Emergency and Trauma Care in Texas

Policy Brief

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On September 11 and for weeks after, the nation watched in horror at the suffering caused by the terrorist attacks on the World Trade Center and the Pentagon. As a nightmare became real life, emergency systems were intact and operating smoothly. The importance of emergency and trauma care was laid out in grim detail, and a wide array of emergency workers and medical professionals showed the world that they were ready and able to save lives. Despite the quality of our urgent care professionals, however, hospital emergency departments and trauma centers nationwide are in need of urgent assistance themselves.

In Texas, hospital emergency departments struggle with overcrowding, financial woes and extreme staff shortages. In mid-March, for example, 12 of Houston's largest hospitals were forced to refuse ambulances due to serious overcrowding.[1] About three months later, a Houston hospital refused all emergency and intensive care patients for 16 hours because there were too few nurses to provide adequate care.[2]

This paper explores the "emergency in emergency care" and how it evolved. It provides a literature review of research regarding policy and health implications of an emergency system in crisis and describes some initiatives for change nationally, in Texas, and in other states.

Emergency and Trauma Care: A brief background

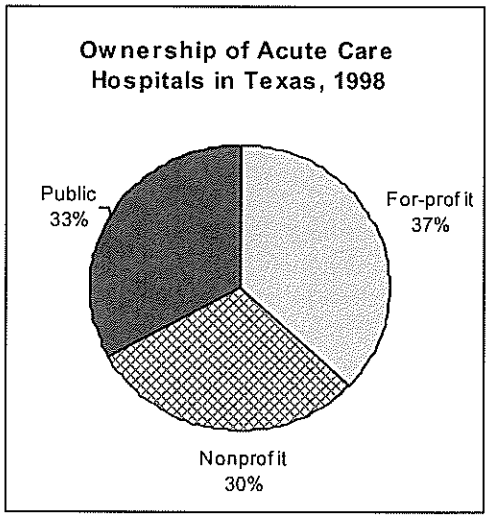
Emergency care includes prehospital emergency medical services, the ambulance services commonly known as "EMS;" triage, which is the process of sorting patients for treatment based on the urgency of their conditions; and a variety of care that covers everything from lacerations to ectopic pregnancies. Trauma, or injury, is treated in the emergency room, or in a specialized trauma center equipped to handle various levels of injury as quickly as possible. Some hospitals maintain chest pain centers as well, to speed the diagnosis and treatment of heart conditions. This section provides some background regarding acute care hospital services, the trauma care system, and EMS.

Acute Care:

As of August 1998, there were 479 acute care hospitals in Texas, 65 percent of which were located in metropolitan areas.[3] The sheer size and diversity of the state, high poverty levels and a growing elderly population make it difficult to ensure quality emergency care statewide.

Youth and the non-elderly population tend to require urgent care more often for injuries and accidents, while older Texans need a wider variety of acute care, and may have chronic illnesses that send them to the emergency room often.

In the 1980's, insurance companies, supported by employer



Source: Office of Policy and Planning, Texas Department of Health, 1998.

clients, picked up the tab for expensive acute care treatments.[4] From 1985 to 1990, there was a 19 percent increase in emergency room use.[5] As health care costs climbed, however, emergency room use tapered off. Many hospitals "closed beds."

Acute care use escalated again in the mid-1990's, with the number of ER visits nationwide increasing from about 90 million in 1994 to nearly 95 million four years later.[6]

Federal law requires emergency departments to accept all patients at all times, regardless of their insurance status or ability to pay for services.[7]

Emergency departments are our "first line of defense" in actual emergency situations, but they also routinely save heart attack and auto accident victims. They are on course to save even more, via specialized chest pain centers and trauma centers that enable optimal treatment.

Trauma Care:

Trauma care is designated separately from other types of acute care because of the need for fast diagnosis and treatment. Trauma systems operate on the principle that people with severe injuries require immediate specialized services for the best chance of survival. As a rule, the lives of most critically injured trauma patients can be saved if surgical intervention is provided during "the golden hour," or the first 60 minutes from the moment of injury.[8] Accordingly, studies show that severely injured patients who are treated in trauma centers have better survival rates than do trauma patients treated in non-specialized emergency departments.[9] What's more, retrospective studies of injured patients treated in hospital emergency rooms showed that 20-40 percent of fatalities could have been prevented with optimal trauma care.[10]

Trauma causes more annual fatalities among Americans younger than the age of 44 than cancer, heart disease, AIDS, or any other disease.[11] Almost 30 Texans die every day from injuries, and many more are seriously impaired.[12] Our state had the highest rate of motor vehicle deaths in the country last year (3,901).[13] Trauma is a costly and prevalent medical problem, which is why many states have implemented trauma systems and injury prevention measures.

State and regional efforts to develop trauma systems have been ongoing for about 30 years, but have "waxed and waned…because of changes in the availability of funds to support (them)."[14] In Texas, legislators passed the Omnibus Rural Health Care Rescue Act in 1989, directing the Bureau of Emergency Management of the Texas Department of Health (TDH) to develop and implement a statewide emergency medical services (EMS) and trauma care system. They did not, however, appropriate any funding for the mandate at the time.[15]

By 1997, the state had 22 Trauma Service Areas, guided by Regional Advisory Committees

Level I (Comprehensive) Trauma Facilities

Baylor University Medical Center, Dallas
Ben Taub General Hospital, Houston
Brooke Army Medical Center, Fort Sam Houston
East Texas Medical Center - Tyler
Memorial Hermann Hospital, Houston
Parkland Memorial Hospital Dallas
University Hospital, San Antonio
University Medical Center, Lubbock
University of Texas Medical Branch, Galveston
Wilford Hall Medical Center, Lackland AFB
R.E. Thomason General Hospital, El Paso

Source: Texas Bureau of Emergency Management, TDH, October, 2001.

