Use at least 27 percent of the appropriated money to fund a portion of the uncompensated trauma care to designated trauma facilities
 - Also use any unexpended portions of the EMS and Trauma Service Area allocations
- DSHS reviews the data submitted for accuracy and reliability
 - May request additional data
- DSHS applies cost-to-charge ratios to all claims.

- Senate Bill 7 (82(1))
 - Allowed “Trauma add-on” payments to facilities that qualify for Standard Dollar Amount (SDA) payments from the Health and Human Services Commission (HHSC)
- DSHS transfers funds to HHSC each fiscal year
 - Used to maximize federal funding under Medicaid
- HHSC distributes trauma add-on payments through the SDA payment process
 - Applies to Medicaid patients only
 - Not limited to only trauma patients
 - Trauma facilities are held harmless

- House Bill 7 (84R)
 - Reduction to certain DRP fines, which may impact future appropriations to DSHS
 - Repeal of General Revenue-Dedicated Regional Trauma Account 5137
- HB 1, Special Provisions 32, 58, and 69
 - Requires DSHS to transfer monies to HHSC for three purposes: trauma add-on, a new rural hospitals add-on, and safety net hospitals.

- **Size and Population of Texas**
 - One of the largest and most diverse populations in the country
 - Limited number of emergency healthcare providers serving communities
 - Declining access to health care in rural/frontier areas
 - Aging population
- **Organizational Issues**
 - RACs are challenged to keep up with the demands of the healthcare system and preparedness activities
 - Aging workforce
 - Maintenance of current education and healthcare skills for workforce