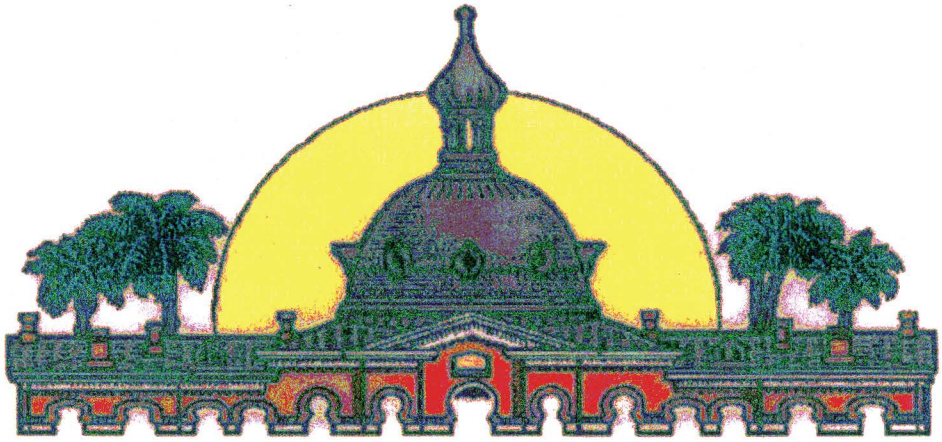
2005 TRAUMA PLAN UPDATE



Hillsborough County Florida

HILLSBOROUGH COUNTY TRAUMA AGENCY

Trauma Service Area Ten

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INTRODUCTION

Chapter 395, Part II, Florida Statutes (F.S.) and Section 64E-2, Florida Administrative Code (F.A.C.) grants a local or regional trauma agency the authority to plan, implement, and evaluate its trauma service area (TSA). The Hillsborough County Trauma Agency (HCTA) received its approval to operate from the Department of Health and Rehabilitative Services in 1990. It is one of four such bodies in the state. Broward, Palm Beach, and North Central Florida (an eleven-county TSA) are the others.

The last plan revision was approved in December 1999. This marks the fifth update for this agency and the first submission since the rule change extended the period between updates to five years. As before, this document will emphasize the differences in the trauma system since the last Plan was accepted by the State Bureau of Emergency Medical Services, and HCTA's direction for the future.

In 2002, the HCTA was transferred from the Public Safety Department, Office of Community Services, to the Health and Social Services Department, a section of the Office of Human Services and the single largest division in the County organization. Staffing levels continue with one full-time employee, the Coordinator, and one consultant Medical Director. The organizational structure will be further described in a section dealing specifically with that aspect.

A summary of this trauma system's constituent changes that have occurred since the last Plan Update follows:

Non-trauma centers (initial receiving hospitals)

- Memorial Hospital and Town and County Hospital, previously Tenet facilities, were bought by the IASIS Corporation.

Other non-initial receiving hospitals

- Vencor Hospital on Manhattan and Vencor Central Hospital became Kindred facilities.
- MacDill Air Force Base (6th Medical Group) closed its emergency department in 2005.

Prehospital providers

- Aeromed 3 (Advanced Life Support [ALS]-air), is a new rotary wing aircraft operated by Tampa General Healthcare, based in Citrus County.
- Bayflite operates additional satellite helicopter bases in Manatee and Sumter Counties.
- American Medical Response (AMR) Ambulance has a Certificate of Public Convenience and Necessity (COPCN) for ALS non-emergency medical ground transportation services

for contracted standbys at Tampa Bay Downs and the Ford Amphitheatre, and out-of-county interfacility transfers.

- Americare Ambulance (AMC) also has a COPCN for ALS non-emergency medical ground transportation services limited to contracted standbys just at Tampa Bay Downs and out-of-county interfacility transfers.
- Both AMR and AMC have temporary COPCNs for ALS in-county interfacility transfers that are periodically extended under the oversight of a BOCC appointed task force examining multiple system integration issues.
- Med Evac, Inc. became a Basic Life Support Provider (BLS) provider in 2001 but currently has suspended operations under that incorporation.
- Med Evac, L.L.C. obtained a COPCN in 2005 for ALS (fixed-wing only) air ambulance service; with continued care and transfer via ALS (ground) ambulance service to/from any healthcare facility/location in-county, to/from such air ambulance; out-of-County ALS (ground) ambulance service interfacility transfers; ALS (ground) ambulance service to/from any healthcare facility or location within Hillsborough County, pursuant to their VA Hospital contract; and ALS medical standby, with the public provider having jurisdiction responsibility of the event location the right of first refusal.
- Med Evac L. L. C. has a temporary COPCN for ALS in-county interfacility transfers (ground) ambulance service, except healthcare facilities within the City Limits of Tampa for which renewal will be also be contingent upon approval of the BOCC task force that is examining multiple system integration issues, as will be the case for the other private ambulance services.
- Plant City Fire Department changed its name to Plant City Fire Rescue and initiated their own BLS transports in 2001, largely within the city limits, breaking a long history of dependency on HCFR. Their long term goal will be to provide ALS service to the residents of Plant City.
- TransCare now operates as a full service BLS ambulance company since 2001, in addition to its role as primary BLS transportation for Baker Act patients.

The following enhancements to the trauma system infrastructure have occurred since the last Plan Update:

Major highway improvements are underway since the last Update of the Plan, including: the reconfiguration of the interchange between Interstate 4 and Interstate 275 and the erection of an elevated roadway for unidirectional traffic flow over the Selmon Crosstown Expressway that would change directions during for morning and evening rush hours.

Notable improvements have occurred within the arena of Emergency Medical Dispatch (EMD) Communications, and related areas. The adoption of the Advanced EMD module provides new and critically needed phone instructions and techniques to the EMD process. Incorporating the latest advances in medicine and training, a new category of Advanced Dispatch Life Support (ADLS) is now emerging.

Mapping software provides dispatchers with visual assistance in determining the location of the caller's whereabouts within meters of accuracy.

Most cellular providers now supply the 9-1-1 system with the caller's phone number and longitude, latitude coordinates, but the call taker still obtains location and call back numbers from all cellular callers.

Hospitals and EMS now monitor ambulance diversion status via a web-based application which allows each facility to specify the particular specialty for which there is a shortage of resources. Trauma centers can stipulate adult or pediatric bypass as applicable. All hospitals use the built-in report utility which captures actual activity thereby enabling accurate statistical reporting.

Hospital's treating capacity decisions are now able to be managed real-time during mass casualty incidents via an electronic bed reporting application wherein hospitals input/update their capacity/availability according to treatment capabilities.

Hillsborough County's trauma system participants are in now full compliance with Florida's Emergency Medical Services Communications Plan.

1. Describe the population and defined geographic area to be served by the trauma agency.

Hillsborough County is located on the west central coast of Florida on one of the finest protected natural harbors in the world. It is bounded on the north by Pasco County, to the south by Manatee County, to the east by Polk County, and to the west by Pinellas County and Tampa Bay. The terrain is generally flat with a shallow water table. The elevation ranges from sea level to 170 feet above sea level. The County covers an area of 1,070 square miles, borders on 76 miles of coastline and has about 42 square miles of inland water. The major rivers, the Hillsborough, Alafia and Little Manatee, all flow into Tampa Bay. The low lying areas along these bodies of water and certain areas in the northwest, north and southeast inland areas are prone to fresh water flooding. Heavy development has occurred in many of these locations which has greatly increased the human impact after a major storm. Notable environmentally sensitive areas include the mangrove swamp and coastal marshes adjacent to the coastline, riverine wetlands; and inland freshwater wetlands throughout the county. The coastal areas of the county bordered by Tampa Bay and Hillsborough Bay are considered hazard areas for a hurricane storm surge.

Hillsborough County is linked by more than 3,453 miles of roads. The major thoroughfares are Interstate 275, Interstate 75, Interstate 4, State Road 60, U.S. Highway 41, U.S. Highway 92, U.S. Highway 301, the Selmon Crosstown Expressway, the Veterans Expressway with direct connection to the Suncoast Parkway in the northwestern part of the county. The County is served by a major international airport, and three smaller airfields. The rail system is used by two railroad cargo companies and one passenger line.

Hillsborough County has a subtropical climate with a wet season running from June through November. Average annual rainfall is 53 inches. During the summer months, the temperature fluctuates from the low 70's to the low 90's. Winter months are usually sunny and dry. The temperature range in the winter months is from the low 40's to the low 70's.

Hillsborough County is the fourth most populous in the state, exceeded by Palm Beach, Broward and Miami-Dade. Its 2004 mid-year population was estimated at 1,115,960. The three incorporated cities in the County are the City of Tampa, the City of Plant City and the City of Temple Terrace. Between 2000 and 2004, the average annual percentage change (AAPC) in population in these three municipalities was 1.9%, 2.08% and 1.07% respectively. For the same time period, the AAPC in population in unincorporated County outpaced all incorporated jurisdictions at 3.3%. Unincorporated Hillsborough County covers 86 percent of the County's land area and accounts for almost 66 percent (734,430) of the County's total population. The communities experiencing the greatest growth include the south: (Balm/Wimauma, Greater Sun City Center), south-central: (Brandon, Riverview), west: (Westchase, Town & Country) and northwest: (Carrollwood) sectors of the County.

Population density is greatest in the three jurisdictions.

POPULATION DENSITY/SQUARE MILE OF LAND AREA Hillsborough County & Jurisdictions			
Area	Land Area (Square Miles)	2004 Population Estimate	Persons/Sq. Mile of Land Area
Tampa	117.1	327,220	2,794
Plant City	22.9	32,480	1,418
Temple Terrace	6.9	21,830	3,164
Unincorporated County	923	734,430	796
Hillsborough County	1,069.90	1,115,960	1,043

Source: The Bureau of the Census, Hillsborough County City-County Planning Commission, 2004

Hillsborough County is a racially and ethnically diverse community. The 2003 Census Bureau population projections estimate the distribution as follows:
Whites (non-Hispanic origin) 61.0%
Whites (Hispanic origin) 18.9%
Blacks 16.9%
American Indian, Eskimo, or Aleut 0.4%
Asian or Pacific Islander 2.8%

Immigrants moving to the Tampa-St. Petersburg-Clearwater MSA in 2000 from countries that account for 50 or more nationals include Cuba, Mexico, Vietnam, Canada, India, UK, the Philippines, China, numerous Baltic States, Russia, Germany, numerous South American countries, numerous Caribbean nations, Poland, and Korea.

Hillsborough County experiences two significant seasonal shifts in population size during the year. Several groups contribute to this population variation. The first influx occurs during the produce picking season between February-April, coinciding with the Gasparilla, Strawberry Festivals and Florida State Fair. While the number of annually returning farm workers has dropped since 2004 from the preceding five years due to a decline in the tomato and citrus industries (attributed to urban sprawl and NAFTA); there are still an estimated 15,000 that come to Hillsborough County for the strawberry industry and other truck crops. Over the same period of time, the population swells by approximately 20,000 from tourists, vendors and the homeless that enter the County for a total of 35,000 additional visitors and residents.

A second significant population fluctuation takes place in Sun City Center. A third of the residents leaves around Easter and returns before Thanksgiving. This amounts to a net loss of 8,000 +/- during the summer months and an effective gain of 8,000 during the holidays. These part-time residents are counted along with the other transient figure can be added to the one above for a total peak season impact (Feb-April) of approximately 43,000 seasonal residents. There is also a population of about 20,000 +/- homeless people who move in and out of transient housing ranging from "flop-houses" to the back of cars, etc. (written communication: James M. Hosler, Team Leader, Research and Economic Development, Hillsborough County Planning Commission). The temporary increases in population posed by these various groups plus transfers from out-of-county to our two trauma centers regularly impact the census of trauma patients at all hospitals countywide

The community supports a large base of working age citizens. Sixty per cent of the population is between 20 and 65 years old. About twelve per cent of the residents are of Medicare age (Rand Florida). The median age is 35.8 (Census Bureau). The Bureau of Economic Business Research at the University of Florida estimates that for 2005, females (51%) slightly out number males (49%).

Pasco County to the north was 65th among the 100 Fastest Growing U.S. Counties with 10,000 or more population at 407,799 in 2004, a growth rate of greater than 18% over the previous year and a gain of about 63,000 residents since the Census. About half of Pasco's work force commutes daily to Hillsborough. Major traffic congestion has evolved over the years especially along the routes connecting the two counties because the road capacity has not kept pace with growth. Pasco County has five community hospitals but no trauma centers. Severely injured patients are transported from the scene or transferred interfacility in/from that county to either Hillsborough or Pinellas County, depending on location of the incident and other factors.

Hillsborough County's economy is largely driven by the service sector, consisting of health, administrative support, educational services and staffing services companies. Not only is the service sector the largest, it is also the fasting growing sector of the workforce, fueled by population growth. Agribusiness and the Port of Tampa are also strong contributors to the county's economy. The County's largest businesses are in the health care, administrative support, social assistance and retail sectors.

In 2002, mean per capita personal income for the County was $29,602. The average unemployment during 2004 was 3.6 %, less than both the state (4.8%) and national (5.4%) rates.