(RAC's) designed to implement regional trauma systems plans. Although the legislature did not appropriate any funds for a trauma system until that year, two RACs had regional systems in place, and 100 hospitals statewide were designated as trauma facilities.[16]

To date, there are 11 Level I (comprehensive), 10 Level II (major), 35 Level III (general), and 134 Level IV (basic) designated trauma facilities in Texas.[17] While trauma centers are instrumental in saving lives, an effective trauma system is needed to ensure that the "golden hour" rule can be consistently followed in injury cases. A very important part of a successful trauma care system is a high quality EMS system.

The EMS System:

The Bureau of Emergency Management notes that, "the first ambulance service was initiated by the U. S. Army in the 1860's to serve as transport for fallen soldiers during the Civil War."[18] The role of ambulance services as a means of simply transporting sick, hurt or dead individuals persisted for more than 100 years.[19]

In 1966, passage of the Highway Traffic Safety Act began shaping EMS into a medical service, implementing standardized curriculum development and operating standards.[20] In 1970, EMS began using air resources to take seriously injured patients from accident sites to appropriate medical facilities, a critical step in serving rural areas.[21] Three years later, Congress passed the Emergency Medical Services Systems Act and allocated $185 million for EMS system development.[22]

An EMS system includes more than the familiar professional who hops out of an ambulance and begins cardio-pulmonary resuscitation (CPR). Just as important to the system are the medical directors, dispatchers, instructors, flight crews and support personnel who get the Emergency Medical Technicians (EMT's), Emergency Care Attendants (ECA's) and/or paramedics to those in need of care. As of August, 1998, there were more than 44,000 certified EMS professionals providing care in Texas.[23]

Most Texas communities have a Basic Life Support EMS system. In other words, their ECA's and EMT's provide CPR, bleeding control, splinting, extrication (removing patients from cars, etc.), and transportation.[24] In communities that maintain an Advance Life Support system, paramedics may operate a Moble Intensive Care Unit (MICU) and provide IV therapy, tracheotomies, and cardiac therapy.[25]

The EMS system is vital, especially in the most serious emergency cases. As with every other facet of the emergency care system, needs and demands often exceed resources. The section on rural areas (p.7) discusses some of the problems with the EMS system.

Quality of Care and Financial Woes: When Needs Exceed Resources...

Emergency rooms and trauma centers are designed to treat

EMS Emergency Care Providers:
(Lowest to highest levels of training)

- ECA Emergency Care Attendant
- EMT Emergency Medical Technician
- EMT-I Intermediate
- EMT-P Paramedic
- Licensed Paramedic

Source: Texas Bureau of Emergency Management, TDH.

patients after regular working hours, or in cases of acute medical crises. Accordingly, they are staffed 24 hours a day with highly skilled staff, and are generally outfitted with the latest lifesaving and diagnostic technology. In short, they are the most expensive department for hospitals to maintain. What's more, many of them operate at a loss.

Many factors led to the current situation in emergency services. Federal budget and policy initiatives, increasing numbers of uninsured, more sophisticated medical technology and treatment, managed care, and personnel shortages are some of the primary factors that have contributed to the financial and quality of care issues plaguing Texas hospitals and hospitals nationwide.

Overcrowding and Misuse of the ER:

The sheer number of emergency room and trauma center visits is straining the urgent care system. In just about any urban emergency room in the U.S., including those in Texas, patients arriving for care may find themselves waiting in hallways on gurneys.[26] Worse, they might be sent off to another hospital that may or may not have space or provide the necessary level of care.[27]

"Diversion," or routing patients away from an emergency room, is common. Memorial Hermann Hospital in Houston has to divert ambulances for an average of 12-16 hours monthly to allow the emergency staff time to "catch up" during times of heavy overcrowding.[28] Generally, this means that all of the hospital's beds are filled; there are stretchers in the hallways, and a full waiting room.[29]

In a rare plea to the community last June, Texas Children's Hospital in Houston asked "parents, grandparents and other care-givers of non-critically ill children" to go to primary care physicians over the weekend, or face very long wait times.[30].

To compound the problem, the state's population is aging,[31] a quarter of the population is uninsured,[32] and the state's poverty rate is about 42 percent, compared to the national average of 35 percent.[33] The uninsured, the poor and the elderly are the heaviest users of emergency room care. While researchers give different estimates of the prevalence of ER misuse, they agree that more than half of total ER visits are nonurgent.[34]

Lack of access to primary care most often drives patients into the emergency room for non-emergency services. More than half of the patients coming to the emergency room for nonurgent care could not see private physicians. Others were actually referred there by physicians.[35]

Another study found that lack of access to primary care doctors was a strong precursor to routine emergency department use for children's nonurgent sick care.[36] In fact, children in counties with abundant primary care physicians were half as likely to use

The Many Causes of Overcrowding in the ER:

