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## Dear Friends:

Trauma—a wound produced by sudden physical injury—strikes without regard to age, race, social standing, or financial status. It is the “equal opportunity” killer, and your lifetime chance of being touched by traumatic injury is 1 in 3. Our multidisciplinary team of surgeons, nurse practitioners, pharmacists, nurses, registrars, researchers, EMS providers, and rehabilitation specialists all work together to return patients back to functioning states that are as near as possible to their pre-trauma states.

As a Level I trauma center, we are committed to providing the necessary resources required to meet the needs of our community. And we are making a difference. In 2011, SEHC Trauma Service gave more than 2,000 trauma patients a second chance at life. This commitment and dedication will continue into the future for the good of all of our patients.

This 2011 Annual Report allows us to highlight some information about our program. We welcome your comments or questions. Please don't hesitate to contact us at 330-480-3907. Thank you for your support of our efforts and we look forward to another successful year.

Sincerely,

**Brian S. Gruber, MD, FACS**  
Director of Trauma/Critical Care Services

**Daneen Mace-Vadjunec, RN, MHHS, ONC**  
Program Director, Trauma and Neuroscience

## HMHP MISSION STATEMENT

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*Humility of Mary Health Partners extends the healing ministry of Jesus by improving the health of our communities with emphasis on people who are poor and underserved.*

### **Together We Commit To:**

**Compassion** – *Our commitment to serve with mercy and tenderness.*

**Excellence** – *Our commitment to be the best in the quality of our services and the stewardship of our resources.*

**Human Dignity** – *Our commitment to value the diversity of all persons and to be respectful and inclusive of everyone.*

**Justice** – *Our commitment to act with integrity, honesty, and truthfulness.*

**Sacredness of Life** – *Our commitment to reverence all life and creation.*

**Service** – *Our commitment to respond to those in need.*

## TRAUMA SERVICES MISSION STATEMENT

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*Trauma Services' mission is to reduce trauma related death and disability and to assume a leadership role in development, evaluation, and continuous quality improvement of trauma care.*

## TRAUMA TRANSFER LINE - 1-877-966-0662 24 HOURS A DAY, SEVEN DAYS A WEEK

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Make just one phone call to refer a patient (Transportation will also be arranged if needed)

*"One call does it all."*

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Sitting, from left: Diane Kupensky, Pattie Kountz, Daneen Mace-Vadjunec, Renee Reyes  
 Standing: Marina Hanes, Nancy Montwori, Laurie Flowers, Alexis Giansante,  
 Dr. C. Michael Dunham, Elisha Chance, Dr. Ron Rhodes, Dr. Brian Gruber,  
 Renee Merrell, Ben Melnykovich, Barbara Hileman

## Trauma Core Faculty

### Brian S. Gruber, M.D., F.A.C.S.

Director, Trauma/Critical Care Service  
 Clinical Assistant Professor of Surgery  
 Northeast Ohio Medical University

### C. Michael Dunham, M.D., F.A.C.S., F.C.C.M.

Assistant Director, Trauma/Critical Care Service  
 Clinical Professor of Surgery  
 Northeast Ohio Medical University

### Heath A. Dorion, M.D., F.A.C.S.

Assistant Director of Education, General Surgery  
 Clinical Assistant Professor of Surgery  
 Northeast Ohio Medical University

### Kenneth Ransom, M.D., F.A.C.S.

Assistant Director of Education, Osteopathic  
 Clinical Assistant Professor of Surgery  
 Northeast Ohio Medical University

### Ronald A. Rhodes, M.D., F.A.C.S.

Assoc. Director of Education, General Surgery  
 Clinical Assistant Professor of Surgery  
 Northeast Ohio Medical University

## In 2011, we welcomed two new surgeons:



**Gregory Huang, M.D.**  
 Trauma/Critical Care  
 General Surgery



**Hiba Abdel-Aziz, M.D.**  
 Trauma/Critical Care  
 General Surgery

## Trauma Program Staff

### Program Director

Daneen Mace-Vadjunec, RN, MHHS, ONC  
 Program Director Trauma and Neuroscience  
 Phone: 330-480-4417

### Nurse Practitioners

Laurie Flowers, RN, MSN, CCRN, CCNS  
 Phone: 330-480-2456

Susan Julian, RN, CNS  
 Phone: 330-480-2428

Patricia Kountz, RN, NP  
 Phone: 330-480-8876

Diane Kupensky, RN, MSN, CNS  
 Phone: 330-480-3616

### Outreach/Injury Prevention Coordinator

M. Ben Melnykovich, RN, BSAS  
 Phone: 330-480-8877

### Trauma Research Coordinator

Barbara Hileman, BA  
 Phone: 330-480-6302

### Trauma Research

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### Trauma Data Performance Improvement Coordinator

Renee Merrell, CAISS  
 Phone: 330-480-3880

### Trauma Coders

Nancy Montwori  
 Phone: 330-480-2963

Alexis Giansante  
 Phone: 330-480-2007

### Trauma Professional Fee Coder

Lillian Delmont, CPC  
 Phone: 330-480-2496

### Administrative Assistant

Renee Reyes  
 Phone: 330-480-3907

*Did you know.....*

*Nearly 45 million Americans DO NOT have access to a Level I or Level II trauma center within one hour of being injured. This is equal to the population of Arizona, New Mexico, Texas, Louisiana, Mississippi, and Alabama combined.*

**THE LEVEL I DIFFERENCE**

Level I is the highest rating designated to a trauma center by the American College of Surgeons (ACS). It allows for the quickest response possible to treat the severely injured. The trauma team meets or exceeds rigorous criteria and takes an organized and systematic approach to its work. Trauma Services is in a constant state of readiness 24 hours a day. Prompt availability of care in varying specialties, such as orthopaedic surgery, neurosurgery, plastic surgery and others, is needed to adequately care for various forms of trauma that a patient may suffer. Facilities such as interventional radiology, surgery suite and critical care units stand by for the trauma patient. In 2011 SEHC, also constructed a state-of-the-art, FAA-approved helipad that holds two aircrafts.

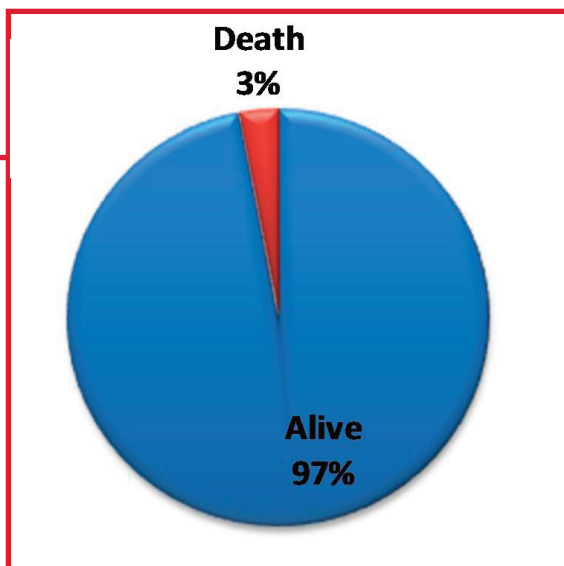
The higher level of care offered through the trauma center benefits not only trauma victims, but also their families and friends.