PERCENT PERSONAL INCOME BY INDUSTRY TYPE	
Government and government enterprises	13.6%
Administrative and waste services	11.1%
Professional and technical services	10.0%
Finance and insurance	9.2%
Health care and social assistance	8.6%
Retail Trade	7.4%
Wholesale trade	6.3%
Manufacturing	5.8%
Construction	5.4%
Information	5.4%
Transportation and warehousing	3.5%
Accommodation and food services	2.9%
Other services, except public administration	2.8%
Real estate and rental and leasing	2.3%
Arts, entertainment, and recreation	1.8%
Utilities	1.5%
Management of companies and enterprises	1.2%
Educational services	0.8%
Forestry, fishing, related activities, and other	0.3%
Mining	0.02%

The Port of Tampa is the largest tonnage port in Florida, and the closest full service U.S. port to the Panama Canal. Interest in passenger cruise-ship travel continues to grow annually. The port moves nearly half the tonnage of seaborne commerce in the State and ranks twelfth in the nation as a cargo port. Products moved through the Port include:

Inbound	Outbound
Petroleum and Petroleum Products, Coal, Liquid Sulphur, Steel, Anhydrous Ammonia, Citrus Concentrate, Bananas, Containerized Cargo and Cement	Bulk Phosphates, Phosphoric Acid, Scrap Metal, Citrus Pellets, Poultry Produce, Containerized Cargo

MacDill Air Force Base occupies the southernmost portion of the Interbay peninsula in South Tampa. The base is home to more than 50 mission partners, representing all branches of service. These include:

6th Air Mobility Wing	3,000-person force capable of rapidly projecting air refueling power anywhere in the world
U.S. Central Command	unified command responsible for U.S. security interests in 27 nations consisting of approximately 900 personnel from each of the four branches of service
U.S. Special Operations Command	unified command which directs approximately 47,000 active duty and reserve component special operations, psychological operations and civil affairs forces from the Army, Navy and Air Force
Joint Communications Support Element	highly specialized and rapidly deployable tactical communications unit from all branches of service to provide communications support for contingency military operations, disaster relief and evacuation activities
Aircraft Operations Center of the National Oceanic and Atmospheric Administration	employs 14 research and reconnaissance aircraft in meteorological oceanographic experiments, including hurricane observation
6th Medical Group	hospital (no emergency department) and clinics on base provides prevention and healthcare services to active duty, veterans, and families

2. Include a map showing the defined geographic area of the proposed trauma agency, each major geographical barrier, all medical facilities, all prehospital ground and air facilities, and all other significant factors that affect the determination of the geographic area boundaries.

The geographic area served by the HCTA, Trauma Service Area #10, is formally bounded by the Hillsborough County line. The predominant thoroughfares are Interstate 75, running north-south midway through the County, Interstate 275 running east-west in the western half of the County before turning north-south to the County line, the Selmon Crosstown Expressway, running northeast-southwest extending from Old Tampa Bay to downtown before turning east-west out to I-75.

Three causeways link Hillsborough County with the Pinellas County peninsula across Old Tampa Bay to the west: The Howard Frankland Bridge with separate east and west bound spans with wide emergency lanes in both directions, the Courtney Campbell Causeway with wide emergency lanes in both directions and access roads for pedestrian and beach traffic and the Gandy Bridge, also with separate east and west bound spans. The west-bound leg is taller and has a wide emergency lane. Just to the north of these two bridges is the Friendship Trail, a 2-½ mile retired bridge span used as a recreational trail for foot and other non-motorized traffic.

There are seven drawbridges along the Hillsborough River. Five of the bridges are controlled by the City of Tampa (Platt Street, Brorein Street, Cass Street, Laurel Street and Columbus Drive), the other two by the State (Kennedy Boulevard and Hillsborough Avenue). During periods of high water, such as occurs during tropical storms or hurricanes, some bridges may be impassable.

The predisposition to flooding in areas within Hillsborough County carries implications for access by ground to certain health care facilities. For hurricane evacuation purposes, the county is divided into five evacuation levels (Level A to E) corresponding to the five categories of hurricanes (1 to 5), e.g. Evacuation Level A = Category 1 Hurricane. The Hillsborough County Evacuation Guide, published annually, provides color coded representation of the five evacuation levels. That map has been reproduced in this Plan to show the hospitals which potentially could be affected by an evacuation order. See the HILLSBOROUGH COUNTY HOSPITALS IN EVACUATION ZONES map in Appendix C.

Of the 15 hospitals in Hillsborough County, storm surge data developed from the NOAA computer hurricane simulations indicate that five are located in evacuation zones. These facilities must include hurricane evacuation procedures in their disaster plans. The remaining hospitals should include procedures for receiving patients during hurricanes in their plans. Non-evacuating hospitals must also execute a priority discharge procedure to ensure available space for incoming evacuating hospital and emergency cases.

Among the five hospitals in evacuation zones, the area's only level I trauma center on an island off downtown Tampa, is in a primary evacuation area for flooding resulting from hurricane and other storm activity. In 2005, Tampa General began construction of a new building at 18 feet elevation that would withstand Category 3 storm conditions. The new structure will replace the current sea-level emergency department which will be housed on the second floor. Other state-of the-art specialty care and treatment units will be located above, on upper floors.

Of the 29 free standing nursing homes, four are in evacuation zones. (Note: two hospitals also have nursing home units). These nursing homes must arrange with other nursing homes to accommodate their evacuated patients. Provisions must be made for equipment, supplies, and nursing staff.

All hospitals and nursing homes must prepare their own comprehensive emergency management plan (CEMP) in accordance with Section 59A-3-078, F.A.C., which provides for agreements and standard procedures for the inter-hospital transfer of patients, drugs, supplies, records and personnel during times of localized or area wide evacuation. Hillsborough County's Emergency Management Section reviews and approves each of those plans. The County in turn has its own global CEMP to provide uniform policies and procedures for the effective coordination of actions necessary to prepare for, respond to, recover from, and mitigate natural or man-made disasters which might affect the health, safety or general welfare of individuals residing in Hillsborough County. The organization of these activities is discussed further in the section on mass casualty and disaster preparedness.

Maps of the prehospital ground/air and medical facilities are included in the Appendices A, B and C. The locations for these agencies and the medical facilities follow in this section.

Location	Emphasis
Appendix A	Hillsborough County locations of the public EMS providers base stations and their helipads, the base stations of the private EMS providers, and the base sites of the air medical ambulances Aeromed I and Bayflite 3 which are stationed at the trauma centers, Tampa General Hospital and St. Joseph's Hospital respectively.
Appendix B	Hillsborough County locations of all hospitals and hospital-based helipads
Appendix C	Hillsborough County showing the hurricane evacuation levels A through E for the entire County (flood prone areas) and the five hospitals which could potentially be evacuated because of a hurricane.

A summary of the public EMS' infrastructure (stations and specialized equipment) is provided below.

Public EMS service	Fire stations	Rescue stations	Combo stations	ALS Engines	ALS Transport	ARFF	BLS Engine	BLS Transport
HCFR	39	2	21	35	23	0	5	0
PCFR	2	0	2	0	0	0	2	2
TFR	21	0	13	13	13	4	8	0
TTFD	2	0	2	2	2	0	0	0
Total	64	2	38	50	38	4	15	2

Public EMS service cont'd	Brush Truck	Foam Transport	HAZMAT	Heavy Rescue	Ladder Truck	Tanker Truck	Ventilation Truck	Helipad at HQ
HCFR	11	0	1	1	5	7	0	1
PCFR	1	0	0	0	1	0	0	0
TFR	2	2	1	1	4	0	1	0
TTFD	1	0	0	0	1	0	0	0
Total	15	2	2	2	11	7	1	1

All four public EMS agencies now have combined fire and rescue providers. In general, there are more fire engines than rescue cars. Fire engines are typically staffed by firefighters which are typically also licensed as emergency medical technicians (EMT) who can perform BLS level assessment and procedures. Rescue cars are typically staffed by paramedics (EMT-P) who can perform ALS level assessment and procedures. Increasingly, staffing for the City of Tampa and County fire engines is being upgraded to that of paramedic for the stand-alone fire stations, i.e., those without a rescue car. This is especially desirable in areas which are farther from a rescue station. It increases the likelihood that the critically injured patient will be afforded a higher level of prehospital care even before the rescue car (transport vehicle) arrives. Any engine personnel are authorized to call a trauma alert and any recognized public safety responder on-scene can summon a helicopter even before a rescue vehicle arrives.

Definitions for the summary matrix of all stations/specialized equipment and map legends in the appendix is provided below.

Fire station – any station housing non-transport units
Rescue station – station housing only transport units
Combo station – station housing both non-transport and transport units
ALS Engine - engine (fire suppression) non-transport unit staffed with ALS level personnel
ALS Transport - rescue car/unit (transport ambulance) staffed with paramedics
ARFF - Airport rescue fire suppression vehicle especially equipped to fight fires from inside
BLS Engine - engine (fire suppression) non-transport unit staffed with BLS level personnel
BLS Transport - rescue car/unit (transport ambulance) staffed with emergency medical technicians
Brush Truck - light utility vehicle used for fire suppression
Foam Transport – especially equipped vehicle used to disperse foam
HAZMAT – especially equipped vehicle staffed by personnel to deal with hazardous materials
Heavy Rescue - specially equipped vehicle used for extrication
Ladder Truck - specially equipped vehicle utilized for elevated operations
Tanker Truck - specially equipped vehicle used to transport water for fire suppression
Ventilation Truck - specially equipped vehicle used to ventilate structures during/after fires
VOL = volunteer fire station
Helipad at HQ= Helipad at Fire Rescue Headquarters

City of Tampa Fire and Rescue Stations: PE=Paramedic Engine; E=BLS Engine; R=Rescue Unit (ALS)		
Station #	Personnel / Equipment	Address
1	E-1 / R-1	808 Zack Street
2	ARFF-1 / ARFF-2 / ARFF-3 / ARFF-4 / P-ARFF-6	5405 W. Spruce Street
3	E-3 / R-3 (Interfacility)	103 S. Newport Avenue
4	E-4 / R-4	2100 11th Avenue
5	PE-5 / R-5	3900 N. Central Avenue
6	PE-6 (HAZ MAT)	311 S. 22nd Street
7	E-7	6129 Nebraska Avenue
8	PE-8 / R-8	2050 N. Manhattan Avenue
9	E-9	2525 Chestnut Street
10	PE-10 / R-10	3108 34th Street
11	E-11 / R-11	710 E. Fairbanks Street
12	PE-12	3073 W. Hillsborough Avenue
13	PE-13 / R-13	9415 McKinley Drive
14	PE-14 / R-14	1325 S. Church Avenue
15	PE-15 / R-15	4919 S. Himes Avenue
16	PE-16	5126 10th Avenue
17	E-17	601 E. Davis Boulevard
18	E-18 / R-18	5706 N. 30th Street
19	E-19	4916 Ingraham Street
20	PE-20 / R-20	16200 Bruce B. Downs Boulevard
21	PE-21 / R-21	18902 Green Pine Lane

City of Temple Terrace Fire Department Stations: PE=Paramedic Engine; R=Rescue Unit (ALS)		
Station #	Personnel / Equipment	Address
1	PE-11 / R - 11	124 Bullard Parkway (Headquarters)
2	PE - 21 / R - 21	2 E. Telecom Parkway

City of Plant City Fire Rescue Stations: E=BLS Engine; R=Rescue Unit (BLS)		
Station #	Personnel / Equipment	Address
1	E - 1 / R1 (BLS)	604 E. Alexander Street, Plant City (HQ
2	E - 2 / R2 (BLS) T - 1 / Tower/ladder truck	809 E. Alexander Street, Plant City

Hillsborough County Fire Rescue Stations: PE=Paramedic Engine; E=BLS Engine; R=Rescue Unit (ALS)			
Personnel / Equipment	Station Name	Address	City
	Fire Marshall	3210 S. 78th Street	Tampa
PE-1	Progress Village	3302 S. 78th Street	Tampa
PE-2	Lithia	6726 Lithia-Pinecrest Road	Lithia
PE-3	Summerfield	11101 Big Bend Road	Gibsonton
R-3	Summerfield	11101 Big Bend Road	Gibsonton
PE-4	Armwood	11826 SR 92	Seffner
R-4	Armwood	11826 SR 92	Seffner
PE-6	Henderson	10100 Henderson Road	Tampa
PE-7	South Brandon	122 W. Bloomingdale Avenue	Brandon
Vol E-8	Sundance	602 Lightfoot Road	Wimauma
PE-9	Sabal Park	3225 Falkenburg Road	Tampa
PE-10	Armdale	8430 N. Grady Avenue	Tampa
R-10	Armdale	8430 N. Grady Avenue	Tampa
PE-11	Brandon	117 Ridgewood Avenue	Brandon
R-11	Brandon	117 Ridgewood Avenue	Brandon
PE-12	Gibsonton	8612 Gibsonton Drive	Gibsonton
R-12	Gibsonton	8612 Gibsonton Drive	Gibsonton
R-13	Gunn Highway	7502 Gunn Highway	Tampa
PE-13	Gunn Highway	7502 Gunn Highway	Tampa
PE-14	N. Hillsborough	1404 E. 131st Avenue	Tampa
PE-14A	N. Hillsborough	1404 E. 131st Avenue	Tampa
R-14	N. Hillsborough	1404 E. 131st Avenue	Tampa
E-15	Palm River	715 S. 58th Street	Tampa
PE-16	Riverview	9205 Kevin Drive	Riverview
PE-17	Ruskin	101 First Avenue NE	Ruskin
R-17	Ruskin	101 First Avenue NE	Ruskin
Vol E-18	Seffner-Mango	105 E. Cactus Road	Seffner
PE-19	Carrollwood	13210 N. Dale Mabry Highway	Tampa
R-19	Carrollwood	13201 N. Dale Mabry Highway	Tampa
PE-20	W. Hillsborough I	7020 W. Hillsborough Avenue	Tampa
R-20	W. Hillsborough I	7020 W. Hillsborough Avenue	Tampa
PE-21	Thonotosassa	11641 Flint Avenue	Thonotosassa
R-21	Thonotosassa	11641 Flint Avenue	Thonotosassa
PE-22	Wimauma	1120 7th Street	Wimauma