- **Increased complexity and acuity of patients**
- **Overall increase in demand for ED treatment.**
- **Managed care gatekeeper, authorization and transfer requirements.**
- **Lack of (non-emergency) beds in hospitals.**
- **Increasing use of "intensive therapy" in the ED as an alternative to inpatient hospitalization.**
- **Delays in radiology, laboratory and ancillary services.**
- **Nationwide shortages of nurses, on-call specialists, and support staff.**
- **Insufficient ED space.**
- **Language and cultural barriers.**
- **Shortage of house staff rotating through teaching hospital EDs.**
- **Increased paperwork.**
- **Difficulties arranging follow-up care.**

Source: Derlet and Richards. Overcrowding in the Nation's Emergency Departments: Complex Causes and Disturbing Effects. Annals of Emergency Medicine, 2000:36:1;63-68

emergency rooms for treatment, regardless of insurance status.[37]

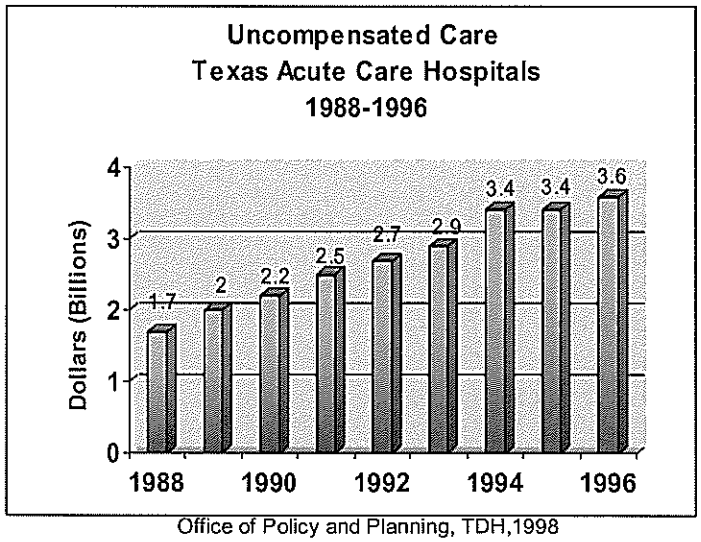
Glick and Thompson note that "the uninsured and people on Medicaid and Medicare use disproportionately more ER services than those who have private third-party coverage."[38] Because reimbursement rates are lower than market rates, some private physicians limit or refuse their services to Medicaid recipients.[39] The emergency room doctor becomes the primary care provider for many people on Medicaid.

If Medicaid patients have difficulties accessing primary care, the uninsured have even more trouble. They sometimes have little choice but to use emergency departments as doctors' offices. In a 1991 study, Pane, et al, found that 30 percent of emergency room users who admitted to using the ER as their source of primary care. were Medicaid recipients, and 40.7 percent were uninsured.[40] Because emergency room copayments are modest, and frequently waived because of inability to pay, Medicaid and uninsured patients have financial incentive to use the ER for all their health care needs.[41] In addition, Emergency departments are open at all hours, so patients in low-wage, hourly jobs without paid sick leave can receive care without losing income.

Access to quality primary care is the main reason for ER misuse by the poor and underinsured, but it is not the only reason. As noted, trauma cases are treated as emergency situations much of the time, and they are common. Thus, the emergency rooms and trauma centers see a steady stream of injured patients.

A lack of bed space in other hospital departments also creates problems in the ER. Sometimes patients stay in the emergency room for a day or two, waiting for a bed to become available in an inpatient unit.[42] This, in turn, ties up acute care beds and leads to diversions.

Paperwork requirements slow turnaround in the emergency room as well. Nurses and doctors spend as much as one hour completing paperwork for every hour they spend providing care.[43]



Office of Policy and Planning, TDH,1998

Urgent care nurse shortages, also contribute to overcrowding because unstaffed beds cannot be used. An emergency room nurse ideally staffs only about three beds at a time, though they are asked to handle more when the ER is busy.[44]

Overcrowding and ER misuse are perhaps the biggest problems for emergency departments in terms of care quality. They may be the biggest financial problems as well.

Budget Issues:

The bottom line from a financial standpoint is that too many patients in

Texas emergency rooms receive care for which nobody wants to pay.

An Urban Institute report noted that "although the Texas Medicaid program does cover the 'medically needy,' the income and asset limits are so low that very few people qualify."[45] Low-income adults, except for pregnant women and the disabled, do not qualify, and Medicare only covers adults over 65 years old.

Rather than aggressively enrolling the poor in Medicaid, the state has simply depended on hospitals and charities to provide care for the medically indigent.[46] The uninsured are expensive. Because hospitals in Texas must provide emergency care to all patients, they lost an estimated $4.7 billion on unreimbursed indigent care in 1998.[47]

The state Medicaid program draws federal funds to help hospitals that serve disproportionate numbers of the medically indigent (DSH funds). The Balanced Budget Amendment of 1997 (BBA), however, reduced DSH funding.[48]

Federally Qualified Health Centers, or those that serve a lot of Medicaid or uninsured patients, also suffered from reduced funding due to the BBA.

Although some funding was restored with federal legislation in 1999 and 2000,[49] hospitals serve the medically indigent without adequate compensation.

