2024

STRATEGIC PLAN FOR THE TEXAS EMERGENCY HEALTHCARE SYSTEM

DEVELOPED BY THE GOVERNOR'S EMS AND TRAUMA ADVISORY COUNCIL

TEXAS
Health and Human Services

Texas Department of State Health Services

March 2024

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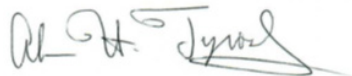**Information on the Governor's EMS and Trauma Advisory Council can be found here.**

Executive Summary

The Texas Emergency Healthcare Strategic Plan is the ongoing work of the Governor's Emergency Medical Services and Trauma Advisory Council (GETAC). The council members listed above, with input from the ten GETAC committees and other stakeholders, endorse this plan as guidance for improving emergency healthcare in our great state.

Texas, with a population exceeding thirty million, encompasses a land area of 268K square miles. Although urban counties and large metroplexes comprise a large portion of the population, there are many rural and frontier counties in our vast state. These geographic and population differences in 254 counties in twenty-two trauma service areas (TSAs) provide unique challenges.

Our emergency healthcare system is complex; a detailed and comprehensive plan would be unusable. It is our intent that the plan be inclusive of all age groups and patient populations in a state as large and diverse as Texas.

We hope you find this "living" document to be informative and actionable as a roadmap for the future of our emergency healthcare system as we strive to reduce death and disability from illness and injury in the Lone Star State. On behalf of GETAC and the citizens of Texas, we thank you for your support.

Alan Tyroch, MD, FACS, FCCM
Governor's EMS and Trauma Advisory Council Chair

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Vision and Mission Statements for the Texas Emergency Healthcare System

Vision

A unified, comprehensive, and effective emergency healthcare system.

Mission

To promote, develop, and advance an accountable, patient-centered trauma and emergency healthcare system.

Introduction

What is an emergency healthcare system?

An emergency healthcare system refers to acute, unscheduled care, where the optimal outcome is the critical determinant. The purpose of the system is to ensure the critically ill or injured receive optimal treatment in a timely manner. Coordination of resources is the most efficient way to provide care. The system works best when emergency medical services (EMS) and cardiac, stroke, and trauma care entities work in conjunction with Regional Advisory Councils (RACs). Regional plans of care, prevention, and preparedness should be developed, implemented, evaluated, and improved continuously. If any system components are dysfunctional or missing, the entire system is less effective, and the care may not be ideal.

System History

The Texas Emergency Healthcare System was formally mandated by the development of Health and Safety Code 773 in 1989. Under Chapter 773, the Texas Department of Health (TDH) was established as the lead agency tasked with developing, implementing, and evaluating emergency healthcare services and trauma care systems in Texas, including integrating emergency pediatric care standards. The department developed basic standards and facilitated regional EMS/trauma system development, including the designation of trauma facilities.

In 1999, Sunset legislation authorized the establishment of the Governor's Emergency Medical Services (EMS) and Trauma Advisory Council (GETAC) to advise and make recommendations on developing and implementing Texas emergency healthcare system rules. The Governor appoints the fifteen-member council. GETAC is composed of a board-certified emergency physician, an EMS medical director, a fire chief, a trauma surgeon or nurse, an EMS educator, an EMS air medical team member, a county-level EMS provider, a pediatrician with emergency care expertise, an EMS volunteer, two members of the general public, and representatives from a rural trauma facility, an urban trauma facility, a fire-based EMS service, and a private EMS provider.

In 2001, the 77th Texas Legislature passed House Bill 2446 regarding medical services. This bill mandated GETAC to "assess the need for emergency medical services and trauma care systems." In 2002, GETAC subsequently developed the first Strategic Plan for the Texas EMS/Trauma System. Since the development of the initial plan, experience has demonstrated the value of systems-based practice for additional time-dependent pathologies such as ischemic cardiac disease and stroke. Subsequent iterations of the Strategic Plan for the Texas Emergency Healthcare System are developed with time-dependent emergency conditions in mind and reflect an integrated emergency healthcare response system.

In 2019, the 86th Texas Legislature passed House Bill 1869, which amended Health and Safety Code 773.012 and further expanded the composition of the Council to nineteen appointees. It specified the trauma position as a trauma surgeon and added appointments for a trauma registered nurse, an emergency registered nurse, a representative of a stand-alone EMS agency from a municipality or taxing district, and a licensed/certified paramedic.

In 2020, Texas was tragically impacted by the global pandemic due to the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), also known as COVID-19. We watched with pride as the state's healthcare workers heroically stepped up to care for fellow Texans infected with COVID-19; however, the COVID-19 pandemic and other long-term factors

created staffing challenges in the Texas and national emergency medical services (EMS) industry. Almost every Texas EMS agency experienced significant staffing shortages due to EMS professionals feeling the impact of responding to COVID-19. In addition, EMS professionals were leaving the field at a higher rate than ever due to burnout, the risk of COVID-19, and new career opportunities outside of EMS that offered higher salaries, among other factors. The Texas Department of State Health Services (DSHS) released data indicating that only 35 percent of licensed Texas EMS professionals submitted a patient care report during the first eight months of 2021.

To support staff shortages and growing opportunities in the field of EMS, the Texas Legislature passed Senate Bill 8 (SB 8), providing 21.7 million dollars for an EMS Recruitment and Retention initiative. Funding for EMS education and retention, primarily in rural and underserved areas of Texas, aimed to increase the EMS workforce by 2,500 certified personnel.

DSHS partnered with Regional Advisory Councils (RACs), EMS education programs, and EMS providers to provide scholarships for emergency medical technician (EMT), advanced EMT (AEMT), and paramedic candidates. The initiative continues to focus on increasing certified personnel actively working on an ambulance, reducing the burden in rural/frontier areas, and retaining currently certified personnel.

