The Florida Senate

Interim Project Report 2004-108 *November 2003*

Committee on Appropriations James E. "Jim" King, Jr., President

REVIEW OF TRAUMA CARE PLANNING AND FUNDING IN FLORIDA

SUMMARY

This report reviews the status of Florida's trauma system to determine the effectiveness of trauma planning, the adequacy of the current network and the impact of alternative funding strategies. The review found the following:

- Trauma planning is effective at the statewide level, however, local and regional planning is limited because local or regional trauma agencies have not been formed in most areas of the state and the Department of Health has not established trauma regions, other than the 19 trauma service areas that are specified in s. 395.402, F. S. Trauma planning documents may need to be updated more frequently and should become more operationally oriented.

- The current trauma system network has significant gaps in North Florida and North Central Florida. Legislative actions to stimulate hospitals' participation in the trauma center network by creating incentives have not been forthcoming. The lack of incentives resulted in gaps in trauma coverage.

- State funding for trauma services has been inadequate and unpredictable. Appropriations have only been available since 1998 and all of the funding has been from non-recurring funds which require the legislature to re-address the funding on an annual basis. There is no dedicated funding stream for trauma services. Alternative funding strategies may require the legislature to consider fee, fine or tax increases.

BACKGROUND

Trauma Center Network

Florida currently has twenty state-approved trauma centers which are considered to be among the best in the country. Trauma services and trauma center operations in Florida are governed by chapter 395, part II, F. S. There are six Level I Centers which are also Pediatric Centers, thirteen Level II Centers of which five are also Pediatric Centers and one Pediatric Center all located in major population areas. Florida is divided into nineteen trauma service areas to facilitate planning for system development. (Chart 1 shows approved trauma center locations) These areas can be modified by the Department of Health.

Chart 1

Source: Department of Health – Agency website

Trauma center types are defined in s. 395.4001, F. S. as follows:

"*Level I trauma center*" means a trauma center that:
(a) Has formal research and education programs for the enhancement of trauma care and is determined by the department to be in substantial compliance with

Level I trauma center and pediatric trauma referral center standards.

(b) Serves as a resource facility to Level II trauma centers, pediatric trauma referral centers, and general hospitals through shared outreach, education, and quality improvement activities.

(c) Participates in an inclusive system of trauma care, including providing leadership, system evaluation, and quality improvement activities.

"*Level II trauma center*" means a trauma center that:
(a) Is determined by the department to be in substantial compliance with Level II trauma center standards.

(b) Serves as a resource facility to general hospitals through shared outreach, education, and quality improvement activities.

(c) Participates in an inclusive system of trauma care.

"*Pediatric trauma referral center*" means a hospital that is determined by the department to be in substantial compliance with pediatric trauma referral center standards as established by rule of the department.

Emergency room services which are generally integrated with trauma centers also have a key role in Florida's emergency care system and are defined in s. 395.002, F. S. as follows:

"*Emergency services and care*" means medical screening, examination, and evaluation by a physician, or, to the extent permitted by applicable law, by other appropriate personnel under the supervision of a physician, to determine if an emergency medical condition exists and, if it does, the care, treatment, or surgery by a physician necessary to relieve or eliminate the emergency medical condition, within the service capability of the facility.

The events of September 11, 2001 have placed a renewed interest on the response capacity and the quality of hospital facilities and emergency service providers. The Senate Home Defense, Public Security and Ports Committee is conducting an interim project on the "surge" capacity of hospitals. The need for a viable trauma and emergency response system is now greater than ever. Expansion of the current trauma network has been at a standstill for several years and, if any facility loses its designation, the network may diminish significantly. Recent actions by Shands HealthCare in Gainesville to begin planning for a trauma center designation are encouraging.

Trauma State Plan

The 1999 trauma system report by the Department of Health entitled "Timely Access to Trauma Care" was the impetus for statutory changes in 1999 designed to bring Florida's trauma services up to acceptable standards and statewide coverage. Chapter 395, part II, F. S., places legislative emphasis on the need for an inclusive trauma system which provides Floridians and visitors timely access to trauma care. Trauma standards and procedures are based on the "golden hour" principle, which is the optimal timeframe for the delivery of services to trauma victims. The Department of Health has the primary responsibility for the oversight, planning, monitoring and establishment of a statewide inclusive trauma system. In response to the 1999 statutory changes the department undertook planning and coordination activities in conjunction with the Agency for Health Care Administration, trauma centers and related committees, and other state and local agencies.