Even when emergency rooms and trauma centers serve fully insured patients, they may have trouble getting paid. Health Maintenance Organizations (HMO's) contribute to hospitals' budget problems, delaying or refusing payment for legitimate care.[50] For example, a patient may rush to an ER with severe chest pains – a classic heart attack symptom, but learns that the problem is digestive. Some HMO's might deny claims for treatment because, in the end, the patient's life was never threatened. Usually, the hospitals absorb these treatment costs.[51]

Another HMO practice, "gatekeeping," sometimes causes more burden for emergency care. Intending to decrease unnecessary treatments, HMO's require physicians to secure authorization for some treatment. One study showed, however, that patients do not always receive appropriate care and that they sometimes need higher levels of care later because their conditions actually worsened.[52]

Hospitals in Texas are facing all of these budget and operating issues at a time when the state is trying to establish trauma care and EMS systems. Results from a recent survey of Texas' major trauma centers indicate that the state's trauma system, still in its infancy, is in financial jeopardy.[53]

Overall operating losses last year for the 10 centers (of the 15 in the state) that completed the survey was more than $21 million, with each center losing an average of $8.2 million.[54]

To cope with the financial problems they face, some hospitals are closing, eliminating emergency departments and/or merging and reorganizing.[55] Texas hospital care has remained fairly steady in terms of overall capacity, though every year there are numerous changes in licensing, often indicating reorganizations.[56] For example, this year eight hospitals terminated their licenses. Only four actually closed, however. The remaining four "reopened" with a different type of license. In addition, there were two new hospital openings.[57]

Personnel Shortages:

Registered nurses (RN's) are in short supply nationwide. While the number of emergency care nurses has steadily increased in Texas, the vacancy rate for critical care RN's increased as well.[58]

When an "internal disaster," caused Houston's LBJ Hospital to close its emergency room doors for 16 hours, hospital officials had to bring in temporary critical care nurses to reopen.[59] Now a fairly standard practice, hiring temporary nurses is more costly than maintaining sufficient staff. Increasingly, however, nurses are leaving behind staff positions for short-term placements.[60]

The nursing shortage will get worse. Many registered nurses are reaching retirement age. The median age for nurses nationally is 45. Aside from retirees, one in five nurses say they will leave the profession within the next five years, and half of all nurses say that they are thinking about leaving.[61] At the same time, enrollment in undergraduate nursing schools has declined.[62]

The lack of nurses places a great burden on those who stay in the field. Mandatory overtime caused a 73-day strike in Michigan.[63]

Another problem nurses face is violence. Emergency room nurses are especially vulnerable to violent attacks because patients' families are stressed.[64] A recent survey showed that 32 percent of the 586 respondents "had been victims of threats, sexual assaults, or physical violence while on the job."[65]

Hospitals are working to recruit more nurses, offering bonuses and other incentives. In Texas, the rural areas of the state particularly suffer from personnel shortages.

Rural Areas: Miles and Miles of Texas...

Rural areas are those with fewer than 50,000 residents and fewer than six residents per square mile, and 196 of Texas' 254 counties, or about 77 percent, fall into this category (including the 61"frontier" counties with a population density of fewer than seven persons per square mile).[66] In general, public, rather than nonprofit or for-profit hospitals, serve the rural areas of the state.[67] Population density partially determines viability of services. As the Center for Rural Health Initiatives notes, "the lower the density of people in an area the greater the difficulty in accessing services." Thus, rural areas have some unique issues when it comes to acute care.

"Medically Underserved Area (MUA)" is a federal designation used to identify an area with inadequate access to personal health services, based on physician access, percentage of aged population, poverty rates and health status indicators. The majority of rural counties are fully or partially MUA's that rely heavily on Medicare and Medicaid reimbursements to finance health care.[68]

"This happened in a major metropolitan area with plenty of hospital beds, plenty of Level I trauma centers. There are other areas around the country where you would have to go 300 miles to find an adequate trauma center"

Dr. Louis Del Guercio, former Chair of the Department of Surgery, New York Medical College, and an expert on trauma, referring to the September 11 terrorist attack on New York. Source: Kennedy and Scherer, 2001: www.medscape.com.

Overall, 175 Texas counties, or about 69 percent, are medically underserved. Another 47 counties, or 18.5 percent, are partial MUA's.[69] The financial problems that urban hospitals and trauma centers face relating to Medicaid/Medicare and the uninsured are exacerbated by some of the characteristics of rural areas.

Rural health care providers serve more Medicare patients than do urban providers, as the rural population tends to be older. Most reimbursements for Medicaid and Medicare are based on previous program costs or budgeted dollar amounts. In rural areas, a few high cost cases can severely skew health risk profiles.[70]

As mentioned, low Medicaid reimbursements create a disincentive for providers to treat Medicaid patients. In urban areas, with large pools of providers, the cost of uncompensated care can be distributed so that the financial burden is shouldered by many.[71] In rural areas, a provider may be the only one for miles, so must absorb uncompensated costs entirely.[72]

Infrastructure and other issues have made it difficult for rural areas to establish regional EMS and trauma systems. As a result, the trauma death rate for rural areas is 70-75 deaths per 100,000 population, compared to the urban rate of 45 deaths per 100,000.[73]

In addition, research shows that severely ill trauma patients generally have better outcomes if they are treated in a facility that treats more than 650 trauma patients annually.[74] Such a facility is unlikely to be located in a rural area.