Hillsborough County Fire Rescue Stations: PE=Paramedic Engine; E=BLS Engine; R=Rescue Unit (ALS)			
Vol E-23	Dover	3138 Sydney-Dover Road	Dover
R-23	Dover	3138 Sydney-Dover Road	Dover
Vol PE-24	Lutz	129 Lutz-Lake Fern Road	Lutz
R-24	Lutz	129 Lutz-Lake Fern Road	Lutz
PE-25	Springhead	4503 Coronet Road	Plant City
Vol PE-26	Cork Knights	5302 W. Thonotosassa Road	Plant City
Vol E-27	Bloomingdale	4705 E. Bloomingdale	Brandon
R-27	Bloomingdale	4705 E. Bloomingdale	Brandon
PE-28	Sun City/Ed Powers	4551 Sun City Center Blvd.	Sun City Ctr.
R-28	Sun City/Ed Powers	4551 Sun City Center Blvd.	Sun City Ctr.
PE-29	Apollo Beach	626 Gulf & Sea Blvd.	Apollo Beach
PE-30	Midway	2526 Charlie Taylor Road	Plant City
PE-31	W. Hillsborough II	8901 Memorial Highway	Tampa
R-31	W. Hillsborough II	8901 Memorial Highway	Tampa
PE-32	East Lake	5808 Harney Road	Tampa
R-32	East Lake	5808 Harney Road	Tampa
PE-33	Falkenburg	850 S. Falkenburg	Tampa
R-33	Falkenburg	850 S. Falkenburg	Tampa
PE-34	Van Dyke	6415 Van Dyke Road	Lutz
PE-35	Westchase	10401 Countryway Blvd.	Tampa
PE-36	Valrico	116 N. Dover Road	Dover
R-36	Valrico	116 N. Dover Road	Dover
PE-37	Providence Rd.	5602 Providence Road	Brandon
R-37	Providence Rd.	5602 Providence Road	Brandon
PE-38	River Oaks	9805 Sheldon Road	Tampa
R-38	River Oaks	9805 Sheldon Road	Tampa
PE-39	Tampa Shores	7371 Montague Street	Tampa
R-44	Plant City South	403 S. Evers	Plant City
R-74	UCH Fletcher	3100 E. Fletcher Ave.	Tampa

Medical Facilities

No. of beds	Two trauma centers, each having separate state designations for adult and children (patients less than 15 years of age)
877	1) Tampa General Hospital (TGH), a Level I adult and pediatric trauma center Davis Islands Tampa FL 33601
883	2) St. Joseph's Hospital (SJH), a Level II adult and pediatric trauma center 3001 W. Martin Luther King, Jr. Boulevard Tampa FL 33677

No. of beds	Seven non-trauma center hospitals meet criteria to be an initial receiving hospital to stabilize trauma alerts under extraordinary circumstances
327	1) Brandon Regional Hospital 119 Oakfield Drive Brandon FL 33511
112	2) South Bay Hospital 4016 State Road 674 Sun City Center FL 33573
180	3) Memorial Hospital of Tampa 2901 Swann Avenue Tampa FL 33609
147	4) South Florida Baptist Hospital 301 N. Alexander Street Plant City FL 33566
201	5) Town and Country Hospital 6001 Webb Road Tampa FL 33615
120	6) University Community Hospital (Carrollwood) 7171 N. Dale Mabry Highway Tampa FL 33614
431	7) University Community Hospital (Fletcher) 3100 E. Fletcher Avenue Tampa FL 33613

Other Hospital Providers

No. of beds	Six other hospitals within the County offer specialty services or provide care to a particular population entity but do not meet the State criteria as an initial receiving center.
327	1) James A. Haley Veteran's Administration Medical Center 13000 N. Bruce B. Downs Boulevard Tampa FL 33612
162	2) H. Lee Moffitt Cancer Center and Research Institute at USF 12902 Magnolia Drive Tampa FL 33612
65	3) 6th Medical Group 8415 Bayshore Boulevard MacDill AFB FL 33621-1607
60	4) Shriner's Hospital for Children Tampa 12502 N. Pine Drive Tampa FL 33612
102	5) Kindred Hospital Central Tampa 4801 N. Howard Avenue Tampa FL 33603
73	6) Kindred Hospital Bay Area Tampa 4555 S. Manhattan Avenue Tampa FL 33611

Evacuating Hospitals

Facility		Category Hurricane	Evacuation Levels
1	6th Medical Group	1,2,3,4,5	A.B,C,D,E
2	Memorial Hospital of Tampa	4,5	D,E
3	Tampa General Hospital	1,2,3,4,5	A,B,C,D,E
4	Town and Country Hospital	2,3,4,5	B,C,D,E
5	Kindred Hospital Bay Area Tampa	2,3,4,5	B,C,D,E

3. Describe the historical patient flow, patient referral, and transfer patterns used to define the geographic areas of the proposed trauma agency.

Hillsborough County's geographical profile holds important implications for area hospitals and the trauma system. HCTA's jurisdiction, a single county trauma service area (TSA #10) shares borders with three multi-county trauma service areas encompassing seven counties: Pasco and Pinellas in TSA #9, Polk in TSA #11 which also includes Hardee, and Manatee in TSA #13, which also counts DeSoto and Sarasota in its region. None of these TSAs has a trauma agency, though the former two have one trauma center each (a level II trauma center/pediatric trauma center and a level II trauma center) within their regions respectively. The second of these, Lakeland Regional Medical Center (LRMC), is an alternative nearby destination to transport critically injured adult patients by ground from easternmost Hillsborough when air transport is neither possible because of inclement weather, nor prudent because of increased time required to reach a more distant in-county trauma center. In recent years, the proliferation of aeromedical bases in West Central Florida has facilitated access to Hillsborough's two trauma centers for these aforementioned contiguous TSAs and other West Central Florida counties such as Citrus, Hernando, and Lake-Sumter.

Hillsborough County Fire Rescue analyzed transport times within the County to determine the most appropriate mode of transport (air or ground). Its administration identified two zones, one central and one east, where flying patients were found not to be indicated. It established a No Fly Zone policy as a guideline for their personnel, subject to revision as the data may warrant. Since implementation in 2002, there has been an overall reduction in the time it takes a trauma alert patient to reach a trauma center, an improvement in helicopter availability, and a reduction in the number of inappropriate flights because of distance. No other agencies are subject to this policy.

Within the County, patient flow for trauma alerts continues is partitioned between the two state-approved trauma centers. Since 1992, Interstate 275 remains the boundary demarcating the County into its two trauma center receiving zones for trauma alert patients as follows: Patients meeting trauma alert criteria as defined in the County's Uniform Trauma Transport Protocol originating from incidents north and west of this reverse 'L-shaped' thoroughfare are taken to SJH, the remainder are transported to TGH. The same regions are observed for determining the destination of trauma alert patients to be transported by ground as by air. Each trauma center is served by an air medical program and serves as the other's back up. A third flight program (LifeNet5) based out-of-county (Polk) acts as a third tier emergency backup resource. The implication of this arrangement is that for these severely injured patients, no matter which provider ultimately transports the patient, the destination is independent of the transporting service. If the trauma patient does not meet trauma alert criteria nor need trauma center level care, the patient may choose his/her hospital destination. The map LOCATION OF TRAUMA CENTERS, HOSPITALS AND THEIR HELIPADS IN HILLSBOROUGH COUNTY is located in Appendix B.

The response to incidents occurring on the causeways connecting Pinellas County with Hillsborough is determined by the direction of traffic. Pinellas County ambulances will respond to the east bound lanes of the Courtney Campbell, Howard Frankland and Gandy bridges. Hillsborough Fire and Tampa Fire Rescue will answer calls on the west bound lanes of traffic. Patients are usually transported to hospitals in the opposing county of ambulance origin.

Special transport destination criteria

The HCTA supports the principle that certain traumatic injuries recognized in the field are most appropriately managed when those patients are initially transported to the trauma center having the specialized capabilities to handle specific conditions. The HCTA recognizes the following three circumstances under which an alternative trauma center transport destination shall be overridden if the patient meets particular criteria:

- Suspected spinal cord injury with evidence of significant motor or sensory involvement.

Any patient that the prehospital provider suspects has suffered an insult to the spinal cord and has either a motor or sensory deficit shall be considered to have experienced spinal cord injury for the purpose of determining the most appropriate trauma center. Currently Tampa General Healthcare is the only State Department of Vocational Rehabilitation designated facility in the County for the State Brain and Spinal Cord Injury Program (BSCIP). This trauma center is certified in both the acute and rehabilitation phases of care for these specific injuries.

- A patient with trauma alert burn criteria (2° or 3° burn involving 15% or greater body surface area) and/or a circumferential burn.

Currently Tampa General Healthcare has the only burn center in the County.

- A patient with an amputation with the potential for reimplantation.

Currently Tampa General Healthcare is the only trauma center with a comprehensive hand surgery team on call 24 hours a day.

All non-trauma center hospitals have transfer agreements with at least one trauma center in the County.

1 & 3. Provide a detailed description of the managerial and administrative structure of the proposed agency. Provide the job descriptions, titles, and responsibilities of officials who shall be directly responsible for trauma agency personnel, and the job descriptions, titles, and responsibilities of individuals who shall be responsible for managing and operating the trauma agency on a daily basis.

The HCTA is an administrative office of the County Government under the Health and Social Services Department. The Trauma Coordinator reports to the Director of Health and Social Services. The Director reports to an Assistant County Administrator who in turn reports to the County Administrator. Policy decisions are made by the Board of County Commissioners. An organizational chart showing the HCTA's position in the current County Government structure is included in Appendix D.

The HCTA contracts with a part-time physician consultant from a trauma center with expertise in trauma care systems for its medical director services. The consultant's contract is managed by the Director of Health and Social Services. The contract is cancelable by either party on a 60-day notice. The Medical Director's Contract is included in Appendix E.

The Trauma Coordinator, a registered nurse, is responsible for the day-to-day operations of the Trauma Agency. The Medical Director's responsibilities to the Coordinator are to set goals and objectives for the Trauma Agency, assist with performance improvement activities and areas relating to system function and evaluation. The Trauma Coordinator also confers with trauma surgeons, trauma center physicians, representatives from the constituent services, other governmental offices and agencies and the County attorneys as needed while carrying out the duties and responsibilities of the position. The job descriptions for these individuals can be found in Appendix F.

The Director of Health and Social Services' primary duties involve responsibility for providing the necessary leadership and management that ensure that eligible citizens receive any and all services allowed by the County, overseeing a nationally recognized health care plan, establishing goals and objectives for all program areas and managing the largest department budget in the County which includes more than 20 restricted funds. With regard to the Trauma Agency, this individual's responsibility entails overseeing that required projects are completed in a satisfactory and timely manner and providing the necessary clerical and administrative support.
The job description for this individual is also included in Appendix F.

2. Include a table of organization, the titles of the board of directors and each member's affiliation.

The Trauma Agency assembles a county-wide committee for advisory input to assist with its work. The Trauma Audit Committee (TAC) convenes at least six times annually for the purpose of addressing hospital and prehospital provider quality of care issues concerning trauma, including the overall performance and coordination of the trauma care system. The scope of interest for the TAC meetings includes but is not limited to review of prehospital provider treatment, prolonged scene times, coordination and transfer of care between agencies, preventable trauma deaths at institutions, triage issues, trauma alert criteria, trauma transport protocols and exceptions to same, trauma care at both trauma centers and non-trauma centers including rehabilitation.

The TAC members who advise the HCTA Coordinator and Medical Director include all in-county emergency medical service providers, public emergency medical dispatch centers, trauma centers, nontrauma centers, and EMS providers from the contiguous counties of Pasco and Polk, because of patient flow patterns. The EMS medical directors and trauma surgeons play a lead role in the performance improvement and education process.

Representation from the trauma community includes:

1. The Chief of Trauma from each designated Trauma Center
2. The Medical Director of the Regional Burn Center
3. The Trauma Program Manager from each designated Trauma Center
4. The Medical Director of each EMS ground transporting and aeromedical agency based in Hillsborough, Pasco and Polk Counties
5. The Quality Improvement Officer from each EMS ground transporting and aeromedical agency based in Hillsborough, Pasco and Polk Counties

Additional specialists may also be included in the membership:

6. An Emergency Physician from each non-trauma center
7. Emergency Nurse from each non-trauma center
8. General Surgeon (not affiliated with a trauma center)
9. Neurosurgeon
10. Orthopedic Surgeon
11. Anesthesiologist
12. Pediatrician
13. Medical Examiner

4. Describe in detail the specific authority that trauma agency personnel shall have in directing the operation of prehospital and hospital entities within the purview of the trauma agency, if approved, be it a single or multi-county trauma agency.