*Did you know.....*

*While most injuries can be treated at a local emergency department, if you are severely injured, getting care at a Level I trauma center can lower your risk of death by 25 percent.*

In order to be recognized as a Trauma Center in Ohio, hospitals must comply with sections 4798.01 and 3727.101 of the Ohio Revised Code. American College of Surgeons (ACS) verified Trauma Centers must submit documentation of verification. There are ten Accredited Level I Adult Trauma hospitals in Ohio.

SEHC remains the only Level I Trauma Center between Cleveland, Pittsburgh, and Akron.



**OUTCOMES**

## What is the American College of Surgeons (ACS)?

The American College of Surgeons (ACS) is a scientific and educational association of surgeons that began in 1913. The ACS works to improve the quality of care for the surgical patient. It does so by setting high standards for surgical education, and trauma clinical practice.

## What is “trauma center designation”?

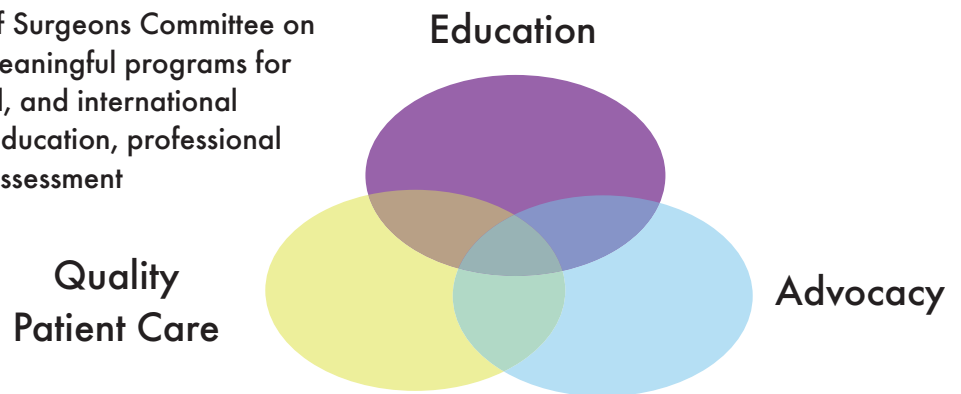
A facility earns the title of “designated trauma center” when it meets the requirements of government or other authorized entities. The ACS does not designate trauma centers. Instead, it verifies the presence of the resources listed in the book, *Resources for Optimal Care of the Injured Patient*.

## What is ACS verification?

The ACS Consultation/Verification Program assists hospitals to evaluate and improve trauma care. It provides an objective, external review of a trauma center’s resources and performance. A team of trauma experts completes an on-site review of the hospital. The team assesses relevant features of the program. These include commitment, readiness, resources, policies, patient care, and performance improvement.

## What does the Committee on Trauma do?

The mission of the American College of Surgeons Committee on Trauma is to develop and implement meaningful programs for trauma care in local, regional, national, and international arenas. These programs must include education, professional development, standards of care, and assessment of outcomes.



**TOTAL VOLUME:**

Last year, approximately 2130 trauma patients were treated and admitted to SEHC.



## TRAUMA TEAM

As our EMS partners transport the injured patients to us, our trauma team is activated to stand ready for the moment the patient arrives at our door.

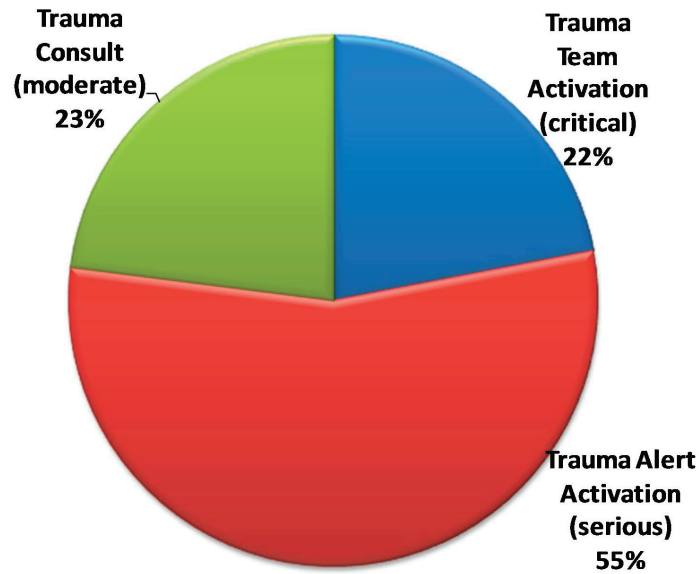
## THREE-TIER RESPONSE TO TRAUMA

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The appropriate activation is crucial to the trauma patient. The emergency team is responsible for deciding which level of response is warranted based on the information provided by the pre-hospital care providers. Pre-hospital triage and transfer criteria are based on guidelines established by the American College of Surgeons and the State of Ohio.

## 2011 STATISTICS

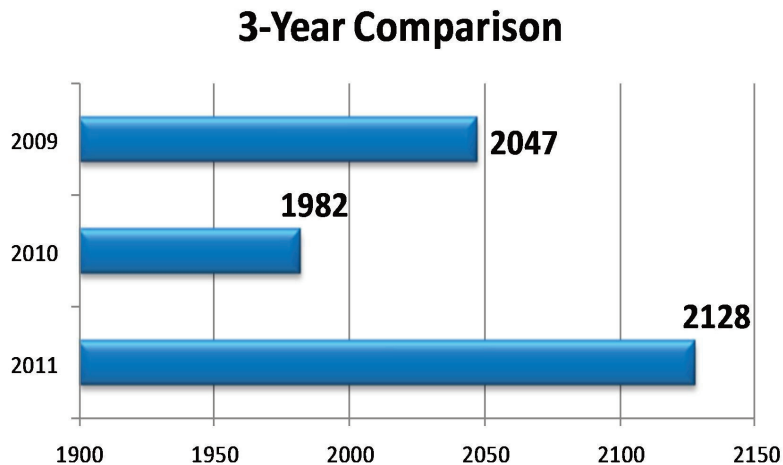
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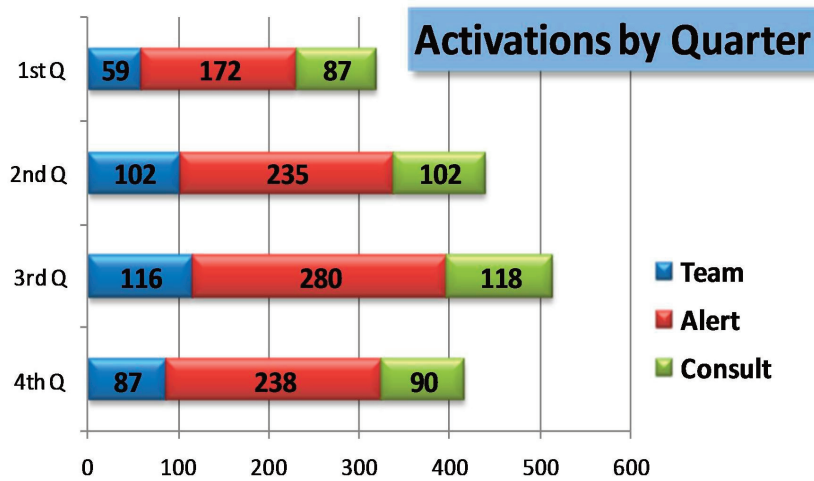
## TOTAL VOLUME