Recognizing the need to provide extra assistance in rural areas for EMS, trauma care and emergency care, legislators implemented various measures to increase funding and other resources. The following sections describe legislation and initiatives that will affect emergency and trauma care in Texas.

State Policy Initiatives and Programs

Because legislators try to stretch public dollars as far as possible, what they choose to fund often reflects priorities and/or indicates critical issues in Texas. The total state budget for this biennium (2002-3) is $113.7 billion, an increase of $6.1 billion over the 2000-2001 budget.[75] Health and Human Services needs account for about 30 percent of the budget, and they are projected to require the greatest increase in spending.[76]

Accordingly, Lt. Gov. Bill Ratliff and House Speaker Pete Laney appointed a joint interim committee to monitor Medicaid cost containment and the implementation of Senate Bill 43 by Sen. Zaffirini and Rep. Patricia Gray, designed to simplify access to Medicaid.[77]

Recognizing the value and importance of a state trauma system, Lt. Gov. Ratliff also charged the Senate Finance Committee to, among other things, "...evaluate the infrastructure, capacity and funding of trauma care to recommend ways to increase funding for the state's trauma care centers."

Several laws enacted last session and over the last few years have implemented some programs and initiatives designed to establish and improve emergency service and EMS and trauma care systems. Following is a list that highlights important measures from the last three legislative sessions.

75th Legislature (1997)[78]

- House Bill 1407 by Rep. Bob Glaze and Sen. David Cain added "licensed paramedic" as a new level of EMS personnel.

- House Bill 1668 by Rep. Rob Junell and Sen. Cain implemented fees for the use of each local phone line to fund 9-1-1 services and regional poison control centers. The Public Utility Commission established rates and allocates collected funds.

- House Bill 2850 by Rep. Tommy Williams and Sen. Michael Galloway allows subdivisions for which fire protection and emergency services are provided by a nonprofit corporation funded by ad valorem property taxes to remove themselves from emergency services districts and rural fire prevention districts.

- Senate Bill 102 by Sen. Judith Zaffirini and Rep. Ted Kamel established an emergency medical services and trauma care system fund. The Texas Department of Health (TDH) would administer the fund to develop county and regional emergency medical services and trauma care systems.

76th Legislature (1999)

- House Bill 820 by Rep. Elliot Naishtat and Sen. Zaffirini requires the Health and Human Services Commission to automatically review a child's eligibility for medical assistance if the child's Medicaid benefits are lost due to the loss of the family's Temporary Assistance to Needy Families (TANF) grant.

- House Bill 897 by Rep. Pat Haggerty and Sen. John Carona allows the Medical Assistance Program to cover the deductibles for Medicaid and coinsurance for participants who need ambulance services.

- House Bill 1398 by Rep. Garnet Coleman and Sen. Zaffirini authorizes TDH to administer and enforce the Indigent Health Care and Treatment Act implemented in 1985. It widens the scope of mandatory and optional indigent health care services, amends eligibility requirements, modifies state financial assistance to counties, provides for a tertiary care account, and establishes reporting requirements. This legislation also requires the commissioner of health and human services to establish a regional health care delivery system pilot program in a region of the state.

- House Bill 1676 by Rep. Junell and Sen. Bill Ratliff created a permanent fund for emergency medical services and trauma, and a permanent fund for rural health facility capital improvements. The interest from investment of these funds is appropriated to TDH and the Center for Rural Health Initiatives to provide emergency medical services and trauma care, and for the purpose and functions of the center.

- House Bill 1983 by Rep. Fred Bosse and Sen. Frank Madla established a 9-1-1 services fee fund and requires the Commission on State Emergency Communications to contract with regional planning commissions to provide 9-1-1

service. This Sunset Bill also continued the functions of the commission and included numerous minor "cleanup provisions."

- House Bill 1984 by Rep. Bosse and Sen. Madla permits emergency communication districts to consolidate voluntarily.

- Senate Bill 445 by Sen. Mike Moncrief and Rep. Patricia Gray created the Texas Children's Health Insurance Program (CHIP) for certain low-income children.

- Senate Bill 1249 by Sen. Jane Nelson and Rep. Gray authorizes TDH to inspect ambulatory surgical centers every three years and to issue administrative penalties.

- Senate Bill 1442 by Sen. Gonzalo Barrientos and Rep. Sherri Greenberg authorizes certain municipalities surrounded by larger cities to withdraw from emergency services districts in order to contract with other emergency service districts.

77th Legislature (2001)

- House Bill 1096 by Rep. Vilma Luna and Sen. Mario Gallegos established the Fire Control, Prevention, and Emergency Medical Services District Act to allow a municipality to establish, through the vote of its citizens, a fire control, prevention, and emergency medical services district.

- House Bill 1124 by Rep. Bob Turner and Sen. Moncrief established a community healthcare awareness and mentoring program to identify, encourage, and support potential health care professionals from rural and underserved urban areas.

- House Bill 1333 by Rep. Junell and Sen. Rodney Ellis transferred unencumbered funds from certain state agencies to provide emergency appropriations to TDH in the amount of $333,777,000 for the state Medicaid program

- House Bill 2421 by Rep. Judy Hawley and Sen. Madla established a rural physician recruitment program under the Center for Rural Health Initiatives to increase the number of physicians practicing in medically underserved rural areas.