The major activities of the Agency fall into two broad categories: performance improvement and system planning/evaluation. A large focus of the Trauma Coordinator's activities is at the level of pre-hospital care to ensure that trauma patients are afforded appropriate and efficient access to the system, are accurately assessed, properly treated and triaged and expeditiously transported to the hospitals best equipped to care for them. At the hospital phase of care, the scope of the Trauma Agency's review includes, but is not limited to inpatient acute and rehabilitative care and all hospital trauma deaths countywide. The HCTA reviews the reports of autopsies of all accidental deaths occurring in hospitals that were performed by the Medical Examiner.

Performance Improvement Activities

The Trauma Coordinator investigates quality of care inquiries initiated either internally or by outside parties. The Coordinator is empowered to collect patient care data from emergency medical dispatchers, prehospital and hospital providers regarding assessment, treatment or transport of any trauma patient or group of patients meeting specific criteria or request an aggregate report from which to draw a patient population for further evaluation.

The Trauma Agency will consider verbal or written quality of care inquiries from any system source, e.g. a prehospital or hospital provider or a public safety answering point. Concerns are typically initiated by a phone inquiry from a provider, through or from the Trauma Agency to another provider. A response to the provider or Trauma Agency may consist of discussion at a TAC meeting, written responses, or change in operating procedure or medical protocols. The Trauma Agency encourages hospitals to concurrently copy the HCTA on any inquiries and responses sent to/received from prehospital providers to facilitate over all tracking of system compliance. All information gained from investigations into quality of care inquiries directed through the Trauma Agency will be treated confidentially.

Disagreements between providers about patient care issues that can be resolved between providers will be returned to the initiating provider to pursue through its internal chain of command. Only under exceptional circumstances, and always at a provider's request, will the Trauma Agency attempt to mediate differences between services.

Both trauma centers each practice their own trauma quality improvement programs in accordance with the requirements set by the Department of Health's Level I and II adult and pediatric Trauma Center's Approval Standards. The Trauma Agency participates in their processes by assisting with case follow-up and providing input at meetings.

The HCTA has maintained a uniform trauma transport protocol (UTTP) to identify and direct the most severely injured trauma patients to the two trauma centers in the County since 1997. The Trauma Agency is now able to monitor provider compliance countywide with trauma scorecard methodology and adherence to the UTTP through the trauma centers' trauma registries and the non-trauma centers' trauma admissions discharge extract file. In 2004, the Agency developed a framework for the retrospective collection and analysis of data on all admissions with injuries at all seven non-trauma centers in its trauma service area under a HRSA grant with the State Office of Trauma. Each hospital is required to submit at specified intervals an electronic data file of specific fields on all patients admitted having an ICD9 CM diagnosis code in the range between 800-959.9. Patients with ISS of 9 or greater and who meet additional filter criteria are further screened to ascertain the extent of possible undertriage. This file could potentially be used to gauge the effectiveness of the countywide interfacility trauma transfer guidelines to learn if, when and where severely injured patients are being transferred to the trauma centers. The trauma program managers are beginning to independently monitor this indicator in their registry data.

System Planning and Evaluation

A prehospital or hospital provider may initiate a request for a modification to the system (and concomitant Trauma Plan modification). The HCTA will gauge such requests on the basis of quality improvement potential for the entire trauma system. A provider alleging a system deficiency must be able to substantiate its claim with data that can be corroborated by the HCTA. Any request for a system change must be stated in terms of measurable improvement in the quality of patient care to be delivered, accompanied by an assessment of its potential impact on the overall system. Moreover, the proposed quality indicators must be acceptable to the Trauma Agency.

Examples of system modifications might include:

- alteration in the dispatch or delivery of emergency services
- specific treatment or rehabilitation regimens and transfer policies
- placement of emergency responders
- amount and type of treatment at the scene
- transportation safety
- triage to specific facilities based on specialized capabilities

The Trauma Agency will endorse changes in the system where it determines there is a need for additional resources or identifies deficiencies which negatively impact patient care.

The Trauma Agency selects the quality indicators that are used for system evaluation, which could encompass any phase throughout the continuum of trauma care, including system access, field treatment, emergency department care, inpatient services, rehabilitation and prevention activities.

The Trauma Agency shall use the Trauma Plan Update as a vehicle for proposal of change of any component in the trauma system, to be updated as necessary. Plan Updates will first be presented to the Emergency Medical Planning Council in a public hearing and then approved by the Board of County Commissioners (BOCC) before submission for acceptance by the Bureau of EMS. Adequate notice will also be given to in the form of a Notice of Intent to Consider the Trauma Plan Update, to be advertised in at least one newspaper of general circulation at least thirty days prior to the public hearing. The Trauma Agency shall submit the Plan Update to the Office of Trauma, Bureau of EMS for formal consideration no sooner than sixty days following the public hearing. The Trauma Agency may present (an) interim draft(s) of the update to the Bureau of EMS for review and comment, before the official version is submitted for approval.

(d) 1. Describe the operational functions of the system; the components of the system; the integration of the components and operational functions; and the coordination and integration of the activities and responsibilities of trauma centers, pediatric trauma centers, hospitals, and prehospital EMS providers.

The Trauma System

A trauma system is an arrangement of available resources that are coordinated for the effective delivery of emergency health care services in geographical regions consistent with planning and management standards. Hillsborough County established its Trauma Agency to reduce death, disability and other complications resulting from injury through prevention, planning, coordination, evaluation and focused improvement of the continuum of organized trauma care services within its trauma service area #10 (Hillsborough County). The continuum of trauma system resources extend from system access (9-1-1 operators and emergency medical dispatchers) through prehospital care (ALS and BLS air and ground ambulance providers) to acute care (trauma centers and initial receiving facilities), rehabilitation (specialized inpatient and outpatient services) and prevention activities (educational awareness and safety programs).

The technology and nature of current treatment modalities required to treat the critically injured patient delivery involves careful collaboration and precise timing to bring together many specialties and health disciplines to care for the patient. Organized strategies and coordination among health care professionals in a team approach in both the prehospital and hospital arenas are essential to avoid delays in definitive treatment which could cause deleterious consequences and compromise patient care.

Emergency Medical Dispatchers

In Hillsborough County, all emergency medical dispatch PSAPs have adopted the nationally recognized Advanced Medical Priority Dispatch system (a.k.a. Clawson standards) into their standard operating procedure to decide the appropriate level of response (personnel, equipment and vehicles) to send to a scene. While emergency medical dispatch caller interrogation algorithms are uniform across agencies, the actual vehicle(s) deployed depends on medical necessity and resource availability. While the necessary equipment and personnel are en route to the scene, the emergency medical dispatchers initiate standardized pre-arrival instructions to the caller which are specifically tailored to the emergency. This service has been demonstrated to positively impact patient outcomes.

Prehospital EMS Providers

In the prehospital setting, the Uniform Trauma Transport Protocol (UTTP) coordinates the emergency medical service provider's' activities from the moment that the trauma patient accesses the trauma system until his arrival at the most appropriate facility for definitive care. This legal document describes the procedures afforded to the trauma patient for dispatch of vehicles, assessment of the extent and severity of injuries, designation of the mode of transportation, determination of the most appropriate treatment destination and exceptions for same. A patient who is determined to be severely injured according to state-approved criteria (trauma alert) will be transported to a trauma center. A trauma patient with a particular type or severity of injury will be directed to a special trauma care resource at a designated trauma center. A trauma patient with less severe injuries may be taken to the hospital of his or her preference.

Increasingly, the ALS ground services are upgrading the skills of the crews riding the engines (non-transport vehicles) from BLS to ALS level of care. Typically the engine arrives before the rescue vehicle, reducing the time before emergency care is initiated. This is particularly important in distant rural areas of the county where fire and rescue stations are more widely dispersed. Indications for the transport of trauma alert patients by BLS agencies and air medical transport services are covered in the UTTP.

Trauma Centers

Mandatory trauma center standards established by the State direct the number and type of personnel and resources brought together to manage the critically injured individual. The trauma patient is met by a multi-disciplinary team of health care professionals who continue the assessment and treatment begun by the prehospital providers. The patient is taken to the appropriate adult or pediatric specialized treatment room called the trauma resuscitative area which contains the major medical supplies and equipment necessary to diagnose the nature of injuries and determine whether surgery is indicated.

The trauma team consists of more than a dozen persons to assist the trauma surgeon and other physician specialists in providing life-sustaining measures while evaluating the extent of injuries. Surgery may or may not be immediately performed. The patient is constantly reassessed during this 'resuscitative' phase, changes in condition are noted and treatment instituted appropriately. The patient is transferred to the most suitable care unit to carry on definitive care necessary for optimal recovery. The patient's condition is continuously monitored throughout the hospital stay for changes which could require medical or surgical intervention.

Discharge from the acute care setting may be followed by referral to an accredited rehabilitative center (in or out patient basis). This phase could come either directly after hospitalization or

later, after a convalescence to enable the patient to regain strength to maximize potential benefit from specialized restorative therapies.

Non-Trauma Centers

Trauma alert patients should only be transported to a designated trauma center that can continue the appropriate level of definitive care. Notwithstanding, the emergency medical services (EMS) provider on-scene or en route to a trauma center may encounter difficulties in patient stabilization and decide that transporting a critical injured trauma patient to a qualified non-trauma center that is closer to the scene than a trauma center is in the best medical interest of the patient. The emergency circumstances and initial receiving centers qualified to stabilize such cases are covered in the Uniform Trauma Transport Protocol (UTTP).

Emergency interhospital transfer policies and procedures governing the process of moving trauma patients with life-threatening injuries between hospitals are covered in the UTTP. Also included in this protocol are locally developed and consensus-derived Hillsborough County Interfacility Trauma Transfer Guidelines for determining when a trauma patient should be referred to a trauma center to improve access of severely injured trauma patients to definitive trauma care at trauma centers where the care is more effective and efficient than at non-trauma centers. To increase recognition of and improve adherence to the criteria, the HCTA printed posters and pocket guides of same for the emergency departments. The guidelines are also reproduced in the Uniform Trauma Transport Protocol and are on line at the HCTA web site at http://www.hillsboroughcounty.org/traumaagency/.

Regulatory and Quality Assurance Activities of the System Components

Emergency Medical Dispatch

Four emergency medical dispatch centers at Tampa Fire Rescue, Hillsborough County Emergency Fire Rescue, Temple Terrace Fire Department and MacDill Air Force Base dispatch for the entire County and participate in an ongoing quality improvement process. All other secondary public safety answering points transfer their medical calls to these centers.

Prehospital Providers

The emergency medical service providers must adhere to specific standards set forth by the State and County for operation. The State issues and regulates licenses for each service. At the local level, the County grants certificates of public convenience and necessity (COPCN) for the ALS services based within its jurisdiction which include both ground and air ambulances. It takes into consideration the recommendations of the Emergency Medical Planning Council (EMPC), a citizen's advisory body composed of individuals with particular expertise in prehospital issues. The Board of County Commissioners must approve all COPCNs. Licenses and certificates are renewable every two years, pending satisfactory fulfillment of the requirements.

The Public Transportation Commission (PTC) is a County regulatory agency which licenses the BLS providers. Their jurisdiction covers all vehicles for hire including taxis, limos, buses and wheelchair-stretcher vans. Their purview includes onboard equipment, drivers' licenses, driving record and criminal background checks. The agency conducts annual and ad hoc inspections of the services it regulates.

Each service must have a medical director. The requirements for medical directorship are proscribed in Florida Statutes but are discussed more generally in the section on Medical Control and Accountability. Each EMS medical director must have an ongoing quality improvement program for all EMTs and EMT-Ps operating under his/her supervision.

The HCTA has enjoyed a good working relationship with contiguous and outlying counties from which it receives many of its out-of-county referrals. Two of these counties, Pasco and Polk, are members of HCTA's Trauma Audit Committee. Other counties' EMS providers forward their patient care records to HCTA on request to conduct performance improvement activities.

Hospital Providers

The two trauma centers must perform specific activities to maintain their state certification rating. These performance standards are covered in the Department of Health, Florida Trauma Center Approval Standards pamphlet which carries the weight of law. Case reviews of all trauma patients, monthly multi-disciplinary trauma quality management committee meetings, and regular and episodic trauma care-specific continuing education lectures for physicians and nurses are all part of the regulations. The medical and nursing disciplines must each maintain current licensure and often specific credentialing is also mandated beyond the basic requirements.

The trauma services at the two trauma centers in Hillsborough County have similar organizational structures: a Medical Director, adult and pediatric trauma surgeons, other surgical

specialists, anesthesiologists, neurosurgeons, a trauma program manager, clinical nurse specialists, a trauma registrar, and other clinical, technical and support staff.

Each trauma center maintains a database on all admitted trauma patients. Typical information included in each record are the trauma patient's diagnoses and aspects of trauma care rendered by prehospital, any other hospital(s) providers, the trauma center and the medical examiner's findings if the patient expires. By law, if death occurs in the hospital, it is the physician's responsibility to report the death. Failure to comply is a violation of the Medical Examiner's Act, with resultant penalties. Accordingly, most deaths resulting from trauma are autopsied by the County Medical Examiner. Selected information from this trauma registry is reported to the State and the Trauma Agency at regular intervals.