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Three-Year Comparison of Total Trauma Patients



# TRAUMA VOLUME BY LEVEL OF ACTIVATION AND QUARTER

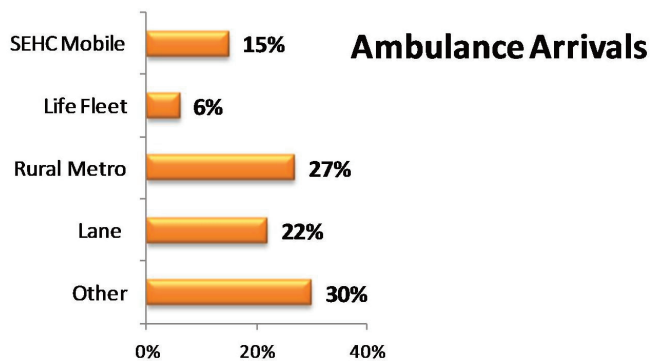


## TRANSPORT METHOD

The continuum of trauma care begins outside of the trauma center, with our Emergency Medical Service partners. EMS responders act on-scene to recover and transport critically injured patients. They make a rapid assessment of the patient’s injury or potential for injury, start resuscitation and stabilization, notify the trauma center, and transport the patient. We work with paramedics, fire fighters, and medical evacuation personnel to ensure a strong network of emergency response for our communities.

### GROUND TRANSPORT

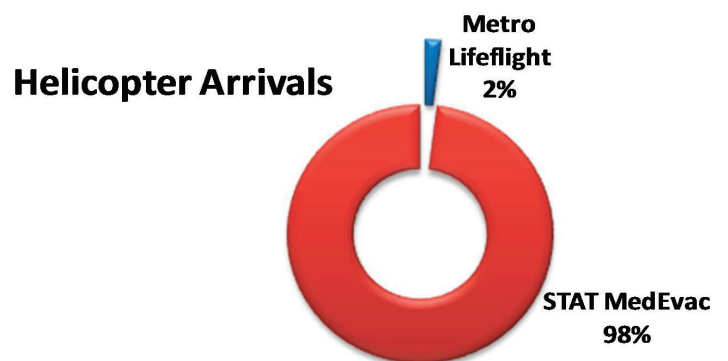
Ground transport brings 75 percent of the patients to the trauma center.



### AIR MEDICAL ACCESS

Air Medical Access brings 16 percent of the patients to the trauma center.

STAT MedEvac, which bases an aircraft at the Youngstown Eliser Airport, transports the vast majority of our patients arriving by aircraft. These aircraft are equipped with the latest in life-saving and advanced aviation technologies.



## HMHP MOBILE ICU (MOICU)

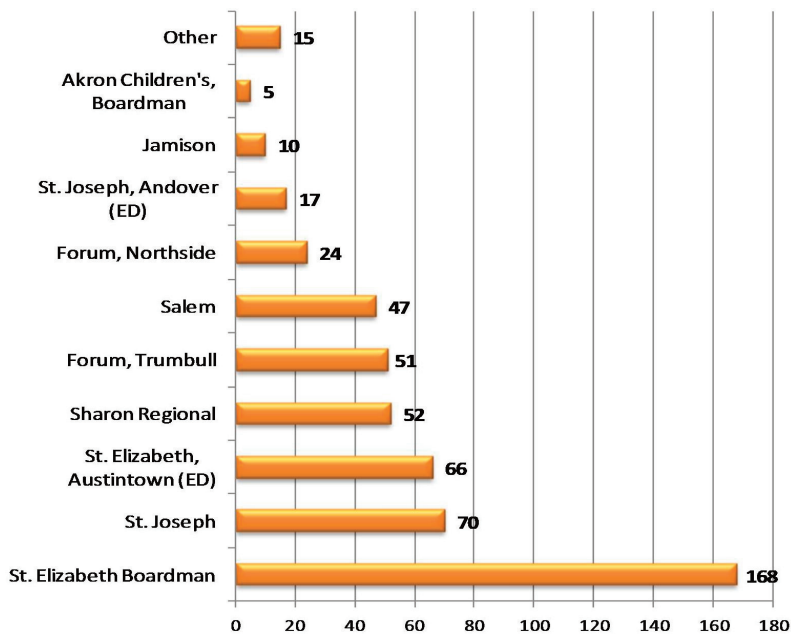
SEHC cares for critically ill and injured patients throughout the region.

In 2011, the MoICU transported 15 percent of our patients to the trauma center. The MoICU staff consists of specially trained advanced life support personnel (paramedics and intensive care nurses) dedicated to providing our community with the best healthcare possible.

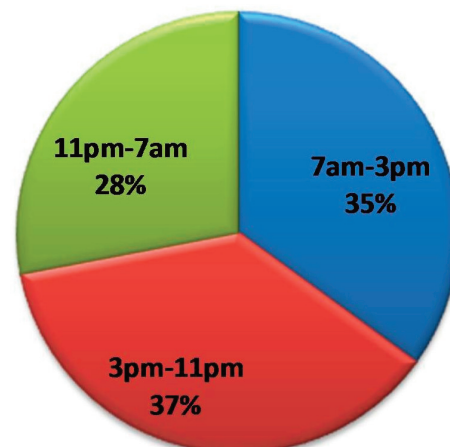
*Did you know.....*

*One out of every five patients is transferred from another facility.*

In 2011, 518 patients were transferred to the Level I Trauma Center from another facility (25 percent).



## ARRIVAL TIMES





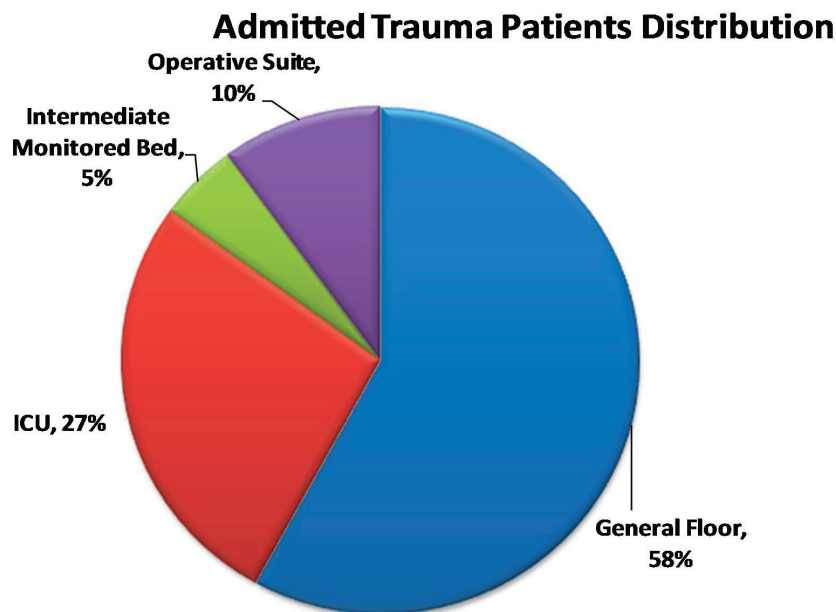
The emergency department at SEHC is a vital part of the Level I trauma center. Board certified emergency physicians and staff treated more than 41,000 patients in 2011. The more than 20,000 square-foot emergency department is a full-service resource dedicated to providing compassionate care to our community.