The department formed various workgroups and involved a significant number of interested parties and key participants in the development of the State Trauma Plan which was published in December, 2000. The plan outlines twenty-three goals and related objectives which the department proposed to undertake to develop the state trauma system as envisioned by the 1999 legislation. The legislation allowed the plan to be updated at any time, but required an update by the end of the fifth year, which is 2005. Statements in the plan indicated that as each objective was addressed, detailed action plans would be developed by the department. The department actively monitors these action plans and has made these action plans operational in many instances. Further, status reports on trauma planning were included in the annual report of the Bureau of Emergency Medical Services (EMS).

Trauma centers and the department have formed several committees to facilitate coordination, development of policy and oversight. These include the Florida Committee on Trauma, the State Trauma System Plan Implementation Committee, a Trauma Registry Task Force, the Florida Trauma Program Managers, and the Trauma Agencies Subcommittee. Additionally, department staff and these committees meet with affiliated groups such as the EMS Advisory Committees, the Florida Aero Medical Association, the Brain and Spinal Cord Injury Program and the EMS providers.

Local and Regional Trauma Agencies
There are currently only four local/regional trauma agencies approved by the department. Three trauma agencies cover a single county each (Hillsborough, Palm Beach, and Broward). The fourth trauma agency covers 12 counties in north/central Florida. Trauma agencies develop plans, review transport protocols, monitor trauma centers, establish quality improvement programs and provide public education for their service areas.

Trauma Center Funding
For the past three years the funding for trauma care beyond the normal reimbursements from Medicaid, other third party payers and private payers has come from the Medicaid program in the form of special non-recurring Medicaid payments under the Upper Payment Limit Program. In the last three years $44 million in Medicaid payments have been made for trauma care through the Upper Payment Limit Program. Medicaid also estimates they paid $97.7 million during 2002 in fee-for-service payments for trauma-related diagnoses. Prior to 1998, there was no specific funding for trauma centers. Earlier efforts in 1990-91 were stymied because of a budgetary shortfall and the resources appropriated were cut from the state budget.

During the 2003 Legislative Session a Senate proposal related to county financial responsibility for trauma care was offered but did not pass. This proposal linked the responsibility for payment to the county of residence and to counties which had unspent Florida Health Care Responsibility Act (HCRA) funding at the end of the year in which the hospitalization occurred. HCRA is governed by chapter 154, part IV, F. S. which places the financial obligation for the out-of-county hospital care of qualified indigent patients of the county in which the indigent patient resides. Annually, counties are required to reserve approximately $66 million for these services; however, less than 5% of these funds are actually expended for out-of-county care.

Trauma Center Staffing
Medical malpractice costs and sovereign immunity issues have surfaced over the past year in the context of the debate about trauma center funding and related trauma center staffing problems. Several hospitals have experienced short term staffing problems and one hospital has notified the department of its inability to continue as a trauma center due to staffing issues. This hospital has managed to gain local financial support to temporarily meet staffing standards and keep the facility operating. Hospitals are facing increased on-call costs, limited recruiting pools and imminent retirements of key staff, especially surgeons.

Trauma Registry
The department has implemented a trauma registry, as required by law, s. 395.404, F. S., to record encounters by type of injury, cause of injury, and service location. An annual report for 2002 is about to be published and will show trauma patient loads, severity indexes, sources of admissions, and causes of injuries. The department uses the data from this registry to monitor workload and the quality of trauma center services statewide. Because of confidentiality requirements this data is available only to the individual centers which submitted the data. The annual report, which does not contain facility specific data, will allow for a statewide summary of trauma services.

Trauma Center Site Surveys
The department monitors each of the twenty state-approved trauma centers for compliance with state statutes, rules and treatment standards/protocols. A survey is done twice within a seven year period to determine the level of compliance with applicable state law, procedures and standards. Florida's centers routinely receive high marks in these reviews. Surveys are conducted by state staff and national experts who do on-site visits and conduct records reviews and interviews. Current department trauma management has done an excellent job of on-site monitoring and follow-up. This has resulted in uniformity in the application of standards and significant improvements in quality.