Hospital providers outside the County boundary are under no obligation to participate in quality improvement activities that fall under the domain of other trauma service areas; cooperation is voluntary. Problems identified in patient care rendered by out-of-county providers have been handled on a case-by-case basis.

The HCTA conducts monthly county-wide trauma audit committee (TAC) meetings as a confidential forum for addressing pre-hospital and hospital provider quality of care issues concerning trauma, including the overall performance and coordination of the trauma care system. Designated representatives from the emergency medical dispatch, prehospital and hospital trauma community attend. The confidentiality of such interactions and activities are protected from disclosure by Florida Statute. Discussions at the county wide TAC meetings, or any reports and records prepared by the HCTA or its delegated committee which relate to patient care quality assurance such as consideration of specific persons, cases, incidents relevant to the performance of quality assurance and system evaluation are privileged.

The prehospital and hospital providers each practice quality improvement activities related to their care of the trauma patient. While a hospital or EMS provider must disclose actual records and reports of patient treatment and transport requested by a trauma agency, these entities are not required to reveal their own quality assurance proceedings, records or reports that they generated from internal review except to the State. Each must cooperate with quality of care inquiries initiated by each other or from the Trauma Agency regarding any trauma patient assessed, treated or transported.

Using the discharge data collected from the non-trauma centers, the trauma centers' registries, and autopsy reports, the Trauma Agency thus has the capacity to evaluate the trauma system. Through the review of patient care reports, medical records and autopsy reports, the HCTA can determine if appropriate triage and the standard of care had been performed and assess hospital trauma deaths for the probability of survival.

2. Include a list of all participating trauma care resources within the defined geographical area of the proposed trauma agency and documentation showing that these entities have been given the opportunity to participate in the system. Trauma care resources shall include emergency medical dispatch centers, prehospital and hospital providers (trauma centers, pediatric trauma centers)

The following trauma care resources in Hillsborough County provide services to the Hillsborough trauma patient accessing the trauma system and participate in performance improvement activities with the Trauma Agency. All of these entities are members of the Trauma Audit Committee meetings, share their patient care data on request and initiate opportunities to improve trauma care and coordination of services in the community.

Emergency medical dispatch centers:

1. Hillsborough County Emergency Dispatch Center (HCEDC)
2. Plant City Police and Fire Departments (PCPD)
3. Tampa Fire Rescue (TFR)
4. Temple Terrace Police and Fire Departments (TTPD)

Prehospital Providers

Public ground ambulance providers:

1. Hillsborough County Fire Rescue (ALS)
2. Plant City Fire Rescue (BLS)
3. Tampa Fire Rescue (ALS)
4. Temple Terrace Fire Department (ALS)

Air medical providers associated with each trauma center:

1. Aeromed (Tampa General Hospital) (ALS)
2. Bayflite (Bayfront Medical Center-dispatch; St. Joseph's Hospital-base site)(ALS)

Private ground ambulance providers:

1. Americare (BLS with COPCN limited to certain ALS activities)
2. American Medical Response (BLS with COPCN limited to certain ALS activities)
3. Med Evac (BLS with COPCN limited to certain ALS activities)
4. Sun City Center Emergency Squad (BLS volunteer)
5. TransCare (BLS)

Hospital providers:

1. Brandon Regional Hospital
2. Memorial Hospital of Tampa
3. St. Joseph's Hospital *Trauma center*
4. South Bay Hospital
5. South Florida Baptist Hospital
6. Tampa General Hospital *Trauma center*
7. Town and Country Hospital
8. University Community Hospital-Carrollwood
9. University Community Hospital-Fletcher

3. Include the proposed trauma agency's recommendation and justification for the number and location of trauma centers and pediatric trauma centers required to serve its defined geographical area.

Background

The Florida Statutes define a "trauma victim" as any person who has incurred a single or multisystem injury due to blunt or penetrating means or burns and who requires immediate medical intervention or treatment. A "trauma alert victim" means a person who has incurred a single or multisystem injury due to blunt or penetrating means or burns, who requires immediate medical intervention or treatment, and who meets one or more of the adult or pediatric scorecard criteria established by the department by rule.

These definitions serve as the basis for the Legislature's recommendations for the quantity and type of trauma centers to be established state wide. The apportionment for trauma service areas and trauma centers are set forth in Section 395.402, F.S. State wide there should be 19 trauma service areas and no more than 44 trauma centers overall. Each trauma service area should have at a minimum one trauma center. These estimates factor together statistics about the historical distribution of injuries and hospital treatment patterns across the population and political jurisdictions.

Section 64E-2.022, F.A.C., further proscribes the apportionment of adult or pediatric trauma centers within a trauma service area. The number for Hillsborough County is set at two. St. Joseph's Hospital and Tampa General Hospital have remained the County's trauma centers for more than the past decade. Although both are situated farther west in a more densely populated area of the county which could conceivably result in ground transport times from outlying regions to a trauma center approaching an hour in some instances, the more severely injured patients are likely to be flown to their destination, thereby reducing travel time considerably.

Depending on a variety of circumstances, occasionally some adult trauma alerts may be transported by ground due to time considerations from eastern Hillsborough County to Lakeland Regional's Trauma Center in adjacent Polk County. Because of the ready availability of air medical transport, this Agency's position is that geography is not a sufficient basis on which to determine the allocation or distribution of trauma centers.

In Section 395.402, F.S., the Legislature's expectation of Level I and Level II trauma centers' treating capacities is offered as a planning guideline. In counties with populations exceeding 500,000 which Hillsborough now does, both types of facilities should be capable of providing care annually to a minimum of 1000 trauma victims. It should be noted that this planning estimate only refers to capabilities for management of adult trauma victims (ages 16 and greater). While both of Hillsborough's trauma centers are also pediatric trauma centers, the State

stipulates that the pediatric trauma caseload not be cross-counted in demonstrating readiness for adult patients. Florida legislation offers no planning guidelines for threshold capabilities of caring for pediatric trauma patients at the present time.

Adult trauma

Trauma care demands on trauma centers in Hillsborough County for adult patients haven't yet exhausted local capabilities of 1000 trauma victims per trauma center. For calendar year 2004, there were 823 trauma alerts for St. Joseph's Hospital and 1218 for Tampa General Healthcare. The source of these admissions includes private vehicle as well as prehospital transports, transfers-in from other facilities and non-residents. Conclusions drawn from an analysis of trauma center resources for CY 2003 as reported in the 2005 Comprehensive Assessment of the Florida Trauma System found that the Tampa Bay area has adequate adult trauma center access, which takes into account Citrus and Hernando counties' trauma patients.

Pediatric trauma

There have never been legislated guidelines or formulas to estimate the number of pediatric trauma facilities needed. The State has empowered the trauma agencies to establish local requirements. Historically, the HCTA has based its decision on the consideration of historical patient volume which has remained relatively stable over the years. The number of pediatric trauma alerts for 2004 were 194 at TGH admissions and 123 at SJH or one admission every two days to one every three days, respectively, for both centers. Further, the 2005 Comprehensive Assessment of the Florida Trauma System Report found that most of Florida's injured 7,896 children admitted in 2003 for treatment of at least one injury diagnosis suffered relatively minor injuries with minimal potential for mortality. The age distribution of children hospitalized statewide was spread similarly, with a slight majority (56% vs 44%) going to trauma centers. It is the HCTA's opinion that there is no necessity for additional pediatric trauma center facilities within Hillsborough County at this time.

(e) Objectives, Proposed Actions, and Implementation Schedule. Provide a description of the objectives of the plan, a detailed list of the proposed actions necessary to accomplish each objective, and a timetable for the implementation of the objectives, and action. The timetable shall identify the scheduling of the annual audit and evaluation, including the completion date and submission date to the department.

The objectives developed for this Plan Update were chosen:

1) To support Florida Administrative Code's Trauma Agency Implementation and Operation Requirements 64E-2.021 that has been promulgated since its last revision.

2) To continue the work already begun on the Health Services Research Administration grant project initiated with the assistance of the Bureau of EMS Office of Trauma to establish independent data collection and analysis capabilities for an inclusive trauma system within Hillsborough County.

Objectives for the HCTA

I. Improve/automate data management process that collects and evaluates trauma care at non-trauma centers (undertriage).

II. Develop methods to perform mortality follow up on admission discharges, e.g., linkages to Medical Examiner data, other possible resources.

III. Continue to re-evaluate trauma triage criteria, especially focusing on the elderly.

IV. Further develop an organized follow up referral network for out-of-county providers.

V. Develop alternative newsletter media and selective content targeted to different groups within the trauma community in Hillsborough County.

OBJECTIVE I.

Take over the data management process involved in the collection and evaluation of trauma care at non-trauma centers (undertriage) begun during the 2003-05 HRSA grant.

RATIONALE

Although Hillsborough non-trauma centers now electronically report their trauma admission data to the Trauma Agency, the manipulation of the data into standardized format and recoding is still more manual and time-consuming than desired. This is due in large part to the inadequacies of the internal data systems at each provider. At the prehospital level, pre-inpatient admission dates and times, as well as modes of transport and transporting EMS agency were not available for the majority of the hospital records. This necessitates sequential polling of providers in an iterative fashion until matches of records are found.

ACTION PLAN:

1. The Hillsborough County Trauma Coordinator will take courses in Access and SPSS to become more proficient.

2. Improve/automate data management process by requiring greater standardization across the hospitals.

3. Continue pursuit of on-line access to HCFR records to facilitate identification of large portion of transports.

IMPLEMENTATION:

Ongoing

OBJECTIVE II.

Develop methods to perform mortality follow up on admission discharges, e.g., linkages to Medical Examiner data and other possible resources.

RATIONALE:

During the first year that nontrauma center data was available, CY 2003 patient admissions identified as potentially undertriaged were cross-referenced after discharge in February 2005 in the County Medical Examiner database. More had died out of hospital than as in-patient for the admission of record during that first year (37 vs 21). This is consistent with previously published findings that older patients have significant mortality risk within the first two years after a severe injury even if surviving to discharge.

Additionally, three-fourths of those were potentially misclassified with a medical cause of death because information about the trauma had not been provided to the ME during requests for clearance for cremation or shipping the body out of the county for burial. This provides a unique interagency opportunity to improve the accuracy of vital statistics data collection and better enable the interagency exchange of information.

ACTION PLAN:

1. Pursue reciprocal automated access to the Medical Examiner wherein (a) unique identifier(s) such as a social security number, etc., can be used to link trauma discharges with ME cases, either historical or potential.

2. Pursue other sources of death databases to track mobile individuals who may subsequently expire out-of-county to obtain a more accurate long term population followup.

IMPLEMENTATION:

After conversion of Medical Examiner database to Windows/Internet-based platform, circa late 2005, early 2006. Thereafter, timetable will be ongoing as other vendors and ITS technical support's time permit.

OBJECTIVE III.

Continue to re-evaluate trauma triage criteria, especially focusing on the elderly.

RATIONALE: The 2005 Comprehensive Assessment of the Florida Trauma System revealed the age distribution of patients treated in trauma centers versus non-trauma centers is very different. Trauma centers traditionally treat a younger age cohort, peaking in the years between 21-45. Conversely, the non-trauma center population is skewed towards the elderly. One of the major recommendations of this report is to continue to analyze this population subgroup to optimize system performance and outcome, given the risk of undertriage of the elderly. Now that the HCTA has access to this data source, ongoing analysis will be possible.

ACTION PLAN:

1. The local TAC has already initiated prehospital elderly patient "gray-area" non-trauma alert criteria to address the state triage criteria's apparent insensitivity where the elderly injured patient is concerned.

2. Work with both trauma centers to evaluate the impact of the implementation of this "optional" gray-area criteria and revise on a periodic basis as needed.

IMPLEMENTATION:

Ongoing

OBJECTIVE IV.

Further develop an organized follow up referral network for out-of-county providers.

RATIONALE: It is extremely difficult for out-of-county providers to receive feedback on patients transported to other county's trauma centers or hospitals. If the patient is flown, the provider does not always know the patient's final destination (between trauma service areas and/or never receives feedback from the flight service).

The HCTA has already established relationships with many out-of-county providers, and has set up secure web server accounts to facilitate the exchange of PHI. However, there remains a need to work in a connection with these providers' regular performance improvement activities. Ready access to patient outcome information is arguably one of the most powerful teaching tools available to EMS trainers.

ACTION PLAN:

1. Develop a schedule that best suits the needs of the individual out-of-county providers that will improve exchange of information about trauma patients that they transport, or cause to be transported to Hillsborough County.

2. Re-evaluate periodically to determine if this is meeting everyone's needs.

IMPLEMENTATION:

Ongoing

OBJECTIVE V.

Develop alternative newsletter media and selective content targeted to different groups within the trauma community in Hillsborough County

RATIONALE: Previous HCTA Newsletters were lengthy and published quarterly or less often due to complexity. Newsletters could come out more frequently, if shorter and targeted to specific audiences, such as just to EMS providers, or to the hospitals. By providing an electronic format such as in e-mail or on a web site, in addition to the traditional paper version, circulation could be widened without increasing cost to other providers in the Hillsborough County trauma system.

ACTION PLAN:

1. Develop separate content for end users. Implement interesting and innovative educational content for EMS versions, such as use of autopsy narratives. Give hospitals feedback on their data.

2. Continue to include information in the newsletter about activities concerning trauma care at the local and state levels. Solicit input from local providers that is of interest to the entire system.