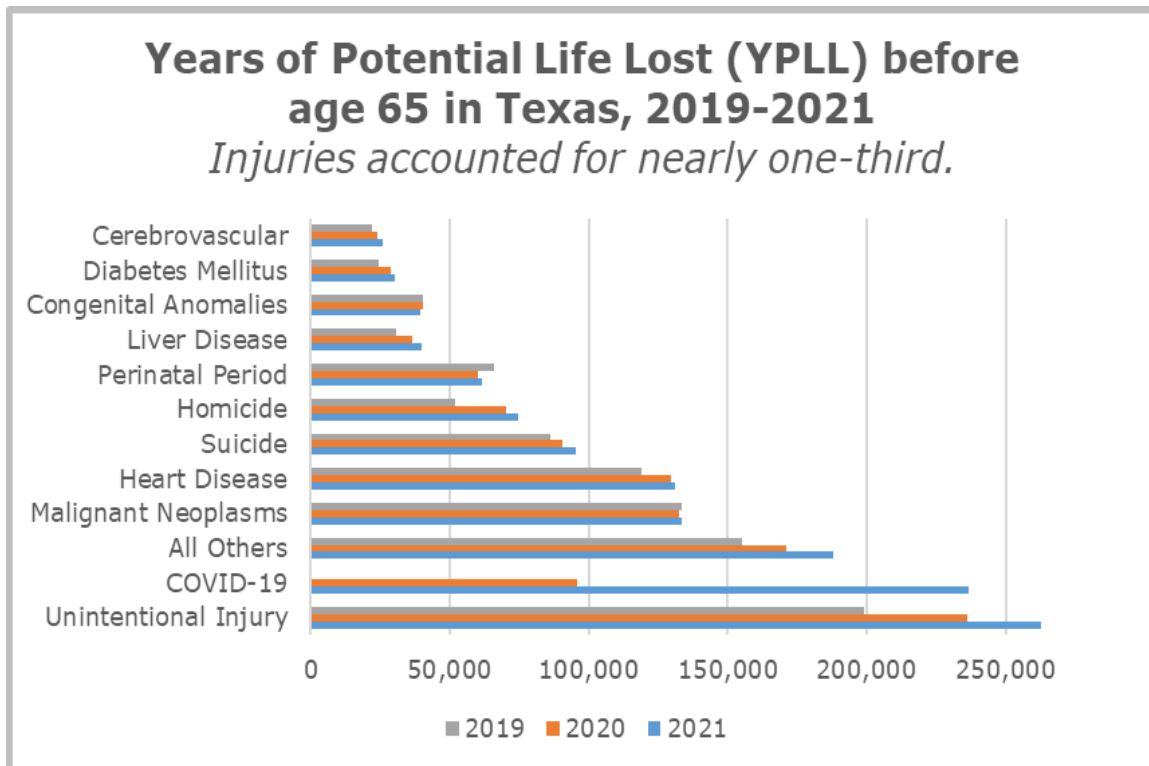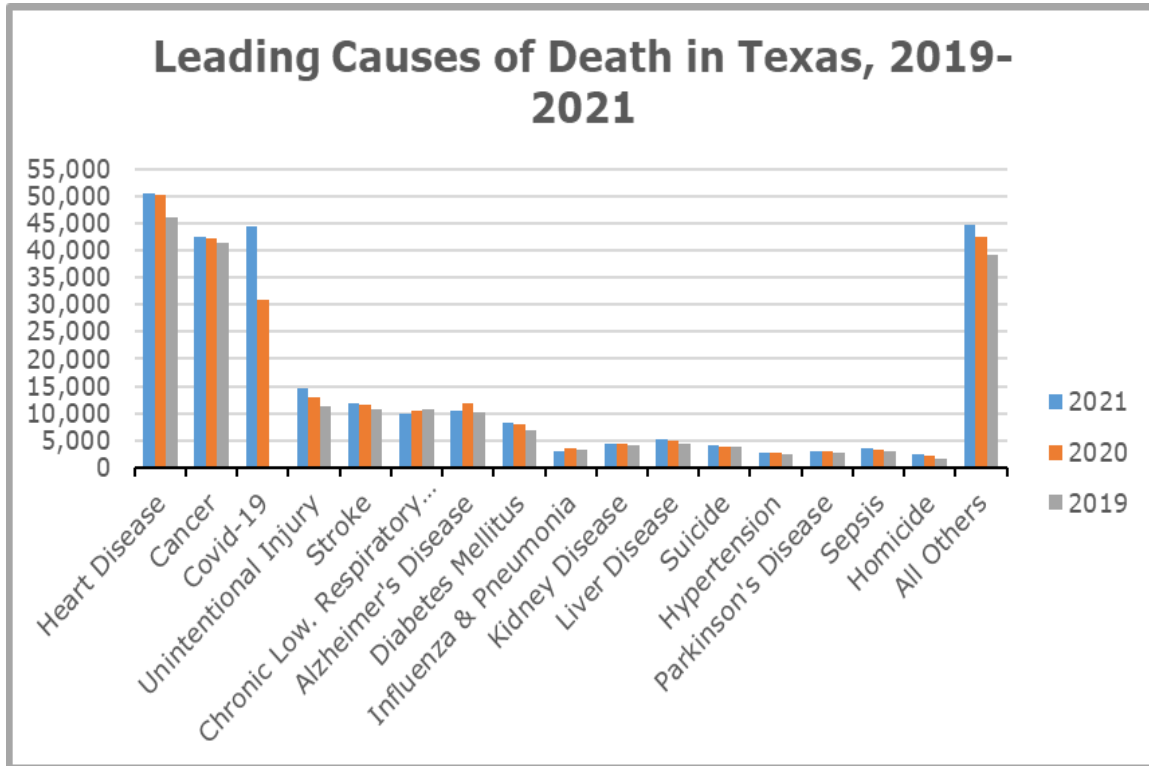**As of February 2024, the project has progressed to include:**

- **A new statewide website with career information: EMS.texas.gov.**
- **2,473 scholarships totaling $13.6 million**
    - > **1,393 Paramedic**
    - > **252 Advanced EMT**
    - > **828 EMT**
- **There are 3,016 more certified EMS personnel than we had in September of 2022.**

Emergency Healthcare Overview

The Burden of Emergency Healthcare & Trauma in Texas

Leading Causes of Death in Texas, 2019-2021

Years of Potential Life Lost (YPLL) before age 65 in Texas, 2019-2021
Injuries accounted for nearly one-third.