- House Bill 2446 by Rep. Glaze and Sen. Madla allows counties to reimburse EMS providers under the Indigent Health Care and Treatment Act at Medicaid rates, standardizes and simplifies EMS terminology and classification of providers and authorizes EMS personnel of all levels to carry and administer epinephrine auto-injector devices. The bill also authorizes a governmental entity or an organization that sponsors or wants to sponsor an emergency medical services provider in a rural or underserved area to request initial training for ECA's from the Bureau of Emergency Management.

- House Bill 2744 by Rep. Bill G. Carter and Sen. Madla authorizes Emergency Services Districts and Rural Fire Prevention Districts to exchange territory and expands their power to borrow money.

- House Bill 3312 by Rep. Jim Dunnam and Sen. Moncrief requires TDH to establish a pilot program, if funding is available, to test the efficacy of using emergency medical dispatchers located in a regional emergency medical dispatch resource center to provide life-saving and other emergency medical instructions to persons who need guidance while awaiting the arrival of emergency medical personnel (*note: provision also included in HB 2446*).

- Senate Bill 43 by Sen. Zaffirini and Rep. Gray eliminates the requirement for a face-to-face interview to streamline the process and provide for continuous medical assistance eligibility when children are transitioning from Medicaid to CHIP or to private insurers.

- Senate Bill 126 by Sen. Madla and Rep. Turner established the Rural Communities Health Care Investment Program to provide loan repayment assistance and financial stipends for health care professionals who relocate or initiate their practices in rural areas.

- Senate Bill 188 by Sen. Jon Lindsay and Rep. Gary Elkins allows emergency medical services volunteers who are state employees to receive five working days off for training without a deduction in salary.

- Senate Bill 789 by Sen. Mike Moncrief and Rep. Glen Maxey set forth provisions regarding the reimbursement and regulation of telemedicine medical services in Texas to bring health services to rural and underserved communities.

- Senate Bill 1299 by Sen. Lucio and Rep. Coleman created a task force to comprehensively evaluate Medicaid and CHIP reimbursement rates statewide and to develop recommendations for change.

In addition to legislative initiatives to resolve problems related to the emergency care, there are several initiatives implemented by non-governmental organizations.

For example, collaborating with local hospitals, universities, public institutions, community-based organizations, private corporations and local foundations, The Healthcare Homeless Houston (HHH) established community health clinics run by medical students and electronic medical record keeping accessible by all homeless healthcare providers.[79]

In 1993, a county-wide task force in San Antonio established policies and procedures to deal with trauma center diversion. When all three Level I trauma centers went on diversion at the same time in the summer of 2000, the group standardized policies and categorized over 20 diversion situations. This year they began a web-based pilot program to coordinate and track trauma center diversions.[80]

The University if Texas – Houston School of Nursing and Medical School created a "first-of-its-kind," interdisciplinary program in 1995 to train "emergency nurse practitioners (ENP's)."[81] The ENP's are highly skilled nurses authorized to order tests, diagnose illnesses and prescribe treatments within defined protocols.[82] This enables them to provide primary and emergency care in the ER.

A Few Initiatives Outside Texas

Since the crisis in emergency and trauma care is national in scope, many states have implemented measures to address overcrowding, diversions, access and other elements of the problem. This section highlights just a few of the many initiatives outside Texas.

The Advocate HealthCare hospitals of Illinois implemented a Fast-Track admission process to expedite the treatment for non-urgent care needs. It functions as a separate area of the ED with designated staff members who focus on providing quality non-urgent care and decreasing wait times and crowds.[83]

Advocate HealthCare, also provides "Advocate Urgent Health Centers," to provide non-urgent care outside the ER. Various sites are open after regular business hours and on weekends, and appointments are not required.[84]

Christner Hospital in St. Louis, MO, will complete a $320 million project by the end of this year that should improve service and efficiency. It includes placing waiting areas near each treatment area, adding space for "holding beds" for patients requiring observation time and adding X-ray equipment in trauma rooms. Operational innovations include posting a triage nurse at the ER entrance to expedite care and paperwork, bedside registration and computer terminals to access to patient status information quickly. [85]

Union Mission, Inc., an organization that provides services for the homeless, HIV patients and substance abusers in Savannah, Georgia, collaborated with Memorial University Medical Center to create primary care centers at five major homeless shelters in 1998. The award-winning initiative, funded by hospitals, foundations and local, state and federal funds; has decreased unnecessary hospital stays and diverted a large segment of the homeless population from emergency rooms. It has saved the community: an estimated $9.5 million.[86]

A review of North Carolina's Medicaid Managed Plan found that increased access to primary care services (in the form of more primary care physicians and a telephone triage program) significantly reduced monthly ED use by children with Medicaid insurance (24 percent).[87]

Healthwise, a non-profit organization in Boise, Idaho, created and provided paperback handbooks to Anderson County (S.C.) residents, to educate consumers about healthcare topics, personal healthcare maintenance and healthcare services in their area. The handbooks helped to decrease unnecessary ED visits.[88]

In 1999, the University of Pennsylvania Medical Center, implemented a trial Trauma Case Management Team to determine possible benefits. Having the team resulted in reduced length of stay and 682 hospital days saved over the year.[89]

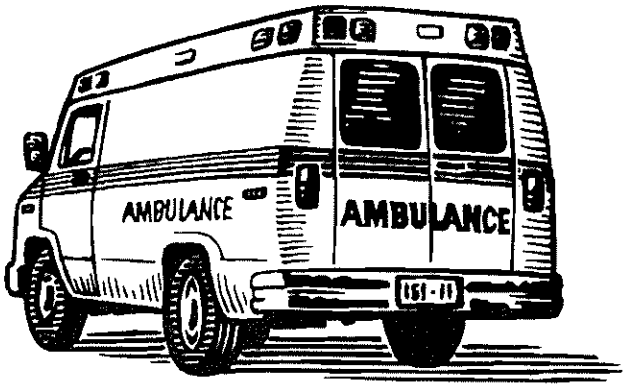
Conclusion

In Texas, more than a quarter of the population struggles to access health care. Providing a medical safety net for so many strains our health care system -- particularly when the safety net consists of misuse of the acute care system.