### Features include:

1. Board-certified emergency physicians
2. Subspecialists on-call every hour of every day to include: general surgeons, orthopaedics, neurosurgeons, anesthesiologists, radiologists, and board-certified critical care physicians
3. Dedicated trauma rooms with state-of-the-art radiology digital radiography system that is fully integrated with the hospital's picture archiving communication system (PACS)
4. 24-hour sexual assault nurse examiner (SANE) coverage providing specialized nursing care with a focus on the medical-forensic examination
5. Nursing staff with certification in Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Trauma Nursing Core Course (TNCC), and Emergency Nurses Pediatric Course (ENPC).



In 2011, patients were admitted to the following areas from the emergency department.



## ORTHOPAEDIC TRAUMA SERVICES

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Many patients admitted as traumas have some type of musculoskeletal injury. Motor vehicle and motorcycle crashes, industrial accidents, and falls from a significant height can cause major pelvic and complex extremity fractures. Orthopaedic Trauma Service is responsible for care and treatment of these injuries as well as post-traumatic sequelae such as deformities, nonunions, malunions and osteomyelitis.

SEHC provides orthopaedic coverage around the clock to manage these orthopaedic injuries. This takes a variety of specialized surgeons, residents and midlevel providers to assure the trauma patient receives appropriate orthopaedic care. Orthopaedic surgeons are on-call 24-hours a day should a trauma patient need emergent surgical intervention. To assist the surgeons, the orthopaedic residents and orthopaedic physician assistants (PA-C) are also able to provide hands-on care when a trauma patient arrives in the trauma bay. Whether they are reducing a fracture or dislocation, managing an open fracture, or dealing with complex pelvis fractures, their expertise in the evaluation and management of musculoskeletal trauma injuries provides the patient with quick and efficient care.

A majority of trauma patients have severe or multiple injuries. Polytraumatized patients are those unique patients with numerous skeletal injuries. Not all orthopaedic surgeons are equally prepared to manage those with severe injuries or the polytrauma patient. The care of these types of patients has become a subspecialty within orthopaedics (orthopaedic traumatologist). Drs. John Sontich, Roger Wilber and Megan Brady are “super-specialists” available to care for these complex injuries.

The orthopaedic clinic, located in the ambulatory care center, provides continued care once patients are released from the hospital.

## NEUROSURGICAL SERVICES

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Neurosurgical Service encompasses far more than the brain. Neurosurgery is the surgical specialty concerned with the diagnosis and treatment of the entire nervous system, composed of the brain, spinal cord and spinal column, as well as the nerves that travel through all parts of the body. Neurosurgeons provide the operative and non-operative management of neurological trauma. Because neurosurgeons have extensive training in the diagnosis of all neurological disorders, they are often called upon by the trauma team for consultations.

Neurosurgeons use a multidisciplinary approach to diagnosis and treat patients with a wide range of neurological disorders. The team of surgeons provides expert treatment and diagnosis for brain tumors, peripheral nerve disorders, trauma and a broad spectrum of spinal cord disorders such as degenerative spine disease, spinal fractures, lumbar stenosis and more. They are aided by highly-skilled support staff and state-of-the-art technology.

State-of-the-art operating suites are designed for the patient with multiple injuries. There is a surgical suite, as well as anesthesia staff, available to the trauma patient 24 hours a day, 7 days a week, and 365 days a year. During the year, 35 percent of our trauma patients required a procedure to be performed in the surgical suite.



## SURGICAL INTENSIVE CARE UNIT

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SICU provides a state-of-the-art Surgical/Trauma Intensive Care Unit specifically for trauma patients requiring fast-paced, high-acuity, specialty critical care. It is a 12-bed unit, two of which are dedicated to the pediatric trauma patient. Trauma is the most common reason for admission to the SICU; 27 percent of trauma patients were admitted to SICU in 2011.

The intensivist-led multidisciplinary team works together with the common mission of providing excellent care. The unit is adjacent to the emergency department, operative suites and recovery room, and is equipped with the most sophisticated life support technology available.

Hemodynamic monitoring is the cornerstone of patient management in the intensive care unit. Innovative technology allows for continuous monitoring of essential hemodynamic patient information. Clinical studies show these types of monitoring systems significantly improve patient outcome.

All the services and professionals necessary to treat the critically injured trauma patient are readily available 24/7. All registered nurses have advanced training and mandatory skills lab are available monthly to our health care professionals.

Having a loved one in the SICU can be a difficult and trying time. Our staff recognizes the family's contribution to the team and how important their visits are to the patient's recovery. "Family friendly" visiting hours are available.

In addition, there is a new unit specializing in neurosurgical patients, which encompasses a full range of contemporary neurosurgical practices. A multidisciplinary approach is used to provide a complete range of services for the diagnosis, treatment and rehabilitation of patients with neurosurgical injuries.



## ACUTE REHABILITATION UNIT

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The rehabilitation unit at SEHC is a 30-bed unit that provides services seven days a week to individuals with complex rehabilitation needs. Following their acute hospitalization, 128 trauma patients were admitted to the rehabilitation unit prior to transitioning home. The unit is CARF accredited.

### *Did you know.....*

*Each patient has an individualized plan of care that includes three hours of therapy services each day. The plan of care is based on individual goals established interactively with the physician, rehab staff, and nursing staff, as well as the patient and patient's family.*

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Physical therapy helps with mobility, balance and safe transfer skills. Treatments are scheduled twice daily, and consist of exercise to gain strength and restore muscle function, and ambulation to improve balance and gait.

Occupational therapy helps to develop skills in self-care, homemaking, recreation, school and work.

Speech/Language therapy assists with speech, language, memory, thinking and swallowing disorders.

Recreational therapy develops strength in social, emotional and physical skills. This therapy helps with communication of thoughts and feelings and also develops self-awareness.

Rehabilitation nursing provides 24-hour-a-day nursing care, with ongoing assessment, planning, intervention and evaluation of patients, providing individualized care for (but not limited to) bowel and bladder, education, medications, pain management, skin integrity, medical issues and carry over of therapy interventions.

Rehabilitation physicians provide expertise in medical functional issues and direct the interdisciplinary team in coordinating the patient and family plan

Case management and social services provide individualized discharge planning and assistance with insurance needs.

Psychology services are available for patient and family regarding adjustment issues related to diagnosis.

## OUTPATIENT REHABILITATION

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The outpatient physical therapy program provides services for patients with orthopaedic, neurologic and post-surgical diagnoses. To better serve our patients, we also offer specialty programs in sports medicine, aquatic therapy, pediatrics, industrial rehab and women's health. Our outpatient services are offered in Youngstown, Warren, Austintown and Boardman.

## TRAUMA REGISTRY

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A trauma registry is an electronic database that is essential to providing trauma service. This database is used to collect, organize and analyze information on trauma patients. The data have many uses, but are primarily used to monitor the continuum of care, from injury prevention to outcomes measurement. Currently, the SEHC registry manages data for more than 33,000 patients.