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). https://www.cdc.gov/injury/wisqars/index.html. Retrieved February 15, 2024.

Quick facts

- Heart disease has been the leading cause of death in both Texas and the US since 1950.
- Although deaths from heart disease are four times greater than those from unintentional injuries, the Years of Potential Life Lost to unintentional injury are 70% greater than those due to heart disease.
- COVID-19 became the third leading cause of death in Texas in 2021, claiming 44,505 lives.[1]

[1] Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) Leading Causes of Death Visualization Tool. https://www.cdc.gov/injury/wisqars/index.html. Retrieved February 15, 2024.

Injuries in Texas

According to 2021 Texas data from the Centers for Disease Control (CDC), there were 21,172 injury-related deaths.[1]

- Motor vehicle crashes are the leading cause of injury deaths (24.1%).[1]
- Injuries claim the lives of approximately 59 Texans each day.
- In 2021, suicide was the second leading cause of death due to injury at almost twice the rate of homicide.[2]

[1] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). https://www.cdc.gov/injury/wisqars/index.html. Retrieved February 15, 2024.
[2] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). https://www.cdc.gov/injury/wisqars/index.html. Retrieved February 15, 2024.

Heart Disease & Stroke Statistics:

- Heart disease and stroke are the first and fifth leading causes of death in Texas in 2021.[1]
- In the United States, someone has a heart attack every 40 seconds [2] and every 33 seconds, someone dies from cardiovascular disease.[3]
- Heart disease cost the United States about $239.9 billion each year from 2018 to 2019.[4]

[1] Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) Leading Causes of Death Visualization Tool. https://www.cdc.gov/injury/wisqars/index.html. Retrieved February 15, 2024.
[2] Tsao CW, Aday AW, Almarzooq ZI, Beaton AZ, Bittencourt MS, Boehme AK, et al. Heart Disease and Stroke Statistics—2023 Update: A Report From the American Heart Association. Circulation. 2023;147:e93–e621.
[3] National Center for Health Statistics. Multiple Cause of Death 2018–2021 on CDC WONDER Database. Accessed February 2, 2023.
[4] National Center for Health Statistics. Percentage of coronary heart disease for adults aged 18 and over, United States, 2019—2021. National Health Interview Survey. Accessed February 17, 2023.

EMS/Trauma Systems Interactive Map

As of February 2024, 301 designated trauma facilities serve over 29.5 million Texans and visitors. The EMS/Trauma Systems interactive map allows users to view trauma service area boundaries and other geographical-related information for the following:

- EMS Ground and Air Providers
- Hospital Designation Programs
- EMS Education Programs
- DSHS EMS Regional Offices

Access map and user guide

Trauma Service Area (TSA) Map

TOP
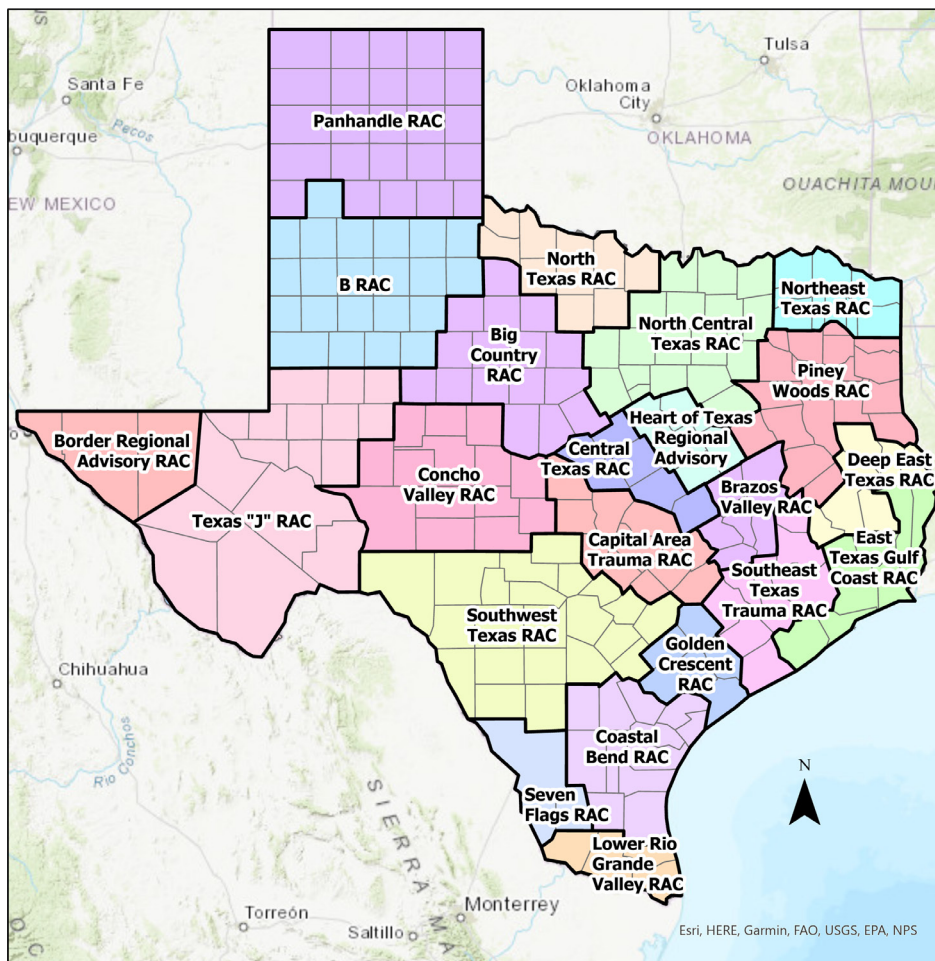
Sample Maps

Click image to view as PDF.