The problems that led to the current crisis in emergency care are numerous, multi-faceted and not easily addressed.

While various innovative efforts and policy initiatives have helped to ease some of these problems, a coordinated, comprehensive approach that focuses on addressing the underlying causes of the crisis is critical to ensuring a viable emergency care system for the future.

Emergency rooms provide the public with care that is accessible and convenient. Every Texan has a stake in keeping them open.



[1] Zuniga, Jo Ann. "Emergency rooms' workload remains in critical condition; Hospitals struggle to fight overcrowding, underfunding." *Houston Chronicle*. March 26, 2001, A-15.
[2] Rodrigues, Janette. "LBJ back to normal after 16-hour 'internal disaster.'" *Houston Chronicle*. June 6, 2001, A-23.
[3] Office of Policy and Planning, Texas Department of Health. "Texas Acute Care Hospital Fact Sheet" (1998).
[4] Isenstein, Howard. "Code Blue: Managed Care is Putting Emergency Care into Shock," *Washington Monthly*, July, 1999, p.2.
[5] Nagurney, J. Tobias and Daphna W. Gregg. "Making Good Use of the Emergency Room," *Harvard Health Letter*, October, 1996, v21, n12, pp.9-12.
[6] Appleby, Julie. "ER Conditions: Critical," *USA Today*, February 4, 2000, 1-A.
[7] Moran, Julie. "A Visit to the ER," *Current Health*, January 1996, v22, n5, pp. 13-15.
[8] The Trauma Resource and Education Foundation (TREF), San Diego County, 2001. http://www.tref.org/
[9] Goldfarb, Marsha, Gloria Bazzoli and Rosanna Coffey. "Trauma Systems and the Cost of Trauma Care," *Health Services Research*, April 1996, v31, n1, pp. 72-97.
[10] Mullins, Richard, et al. "Outcome of hospitalized Injured Patients After Institution of a Trauma System in an Urban Area," *The Journal of the American Medical Association (JAMA)*, June 22, 1994, v 271, n 24, pp. 1919-1925.
[11] TREF, 2001.
[12] Bureau of Emergency Management (BEM), TDH, "Texas Trauma Systems History," http://www.tdh.state.tx.us/hcqs/ems/Etrahist.htm
[13] Conklin, J.C. "Ten Trauma Hospitals in Texas Expect Collective Losses to Exceed $200 million," *The Dallas Morning News*, Feb. 16, 2001.
[14] Bazzoli, Gloria, et al. "Progress in the Development of Trauma Systems in the United States: Results of a National Survey," *JAMA*, Feb. 1, 1995, v273, n5, pp. 395-402.
[15] Bureau of Emergency Management, http://www.tdh.state.tx.us/hcqs/ems/Etrahist.htm
[16] ibid.
[17] BEM, October 18, 2001.
[18] BEM, "Texas EMS History," http://www.tdh.state.tx.us/hcqs/ems/emshx.htm
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Ibid.
[23] BEM. "A System to Save A Life: Emergency Medical Services in Texas," TDH, August, 1998 (Pub. EMS-012).
[24] Ibid.
[25] Ibid.
[26] See Appleby, 2000; Nagurney, 1996; Zuniga, 2001; Serafini, 2001; or Rodrigues, 2001, to list a few references.
[27] Ibid.
[28] Zuniga, 2001.
[29] Ibid.
[30] ___. "Hospital's Bed Shortage Leaves Patients No Room," *The Houston Chronicle*, July 7, 2001, A-36.
[31] Texas Department on Aging. *Demographic Profile of the Elderly in Texas.* Policy and Planning Division, Austin, Texas: March, 2000, p. i.
[32] Office of Public Insurance Council.(OPIC) "Health Insurance Coverage in Texas: Context and Demographics," July 6, 1998.
[33] Kaiser Family Foundation State Health Facts, http://www.statehealthfacts.kff.org
[34] Glick, Doris and Karen MacDonald Thompson. "Analysis of Emergency Room Use for Primary Care Needs." *Nursing Economics*, Jan-Feb 1997, v15, n1, pp.42-50.
[35] Tintinalli, Judith. "Emergency Medicine," *JAMA*, June 19, 1996, v275, n23, pp.1804-5.
[36] Halfon, Neal, et al. "Routine Emergency Department Use for Sick Care by Children in the United States." Pediatrics, v 98, N 1, July 1998, p. 28-34.
[37] Ibid.
[38] Glick and Thompson, 1997.
[39] Ibid.
[40] Pane, G.A., et al. "Health Care Access Problems of Medically Indigent Emergency Department Walk-n Patients," *Annals of Emergency Medicine,* v20, n7, 1991, pp. 730-33.
[41] Glick and Thompson, 1997.
[42] Serafini, 2001.
[43] Ibid.
[44] Ibid.
[45] Wiener, Josh; Alison Evans, Crystal Kuntz and Margaret Sulvetta. "Health Policy for Low-Income People in Texas," Washington, D.C.: The Urban Institute, Assessing the New Federalism Series, 1997.
[46] Merle, Renae. "Task Force on Uninsured Considers Host of Solutions," The Wall Street Journal, June 14, 2000.
[47] Merle, 2000. This estimate was provided by "the state" to The Wall Street Journal. Other estimates differ. In a House Research Organization report, for example, the figure is $3.6 billion.
[48] Ibid.
[49] The Balanced Budget Refinement Act of 1999, and the Benefits Improvement and Protection Act, 2000.
[50] Mithers, Carol Ann. "The ER Crisis," *The Ladies Home Journal*, July 2001, v118, n7.
[51] Ibid.
[52] Ibid.
[53] Clifton, Guy L. "Cost of Treating Uninsured Jeopardizing Trauma Centers," *The Houston Chronicle*, March 11, 2001.
[54] Hay, Kristen. "Hospitals Say Growth in Uninsured Patients Threaten Trauma Centers," *The Houston Chronicle*, March 11, 2001.
[55] Serafini, Marilyn Werber. "Trouble in the ER," *National Journal*, v33, n20. Washington: May 19, 2001. pp. 1490-93.
[56] Phone interview with John Evans, Hospital Licensing Director, Facilities Compliance and Licensing, September 21, 2001.
[57] Ibid.
[58] Miller, Don. "The Supply of Registered Nurses: First Look at Available Data," *Health and Nurses in Texas,* Winter 2000, v1,n1.
[59] Rodrigues, June 6, 2001.
[60] Serafini. 2001
[61] Ibid.
[62] Ibid.
[63] Ibid.
[64] Morgan, Leigh. "In Harm's Way: Health Professionals Face Increasing Abuse in the Workplace," Nurseweek.com, www.nurseweek.com/features/99-8/violence.html