IMPLEMENTATION:

Ongoing

(f) Describe the proposed source of income for the trauma agency;
(g) Fiscal impact on trauma system including increased costs related to providing care

The HCTA's revenue is derived solely from the General Fund (ad valorem countywide taxes) of Hillsborough County.

The Trauma Agency's mission indirectly impacts the cost of patient care for prehospital and hospital providers alike. While each component must perform its own quality improvement activities, the provision of copies of patient care records and hospital charts, the personnel costs to process patient lookup lists, or program electronic data reports are all examples of additional costs borne by the system components in the conduct of quality improvement activities for the HCTA.

However, the HCTA's authority to collect patient data across the system to determine outcomes and assemble providers together in the trauma community for performance improvement activities and system evaluation with protection from discovery, is an invaluable asset and gives an unparalleled advantage over trauma service areas without trauma agencies.

While it difficult to specifically measure, it is clear to the TAC that the incremental costs for system performance improvement activities are outweighed by the lives saved, complications prevented and injuries averted that are a direct result of the feedback, education and training processes initiated under its auspices. This is undeniably the most important benefit of a trauma agency.

(h) Transportation System Design:
1. Describe the EMS ground, water, and air transportation system design of the trauma system

Ground Transport

Three ALS and one BLS public ground services provide first response assist and emergency medical care within their jurisdictions: Hillsborough County Fire Rescue, Tampa Fire Rescue, Temple Terrace Fire Department, and Plant City Fire Rescue. Five private BLS ground services are dispatched by emergency medical dispatch centers according to location of incident, availability and in a predetermined order depending on jurisdiction.

Air Transport

All trauma alert patients must be transported to a trauma center (for adults) or pediatric trauma center (for children) nearest the location of the incident if it occurred within 30 minutes by ground or air transport, or within 50 miles by air transport. There are two aeromedical programs that have COPCNs to operate within the County, Bayflite, operated by Bayfront Medical Center and Aeromed, operated by Tampa General Hospital. Both med evac services have either COPCNs or mutual aid agreements with all counties contiguous to Hillsborough, and many other counties within a 100-mile radius of their base of operations. Tampa General stations satellite helicopters, north and south of Hillsborough County in Citrus and Highlands Counties respectively, for scene and interfacility responses. Bayfront has satellite bases in Pasco, Manatee, and Hernando Counties. A third service, LifeNet, dispatched thru Bayflite has bases in Polk and Lake-Sumter counties and serves as backup to the other two programs.

Water Transport

Tampa has roughly seventy-five miles of coastline, so resources for the task of water rescue are important. Numerous players contribute manpower and supplies during such a venture. Since the City of Tampa and the airport are closest to the larger bodies of open water, TFR is the principal first responder for water-related incidents. Their predominant approach to such endeavors is by land. They have a variety of dedicated seaworthy equipment at strategic locations. Placement of these apparatus at their different stations enhances their response and deployment capabilities depending on the location of the incident or the nature of the weather.

Tampa International Airport provides TFR inflatable buoyant apparatuses (IBA) for their use. Each boat is capable of carrying 25 people onboard and allowing another 25 to hang off the side. The IBA could be launched by a police helicopter or pulled by a small boat with a 100 ft.

lanyard. TFR also has access to 18-20 ft. tow boats. One of these could upright a small overturned craft or deploy an IBA during inclement weather when an air launch is precluded. Personal water craft (water scooters) are on continuous loan from a private vendor for emergency response missions. TFR also has large fire boats with water hoses docked on Davis Islands.

Other agencies which can muster water rescue resources include:

Hillsborough County Sheriff's Office, United States Coast Guard, U.S. Coast Guard, Tampa Police Aviation and Marine Division, Marine Corps Reserve, U.S. Naval Reserve, Fresh Water Fish & Game Commission.

(h) 2. Include trauma patient flow patterns, emergency inter-hospital transfer agreements, and the number, type, and level of service of prehospital EMS providers within the trauma system.

Transports to and from trauma centers

PREHOSPITAL TO TRAUMA CENTER

Non-trauma alert patients
The senior care giver may have a strong suspicion of serious injury in a trauma patient based on the presence of a borderline condition (gray area) of one of the state-mandated trauma alert criteria (severity or anatomy/mechanism of injury), either upon initial assessment/reassessment at the scene or en route. Discrete criteria have also been developed to help assess the older patient, especially over 65 and over. In these instances, even though the patient does not meet trauma alert criteria and a trauma alert has not been called, the unit may elect to transport or cause to be transported that patient to the nearest trauma center.

Trauma alert patients
A trauma alert patient should only be transported to a trauma center that can continue the appropriate level of definitive care. The transport destination dictated by the receiving zone scheme (catchment area) shall be overridden only under specific circumstances for the purpose of redirecting trauma patients with certain traumatic injuries recognized in the field to the most appropriate trauma center which has the specialized capabilities to handle specific conditions. The HCTA recognizes the following three circumstances under which an alternative trauma center transport destination shall be overridden if the patient meets particular criteria:

1. Suspected spinal cord injury with evidence of significant motor or sensory involvement
Any patient that the prehospital provider suspects has suffered an insult to the spinal cord and has either a motor or sensory deficit shall be considered to have experienced spinal cord injury for the purpose of determining the most appropriate trauma center. Currently Tampa General Healthcare is the only State Department of Vocational Rehabilitation designated facility in the County for the State Brain and Spinal Cord Injury Program (BSCIP). This trauma center is certified in both the acute and rehabilitation phases of care for these specific injuries.

2. Trauma alert burn criteria (2° or 3° burn involving 15% or greater body surface area) and/or a circumferential burn. Currently Tampa General Healthcare has the only burn center in the County.

3. Amputations with the potential for reimplantation
Currently Tampa General Healthcare is the only trauma center with a comprehensive hand surgery team on call 24 hours a day.

TRAUMA CENTER TO TRAUMA CENTER

Once a trauma alert patient has been brought to an adult or pediatric trauma center, that patient may not be moved to a facility that is not an adult or pediatric trauma center until his life-threatening injuries have been stabilized by the necessary operative or nonoperative measures. The attending trauma center physician will decide when the patient may be safely transferred to another facility without compromise of physiological status.

Mutual aid agreements may be pursued between the trauma centers in the county and/or between each of these facilities with out-of-county trauma centers to appropriately triage and transfer certain trauma cases between facilities on an ad hoc basis.

Transports to and from initial receiving facilities

PREHOSPITAL TO INITIAL RECEIVING CENTER

Non-trauma alert patients
If the senior care giver at the scene determines that the trauma patient does not meet trauma alert criteria nor need trauma center level care, the patient may choose his/her hospital destination.

Trauma alert patients
The senior care giver on scene or en route who encounters emergency circumstances which will immediately lead to a traumatic cardio/respiratory arrest may decide that transporting a trauma alert to a non-trauma center that is closer than a trauma center is in the best medical interest of the patient. Such situations could include a traumatic arrest in transit (with on-line physician consultation when possible), a compromised airway which cannot be managed in the field or a mass casualty incident or natural disaster (according to incident command/ management procedure)

The EMS provider shall only transport a trauma alert to an initial receiving hospital (non-trauma center) within Hillsborough County which has previously certified to the Trauma Agency that it meets the state's five prehospital trauma alert hospital transport requirements specified in 64E-2.015 (3)(a), F.A.C. Biennially, coinciding with the UTTP renewal, the chief executive officer of each facility must provide to the HCTA a signed attestation affirming his/her facility's fulfillment of these criteria in the event that prehospital providers would need to transport a

trauma patient requiring emergency stabilization to that non-trauma center. The State's five criteria required to stabilize critical trauma patients and the list of certified facilities are maintained up-to-date in the Uniform Trauma Transport Protocol

INITIAL RECEIVING CENTER TO TRAUMA CENTER

Trauma alert patients

There will be occasions when a non-trauma center hospital in Hillsborough County should refer a trauma patient to a designated adult or pediatric trauma center. The transfer process should be initiated immediately upon the recognition that a patient meets trauma alert criteria, even while resuscitative efforts are underway. This hospital should initiate procedures within 30 minutes of the patient's arrival to transfer the trauma alert patient to an adult or pediatric trauma center.

High risk non-trauma alert patients

Referral to a designated adult or pediatric trauma center should also be strongly considered for any trauma patient with specific injuries, combinations of injuries (particularly brain) or who suffered a mechanism of injury consistent with a high-energy transfer. The Hillsborough County Interfacility Transfer Guidelines suggests candidates who would benefit from an early transfer to a trauma center.

The referring (non-trauma center emergency department) physician is responsible for initiating the transfer process and communicating directly with the receiving (trauma center) physician about the incoming patient. Transfer procedures are specific to each trauma center. These are addressed in the Uniform Trauma Transport Protocol.

The responsibility of selection of an appropriate mode of transportation, and the organization of patient management during the transfer rests with the referring physician. The receiving physician must agree with these arrangements. Transportation scheduling procedures are specific to the desired mode of transport. The process for requesting interfacility transfer services is also referenced in the Uniform Trauma Transport Protocol.

An emergency interhospital trauma patient transport may be handled by an ALS service licensed to operate in Hillsborough County or pursuant to the exemptions in the Hillsborough County Emergency Medical Transportation Ordinance, 86-3, as may be amended from time to time.

(i) Trauma Transport Protocols (TTPs): A trauma agency may develop a uniform trauma transport protocol for department approval that shall be followed by all EMS providers that serve the geographic area of the proposed trauma agency. If uniform TTPs are submitted to the department for approval, the TTPs shall include the name of each EMS provider that shall operate according to the uniform TTPs, and proof of consultation with each EMS provider's medical director. TTPs developed and submitted by a proposed trauma agency shall be processed in accordance with Chapter 395, F.S., Section 64E-2, F.A.C. and the DOH pamphlet TTP Manual July 2002.

The Trauma Agency influences the flow patterns of trauma cases in two important ways to improve the outcomes of trauma care: through the Uniform Trauma Transport Protocol and the Hillsborough County Interfacility Guidelines.

Since 1997, the HCTA has exercised its statutory authority under Chapter 395, F.S., and 64E-2, F.A.C. to maintain a uniform trauma transport protocol to identify and direct the most severely injured trauma patients to the two trauma centers in the County. This legal document, developed through a consensus-building process with system constituents, describes the procedures to be followed by the trauma system components for dispatch of vehicles, assessment of the extent and severity of injuries of trauma patients and determination of the destination (facility) to which trauma patients are transported. It identifies the players: emergency medical dispatchers, initial receiving hospitals, trauma centers, and prehospital transporting agencies. Specific operational guidelines about the coordination and integration of their roles are included within this document, and will not be duplicated here. The State Bureau of EMS must approve the protocol, which is renewable every two years. The UTTP applies to all EMS prehospital providers operating within the Hillsborough County, and supersedes each provider's individual trauma transport protocol (TTP). Previously the HCTA participated in the review process when any prehospital provider's TTP was under consideration for approval at the Bureau of EMS.

The UTTP is a living document, amenable to change anytime and is not subject to prior approval by the Board of County Commissioners (BOCC). Certain changes occurring in the trauma system during the approval period may require that the UTTP be amended. Such occasions include whenever there has been an addition or deletion of a hospital, an EMS provider, any modification to an EMS provider's procedures for dispatch of vehicles, triage of trauma alerts, transport of trauma alerts, addition of service area by an EMS provider, or change in the laws or rules which regulate TTPs. Any modifications made to the document must first be approved by the State. After any revision, the document will be distributed to every prehospital and hospital provider so that each always maintains an up-to-date protocol.

In 2002, the Trauma Agency implemented the Hillsborough County Interfacility Trauma Transfer Guidelines as another mechanism to improve access of severely injured trauma patients to

definitive trauma care at trauma centers where the care is more effective and efficient than at community hospitals. These transfer guidelines supersede those subsequently distributed by the Bureau of EMS to counties not served by a trauma agency.

3. The proposed trauma agency shall provide a copy of any county ordinance governing the transport of trauma patients within the defined geographic area of the proposed trauma agency.

A copy of Hillsborough County Emergency Medical Services Transportation Ordinance, 86-3, as amended from time to time, is included in Appendix G.

A new transportation ordinance was in the process of being approved at the time of the submission of this plan but this has not been finalized. A copy of this ordinance will be available on the HCTA website when the Board of County Commissioners has approved it.

(j) Medical Control and Accountability.
Identify and describe the qualifications, responsibilities and authority of individuals and institutions providing system medical direction and direct medical control of all hospitals and prehospital EMS providers operating under the purview of the trauma agency.

Prehospital providers

All EMS providers within Hillsborough County contract with a qualified physician to satisfy the medical direction requirements as described in Section 401.265, Part II, F. S. Each medical director handles off-line medical control issues for their respective services. Off-line services include, but are not limited to, medical protocol development, continuing education, remedial education, quality assurance activities, and participation in hiring/orienting new health care providers.

On-line medical control is a 24-hour availability for quick patient-specific consults in circumstances defined in medical protocol (such as use of a controlled drug), or in unusual instance, not covered by protocol, where the health care provider wishes to have immediate input into the care of the patient that is currently being transported. The on-line medical control physicians are chosen by the service's primary medical director. The air and ground ALS agencies contract with emergency physicians for their 24 hour on-line medical control services.

Additional protocols may be in place for the ALS services to cover the situation of a physician who happens to be at the scene of a trauma and wishes to become involved. Each service has a medical protocol to address the situation of an on-scene physician who wants to give orders.