30-Minute Drive Time to Trauma Designated Hospitals
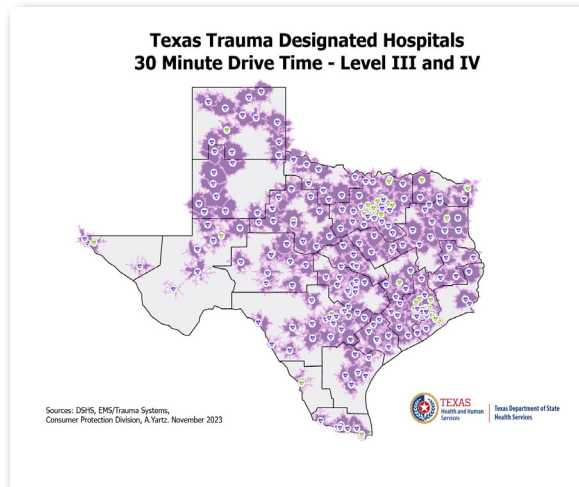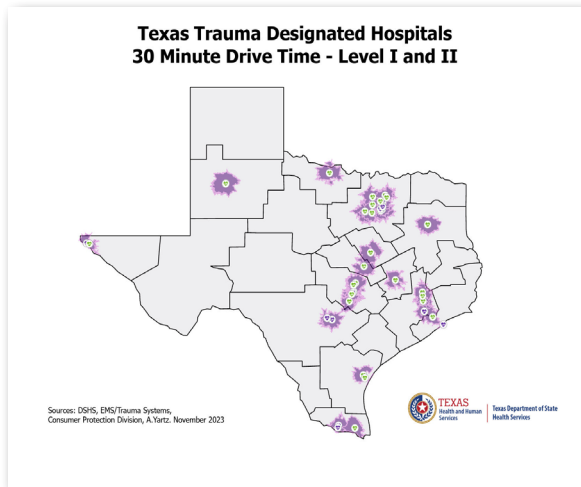
Texas Trauma Designated Facilities
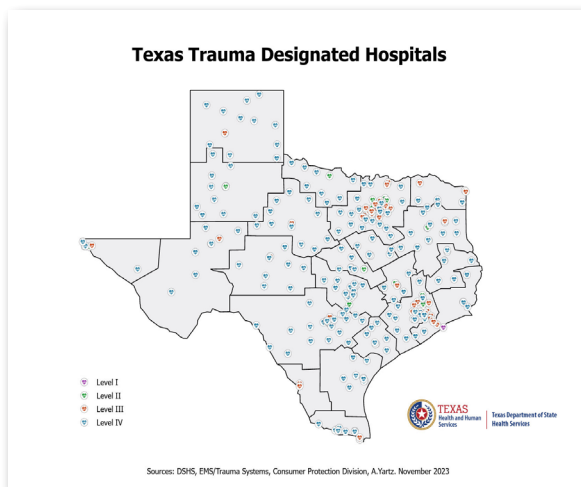
Texas Stroke Designated Facilities
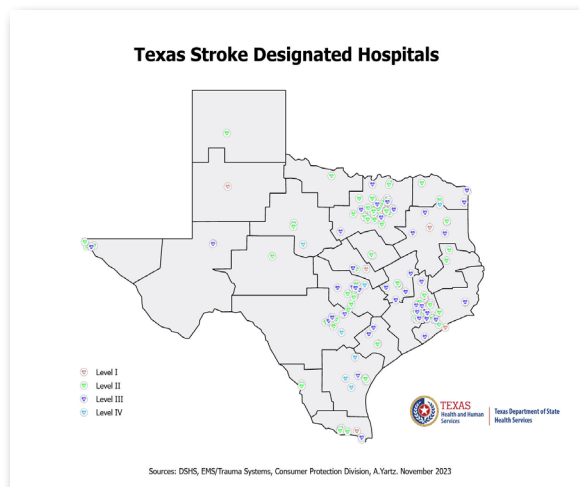
Texas EMS Provider Headquarters
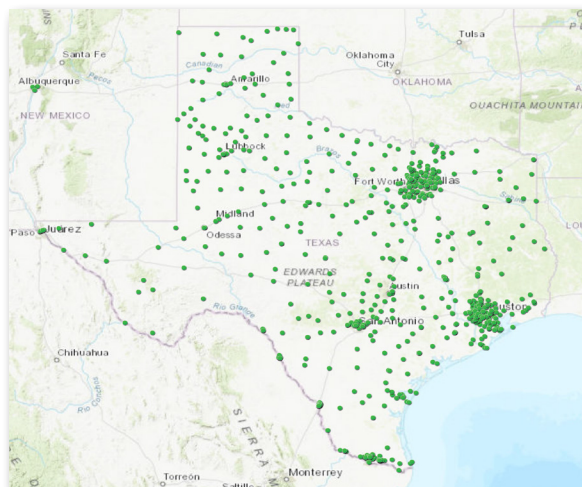
30-Minute Drive Time From Provider Station Locations
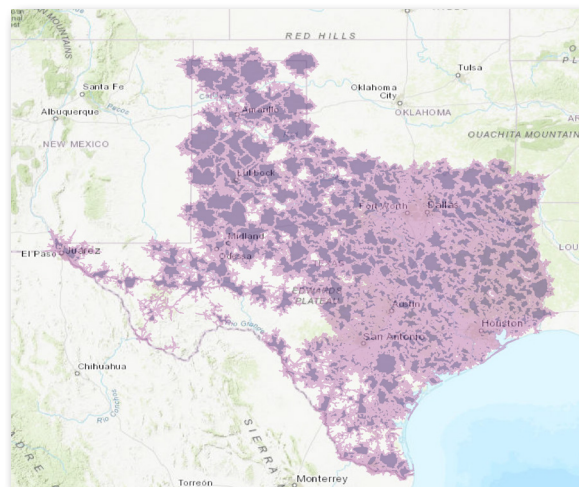
PILLARS OF THE TEXAS EMERGENCY HEALTHCARE SYSTEM

CLINICAL ELEMENTS

INFRASTRUCTURE

SYSTEM SUPPORT

A UNIFIED, COMPREHENSIVE, & EFFECTIVE EMERGENCY HEALTHCARE SYSTEM

Clinical Elements

Prevention

Prevention is avoiding, forestalling, or circumventing a happening, conclusion, or phenomenon. The central tenet of prevention is education designed to modify the factors leading to undesirable outcomes.