The registry contributes data annually to American College of Surgeons, National Trauma Data Bank. The NTDB is the largest aggregation of US trauma data ever assembled. Data is aggregated and used to produce annual reports, hospital benchmark reports, and data quality reports.

Ohio hospitals are authorized by Ohio Law ORC 4765.06, Senate Bill 98 to submit trauma data to the State Trauma Registry. Data is submitted electronically quarterly, 90 days following the end of each quarter. The goal of the Ohio Trauma Registry is to provide data for development of public policy, health care education, injury prevention and research. Hospitals must participate in order to be eligible for the EMS/Trauma grant program, or to participate in DEMS-funded programs.

## METHODS FOR SCORING SEVERITY OF INJURIES

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### Abbreviated Injury Scale (AIS)

An injury categorization with severity scores assigned to each injury category. Injuries are rated from 1 (minor) to 6 (fatal).

### Injury Severity Score (ISS)

ISS is an anatomical scoring system to provide an overall score for trauma patients. The injury severity score is the sum of squares of the three highest abbreviated injury scale scores for injuries to different body regions (head/neck, face, thorax, abdomen, and pelvic content, extremities and external). ISS takes values from 1 to 75, 1 being a minor injury and 75 being a lethal injury.

### Glasgow Coma Scale (GCS)

It is a standard measure used to quantify level of consciousness in head injury patients. It is composed of three parameters: best eye response, best verbal response, and best motor response. The lowest GCS total would be a 3 and the best score would be 15.

### Revised Trauma Score (RTS)

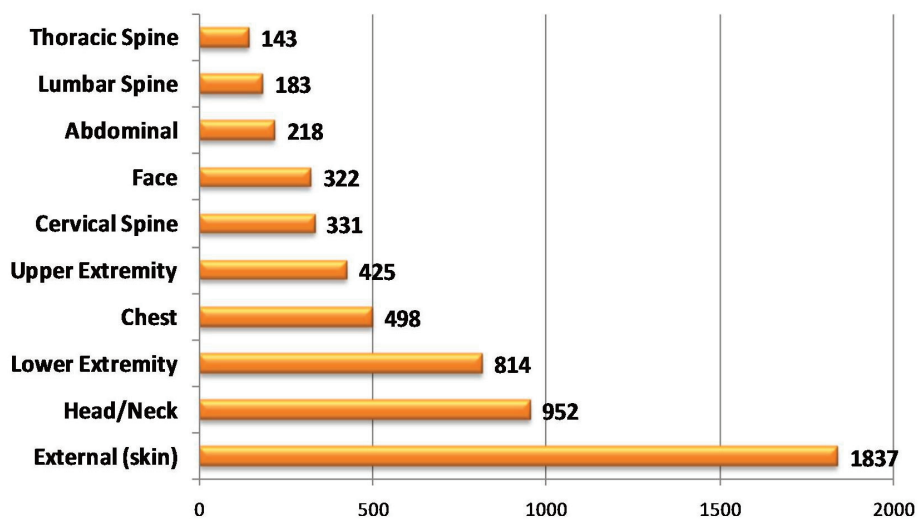
Consists of physiological parameters independent of anatomical injury scores.

### Trauma and Injury Severity (TRISS)

A combination of an anatomical measure (ISS), physiological measure (RTS) and patient ability to withstand injury severity (age) by type of injury (blunt/penetrating). Probability of survival (PS) is determined using a logistic regression model.

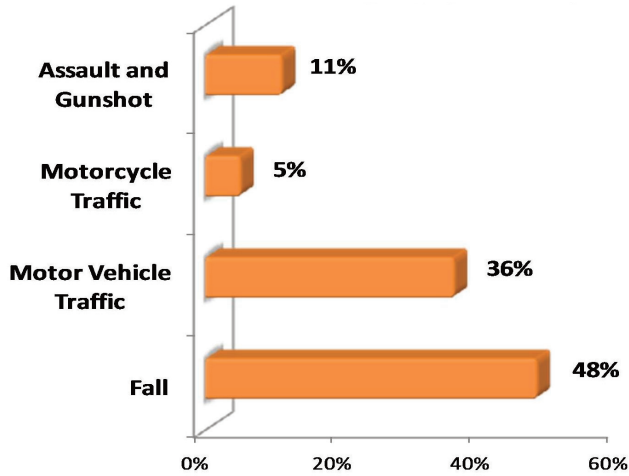
## INJURIES BY BODY REGION

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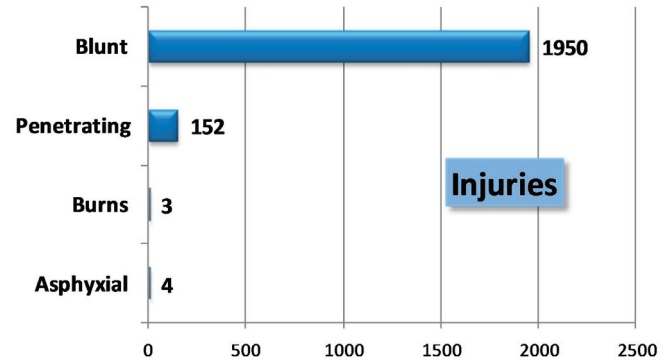


## MECHANISM OF INJURY

Most common Mechanism of Injury for the 2000 adult trauma patients seen in 2011 were:



Taking all trauma patients into consideration, their injuries were:

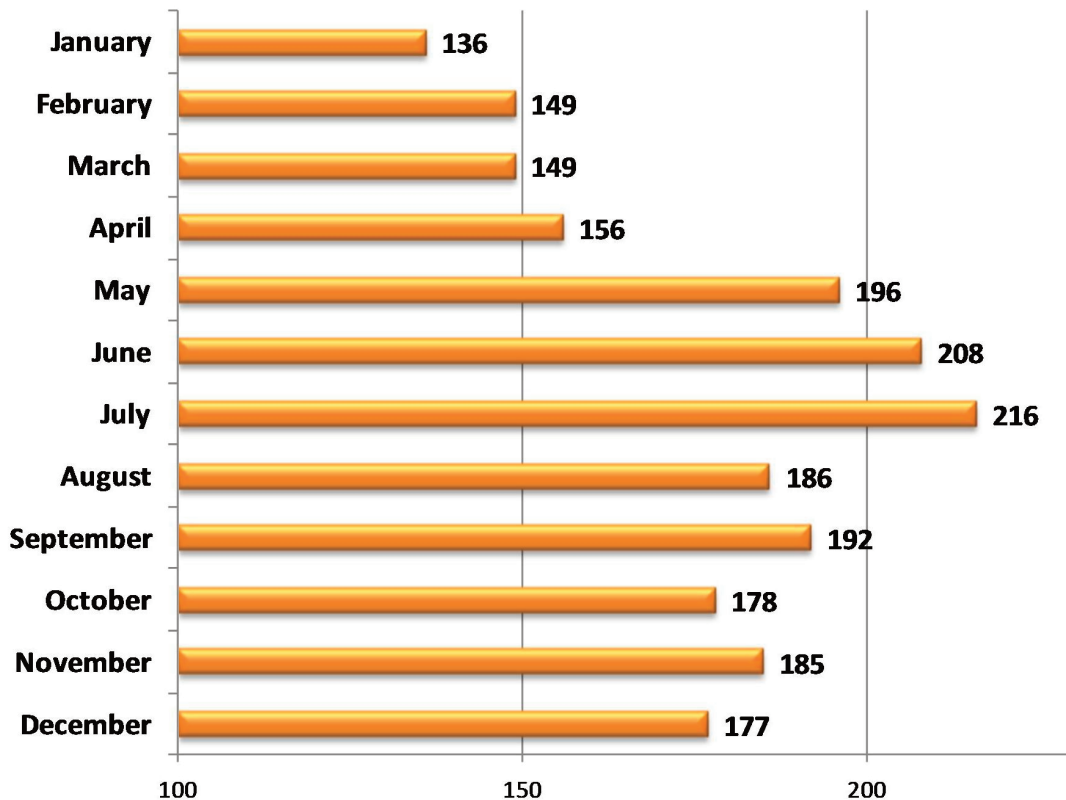


**Penetrating trauma** is an injury that pierces the skin (such as a bullet or knife).

**Blunt trauma** is caused to a body part by impact, injury or physical attack that does not penetrate the skin (such as a steering wheel impact in a car crash).