METHODOLOGY

Committee staff from the Home Defense, Public Security, and Ports Committee; Health, Aging, and Long-Term Care Committee; and the Appropriations Subcommittee on Health and Human Services met with department personnel who manage the trauma program. Staff also met with trauma center and hospital representatives as well as trauma surgeons and the Florida College of Emergency Physicians representatives. Data in the form of reports, statutory provisions, data related to other states, cost information, and service data were collected and reviewed. A site visit was conducted at Baptist Hospital in Pensacola, a Level II Trauma Center, and staff attended a joint meeting of hospitals and trauma centers held in Tampa.

FINDINGS

Trauma planning documents and local/regional planning efforts could be improved.

The current State Trauma System Plan was promulgated in December, 2000 by the department after consultation with a variety of interested individuals, key participants, state agencies and corporate entities. Statutory requirements for trauma plans were included in the 1999 legislation which envisioned an "inclusive trauma system" designed to meet the needs of all injured trauma victims requiring that level of care. This plan sets an agreed upon framework of how to proceed with the development and evolution of the network during the period 2000 to 2005. As currently published, this plan consists of statutory requirements supplemented by broad target implementation dates and background information.

In the introductory statements the plan stated that as each objective was addressed, detailed action plans would be developed. Further, status reports were to be included in the annual report of the Bureau of Emergency Medical Services. The department has developed the detailed action plans for each of the twenty-one goals in the state plan and these are rigorously monitored at least quarterly. The action plans contain the operational level planning detail. The department will be updating the State Trauma System Plan in 2005, and should consider incorporating elements of these action plans into the state plan where it is feasible and required by statute.

The department has interpreted the statutes to only require an update every five years. The possibility that trauma centers and emergency rooms will be the front line in the event of a domestic security event is real and Florida must be prepared. Updates to this plan have not been completed even though nearly three years have passed and there have been two significant terror events, including the anthrax event here in Florida, which may have impacts on trauma service delivery in Florida. State level trauma planning efforts have been effective, however, due to the perceived 5 year planning cycle the operational accomplishments have not been effectively integrated into the plan.

Sections 395.401 and 395.4015, F. S., provide for the development of local and regional trauma agencies and local and regional trauma plans. Only four local and regional trauma service agencies are currently functional. Three are single county agencies (Hillsborough, Broward, and Palm Beach) and one covers 12 counties in north/central Florida. Florida Statutes require the agencies to develop plans, review transport protocols, monitor trauma centers, establish quality improvement programs and provide public education for their service areas. The department approves local and regional trauma agencies, which must submit plans for local and regional trauma services systems to the department for approval or disapproval based on statutory criteria. In areas where local or regional trauma agencies have not been formed, the department is responsible for developing regional trauma systems plans, which must contain certain components established in statute. The department has not yet established trauma regions, other than the trauma service areas established in statute, and has not developed any local or regional plans for those areas not covered by a local or regional trauma agency. The lack of statewide coverage of trauma agencies and the lack of department-developed regional plans, coupled with increased planning responsibilities related to domestic security may lead to gaps and inconsistencies in the regional planning efforts.

State funding for trauma services has been inadequate and unpredictable.

Trauma care state funding has not been consistent and there is no stable, unique source of funding to sustain current centers or to encourage the development of new centers in underserved areas. Up until Fiscal Year 1998-99 there was virtually no specific state funding designated for trauma centers (Table 1).