Disease

Heart disease is the overall leading cause of death in Texas. Stroke represents the fifth leading cause of death. The best possible mitigation strategy for cardiovascular disease is prevention and risk factor reduction.

Injury

Injury is the leading cause of death for individuals aged 1 to 44 years and is the third leading cause of death and disability in Texas for the overall population. It is one of the most under-recognized public health problems facing Texans. Traumatic injuries account for billions of dollars in treatment and disability costs and more years of potential life lost than any other healthcare problem. Children and young adults represent the highest-risk population. Injury prevention includes educating providers, community, and policy makers, environmental modifications, fostering coalitions and networks, and organizational change to prevent, and mitigate injury-related disability and death. Most successful prevention initiatives are evidence-informed, focused, coordinated, and disseminated through a variety of methodologies targeted to at-risk populations and broad communities. By making prevention an organized effort, the emergency healthcare system can be a focal point for a broad range of emergency healthcare conditions affecting Texans and their visitors.

Objectives:

1. Identify data-driven opportunities to reduce the burden of injury, stroke, and cardiac disease.
2. Incorporate safety and injury prevention into the fabric of organizational culture and operations utilizing effective methodologies.
3. Elevate education and training for Texas disease and injury prevention professionals.
4. Identify evidence-based prevention strategies that to increase capacity for a safe and healthy lifestyle.
5. Integrate equity into injury prevention strategies ensuring all individuals have access to safety and protection from injury.
6. Develop a coordinated effort to reduce childhood injuries.

Strategies:

1. Develop an injury prevention agenda based on trauma registry data and current injury trends.
2. Create injury prevention data briefs using the Spectrum of Prevention model for dissemination of best practice strategies.
3. Develop current messaging for stakeholders and policy makers providing relevant data surrounding:

a. Current cardiac, stroke, and injury prevention barriers and opportunities

b. Status of current prevention efforts in Texas

c. Benchmarking Texas initiatives alongside other state and national efforts

d. Evidence-informed strategies to prevent injuries

4. Align goals and unify efforts of injury prevention with other GETAC Committee prevention efforts.

5. Facilitate collaboration and connection among prevention professionals, stakeholders, non-traditional partners, and advocates.

6. Incorporate the Social Determinates of Health in prevention initiatives.

Coordinated Clinical Care

Clinical care is the direct care provided to a patient. Technology and contemporary medical literature have advanced better resuscitative and treatment methodologies, leading to better patient outcomes. However, without an effective healthcare system, these clinical gains are limited by practice variability, resource limitations, and inefficient processes. The goal of the clinical care system in Texas is the provision of high-quality healthcare in a uniform, organized, and coordinated manner.

Objectives:

1. Adopt the national goal of achieving zero preventable deaths related to injury and time-sensitive illness and minimizing trauma and disease-related disability.

2. Identify high-priority clinical areas for disseminating current information, including best evidence and practice-enhancing clinical and operational standards.

3. Identify opportunities for professional and public education leading to improved clinical outcomes.

4. Advocate at the federal, state, and local levels for recognizing EMS as an essential public service.

5. Implement mechanisms that ensure the inclusion of EMS as a seamless component of health care delivery (rather than merely a transport mechanism).

6. Promote timely access to care for urgent conditions regardless of geographic location across the state.

7. Deliver the highest quality care across the continuum of the emergency healthcare system—from prevention to rehabilitation.

8. Utilize evidence-based and/or best practice metrics to evaluate the emergency healthcare system, deliver evidence-based care, and provide public transparency of such data.

9. Promote seamless transitions of care across the emergency healthcare system.

10. Advocate for the widespread adoption of uniform healthcare resources across the state, ensuring consistent standards and promoting efficiency and quality in healthcare delivery regardless of location or provider.

Strategies:

1. Disseminate current information on best practices and educational opportunities to satisfy knowledge gaps.

2. Develop standards to minimize the time from onset of illness or injury to definitive care.

3. Define data elements necessary to evaluate emergency healthcare system effectiveness.

4. Establish a structured statewide clinical performance improvement framework to demonstrate and drive improvement efforts.
5. Promote local site-level quality improvement efforts (for all patient groups, including children) and benchmarking to drive performance improvement efforts.

Emergency Medical Services

Emergency Medical Services (EMS) in Texas are provided through various delivery models and may have multiple components depending on the individual service area. EMS systems consist of 9-1-1 public safety access points (PSAPs), dispatch communication centers, medical control physicians, first responders, public safety officers, and ground and air ambulance services. Medical care is provided by emergency medical telecommunicators, emergency medical responders (EMRs), emergency medical technicians EMTs, advanced EMTs, paramedics, EMS physicians, nurses, advanced practice providers, and respiratory therapists who are all directed by physician medical directors. Ambulances provide either basic life support, advanced life support, or mobile intensive care as dictated by the medical director and required equipment as defined by the Department of State Health Services (DSHS). EMS systems personnel may be volunteers or paid. Ambulances may be operated by government agencies, hospital affiliations, privately owned companies, emergency services districts (ESDs), or non-profit corporations. EMS personnel obtain their certifications or licensure after successful completion of a DSHS-approved educational course conducted by EMS educators, also certified by DSHS, and who achieve the eligibility for state certification after successful completion of testing through the National Registry of EMTs.