[65] Ibid.
[66] Center for Rural Health Initiatives (CRHI). *Rural Health in Texas, 2000: A Report to The Governor and The 77th Texas Legislature*, Texas State Office of Rural Health, January, 2001.
[67] Ibid.
[68] Ibid.
[69] Office of Policy and Planning. "Texas MUA and MUP Designations." TDH, 2001.
[70] CRHI, 2001.
[71] Ibid.
[72] Ibid.
[73] Texas Department of Health, trauma death reports, 1998. http://www.tdh.state.tx.us/injury/reports/98rpts
[74] Nathens, Avery, et al. ""Relationship Between Trauma Center Volume and Outcomes." JAMA, v 285, n i9. March 7, 2001, p. 1164.
[75] Legislative Budget Board. Recapitulation of Senate Bill 1, final version, www.lbb.state.tx.us.
[76] _____. "Legislative Leaders Appoint Joint Interim committee to Monitor Impact of Health Costs on State Budget," Press Release, Friday, September , 2001. www.senate.state.tx.us/75r/ltgov/pr01
[77] Ibid.
[78] All of the legislation information is summarized from the actual legislation via the Texas Legislature Online's bill search engine, http://www.capitol.state.tx.us/capitol/legis.htm.
[79] "Health, Hope and Dignity: Program Narrative", Healthcare Homeless Houston (HHH), link to: http://www.homeless-healthcare.org/hhh/overview/index.htm
[80] "Web Provides Some Relief to ER Crises in Texas, Ohio and Upstate New York", Mary Ann Costello, AHA News, January 1, 29, 2001, v37, n4.
[81] Fernau, Mary Lynn. "New Emergency Nurse Practitioner Eases Emergency Room Pressure." Press Release, February 8, 1995. The University of Texas – Houston Health Science Center.
[82] Ibid.
[83] _____. "On the Fast Track to High-Quality Emergency Care", *AdvocateHealthCare Magazine*, Spring 2001 www.advocatehealth.com/magazine/spr01
[84] "Urgent Care When You Need It", AdvocateHealthCare Magazine, Summer 2001, http://www.advocateheath.com/magazine/sum01/ahc5.html and http://www.advocatehealth.com/magazine/spr01/nosi4.html
[85] "ER on the Fast Track", Diana Manos, Hospitals and Health Networks, July 2000, vol74, i7, p24-26
[86] "Nova Award Winners 2001-A Small Investment and a Lot of Heart Can Improve a Community's Health" Hospital and Health Networks (HHN), July 2001, link to: http://www.hhnmag.com/
[87] "'Narrowing the Gap': Decreasing Emergency Department Use by Children Enrolled in the Medicaid Program by Improving Access to Primary Care", Mark D. Piehl, Conrad J. Clemens and Jerry D. Joines, Archives of Pediatrics & Adolescent Medicine, August 2000, v154, i8, p791-795
[88] "Health Groups Push 'Information Therapy' to Help Treat Patients", Laura Landro, Wall Street Journal, February 2, 2001
[89] "The Clinical and Financial Effect of a Trauma Case Management Team", M.K. FitzPatrick, MSN et. al., 2000 Index to Abstracts of Scientific Programs, The American Association for the Surgery of Trauma, link to: http://www.aast.org/00abstracts/00absPoster_062.html