Hospitals

The physicians employed at emergency departments (ED) throughout the County are contract employees of corporations, hired by the hospitals they work for. Some groups provide coverage to more than one hospital in the area. A Medical Director over each group may have clinical as well as administrative responsibilities. Many of the local ED physicians take call as the on-line medical control physician for the fire rescue providers.

HCTA's Trauma Audit Committee (TAC)

The EMS medical directors and trauma surgeons play an active role in the performance improvement and education process of this countywide forum composed of representatives from Hillsborough's prehospital, hospital and emergency medical dispatch providers and as well as Pasco and Polk County's EMS, and Polk's trauma center.

(k) Emergency Medical Communications:
Describe the EMS communication system within the proposed trauma agency's trauma service area; and describe the proposed trauma agency's compliance with the State of Florida Communications Plan, requirements for normal operating conditions, mass casualty and disaster situations in which commercial power, telephone lines or telephone services are not available, including outages of base stations controlled by leased telephone lines. The specific areas to be addressed are: statewide medical coordination (SMC); local medical coordination (LMC); vehicle dispatch and response (VDR); medical resource coordination; local scene coordination; medical alert paging; communications coverage; LMC and VDR channels; SMC channel; cellular phone use if applicable; and locations and types of communications equipment within the proposed trauma agency's geographical area.

The Emergency Medical Communications System within Hillsborough County

REQUESTS FOR EMERGENCY RESPONSE

Requests for emergency services are relayed through an enhanced 9-1-1 system. The enhancements allow the location and telephone number of the caller to be instantaneously displayed on the 9-1-1 call taker's computer screen at one of seven primary Public Safety Answering Points (PSAPs). The caller's location (or cell site for cellular calls) determines which emergency answering point receives that particular request for emergency assistance. If the normally designated PSAP for that locale is busy, the call is automatically routed to an alternate answering point. Staffing for the primary PSAPs is provided by either law enforcement agencies (Tampa Police Department, Hillsborough County Sheriff's Office and three special jurisdictions, Tampa International Airport, University of South Florida, MacDill Air Force Base Alarm Center) or shared between police and fire department entities in two municipalities (City of Temple Terrace Police and Fire Departments and Plant City Police and Fire Departments).

The 9-1-1 call taker relies on the address information provided by the caller as primary dispatch information, using the screen display only as secondary or backup information. The public safety call taker may also require a call back number. Generally, wireless phone calls provide the 9-1-1 system with the caller's phone number and longitude and latitude coordinates, but the call taker must still obtain location and call back numbers from all cellular callers. Once the 9-1-1 call taker determines the nature of the call is medical, the request for emergency assistance can be then transferred to the appropriate secondary PSAP for rescue, fire, highway emergency, or poisoning information. A special needs registry is maintained in conjunction with GTE to identify locations where callers might be unable to speak over the phone. Each PSAP is equipped with telecommunications devices for the deaf (TDDs). Every PSAP can also refer callers to AT&T's language line if in-house interpreters are not available.
Emergency Medical Dispatch Centers

As previously described, requests for emergency medical assistance are routed through the primary enhanced 9-1-1 dispatch centers to the secondary emergency medical dispatch centers for Hillsborough County and for the City of Tampa. In the City of Temple Terrace, there is a shared PSAP for law enforcement and fire-rescue dispatches. In Plant City, the PCPD dispatches fire responses to Plant City Fire Department and transfers requests for medical responses to the County. These dispatch centers have access to notify emergency resources through radio communications if available or by telephone if necessary, requesting their assistance. Dispatch radios operated by the air medical services, private or volunteer BLS ambulances are not considered emergency dispatch operations, rather a first response backup to ALS, or non-emergency runs. Specific minimum State requirements for dispatch frequencies to be used are described later in this section.

Prehospital Providers

Each local prehospital provider utilizes specific radio systems to communicate with hospitals in the County on a routine basis in addition to the state required frequencies. All paramedic ambulances are equipped with two-way mobile VHF and UHF radios. All paramedics have two-way hand held radios (walkie-talkie types) for communication with their respective dispatch centers. The units are also equipped with either portable or transportable (depending on geographic location) cellular phones through which they can talk directly either with their respective dispatch center, or to other locations via request for a recorded patch line to their respective dispatch center. Communications from the paramedic to the dispatch center are primarily via radio, with cellular phones as a backup/alternative.

Any recognized medical or emergency service entity can request helicopter services for on-scene trauma. Authorized individuals include but are not limited to employees of public agencies such as police and highway patrol, fire departments, ambulance services, and safety officials of commercial and industrial enterprises. EMS services typically notify their respective dispatch center of the need for air medical evacuation. That dispatch center then alerts the appropriate communications center of the air medical service of the location and nature of the call. Radio communications between the helicopters and the field units then relay patient information en route.

All communications with private BLS services are carried out by telephone. Their dispatchers are requested to send the appropriate unit(s) and may be asked for their estimated time of arrival if ALS units are awaiting their arrival. They do not share a radio channel.

Field Units to Other Resources

Paramedics may speak directly to a variety of outside resources, county or city, by using a telephone at the scene, by patch or a direct line by using a cellular phone.

Hospital Communications

Hospitals talk with city and county dispatch centers by phone or radio. In disasters, the hospitals feed information into the central communications center (the incident command center) and it is shared with other hospitals as appropriate. The State required radio communication frequencies for hospitals are described later in this section.

Other Communications

On scene and en route "on-line" medical control communications

A paramedic requesting to speak to the medical control physician notifies the relevant emergency medical dispatch center either by radio or cellular phone. The dispatcher initiates the call to the appropriate doctor on-call. When communications is established between the two parties, the two lines are patched together, permitting two-way communications and tape recording of the conversation.

Military liaison

All coordination with these agencies is accomplished by telephone. They do not share a radio channel.

Compliance with the State of Florida Communications Plan

Adherence to the State EMS Communications Plan involves certain minimum capabilities which are described in the next section. Hillsborough County's trauma system participants are in full compliance with Florida's Emergency Medical Services Communications Plan. The requirements for normal operating conditions are:

DISPATCH FACILITIES

Each EMS dispatch facility will have:

1. Two-way communications capability on its assigned Dispatch Vehicle Response (DVR) channel

2. The ability to talk around on the statewide medical resources coordination channel (receive/transmit 463.175 MHz, 167.9 Hz tone)

HOSPITALS

Each participating hospital that maintains an active emergency department receiving patients from either ALS or BLS ambulances will have:

1. Two-way communications capability on the assigned Local Medical Coordination (LMC) channels:

MED 7 (receive 468.150 MHz, transmit 463.150 MHz, 127.3 Hz tone)

2. Two-way communications capability on the Statewide Medical Coordination channel (SMC)

MED 8 (receive 468.175 MHz, transmit 463.175, 167.9 Hz tone

3. The ability to talk around on the statewide medical resource coordination channel:

(receive/transmit 463.175, 167.9 Hz tone)

ALS AND BLS AMBULANCES

All ALS and all BLS ambulances will have:

1. Two-way communications capability on their assigned Dispatch Vehicle Response channel(s)

2. Two-way communications capability on the assigned Local Medical Coordination (LMC) channels:

MED 7 (receive 468.150 MHz, transmit 463.150 MHz, 127.3 Hz tone)

3. Two-way communications capability on the Statewide Medical Coordination channel (SMC)

MED 8 (receive 468.175 MHz, transmit 463.175, 167.9 Hz tone

4. The ability to talk around on the statewide medical resource coordination channel:

(receive/transmit 463.175, 167.9 Hz tone)

All EMS communication frequencies used by Hillsborough County emergency medical dispatch centers, hospitals and prehospital providers are listed in Florida's Emergency Medical Services Communications Plan.

Mass Casualty and Disaster Situations

Effective communications are an essential element of a successful disaster response. An integrated blend of all communications systems (radio and telephone) is mandatory during a major emergency. The Hillsborough County Emergency Operations Center (EOC) has overall responsibility for providing direction and control and coordinating resources and services during disaster situations. The EOC has access to numerous radio communications networks in the county (as listed in the Comprehensive Emergency Management Plan) to ensure direction and control of the community's response to any emergency. All communication centers participating in the 9-1-1 system are required to have emergency back-up power.

The EOC structure and tower were built to withstand 175 m.p.h. wind forces. It has a 300-KVA generator which can provide electrical power for extended periods. A 320-foot transmission tower provides excellent two-way radio capability with full county coverage for emergency operations. The facility is also equipped with a cellular phone antenna system which will provide enhanced cellular capability for the EOC during disasters.

The basic elements of communications systems used in Hillsborough County to facilitate operational and administrative control during a disaster can be summarized as follows:

Land Line Telephones

The primary communications system during emergencies is land line telephone. Verizon is responsible for maintaining and restoring telephone service within the County.

Wireless Telephones

Wireless telephones provide an alternate means of communications. Wireless companies that have contracts with local government provided enhanced wireless phone support. If possible, these wireless companies will provide priority access to wireless phones of primary emergency response agencies during disaster operations.

Two-Way Radio

Two way radio systems provide a valuable means of communications during disaster and emergency operations. There are two primary agencies within the county that are responsible for maintaining and restoring two way radio communications systems: Sheriff's Office and City of Tampa Radio Communications Section.

Radio networks

County and municipal radio networks are also available to the EOC for communications within the county. Also available are the radio networks of the U.S. Coast Guard, the Marine VHF Calling & Distress network, the 800 MHZ radio system used by county public safety agencies (e.g., Sheriff and Fire Rescue) and the Radio Amateur Civil Emergency Services (RACES) group.

The County has two mobile communications command posts: one owned by the Sheriff's Office and one shared by the County Fire Department and Emergency Management. Systems are available for communications outside the county such as statewide satellite communications, RACES backup through VHF and HF radio systems, and the Emergency Alert System.

Military support is also obtainable. The 290th Joint Communications Support Squadron (JCSS) (Florida Air National Guard) which is located at MacDill Air Force Base is a potential source of additional communications. In the event of a major disaster, if the National Guard is activated, the 290th JCSS may be able to provide extensive communications support to the county. Mobile communications assets from the 290th JCSS, as well as active duty military assets from MacDill AFB evacuate to the Fairgrounds. These assets may be available to support county hurricane response operations.

Various types of communications resources are procurable depending on the circumstances of the mass casualty or disaster but this beyond the scope of this document. Further information may be obtained regarding communication operations (Emergency Support Function #2) from the Hillsborough County's Comprehensive Emergency Management Plan.

(l) Data Collection. Describe the trauma data management system developed for the purpose of documenting and evaluating the trauma systems operation.

Hospital and Prehospital Data Collection

Both trauma centers have had established trauma registries for a number of years. St. Joseph's Hospital uses the program TraumaBase from the vendor, Clinical Data Management, Inc., Conifer, Colorado while Tampa General Hospital uses TRACS, the American College of Surgeons' proprietary software. All trauma centers have been working together with the State Office of Trauma to establish a standardized trauma registry. Tampa General Hospital and St. Joseph's Hospital report their trauma registry data quarterly to the Office of Trauma as well as their performance on ten quality indicators, as required of all trauma centers. Selected patient data is regularly forwarded to the Trauma Agency for system evaluation.

The eleven prehospital providers report on the required selected indicators quarterly to the Bureau of EMS as part of the Florida Aggregate Pre-Hospital Data and Reporting program implemented in 2002, in lieu of prior reporting arrangements made with the Trauma Agency. The Trauma Agency frequently requests patient care records (PCRs) on trauma call activity from prehospital providers for quality of care inquiries, or for over/undertriage determination. The HCTA also has developed relationships with many out-of county EMS providers that regularly send their trauma patients to Hillsborough County and which also provide their PCRs on request. The Agency has currently established secure web-accessed server accounts through the County to provide patient outcomes for nine such providers and expects that more will be added in the future.

Each of the seven non trauma centers which function as initial receiving center for trauma patients provide the HCTA on a regular basis an electronic discharge diagnosis file of all potential trauma admissions (any stay with an ICD-9CM diagnosis between 800-959.9). Specialized software can score for injury severity and allow the data to be filtered through other algorithms to screen for potential undertriage.

All autopsies and externals exams performed by the Hillsborough County Medical Examiner on deaths from trauma that occurred in hospitals are sent to the Trauma Agency for review.

(m) Trauma System Evaluation. Describe the methodology by which the proposed trauma agency shall evaluate the trauma system.

Trauma system evaluation is accomplished by several activities:

All trauma death autopsy reports are evaluated according to defined criteria for classification as preventable, possibly preventable, and not preventable. Preventable deaths are further evaluated for patterns amendable to system intervention and improvement. Trauma deaths at the trauma centers are extensively reviewed at their internal monthly multi disciplinary meetings. While non-trauma centers do not have a systematic process to review their trauma deaths, these autopsies are evaluated by the HCTA. The autopsies are also used as teaching tools, for case scenarios and distributed to EMS for training.

Quality of care issues may be advanced from any member of the system concerning care rendered along the continuum of trauma patient care. For example, a trauma center may wish to ascertain more specifics concerning the prehospital treatment and transport of a patient. Communication with the health care providers, with education concerning the trauma system, is initiated where possible. The HCTA will investigate the circumstances and report in the closed format of the HCTA Trauma Audit Committee, with all participants present for the discussion. Specific details of patient care can be shared between providers with confidentiality and non-discoverability assured by State Statute according to Chapter 395.51 and 401.30 and 401.425.