The Emergency Medical Services systems continue to expand with many organizations providing various public and community health initiatives such as community paramedicine, mobile integrated healthcare, patient harm reduction programs, patient navigation, including behavioral health emergencies and telehealth consultation. EMS personnel have also assisted in public health emergencies, disasters, and injury prevention efforts, including vaccination administration, downrange deployment during extreme weather events, and public cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) training as examples.

EMS is likely to remain an ever-evolving concept rather than a defined, universally similar, service provided throughout the state. While the above discuss the prehospital and inter-hospital services of EMS, other segments of healthcare also are integrated into the concept of EMS. Prehospital providers must coordinate and interface with law enforcement, fire departments, emergency departments, and hospital service lines including ST-elevation myocardial infarction (STEMI) centers, stroke centers, trauma programs, long-term care facilities (LTC), rehabilitation centers, and various other inpatient and outpatient departments.

Objectives:

1. Integrate emergency medical services into all aspects of state and RAC response plans.
2. Evaluate the needs of EMS providers, throughout Texas, and provide input to the DSHS on opportunities to address these identified needs.
3. Evaluate the issues of reimbursement for EMS services and its impact on the sustainability of comprehensive EMS delivery and provide input to the DSHS on opportunities where the state, or its agencies, may positively impact the reimbursement.

4. Monitor the number of certified or licensed EMS personnel to include whether they are actively involved in the delivery of prehospital or inter-facility EMS activities and advise the DSHS on strategies to achieve/maintain the required workforce necessary to meet the needs throughout the state.

5. Evaluate PSAP centers throughout the state to determine if pre-arrival, life-saving instructions are being provided. If it is determined that pre-arrival instructions are not being provided, advise the DSHS on strategies to ensure that all 911 callers are afforded this service.

6. Evaluate the need for curriculum and certification requirements and rules for Community Paramedicine providers. If the need is identified, advise the DSHS on strategies to achieve this requirement.

Strategies:

1. Define required components for Response Plans utilized by RACs and state agencies. Ensure that EMS is a required component for all planning activities.

2. Develop a survey of EMS personnel to determine their top five (5) identified educational needs based upon their daily work experiences. Results will be evaluated by the GETAC EMS Education Committee so they can develop proposals on the best way to address the identified needs.

3. Upon release of Cost Reporting results from the Centers for Medicare & Medicaid Services (CMS) and the state of Texas, evaluate opportunities where the DSHS could propose changes to current state funding programs that could assist in the identified need.

4. Request the DSHS to report quarterly or semi-annually on the certification and license numbers for EMS personnel and whether they are working in an EMS related field. Based on the results, advise the DSHS on opportunities to improve the number of those serving in an EMS capacity.

5. Develop a survey for PSAP centers, or the Council of Governments (COGs) that oversee PSAP centers to determine if any pre-arrival instructions are provided when a caller accesses 911. If it is determined that the need exist, advise the DSHS on strategies for partnering services to assist in filling the need or advise the DSHS on contracting opportunities for this service.

6. Establish a Physician led task-force of qualified individuals to determine if a need for curriculum, certification and rules is needed for Community Paramedicine activities within the state of Texas. The task-force will then present their findings and make any necessary recommendations to the GETAC council.

EMS Medical Direction

Strong physician leadership and medical control predicated upon contemporary evidence-based standards of care are essential to the success of any emergency healthcare system. EMS medical direction, as defined in Texas Medical Board Rule 197, involves credentialing, destination decisions, development of patient care protocols, online medical consultation and direction, auditing of patient care, documentation, patient care evaluation, and performance improvement for EMS clinical practices. As the EMS medical director will be held personally and professionally accountable for accomplishing these tasks and for the consequences of failing to do so, the medical director must be empowered to have final decision-making authority.

EMS medical directors supervise and accept responsibility for patient care EMS personnel provide. This includes providing evidence-based prehospital treatment protocols to ensure current standards of medical practice are followed. The medical director is expected to develop and monitor the medical education of EMS personnel under their authority.

The medical director delegates authority for professional practice and procedures to non-physician providers managing patient care. With the delegation of this authority, it is the medical director's responsibility to be actively involved in all clinical and administrative aspects of the emergency healthcare system and provide ongoing supervision.

It is essential that the medical director be involved in system planning and is granted the authority to make final decisions regarding any aspect of patient care. For the medical director to successfully accomplish all of this, there must be sufficient support, both financially and with adequate personnel and policies, on the part of the agency.

An ideal medical director would be board-certified in the subspecialty of EMS and actively involved. Involvement may include but is not limited to hands-on education, quality improvement efforts, online medical control, and field response.

Objectives:

1. Provide a robust, responsive, and flexible emergency healthcare system with involved medical oversight.
2. Steer continuing education (CE).
3. Support the use of EMS personnel in nontraditional roles.
4. Increase the medical director's direct involvement in all aspects of EMS practice.
5. Encourage the adoption of technology aimed at improving medical direction.
6. Advocate for financial support to allow medical directors to provide preeminent medical direction.
7. Strongly recommend continual participation in research and data collection that will inform and change evidence-based practices within EMS.
8. Encourage a provider's EMS medical director to be board-certified in the subspecialty of Emergency Medical Services by the American Board of Emergency Medicine.
9. The medical director must have the authority to credential and de-credential providers operating under their license.

Strategies:

1. Allocate a specified portion of the annual budget towards initial and continuing EMS education and medical oversight for use at the discretion of the medical director to achieve their responsibilities under Texas Medical Board Rule 197.3.
2. Compensate medical directors appropriately to recruit and retain high-quality medical direction. This should account for a rate on par with that paid to local emergency medicine physicians in the clinical setting.
3. Provide a specific budget for staff that will support education, ongoing quality improvement, and research efforts. The medical director should have control of this.
4. Develop mechanisms to increase the local medical community's understanding of EMS's role and capabilities.
5. Recommend appropriate education for physicians providing EMS medical direction.
6. Expect EMS agencies to support medical directors by explicitly recognizing their authority and providing financial and logistical support.
7. During the next rules update, evaluate the number of board-certified EMS medical directors licensed in Texas versus the number ideally needed in the state to staff all provider agencies.

