

MIEMSS FACT/SHEET (FY 1991)

- o Injuries are the third leading cause of death among Marylanders, surpassed only by heart disease and cancer.

Last Year (FY 1991) at the Shock Trauma Center

- o There were 3,923 patients admitted to the Shock Trauma Center; that is 432 more than the last year's number or a 12.4% increase over FY 1990. Over the past 10 years, the number of admissions has increased steadily, with an average rate of 11.6 percent per year and a total increase of 300 percent.
- o Although the patients treated at the Shock Trauma Center are Maryland's most critically ill or injured, there is a 92.1% survival rate.
- o The five leading causes of injuries of patients admitted to Shock Trauma Center were:
 - vehicular crashes (approximately 43%)
 - assaults (approximately 18%)
 - pedestrian (approximately 5%)
 - motorcycle (approximately 4%)
 - other (includes home, recreational, industrial, farm, and medical emergencies) (approximately 30%)
- o Patients 30 years of age or younger accounted for 50% of the Shock Trauma Center's total primary admissions. However, the percentage of patients between 31 and 45 years of age increased last year.
- o 79% of Shock Trauma patients were discharged home; this was a 9% increase compared with the last two years and a 31% increase over FY 1981 (10 years ago).
- o The neurotrauma unit treated 887 patients with head injury and 266 with spinal injury.
- o More than 1800 patients and their families received counseling from Family Services staff.

Recent Improvements at the Shock Trauma Center

- o The newly renovated 36-bed multitrauma subacute unit, opened this year, combines units A, B, and C, which were previously on different wings of the University of Maryland Hospital. The remodeled unit offers many enhancements for patient care.
- o Ground has been broken for the new 2-story building for the hyperbaric medicine department. Although the new hyperbaric chamber will be approximately the same size as the present one, it will be configured for 20 patients, instead of 11.

- o The transport stretcher developed for the opening of the Cowley Shock Trauma Center has been perfected and is being patented.
- o Technological innovations in ventilatory and critical care have made possible a reduction in the number of days that patients require mechanical ventilation. This enables patients to return home quickly and frees critical care beds for incoming patients.
- o The Argon Beam Coagulator, a technical device introduced into STC operating rooms over 2 years ago, is now used routinely by surgeons to seal blood vessels and stop blood loss immediately, particularly in the repair of injured spleens and livers. Prior to its use patients might have required several operations over 2 or 3 days.
- o Improvements were made in the clinical computer system. Through the use of work stations at each of the 138 beds, computers can disseminate information to clinical staff in other parts of the building. For example, a physician on a different floor than his/her patient may monitor as many as 100 patient functions. The computer also reproduces x-rays and enlarges areas for closer examination.

EMS System Stats (FY 1991)

Communications

- 246,768 radio and phone emergency calls handled by Emergency Medical Resources Center, which coordinates advanced life support patient medical consultation routing for the Baltimore Metropolitan Region.
- 133,727 radio and phone emergency calls handled by SYSCOM, which provides statewide voice and data communications for Maryland State Police (MSP) helicopters

Transportation

- 4,458 MSP med-evac transports
- 421,191 ambulance responses
- 589 premature and critically ill newborn babies received intensive care transport services
- 556 pregnant women in high-risk labor were transported to perinatal centers (649 referral calls were received)
- with the exception of the Shock Trauma Center which received approximately 50% patients by helicopter, ambulance was the primary mode of transport for patients admitted to trauma centers

Prehospital Training & Certification

--more than 24,000 prehospital care providers (both career and volunteer)

- o 11,397 first responders
- o 11,058 emergency medical technicians
- o 1,235 cardiac rescue technicians
- o 578 EMT-paramedics

--Advanced life support available in all 24 jurisdictions of Maryland

Echelons of Care

--49 hospitals with 24-hour emergency departments

--specially designated hospitals

- o MIEMSS Shock Trauma Center
- o 9 areawide trauma centers
- o 20 specialty referral centers

MIEMSS Shock Trauma Center

The R Adams Cowley Shock Trauma Center, devoted to the resuscitation and treatment of the victims of traumatic injury, opened in February 1989. More than 3900 patients were treated in this 138-bed, free-standing medical facility during fiscal year 1991. For 20 years prior to the opening of the new building, Shock Trauma was located in a cramped five-story building on the UMAB campus. The move to new quarters allows the center's staff to be even better prepared to meet the emergency medical needs of Maryland's citizens.

Patients with the most severe multisystem injuries, spinal cord injuries, head trauma, or carbon monoxide poisoning are brought to the Shock Trauma Center in Maryland State Police med-evac helicopters or in ambulances. Multidisciplinary trauma teams stand ready 24 hours a day, 7 days a week.

Traumatologists, anesthesiologists, trauma nurses, and technicians are informed of arriving patients by radio operators in SYSCOM, the Systems Communications Center. Specialists in thoracic, orthopedic, and plastic surgery are readily accessible for consultations. Laboratory technicians and radiologic services are instantly available to assist in diagnosis.

The "system" of care at the Shock Trauma Center actually begins at the emergency scene. Through carefully coordinated phases of recovery--from acute care through rehabilitation--patients are assisted as they return, as much as possible, to their preinjury roles and responsibilities at work and at home.

Maryland Institute for Emergency Medical Services Systems

The Maryland Institute for Emergency Medical Services Systems (MIEMSS) is a recognized leader in trauma care and emergency medical services (EMS) development. The goal of MIEMSS is to provide continuity of care from the scene of the emergency through rehabilitation.

MIEMSS is mandated by state law to be the lead EMS organization responsible for coordinating a statewide EMS system. This portion of MIEMSS is part of the University of Maryland at Baltimore and is the "control center" of a voluntary network comprising

- o more than 49 hospitals with 24-hour emergency departments;
- o specially designated hospitals, including the MIEMSS Shock Trauma Center, 9 areawide trauma centers, and 20 specialty referral centers;
- o more than 480 ambulances;
- o more than 24,000 trained and certified prehospital care providers;
- o a state-of-the-art communications center linking ambulances, helicopters, hospitals, and central alarms;
- o and a med-evac helicopter program operated by the Maryland State Police and coordinated with MIEMSS.

The clinical segment of MIEMSS is the Shock Trauma Center, one of the three main components of the University of Maryland Medical System. As the clinical hub of Maryland's EMS system, the Shock Trauma Center treats the most critically injured in the state and is the designated specialty referral center for head- and spinal-injured patients and for patients needing hyperbaric medicine.