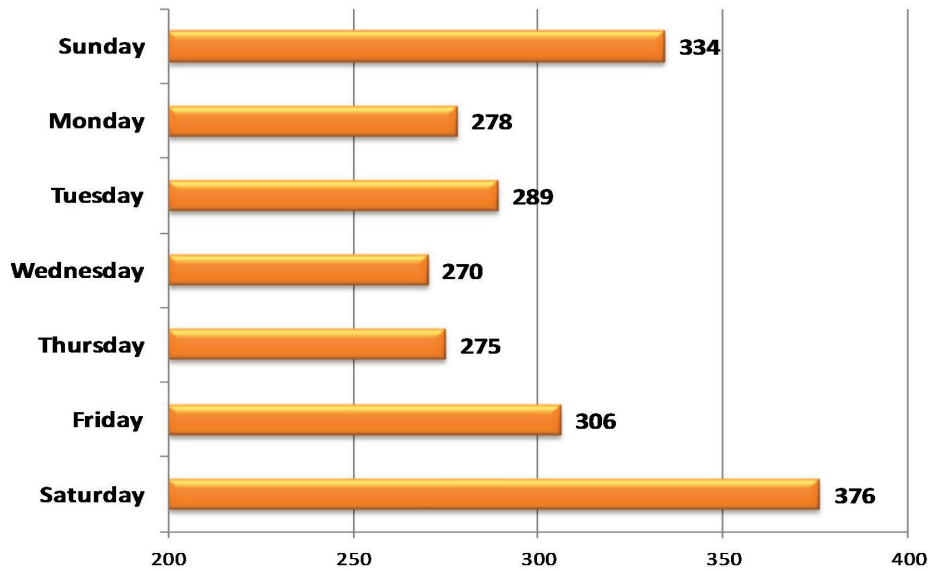
## ACTIVITY BY MONTH

Trauma admissions were higher in the warmer months, with a peak in July.



## DAY OF ARRIVAL

Saturdays were the busiest day of the week at the trauma center.



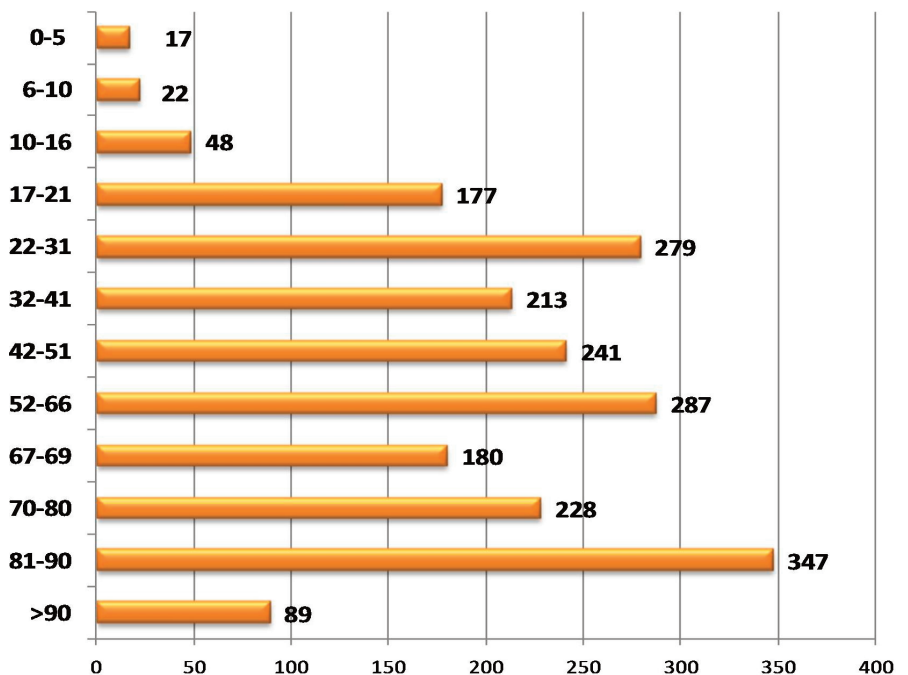
### *Did you know.....*

*The term “golden hour” is commonly used to characterize the urgent need for the care of trauma patients. This term implies that morbidity and mortality are affected if care is not instituted within the first hour after injury.*

## SPECIAL POPULATIONS

Special populations react uniquely to a traumatic event. Pediatric patients are not just “little adults.” There are important differences in the assessment of the traumatically injured child.

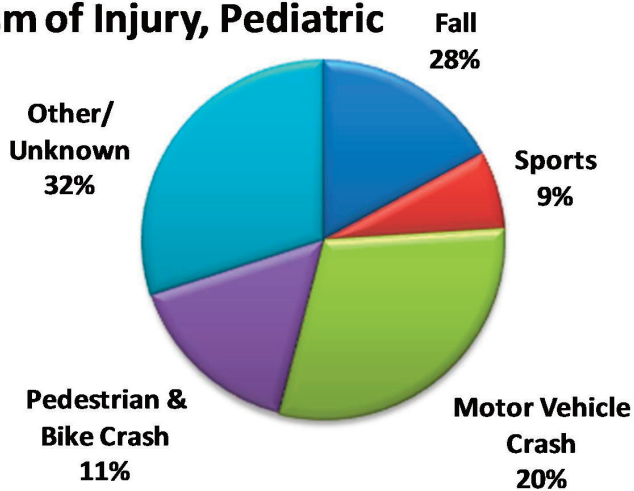
Pediatric Trauma (<=16 years of age)  
4 percent of all trauma patients are classified as pediatric.





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## Mechanism of Injury, Pediatric



*Did you know.....*

*A concussion can occur in any sport or recreational activity. An estimated 135,000 of sports- and recreation-related traumatic brain injuries, including concussions, treated in U.S. emergency departments occur each year to children ages 5 to 18.*

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## GERIATRIC TRAUMA

The geriatric population locally, as well as nationally, has increased over the years. The Mahoning Valley is made up of over 17 percent geriatrics.

According to the Census Bureau's national population projection, the elderly population will more than double between now and the year 2050, to 80 million. By that year, as many as 1 in 5 Americans will be elderly. Most of this growth should occur between 2010 and 2030, when the "baby boom" generation enters their elderly years. During that period, the number of elderly will grow by an average of 2.8 percent annually. By comparison, annual growth will average 1.3 percent during the preceding 20 years and 0.7 percent during the following 20 years.