8. Advocate for the establishment of a bidirectional flow of health data between hospitals and EMS agencies, fostering enhanced collaboration and enabling better patient outcomes through seamless information exchange.

System Integration

System integration is a process in which various stakeholders cooperate and build upon shared ideologies and values to enhance performance. In the Texas emergency healthcare system, the recognized coordinating entities for such efforts are Regional Advisory Councils (RACs). Each of the 22 RACs serves a given geographic area known as a Trauma Service Area (TSA). These efforts are most productive when emergency healthcare organizations actively participate as stakeholders in their respective RACs. Timelier healthcare access, enhanced care, and improved patient outcomes are due to the combined efforts of the RAC members.

Objectives:

1. Emergency health services are integrated within the Texas Emergency Healthcare System to deliver the highest quality care based on national standards.
2. Involve stakeholders in strategic discussions.
3. Identify and incorporate all patient populations, including children, into system design.
4. Develop regional partnerships and agreements for trauma destination (bypass) protocols when needed.

Strategies:

1. Develop recommendations for uniform standards of care related to system development, implementation, and evaluation that include the pediatric population.
2. Disseminate current information on best practices and educational opportunities to satisfy knowledge gaps.
3. Promote innovative partnerships providing first response and emergency services availability for underserved and difficult-to-access areas.
4. Educate governmental leadership and the public on the importance of the emergency healthcare system.
5. Measure the impact of integrated health systems of care on outcomes.
6. Disseminate statutory requirements concerning information exchange.

Emergency Preparedness and Response

As many Texans are aware, disaster may strike at any time. Since the inception of the federal government's disaster declaration system in 1953, Texas has had more federally declared disasters than any other state. Strong emergency healthcare systems play an integral role in emergency preparedness and response during disasters and may continue until local services can be restored. Mass threats to public health typically originate from various man-made and natural disasters. Natural disasters such as hurricanes, flooding, tornadoes, and infectious disease outbreaks, are common in Texas.

Likewise, man-made disasters in the state have included incidents of directed violence involving mass casualties, explosions, and industrial accidents. To mitigate the consequences of such events, a robust emergency preparedness and response plan is a vital part of any effective emergency healthcare system.

Objectives:

1. Identify and evaluate areas for improvement and provide input to the DSHS on the comprehensive disaster/mass casualty preparedness plan for Texas.
2. Integrate the Texas Emergency Medical Taskforce (EMTF) into all aspects of the state's response plans.
3. Continue and enhance collaboration with the Texas Department of Emergency Management (TDEM).
4. Provide input and promote the integration of emergency healthcare system elements that are functional and operational in the context of local, regional, state, and tribal state-wide preparedness plans.
5. Evaluate and support strategies to disseminate preparedness plan awareness and education to healthcare systems.
6. Promote and support focused, effective drills and exercises, including patients of all ages, based on disaster plans at the local, regional, state, and tribal levels.
7. Promote and support evaluation and feedback for improvement of plans and responses.
8. Encourage all components of the emergency care system to develop a strategy to support communities in a disaster event based on available resources.

Strategies:

1. Promote the effective use of preparedness resources to increase the capacities and the ability of the Texas Emergency Healthcare System to respond and support all-hazards contingencies.
2. Foster routine all-hazards exercises to test the preparedness and liabilities of the emergency healthcare system.
3. Refine and sustain the EMTF as an alternate acute care capacity for contingency mobilization for large, mass-casualty events, pandemic responses, or any other event requiring surge capacity and capability.
4. Integrate disaster planning into all emergency care standards to include the pediatric population.

Performance Improvement and Patient Safety

Continuous introspection and critical evaluation are essential tools vital to optimal patient care in rigorous emergency healthcare systems. In turn, the strength of performance improvement (PI) programs is predicated upon timely and accurate data. Comprehensive performance improvement programs are essential for effectively planning, implementing, and operating emergency healthcare systems. All components of the system must be responsible for evaluating the effectiveness of service provision. Ultimately, improved and optimized patient care outcomes demonstrate the value of robust performance improvement efforts in all areas of the system.

Objectives:

1. The Texas Emergency Healthcare System will develop, implement, and maintain a culture of safety.

2. The Texas Emergency Healthcare System will adopt and implement the American Society for Healthcare Risk Management (ASHRM) levels of harm definitions to assist in reviewing identified events.
3. Support each RAC in its integration of a performance improvement process into its emergency healthcare system plan as required by law.
4. Implement and maintain a statewide system performance improvement committee that tracks and measures health outcomes across diverse patient populations.
5. Support clinical research and technologies to improve the performance improvement process.

Strategies:

1. Develop and utilize standardized measures to evaluate patient and system outcomes that include the levels of harm.
2. Utilize evidence-based best practices to improve outcomes for patients, as well as healthcare providers, and promote a culture of safety.
3. Promote a diverse representation of emergency healthcare stakeholders to maximize opportunities for system improvement.
4. Implement a statewide EMS/Trauma and Emergency Healthcare System performance improvement committee.

Infrastructure

Emergency Communications Systems

An effective statewide emergency communication system is essential to the emergency healthcare system. The emergency 9-1-1 system is available to all callers in Texas. Public safety answering points (PSAPs) provide potentially life-saving instructions when answering calls for EMS. While emergency medical dispatchers (EMDs) have been advocated as essential personnel, a vast number of the state's EMS entities are dispatched by local agencies with no direct connection to EMS.