Table 1

HISTORY OF TRAUMA STATE APPROPRIATIONS			
Fiscal Year	**Department of Health**	**Agency for Health Care Administration**	**Comments - Total**
1990-91			$24 million appropriated but later eliminated by legislative action.
1998-99	$2,500,000		Level I Centers only
1999-00	$3,000,000		Level I Centers only
2000-01	$4,800,000		All Centers
2001-02	$1,622,601	$15,000,000	All Centers
2002-03		$18,000,000	All Centers
2003-04		$11,610,000	All Centers
TOTAL	**$ 11,922,601**	**$ 44,610,000**	**$ 56,532,601**

Source: General Appropriations Acts and legislative work papers

In Fiscal Year 2001-02, the Legislature, working with the Florida Hospital Association, the Agency for Health Care Administration, and other interested parties, approved the use of a special Medicaid payment methodology which targeted funding to trauma centers. This methodology was approved by the federal Centers for Medicare and Medicaid Services and continues to be the primary source of state funding for trauma. Upper Payment Limit funding is subject to legislative appropriation each year and is contingent on the availability of intergovernmental transfers of matching funds in order to earn federal matching dollars. These appropriations are considered non-recurring; therefore, the funding must be readdressed based on the availability of the federal authority and the locally generated match. The department and the Governor have not identified trauma care as a critical need in legislative budget requests for the past several years. Funding for trauma services has not been consistent or adequate and is probably a significant contributing factor to the lack of statewide coverage for trauma services.

Accounting for trauma services at the hospital level is merged with emergency department operations and costs of services are merged with emergency room related services and other routine hospital services. Comprehensive financial data related to the trauma portion of hospital costs are not available; therefore, it is difficult at this time to show specific trauma-related costs by facility.

The department contracted for a study of the costs of trauma center preparedness in 2002. The study conducted by MDContent was completed in June, 2002. Even with some limitations, this study provides valuable insight into the incremental costs to hospitals of providing trauma services. The study is based on a survey completed by ten of the twenty state-approved trauma centers in Florida. The study "focuses on direct, extraordinary, and unbillable costs, most of which derive from the intense, variable and stochastic (random) demands that trauma patients make on facilities and clinicians." Results of the study include an estimation of total unreimbursed costs of state-approved trauma centers. The median annual unreimbursed costs of the trauma centers are reported to be $2,706,510. Table 2 shows how these costs were separated by the MDContent study by cost category. If a decision was made to fund the twenty current centers at this median level the cost to the state would be over $54 million. This level would not provide any funding for the development of new centers nor would it take into account recent incremental costs associated with extraordinary on-call fees or malpractice costs.

Table 2

TOTAL UNREIMBURSED COSTS OF DESIGNATED TRAUMA CENTERS		
COST CATEGORY	MEDIAN ANNUAL	
Sub-Specialist On-Call Compensation (includes Trauma Director and other costs related to on-call coverage)	$	2,080,103
Re-Designation Costs (Overtime, office space, supplies and equipment)	$	124,120
Outreach and Prevention Costs (Technology, office supplies, travel, direct marketing and program development)	$	56,543
Other Direct and Non-Chargeable Costs (Overhead, flight programs, on-call, security, and training)	$	811,274
MEDIAN TOTAL	$	2,706,510

Note: Totals do not add because it is a median cost.
Source: MDContent Report, "The Costs of Trauma Center Preparedness", June, 2002

Since this was a blended study of small, medium, and large trauma centers the range of the projected costs is significant. Costs range from a low of $1,840,250 to a high of $8,588,823. From this wide range a conclusion could be made that centers might receive differential rates based on some allocation factor. In the event funding is made available, factors could include injury acuity, patient volume, designation levels, quality achievements or staffing requirements.

Current statutes, s. 395.403, F. S., include provisions for reimbursement on a per patient basis with an overall reimbursement limitation by service area. This method requires an eligibility process and a billing process which could be costly and time consuming to implement. Recent payments from Upper Payment Limit funds have been based on the type of facility and have been lump sum payments. There are some concerns that these lump sum payments go into general hospital operations and do not necessarily result in an improvement in trauma center operations.

Trauma registry data has not been readily available.

A rule was promulgated in the spring of 2002 which required the submission of a comprehensive set of data from each of the 20 trauma centers. The centers are now providing the data as required and the department is beginning to use the data in its analysis and

monitoring initiatives. As a result of an extended planning and development process the data has not yet been widely shared with outside parties including the Legislature. This situation should be corrected when the department issues its first annual report within the next few weeks. Table 3 displays some data from the draft annual report. The data has been slightly re-categorized in an attempt to show the major referral sources of trauma admissions.

Trauma Center reimbursement challenges exist.