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## WE ARE LIVING LONGER

Once we reach age 65, we can expect to live 17 more years. During the 1980s, post-65 life expectancy improved for all race/sex groups.

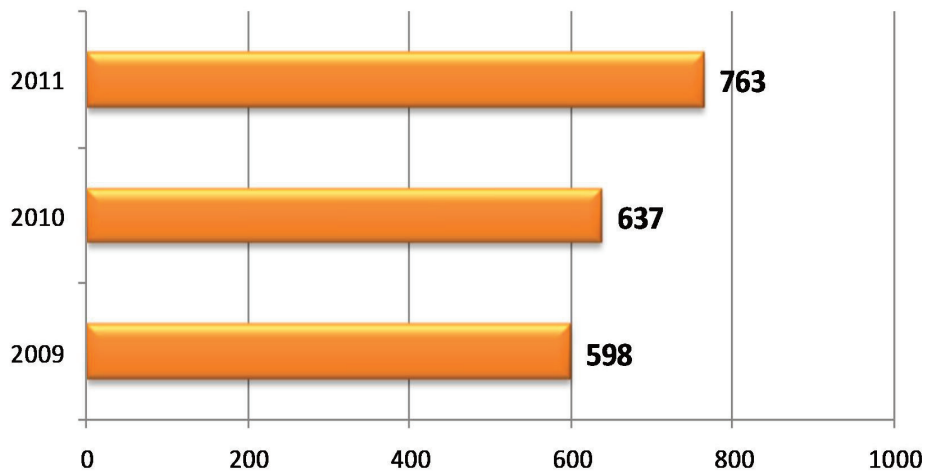
Between 1995 and 2025, the number of elderly is projected to double in 21 states. As the Baby Boomer generation (those born between 1946 and 1964) reaches retirement age after 2010, the percentage of the population that is elderly will increase rapidly.

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Advanced age is a well-recognized risk factor for adverse outcomes following trauma. Whether this outcome difference is due to the decreased physiological reserve that accompanies aging, a higher incidence of pre-existing medical conditions in the geriatric patient, or to other factors yet to be identified, remains unclear.

A Geriatric Subcommittee was formed in 2010, to focus on optimizing care for the geriatric trauma patient. This information is shared with outlying hospitals to improve geriatric care in the community.

### Geriatric Patient Volumes



*Did you know.....*

*The average length of stay in a trauma center is 5.7 days.*

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## ONGOING CARE

### Trauma Clinic

To provide ongoing care to trauma patients, the trauma surgeon and nurse practitioner provide follow-up care at the St. Elizabeth Ambulatory Care Center. This provides continuity of care and allows the patient and family to return to a familiar setting for outpatient treatment, which may include post-discharge wound care, medications or other services as needed..

## Concussion Management Clinic

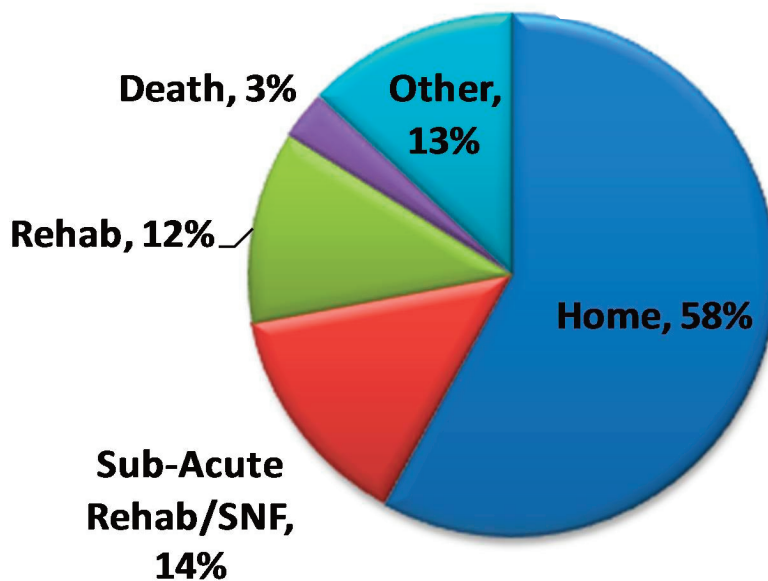
Although most individuals with concussion recover quickly, some have a more protracted course and/or residual deficits. The CDC recommends that all individuals who think they have sustained a concussion be seen by a health care provider with advanced training in concussion management. This is frequently a neurologist, neuropsychologist, neurosurgeon or rehabilitation specialist. The onset of symptoms of concussion can be delayed days or weeks from the time of an injury. Earlier intervention by someone specifically trained in the management of concussion can hasten recovery and provide education to the patient about avoiding activities that may prolong recovery. Neuropsychological tests of learning, memory, attention, concentration, reaction time and problem-solving are useful to determine the effects of a concussion and to monitor improvement or lack of improvement. Medical management of symptoms, activity restrictions and/or rehabilitation therapies may be necessary in the treatment of concussion.

At the HMHP Concussion Clinic, we offer all of these services in one location using a team approach with a physiatrist and athletic trainer. We use ImPACT neuropsychological testing when appropriate and provide interpretation on site. There is communication back to the primary care physician and keep them informed of any changes throughout the patients recovery from concussion with eventual transition back to their care.

## Wound Care Center

The wound care center has a team of doctors and nurses dedicated to treating wounds. Some patients have wounds from an injury that resist healing by the traditional treatment. Hyperbaric oxygen therapy (HBOT), a treatment that uses pressurized oxygen to aid in healing wounds, is available to patients. HBOT increases the amount of oxygen in the blood; oxygen-enriched blood can offer distinct benefits in the healing of wounds.

## DISCHARGE DISPOSITION



## INJURY PREVENTION

While traumatic injury continues to occur in the community, the good news is that education does make a difference. One injury prevention program constantly targets the teen population in our five-county areas. The Safety and Violence Education (S.A.V.E.) program takes at-risk teens and exposes them to the workings of the Level I Trauma Center, touring the trauma bay, intensive care area and the morgue. The goal is to make them aware of the ramifications of making “wrong choices” and the eventual outcome.

We also work with other community agencies and organizations, such as the Victim Impact Panel (V.I.P.) held in Canfield every month. V.I.P is a graphic program showing the consequences of drinking and driving. This is done in cooperation with the local MADD chapter and the Mahoning County Sheriff’s office. Pre-prom activities are key in reaching teens before a fatal event occurs. Various pre-prom assemblies, programs and mock crash presentations are a few of the strategies employed to achieve this goal.



The injury prevention program collaborates many of these events with the Mahoning County Safe Communities Coalition, as well as a variety of local EMS, fire and police agencies.

Since “falls” rate as our number one mechanism of injury, a Falls Prevention program for the elderly in our community has been implemented and presented in a variety of venues.