The emergency communications system should ensure expedient access to 9-1-1 and provide accurate location information to qualified call takers who can assist the caller before EMS arrival. Processes should also enable prioritized dispatch and adequate real-time communication between first responders, EMS personnel, and hospital staff.

Objectives:

1. Maintain state-wide 9-1-1 service to preserve and enhance public safety and health in Texas through reliable access to emergency communications services.
2. Support efforts to ensure requests are routed to the appropriate PSAP, with automatic number identification and location information, to minimize the time to access and dispatch appropriate resources.
3. Advocate for minimum standards in EMS dispatching protocols and pre-arrival instructions.

4. Leverage technology to provide prehospital care instructions with additional data and information.

Strategies:

1. Promote the implementation of digital technologies such as Next Generation 9-1-1 (NG9-1-1) and public safety broadband (FirstNet) to enable the transfer of additional data and information from citizens to PSAP to appropriate dispatched resources.
2. Advocate for requests for emergency communications services that are accessible to the public from any device, anywhere, anytime, and in any language.
3. Recommend minimum state EMS pre-arrival instructions and training based on national standards.
4. Promote the use of standardized and/or evidence-based emergency medical dispatch protocols and explore the use and expansion of regional emergency medical dispatch centers.

Information Systems

The purpose of collecting data is to reduce morbidity and mortality from disease and injury. A data collection and management to produce reports for epidemiology and performance improvement and assist with establishing best practices must exist. Current patient data will need to be accessible throughout the continuum of care and across entities' databases. Reliable, readily accessible data will provide roadmaps to the more efficient and prudent use of resources. Information management should be a cornerstone of the system and promote appropriate research, clinical management enhancements, and more effective performance improvement efforts.

Objectives:

1. Advocate for developing and maintaining information systems to bidirectionally generate and transmit reliable, accurate, and secure data.
2. Advocate for developing unified systems capable of tracking patient encounters, from incident through rehabilitation, identifying costs, and providing linkages between public safety services and other health care providers.
3. Improve the emergency healthcare system's ability to have access to real-time data.
4. Support advances in a unified emergency healthcare registry.
5. Encourage real-time, two-way health data exchange among EMS entities, hospitals, and other healthcare providers.
6. Support the maintenance of a robust data system and registry that includes a standardized data set and is accessible to the scientific community for research and performance improvement efforts.

Strategies:

1. Encourage a gap analysis of available data, determine needed data, and evaluate the current information system.
2. Develop analytical tools for stakeholder-defined data queries.
3. Promote the accurate use of the International Classification of Diseases 10 (ICD 10).
4. Promote and disseminate a comprehensive data dictionary reflective of the EMS/trauma systems of care.

5. Advocate for facilities to submit data to the registries to meet designation requirements.
6. Develop specific user-defined standard reports and compare them to national benchmarks for performance improvement.
7. Monitor compliance with Texas data reporting standards and ensure compliance is integrated into the system designation process.
8. Promote data analysis to healthcare providers and appropriate emergency response organizations.

System Support

Public Education

There is a lack of public awareness regarding the scope and funding of the Texas emergency healthcare system. Education may provide an understanding of how emergency healthcare systems work, leading to more responsible use and greater advocacy for overburdened care systems.

Public information and education systems must emphasize the public's role as partners and responsible consumers of the emergency healthcare system. Illustrating the full capability of local health care entities will allow Texans to understand the values and liabilities of the Texas emergency healthcare system resources and will lead to improving patient outcomes.

Objectives:

1. Promote public awareness of the Texas emergency healthcare system, including the appropriate use of system resources.
2. Explore innovations for providing interactive, collaborative, and targeted public education.
3. Publicly report health outcomes from the trauma registry, including pediatric patients, to create awareness of and support for injury prevention programs.

Strategies:

1. Promote public education related to the Texas emergency healthcare system.
2. Encourage agencies to conduct community needs assessments related to healthcare.
3. Utilize social media and other public service messaging to disseminate information related to emergency healthcare and outcomes.
4. Promote and provide information to local agencies related to bystander education and training so that they can provide timely and appropriate interventions.

Essential Emergency Healthcare Systems

Texas law provides no current statutory requirement for the provision of local emergency healthcare services, and consequently, there is unequal access to emergency healthcare across the state.

Objectives:

1. Educate policymakers on the Texas Emergency Healthcare System.
2. Encourage review of legislation and/or regulations supporting further innovation and enhanced integration of EMS into the Texas emergency healthcare system.

3. Establish emergency healthcare services as an essential public service.

Strategies:

1. Provide recommendations guiding regulatory and legislative decision-making relevant to the Texas Emergency Healthcare System.

System Funding

The survival of the Texas Emergency Healthcare System and the optimal care of those with time-dependent disease or injuries is critically dependent on adequate system funding. The state's emergency healthcare system is dependent on state and federal funding. Existing funding sources do not satisfy the full financial burden of the emergency healthcare system, including system readiness. As there is no state-level mandate to provide emergency healthcare as an "essential service," the system relies on numerous and inconsistent contingency-based funding sources. No single source of state-level funding is dedicated to the Texas Emergency Healthcare System.

Objective:

1. Achieve adequate and enduring funding for all Texas Emergency Healthcare System components.
2. Educate policymakers on the funding needs specific to rural EMS and hospitals to reduce the burden on rural and frontier emergency healthcare.

Strategies:

1. Identify the fiscal needs to sustain and advance the emergency healthcare system.
2. Provide recommendations to guide regulatory and legislative decision-making relevant to the funding of the Texas emergency healthcare system as an essential service.
3. Evaluate and educate the need for reliable and consistent funding sources for the Texas emergency healthcare system.

❙ Summary

The Texas Emergency Healthcare System is composed of many interdependent yet equally critical components with a common thread of providing the best care for the citizens and visitors to our state.

Texas depends on the above elements and, foremost, our stakeholders' commitment, professionalism, and performance as we strive to achieve our vision of a unified, comprehensive, and effective emergency healthcare system.