Financial reimbursement methodologies or strategies for hospitals in the event of a terrorist attack do not currently exist. Due to the unique operational structure of preparedness requirements, costs may be incurred even though the patient load may not be significant. This is the circumstance that was encountered after the September 11, 2001 attack on New York and medical facilities prepared for the influx of patients who never arrived. The cost of being prepared and ready to respond was still incurred.

The data in Table 3 shows that 43.4% of the trauma admissions are related to motor vehicle accidents. The next highest referral source is accidents at 25.2% followed by crime related admissions at 13%. If the legislature decides to increase revenues to fund trauma, Table 4 shows what the potential impact would be if the decision were made to increase fees and fines related to motor vehicle ownership and operation. The table shows what each $1 incremental increase would generate.

If decisions are made to dedicate a funding source to trauma centers, the Legislature may have to decide the relationships between funding sources and admissions sources, and what proportions of new revenues should be attributed to each. Other funding sources, based on a review of admissions, could include the insurance premium tax, additional sales tax on firearms, or increases in the Personal Injury Protection levels in automobile insurance.

Table 3

2002 FLORIDA TRAUMA REGISTRY - ADMISSIONS		
COMPLAINT	**PATIENTS**	**PERCENTAGE**
Motor Vehicle Related:		
Motor Vehicle Crash	9,568	32.5%
Motorcycle Crash	1,532	5.2%
Pedestrian	1,703	5.8%
Subtotal	**12,803**	**43.4%**
Crime Related:		
Gun Shot Wound	1,453	4.9%
Assault/Rape	1,203	4.1%
Stabbing	1,177	4.0%
Subtotal	**3,833**	**13.0%**
Accident Related:		
Fall	5,626	19.1%
Burn	737	2.5%
Sports/Recreational	307	1.0%
Bicycle	754	2.6%
Subtotal	**7,424**	**25.2%**
Other:		
Other Unspecified or Not Reported	5,418	18.4%
Subtotal	**5,418**	**18.4%**
TOTAL	**29,478**	**100.0%**

Source: The Trauma Registry 2002 Annual Report – DRAFT – July 2003

Table 4

POTENTIAL REVENUE SOURCES		
SOURCE	**INCREASE**	**AMOUNT**
Driver's License Fee Increase (Renewals, Transfers and Original Licenses)	Each $1 generates	$ 2,955,045
Motor Vehicle Registrations (Not Including Mobile Homes)	Each $1 generates	$ 15,497,458
Vessel Registrations	Each $1 generates	$ 898,905
Motor Vehicle Title Fees (New, Used, Transfers and Miscellaneous)	Each $1 generates	$ 4,671,250
Vessel Title Fees (New, Used, Transfers and Miscellaneous)	Each $1 generates	$ 212,265
Traffic Fines - Non-Criminal Moving Violations	Each $1 generates	$ 2,240,134
Traffic Fines - Criminal Violations	Each $1 generates	$ 465,315
Traffic Fines - Non-Moving Violations	Each $1 generates	$ 1,284,952
Driving Under the Influence Fines	Each $1 generates	$ 51,372

Source: Department of Highway Safety and Motor Vehicles workload data – Fiscal Year 2002-03 estimate.

Hospitals have not maximized recoveries under HCRA.

According to data provided by the Agency for Health Care Administration hospitals received payments in the amount of $3.1 million for Health Care Responsibility Act (HCRA) eligible services in Fiscal Year 2001-02. Counties were required by law to budget $65.3 million for these payments calculated at $4 per capita during the same period. This wide discrepancy should be reviewed to determine whether the assessment is too high based on utilization rates, if the billing process is flawed or if there are artificial barriers to increased reimbursements created by counties, hospitals or the billing process.

Statutory changes may be required.

There are provisions of chapter 395, part II, F. S. which are outdated. In some cases, dates have passed and are no longer relevant. Terminology regarding verification of trauma centers is no longer consistent with the state approval process. In addition, current statutory provisions related to a detailed cumbersome billing process for charity care should be deleted and replaced with a formula-based system.

To a large extent, the statutory provisions relating to local and regional trauma agencies, trauma regions, and local and regional plans have not been implemented. Since September 11, 2001, domestic security regions have been established in Florida and hospitals/trauma centers have become involved in regional planning for domestic security purposes. The regional trauma planning provisions in chapter 395, part II, F. S., should be reevaluated and consideration should be given to the domestic security regions for regional trauma planning.