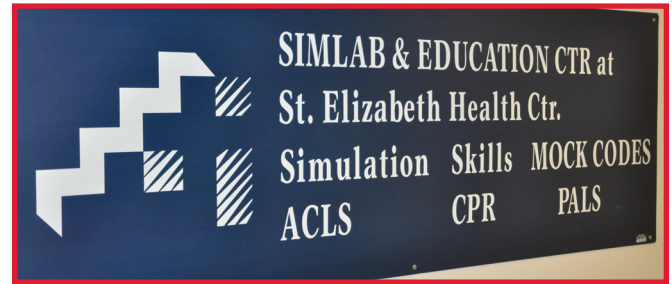
*Did you know.....*

*DISTRACTED DRIVING has become a deadly epidemic on America’s roads and teens are especially vulnerable because of their inexperience behind the wheel and peer pressure. Behind the statistics are real families who have*

*been devastated by these tragedies. The U.S. Department of Transportation is working to spread awareness of this serious problem on a national level and help communities establish appropriate legislation and enforcement efforts.*

*Please join us in fighting for the lives of young people.*

Research is required by the American College of Surgeons Committee on Trauma to maintain a Level I Trauma Center accreditation. Trauma Services conducts prospective and retrospective research studies and case reports. The main goals of the research are to standardize care, disseminate results to other health care providers, and improve mortality, morbidity, and outcomes. Research is conducted in the areas of trauma practices and surgery, orthopaedics, neurosurgery, radiology, emergency medicine, nursing and rehabilitation.



EDUCATING PROFESSIONALS

SEHC is responsible for providing regional leadership on trauma prevention and professional education. The trauma center offers many educational programs for both health care professionals and the community, including:

National Conference / Oral / Poster Presentations 2011

Mace-Vadjunec, D., Little, J. E., & Hileman, B. M. (March, 2011). Enteral nutrition versus parenteral nutrition in patients with severe traumatic brain injury. Poster session presented at the annual conference of the Society of Trauma Nurses, San Antonio, TX.

Van Dussen, D. J., Hileman, B. M., Shellito, B. A., Dorion, H. A., & Krause, H. (November, 2011). An examination of rural vs. urban falls using GIS. Oral presentation at the annual meeting of the Gerontological Society of America, Boston, MA.

Physician and Nurse Peer Reviewed Articles Published in 2011

Dunham, C. M, Carter, K. J, Castro, F., & Erickson, B. (2011). Impact of cervical spine management brain injury on functional survival outcomes in comatose, blunt trauma patients with extremity movement and negative cervical spine CT: application of the Monte Carlo simulation. *J Neurotrauma*, 28, 1009-1019.

Dunham, C. M. & Chirichella, T. J. (2011). Attenuated hypocholesterolemia following severe trauma signals risk for late ventilator-associated pneumonia, ventilator dependency, and death: a retrospective study of consecutive patients. *Lipids Health Dis*, 10, 42.

Chirichella, T. J., Little, J. E., & Gruber, B. S. (2011). Lingual artery pseudoaneurysm with arteriovenous fistula formation following a gun shot wound. *J Surg Radiol*, 2, 166-169.

Morrison, T. D., Shaer, J. A., & Little, J. E. (2011). Bilateral, atraumatic, proximal tibiofibular joint instability. *Orthopedics*, 34, 133. doi: 10.3928/01477447-20101221-28.

Ziran, B. H., Little, J. E., & Kinney, R. C. (2011). The use of a T-plate as "spring plates" for small comminuted posterior wall fragments. *J Orthop Trauma*, 25, 574-576.

Milosevic, I., Dorion, H., & Ricchiuti, D. (2011). Incarcerated retroperitoneal hernia following total extraperitoneal laparoscopic radical nephrectomy. *JSLs*, 15, 424-426. doi: 10.4293/108680811X13125733357115.

## PARTNERSHIP- HUMILITY OF MARY HEALTH PARTNERS AND LIFEBOANC

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Trauma Services and the entire hospital staff are integral parts of the life-giving process. Grieving for a love one is never easy, but choosing to become an organ donor or donate your loved one's organs may help you through the pain. There were six very special trauma patients in 2011 who gave another person the chance at life. HMHP sponsored a "Donate Life Flag Raising" at St. Elizabeth Health Center in April 2011. It was an emotion-filled ending to National Donate Life month. Lifebanc, hospital staff members, recipients and donor families attended the service to acknowledge those individuals touched by organ, eye and tissue donation.

## DISASTER PREPAREDNESS

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In 2011, SEHC utilized an 'All Hazards Approach' based on the completed annual hazard vulnerability risk assessments (HVA) for managing disaster situations related to communications, patient surge influx related to mass causality, mass fatality, contaminated patients, contagious patients, patient evacuation, structural facility damage and/or loss of business operations. Intentional disaster



examples include biological, chemical, nuclear, radiological, explosives, bomb threat, civil disturbance, hostage, cyber attack, violence in the workplace and terrorist events. Unintentional disaster examples include earthquake, flood, hurricane, tornado, winter storm and extreme heat.

Trauma services plays a vital role in disaster preparedness. Staff is an integral part of HICS at HMHP and continually works with local public and private entities to establish mutual aid agreements of understanding for obtaining disaster support, supplies and equipment. SEHC also has established a collaborative and functional relationship with the Mahoning and Trumbull County Emergency Management Agencies (EMA) for disaster response support. We conduct several exercises per year and participate with other area hospitals as a region.

Finally, SEHC staff continues to receive additional training for the decontamination process, patient evacuation process and weapons of mass destruction education.

## DATA REFERENCES:

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SEHC Trauma Registry  
National Trauma Data Bank  
Center for Disease Control and Prevention  
U.S. Department of Health and Human Services Center for Disease Control and Prevention  
Office of Technology Assessment, U.S. Congress

[www.lifebanc.org/organization-partners](http://www.lifebanc.org/organization-partners)  
[www.facs.org/trauma/verified.html](http://www.facs.org/trauma/verified.html)  
[www.ncbi.nlm.nih.gov/pubmed/11435197](http://www.ncbi.nlm.nih.gov/pubmed/11435197)

[www.census.gov/population](http://www.census.gov/population)  
[www.prweb.com](http://www.prweb.com)  
[www.cdc.gov/TraumaCare](http://www.cdc.gov/TraumaCare)

# 5TH ANNUAL TRAUMA SERVICE GOLF OUTING



**“THANK YOU”  
TO ALL OF OUR  
GOLF SPONSORS!**

*Kyrsten Elizabeth Studer's short life was taken fourteen days before her 15th birthday. She was walking with friends on a Friday night, when she became the victim of a pedestrian/motor vehicle crash. The shock and sadness affected her family, close friends, and the entire community.*

*Kyrsten played soccer, danced, cheered, and sold Girl Scout cookies. She became a high school cheerleader through absolute dedication and perseverance. She tried to be the best student she could and she succeeded. Her life was full of goodness!*

*Her death provoked response from every neighboring community. Kyrsten's positive life spirit continues to benefit others. The KES Foundation funds and, in conjunction with the trauma services department, distributes animals, blankets, pillows and wrist bands to our trauma patients.*

*Shortly before her death, Kyrsten wrote down these words from "I Hope You Dance," written by Mark D. Sanders and Tia Sillers, and recorded by country singer Lee Ann Womack*



*"I hope you still feel small when you stand beside the ocean,  
Whenever one door closes I hope one more opens,  
Promise me that you'll give faith a fighting chance,  
And when you get the choice to sit it out or dance"*

*Dance.....I hope you dance"*