Through technical assistance it received working with the Bureau of EMS on a HRSA grant, the HCTA has been able to further maximize use of its resources. It is now able to process trauma admissions discharge data provided electronically by all seven non-trauma centers to determine the undertriage of injured residents and visitors to Hillsborough County. Age (65 years and older) and a few specific injury categories emerged as predominant factors.

In consultation with its Trauma Audit Committee (TAC), HCTA's trauma advisory panel composed of representatives from Hillsborough's prehospital, hospital and emergency medical dispatch providers and Pasco and Polk County's EMS, a potential undertriage rate of just over five per cent for over 6300 patients transported by EMS and admitted with an injury diagnosis was identified for CY2003 using this newly implemented quality initiative.

(n) Mass Casualty and Disaster Plan Coordination. Describe the proposed trauma agency's coordination of the prehospital and hospital component's mass casualty and disaster plans for the defined geographic area it represents.

Depending on the severity and extent of an incident, a tiered approach for soliciting additional assistance is followed when local emergency medical response needs exceed the capacity of the requested ground emergency medical transport services. The HCTA has no role or official responsibilities in the coordination of mass casualty or disaster events, scenarios which exceed the capacity of the normal operations of the trauma system.

The basic concept of emergency operations in Hillsborough County calls for a coordinated effort and graduated response by personnel and equipment from municipal, county and other disaster support agencies in preparation for, and in response to, local disasters. The municipal governments of the cities of Tampa, Plant City and Temple Terrace bear the initial responsibility for disaster response and recovery operations within their jurisdiction. When local resources are inadequate, assistance will be requested from the County. If the requested assistance is beyond the county's capability, it may request state and federal assistance from the State Emergency Operations Center (SEOC). To ensure an adequate and timely response by emergency personnel and the maximum protection and relief to citizens of Hillsborough County prior to, during and after a disaster, the concept also provides for:

- Preparation for and mitigation of natural and manmade disasters
- Early warning and alert of citizens and officials
- Reporting of all natural disasters between levels of government
- Establishment of the Emergency Operations Center (EOC) and the organization for command and control of emergency response forces
- Movement of citizens from natural disaster danger areas to shelters or safe areas
- Use of increased readiness conditions and response checklists for hurricanes
- Shelter and care of evacuees
- Damage assessment reports and procedures
- Return of evacuees when authorized by the appropriate authorities after the disaster danger has passed
- Recovery operations

The Emergency Operations Center (EOC) is activated for all incidents requiring a significant dedication of resources and/or extraordinary inter-agency coordination outside the realm of normal, day to day emergency situations responded to by law enforcement, fire and EMS agencies. The EOC Operations Group, under the leadership of the Director of Emergency Management, manages the county's response to emergencies or disasters.

The county and all three municipalities are signatories to the Statewide Mutual Aid Agreement For Catastrophic Disaster Response And Recovery. If resources within the county are insufficient for disaster response and recovery operations, mutual aid will be requested from the State EOC.

During disaster operations, numerous private sector and private nonprofit organizations provide resources upon request of the Director of Emergency Management and the EOC Operations Group. Included among these are the American Red Cross, Salvation Army, various church-related groups, United Way and Volunteer Center of Hillsborough County, Chamber of Commerce, etc. Many of these groups participate in relief supply activities conducted at the Regional/County Relief Center at the State Fairgrounds.

Local emergency medical response needs exceeds capacity of requested service

For the efficient day-to-day operation of the Hillsborough County trauma system, formal and informal mutual aid agreements exist among the emergency medical transport services within Hillsborough County and between specific outlying counties to supplement equipment and personnel on an ad hoc basis. The majority of the written agreements have been in existence for well over a decade.

A mass casualty event

Any incident, or combination of incidents involving either fifteen (15) or more trauma victims, each with unstable vital signs, and requiring emergency ALS, or for large number of lesser injured victims with unstable vital signs or injuries requiring examination/treatment at more than two hospital facilities, is considered a mass casualty event. Such an event requires activation of Hillsborough County Mass Casualty Operations Procedures. These processes are used to mobilize and coordinate the extraordinary resources necessary within the County and to manage any number of victims that would overload the normal trauma system in case of mass casualties. These activities are organized through Hillsborough County Emergency Management.

The county contracts with a Medical Director for Mass Casualty Planning (MDMCP). This medical consultant's duties include coordination of hospital related mass casualty activity; preparation for and conduct of at least one disaster exercise per year, and providing a written critique of the exercise with recommendations for improvement; participation as a member of the disaster executive support group; recommendation and approval of all planning and operational elements relating to mass casualty coordination in Hillsborough County; and recommendation to the BOCC of appropriate action or funding requirements for support of a comprehensive and effective plan for the handling of mass casualties.

When a verified or potential mass casualty situation occurs (e.g. plane crash, act of terrorism, approaching hurricane), Hillsborough County Emergency Dispatch Center (HCEDC) will immediately notify the MDMCP, the Director of Public Safety, and the Director of Emergency Management. Upon ascertaining that a mass casualty situation does exist, the MDMCP will initiate Hillsborough County Mass Casualty Operations Procedures and advise hospitals through (HCEDC) that a Code D (David) is in effect. In most cases, sufficient medical/hospital resources exist within the county to take care of disaster victims. In the event disaster victims have to be transported to medical facilities outside the area, the MDMCP will coordinate the necessary details.

A state-declared disaster

Disasters can cause conditions that threaten the general health and safety of the citizens of Hillsborough County. A variety of public health hazards may also exist following a disaster including contaminated water and food supplies, epidemics, failure of sanitation facilities, etc. Medical care must be readily available for the injured and sick though the public health situation can also be complicated by damage or reduced capability of hospitals and other medical facilities. In the aftermath of a major disaster, public health capabilities must be effectively mobilized.

For catastrophic disaster response and recovery, Chapter 252, F.S. (State Emergency Management Act, as amended) authorizes the State and its political subdivisions to develop and enter into mutual aid agreements for reciprocal mutual aid and assistance in case of emergencies too extensive to manage unassisted. The State of Florida, Division of Emergency Management developed the Statewide Mutual Aid Agreement to facilitate rapid assistance to all political subdivisions that participate in the mutual aid program and which are affected by a major disaster. Hillsborough County is a signatory to this agreement. Hillsborough County ordinances further authorize the specific organizational and operational procedures related to declarations of a state of local emergency and coordination of emergency response with other levels of government and private agencies.

During disaster operations, the entire county's medical infrastructure can be brought to bear to provide medical support. The focal point of county emergency medical response during a disaster is the Mass Casualty Planning System described in the CEMP. The primary coordinator for Emergency Support Function #8 (health and medical) during disasters is the Director, Health Department. Among the agencies supporting this function include MDMCP, Aging Services, American Red Cross, Health & Social Services, County Fire Rescue Department, Medical Examiner, Water Department, Public Works, Solid Waste Department, municipal fire/rescue departments and commercial ambulance companies.

The primary receiving facilities for disaster victims with serious injuries are all the county's hospitals. Secondary facilities are ambulatory surgical centers, walk in emergency care units,

Health Department clinics and functioning private clinics. Also, county/municipal fire stations have first aid capability if required. All medical facilities must be prepared on a 24 hour basis to not only receive those injured who are dispatched through the Mass Casualty System, but also the casualties who will arrive on their own. Medical facilities must keep the EOC informed of their status with regard to disaster victims and bed availability during the emergency situation. The chief executive officer of a hospital which requires evacuation for whatever reason (hurricane, loss of water supply, hazardous materials exposure, internal disaster such as fire, bomb, etc.) will coordinate the evacuation with the MDMCP and the Director of Emergency Management.

Hillsborough County's CEMP provides uniform policies and procedures for the effective coordination of actions necessary to prepare for, respond to, recover from, and mitigate natural or man-made disasters which might affect the health, safety or general welfare of individuals residing in its jurisdiction. It should be noted that the CEMP is the guiding plan for response to mass casualties and disasters in the County. Information on specific authorities, coordination of actions and description of emergency support functions for mass casualty and disaster situations are described in detail in the CEMP and are outside the scope of the Trauma Plan.

(o) Public Information and Education.
Describe the proposed trauma agency's programs designed to increase public awareness of the trauma system and public education programs designed to, prevent, reduce the incidence of, and care for traumatic injuries within the defined geographic area it represents.

The Trauma Coordinator participates in community activities in injury prevention/safety promotion educational activities through involvement with local coalitions, political entities and other agencies but does not independently coordinate formal programs due to resource limitations. The Trauma Coordinator maintains active professional working relationships with directors and employees of other emergency support and planning providers in the County. The Coordinator may attend meetings of the following organizations to maintain contacts, keep informed, and maintain Agency visibility. Examples of these agencies include:

Community Traffic Safety Alliance. Members include local city, county, and state agencies, private industries and citizens using the team approach to combine law enforcement, emergency medical services, public education, and engineering efforts to address community safety issues.

Drive Smart Tampa Bay. The members constitute a traffic safety alliance from law enforcement, government, military, big business, acting as a public clearinghouse of information on traffic safety, taking a stand on some issues, promoting camaraderie and networking.

Greater Tampa Area Safe Kids Coalition. This group is a local chapter of the only long-term effort dedicated solely to preventing unintentional injury among children ages 14 and under, with more than 80 national organizations and 164 coalitions in 46 states (8 in Florida) and D.C.

Other professional associations and affiliations with which the Trauma Coordinator interacts and can influence trauma care and public awareness are:

State Trauma System Plan Implementation Committee. The goals and objectives of this body are to plan, on a five-year cycle, for all aspects of an inclusive trauma system. This group is made up of members from the AHCA, Board of Medicine, Board of Nursing, EMS community, trauma community and other members of the healthcare community. The committee will continue to meet with the trauma community, other state agencies and the Florida Hospital Association to ensure timely access to trauma centers for all citizens of Florida.

Association of Florida Trauma Agencies. The goals and objectives of this body are: to foster the development and support of trauma agencies through legislative and programmatic activities, to address present and future trauma care needs of communities and the State, to establish administrative and medical policies and protocols to improve the quality of trauma care, oversee the development of the State EMS Plan, to coordinate public and private entities concerned with

provision of trauma care, to advise the State or other organizations regarding trauma care, and to apply or administer grants for research and development purposes.

Florida Committee on Trauma. A group of trauma specialists organized under the American College of Surgeons, committed to improve the quality of care for the injured and critically ill patients--before, en route to, and during hospitalization. They accomplish their goals by improving training for emergency care for ambulance personnel, sponsoring courses for the management and prevention of injuries for trauma specialists as well as for physicians who do not treat trauma victims on a regular basis; and working to encourage hospitals to upgrade their trauma care capabilities.

Emergency Nurses Association (West Coast Chapter). This local arm of the national association of ED nurses educates and advocates for the practice of emergency department nursing and patient care on both the clinical and professional levels.

The Trauma Agency also participates in other state-wide constituency group meetings to advance the practice of trauma care such as the Association of Florida Trauma Coordinators, a.k.a. Trauma Program Managers, to network and keep abreast of other trauma care provider issues. These contacts enable opportunities to solve problems, share ideas, and achieve common goals while facilitating quality improvement efforts at both the local and state levels.

Education/Other Activities

The Trauma Agency held annual trauma symposiums for physicians and nurses up until 2004. These endeavors proved too resource intensive to continue, considering the other goals of the Agency. The HCTA facilitates the educational efforts of others by posting notices of trauma, emergency management and other EMS offerings on its web site.

Policy for Revision of the Trauma System within Hillsborough County

Chapter 395, F.S. grants department-approved trauma agencies the authority to develop a plan for the delivery of trauma care to the citizens serviced by that agency. Further, it allows those entities to implement uniform trauma transport protocols, further defining the components of the system and their interactions.

It is the policy of the Hillsborough County Trauma Agency (HCTA) to support the current service provider relationships, and to develop any necessary changes based on need for additional resources or on identified deficiencies within the system which negatively impact patient care.

It is implicit in the Plan and explicit in this policy that any needed change in the system will be clearly identified in the Plan. Any component of the system where change is necessary will be clearly defined; lack of discussion implies lack of need. Any request for change will be considered on merit of quality improvement for the entire system. Requests for change must be made in terms of improvement in quality of patient care delivered. Where possible, the particular problem identified and suggested resolution must be discretely presented.

The HCTA will not support any participant's application for change in system status without prior detailed discussion of potential improvement in the quality of care to be delivered to the citizens of Hillsborough County.

(p) Attachments. Include the following: 1. A copy of each contract and agreement entered into by the proposed trauma agency, pending department approval of the proposed trauma agency, for the benefit and operation of the trauma system; and 2. A copy of the public hearing notice and minutes of the hearing.

Appendices

Appendix A. Map of base stations of public & private EMS providers and base sites of air medical ambulances and all helipads
Appendix B. Map of trauma centers, hospitals and their helipads
Appendix C. Map of hospitals in evacuation zones
Appendix D. HCTA organizational chart
Appendix E. Medical Director's contract
Appendix F. Job descriptions of Trauma Coordinator, Director Health & Social Services and Medical Director
Appendix G. Hillsborough County Emergency Medical Services Transportation Ordinances, 06-9
Appendix H. Documentation of Trauma Plan public hearing and BOCC approval