Areas not served by a trauma center have few incentives to create a center therefore the adequacy of trauma coverage is limited.

Other than the perceived potential market advantages created by the designation as a state-approved trauma center, there appear to be no incentives to encourage further development or expansion of trauma centers. Funding provided in FY 1990-91 was not retained in a subsequent budget reduction exercise and these funds were never distributed to trauma centers. In the intervening years there was only sporadic funding for the centers except for the last three years in which significant funding was provided through Medicaid. The department has annually solicited acute care hospitals related to their interest in becoming a trauma center. This year, the Shands Hospital in Gainesville has expressed interest in becoming a trauma center and has undertaken financial commitments to hire staff and to begin planning. This effort would fill a significant void in the trauma center network. Areas currently served by a trauma center are fortunate to have access to some of the best care available in the nation.

Other population centers of the state which are underserved include Leon and surrounding counties and Bay and surrounding counties. Incentives are needed to bring new trauma centers on-line in these areas. Start-up and planning funds might enable these areas to begin building capacity for trauma services.

Outcome evaluations have not been prepared to compare morbidity levels between individuals served by trauma centers versus those served by emergency rooms.

There has been a series of studies at the national level which validate the importance of trauma centers and the value of prompt and skilled treatment of trauma victims. While the results of these studies invariably will apply to Florida, there have been no specific comparisons of the outcomes of persons treated in trauma centers versus those who receive care through the traditional emergency room in Florida. Florida has two unique situations in geographic areas where trauma centers do not exist but the skill levels of medical professionals are exemplary and the traditional emergency rooms are well managed and staffed. These areas include Leon County and the surrounding area and Alachua County and the surrounding area. There may be a benefit to understanding the difference in patient outcomes between these areas and those served by trauma centers. This data may prove beneficial in making future recommendations related to the need for additional trauma centers as well as identifying procedural or staffing requirements for emergency rooms. Monitoring trauma system effectiveness and patient outcomes and conducting quality assurance reviews assures quality services.

Staffing issues related to reimbursements and working conditions are impacting trauma center costs and could impact the quality of services.

Staffing issues have emerged as the major cost drivers for trauma centers and the supply of qualified and able specialty physicians continue to be concerns. Several trauma centers indicated that trauma surgeons are making significant lifestyle and career decisions

because of the time and physical demands of the profession. The supply of individuals qualified for these positions is also limited. Hospitals are now faced with increased demands for compensation, on-call fees, and reasonable working hours. Level I Trauma Centers are especially vulnerable because of the on-site staffing standards required for quality of care. At least one trauma center feels there could be a "domino effect" if one Level I center closes and the trauma workload is transferred to the Level II centers in the area.

The recent changes to malpractice enacted by the Florida Legislature have not had sufficient time to work. It is, therefore, unknown if the changes related to hospitals will have an effect on malpractice rates. This issue should be reviewed as a part of any additional changes to current malpractice statutes. Data on these malpractice costs related to trauma are not readily available. It is important that the Legislature monitor the on-going impact of malpractice reform especially as it relates to trauma and emergency room services.

RECOMMENDATIONS

1. Florida should consider adopting a stable predictable fund source to fund the trauma system and should direct those resources to the areas of system development, center operations, and staff development, recruitment and retention.

2. The department should update the current State Trauma System Plan to include results of action plans in order to attain a state plan which is more operationally oriented.

3. The department should update the state plan more often than five years, if circumstances dictate the need.

4. The department should consider a regional approach to trauma planning which integrates with domestic security regions.

5. Hospitals should more aggressively pursue reimbursements under the Health Care Responsibility Act, and if county assessment levels are determined to be too high, the Legislature should consider changes to the $4 rate per capita, or other program policy changes.

6. The department should conduct an outcome evaluation to determine the short and long-term differences of trauma care versus traditional emergency room care.

7. Florida should create incentives for expansion of the trauma center network if the state expects to attain statewide coverage of trauma services.

8. The department should propose statutory changes to eliminate obsolete language and to update chapter 395, part II, F. S., as necessary.